



# Community Health Needs Assessment

2014 - 2016



Advocate Christ Medical Center



December 2016

I am pleased to present the 2016 Community Health Needs Assessment (CHNA) for Advocate Christ Medical Center, one of 11 acute care hospitals in the Advocate Health Care System. One way we invest in the community is by conducting a comprehensive CHNA to look at the health of the residents in the medical center's service area. In 2013, we reviewed public health data and a Community Health Council was convened to review the data and select health priorities to address. The Council chose violence prevention, access to primary pediatric care and childhood obesity as the priority areas of focus for 2014-2016.

In 2016, our comprehensive review includes a thorough assessment of our primary service area's health care profile, secondary public health data and new primary health data through our collaboration with community and public health organizations and with the Health Impact Collaborative of Cook County (HICCC). The HICCC was created in 2015 through the collaboration of Advocate Health Care, including Christ Medical Center, other hospitals, health departments and community organizations within Cook County. This collaborative facilitated a diverse community-engaged assessment which is posted as a companion to this report.

We have learned through the process that our collaborations and partnerships with community based organizations, faith communities, schools and local employers are critical to addressing the priority areas that were identified in the past and present. We look forward to strengthening those partnerships and establishing new relationships to further respond to the priority areas identified within this report.

I am grateful for the enduring commitment to this public health mission that we share and thank our Community Health Council and community partners, the hundreds of community residents that provided valuable feedback in our surveys and forums, and the leadership at Christ Medical Center for their ongoing efforts to protect and promote the health of all. It is a privilege to be entrusted with helping to meet the health care needs of our community.

Sincerely,

Kenneth W. Lukhard  
President, Advocate Christ Medical Center



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# I. Executive Summary

With this Community Health Needs Assessment (CHNA) report, Advocate Christ Medical Center continues to demonstrate strong commitment to building lifelong relationships to improve the health of individuals, families and communities. In 2015, all five Advocate Health Care hospitals principally serving Cook County, including Advocate Christ Medical Center, were founding members of the Health Impact Collaborative of Cook County (HICCC). HICCC is a best practice community health initiative involving 26 hospitals, 7 health departments and nearly 100 community-based organizations. The goal of this collaborative is to work together on a county-wide health assessment and common implementation strategies once priorities are identified. The Illinois Public Health Institute (IPHI) served as the backbone organization for the collaborative—providing facilitation, data coordination and report preparation activities.

Given the size and diversity of Cook County, the collaborative created three regions—North, Central and South—for purposes of organizing the assessment process. Christ Medical Center was appropriately assigned to the South region consisting of both the south side of Chicago and the south suburbs of Cook County. Please see the companion document to Christ Medical Center’s CHNA, *Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region*, which is also posted on the Advocate website and at [www.healthimpactcc.org/reports2016](http://www.healthimpactcc.org/reports2016).

In addition to participating in the Cook County collaborative, Christ Medical Center conducted a community health assessment targeting its defined community—the hospital’s primary service area (PSA). This area includes approximately 947,915 individuals within 27 zip codes in Chicago and Suburban Cook County. The diverse population served is 59% white, 23% African-American, 2% Asian and 13% other. By ethnicity, the PSA is 29.4% Hispanic. Nearly 17% of the PSA population over the age of 25 does not have a high school diploma as compared to 12% for Illinois, while almost 13% of all families live below the federal poverty level compared to 11% for Illinois. The median age for the PSA is 37.56 years.

For purposes of the 2014-2016 CHNA cycle, a Community Health Council (Council) consisting of 25 community and medical center leaders was convened to oversee the assessment. Data from the Health Impact Collaborative of Cook County was presented to the Council including the HICCC priority-setting process that identified Social Determinants of Health, Mental Health and Substance Abuse, Access to Care and Chronic Disease as the four county-wide priorities. All hospitals that participated in HICCC agreed to accept Social Determinants as one of their priorities, with Christ Medical Center identifying that one of their strategies within this priority would be violence prevention.

In addition, multiple indicators from the Healthy Communities Institute (HCI) data platform were shared with the Christ Medical Center Community Health Council. Many of these indicators were particularly useful to the assessment because the hospitalization and emergency room visits rates were available by zip code thus permitting a deeper look into the health status of the PSA. A voting process was used with the Council to select the second and third priorities for this CHNA cycle—asthma and diabetes. Cancer, heart disease and hypertension (stroke) were not selected primarily because the medical center already has institutes addressing each of these important health needs. The three priorities selected by the medical center are violence prevention, asthma and diabetes.

Christ Medical Center is currently developing implementation plans for each of the three priorities selected. Community health staff will be participating in the action planning teams on Community Safety and Chronic Disease Prevention convened as part of the HICCC. For violence prevention as a social determinant, the medical center plans to continue its work with CeaseFire and collaborate with Chicago Safe Start to address the impact of violence on children. For the asthma and diabetes priorities, teams will be developing educational, outreach and environmental strategies in collaboration with Advocate Children’s Hospital and community partners to improve the management of these diseases.

## **II. Description of Advocate Health Care and Advocate Christ Medical Center**

### **Advocate Health Care**

Advocate Health Care is the largest health system in Illinois and one of the largest healthcare providers in the Midwest, operating more than 400 sites of care, including 11 acute care hospitals, the state's largest integrated children's network, 5 Level I trauma centers, 2 Level II trauma centers, the region's largest medical group and one of the region's largest home health care companies. The Advocate system trains more primary care physicians and residents at its four teaching hospitals than any other health system in the state.

Advocate is a faith-based, not-for-profit health system related to both the Evangelical Lutheran Church in America and the United Church of Christ. Advocate's mission is to serve the health needs of individuals, families, and communities through a wholistic philosophy rooted in the fundamental understanding of human beings as created in the image of God. This wholistic approach provides quality care and service, and treats each patient with dignity, respect and integrity. To guide its relationships and actions, Advocate embraces the five values of compassion, equality, excellence, partnership and stewardship. The mission, values and wholistic philosophy (MVP) permeate all areas of Advocate's healing ministry and are integrated into every aspect of the organization building a cultural foundation. The MVP calls Advocate to extend its services into the community to address access to care issues and to improve the health and well-being of the people in the communities Advocate serves. As an Advocate hospital, Christ Medical Center embraces the Advocate system MVP.

### **Advocate Christ Medical Center**

Advocate Christ Medical Center is a 749-bed teaching institution with nearly 1,300 affiliated physicians. The medical center serves as a major referral hospital in the Midwest for many specialties, including cardiovascular services; heart, lung and kidney transplantation; neurosciences; oncology; orthopedics; and women's health. The medical center provides emergency care for more than 100,000 patient visits annually and has one of the busiest Level I trauma centers in Illinois, serving southern portions of Chicago and Cook County, all of Will County and regions as far south as Kankakee, Illinois, west to Morris, Illinois, and east to Northwest Indiana. As a major teaching institution, the medical center annually trains more than 400 residents, 600 medical students, 800 nursing students and, through the Emergency Medical Services Academy, some 2,500 emergency medical technicians, paramedics and other providers of emergency care.

Christ Medical Center is a designated Magnet hospital by the American Nurses Credentialing Center. The medical center is accredited overall by the international Det Norske Veritas (DNV) and holds DNV certification as a Comprehensive Stroke Center. The medical center's Cancer Institute has achieved three-year accreditation with commendation from the Commission on Cancer of the American College of Surgeons, and the Heart Institute has received a three star rating in heart surgery from the Society of Thoracic Surgeons. The medical center also serves as one of the leading centers nationally for the implantation of left ventricular assistive devices to support patients' with failing hearts.

## III. Summary of the 2011-2013 Community Health Needs Assessment and Program Implementation

### Community Definition

For the purposes of the 2011-2013 Community Health Needs Assessment (CHNA) cycle, the community was defined as the total service area (TSA), which included the primary (PSA) and secondary service areas (SSA) for Christ Medical Center. The medical center, located in Oak Lawn, Illinois, served a total population of 1,560,571 people across 55 communities in the south/southwest suburbs and Chicago. The population consisted of 38.4% White Non-Hispanic, 35.6% Black Non-Hispanic, 23.2% Hispanic, 1.6% Asian and Pacific Islander Non-Hispanic and 1.1% other. There was a significantly higher unemployment rate in the TSA compared to the US rate and household income was slightly less than the US average. While the community was served by a variety of health resources, including hospitals, public health clinics and mobile health providers, there was still substantial variation in both availability and accessibility of health resources across communities.

### Overall Process of the CHNA

As part of the CHNA process, a Community Health Council, chaired by the medical center's community health leader, was developed to review data, determine essential health needs and set priorities. Health needs were prioritized based on prevalence of needs identified, incidence of disease in the community, areas of greatest need, patient utilization of Christ Medical Center services, potential impact of projects on community health, programs/services already offered to the community and the availability of internal and external resources, community partnerships and existing relationships to collaborate on targeted programs.

### Needs Identified and Priorities Selected for CHNA

The Community Health Council compared all the data available using the above criteria and the top rankings of Christ Medical Center's admissions and discharges by disease-specific area and service lines. Key health needs identified by the Council included heart disease, cancer, stroke, violence prevention, access to pediatric primary care services and childhood obesity. Given available resources, Christ Medical Center selected violence prevention, access to pediatric primary care services and childhood obesity as community health priorities to address during the 2014-2016 implementation cycle years. Key health issues identified, but not specifically targeted in the community health improvement plan were heart disease, cancer and stroke. Christ Medical Center is addressing these health conditions through specially designated clinical programs and community outreach activities.

### Summary of Program Strategies and Outcomes to Meet Identified Priorities

The following is a summary of program strategies and outcomes Christ Medical Center implemented to meet the goals and objectives of the identified health priorities.

#### *CeaseFire*

CeaseFire is a program that uses prevention, intervention and community-mobilization strategies to reduce shootings and killings. The program was launched in Chicago in 1999 by the Chicago Project for Violence Prevention at the University of Illinois at Chicago School of Public Health. Some of the program's strategies have been adapted from the public health field, which has had notable success in changing dangerous behaviors. In fact, the program's executive director, Gary Slutkin, is an epidemiologist who views shootings as a public health issue. (CeaseFire: A Public Health Approach to Reduce Shootings and Killings by Nancy Ritter, *NIJ Journal*, 2009.) In 2004, the program began a collaboration with Advocate Christ Medical Center to reduce retaliation by families and shooting victims cared for in the hospital's Level I trauma center. Exhibit 1 presents the most recent data from the CeaseFire/hospital collaboration.

**Exhibit 1: Summary of CeaseFire Program Data for Advocate Christ Medical Center 2014–2016**

CeaseFire Objective	2014			2015			2016		
	Total Patients	Patients Served	%	Total Patients	Patients Served	%	Total Patients	Patients Served	%
Hospital responders will have contact with patients and/or visitors in 90% of all incidents referred to the CeaseFire program.	897	891	99.3	871	832	95.5	897	891	99.3
Follow-up needs will be assessed for 90% of patients treated for a violent injury.	891	857	96.2	832	828	99.5	891	881	98.9
75% of all violent injury patients admitted inpatient will be assessed by the hospital case manager.	428	425	99.3	420	415	98.8	514	513	99.8
90% of individuals assessed will be linked to long-term support by being connected with existing community resources.	425	407	95.8	415	394	94.9	513	510	99.4

\*2016 includes data from 1/1–11/15/2016

Source: CeaseFire, Unpublished Data, November 18, 2016.

### *Access to Pediatric Primary Care*

Primary health care services were provided through the Ronald McDonald Care Mobile (RMCM) program to improve access to pediatric primary care. The RMCM is a partnership between Advocate Children’s Hospital and Ronald McDonald House Charities of Chicagoland and Northwest Indiana to provide primary health care to uninsured children in the areas of greatest need. The staff fostered relationships with assigned medical home providers, in addition to solidifying relationships with Federally Qualified Health Centers and other health care partners. Program results from January 2013 through December 2015 were as follows:

- The RMCM staff provided services to 6,411 students.
- Students received 7,480 vaccines and 4,592 physicals.
- There were 2,376 referrals made to primary care physicians, 414 referrals to dentists, 932 referrals to optometrists and 58 referrals for specialty care.
- An agreement was negotiated with Aunt Martha’s, the third largest FQHC in Illinois, to provide follow-up pediatric care as well as specialty care for patients identified through RMCM visits. In 2015, the relationship with Aunt Martha’s was discontinued due to geographical limitations/patient difficulty accessing Aunt Martha’s facilities.



## *Childhood Obesity*

To address childhood obesity, Advocate Christ Medical Center Children's Hospital offered a program titled ProActive Kids (PAK) to achieve and maintain a healthy weight, decrease Body Mass Index (BMI) and improve fitness levels. ProActive Kids is a fitness and nutrition program designed for children ages 8-14 who are struggling with obesity. The program offers a safe environment where children can exercise and learn about proper nutrition. The program also focuses on self-esteem, body image, stress, feelings and a variety of other issues that can contribute to being overweight. PAK teaches children and their families to improve health through exercise, nutrition education and lifestyle modification over a period of eight weeks.

Three PAK series were planned for each year from 2014-2016. There were 70 registered program participants in 2014, 66 in 2015 and 48 from January–July 2016. Program results for 2014 and 2015 include the following:

- For 8-weeks, all enrolled children participated in a 45-minute fitness session that focused on increasing muscle endurance, strength, cardiovascular endurance and flexibility, and reduction of body fat/BMI.
- 96.5% of PAK parents surveyed reported their child's confidence, communication, body-image, coping skills and self-esteem improved since participating in PAK.
- 93.5% of PAK parents surveyed reported improvements, solid or significant, in their child's attitude toward diet and nutrition.
- In 2014, 86% of the PAK parents surveyed reported their child had a solid commitment to fitness following the PAK program.
- In 2015, there was a 6% increase in the response of the parents seeing a solid commitment to fitness for their child due to the PAK program.
- In 2015, 39% of parents who attended the PAK sessions reported personal weight loss as a result of their child participating in the program.

## **Input from the Community**

Although many feedback mechanisms were put in place for the general public to comment or provide input on the CHNA, the hospital did not receive any feedback from the community. The hospital will continue to encourage input from the community by providing various feedback mechanisms for the 2014-2016 CHNA.

## **Lessons Learned**

Advocate Christ Medical Center has made significant progress toward the strategies and initiatives adopted to address the top identified health priorities described in the 2011-2013 CHNA and Implementation Strategy Plan. Lessons learned from the past CHNA cycle include the following:

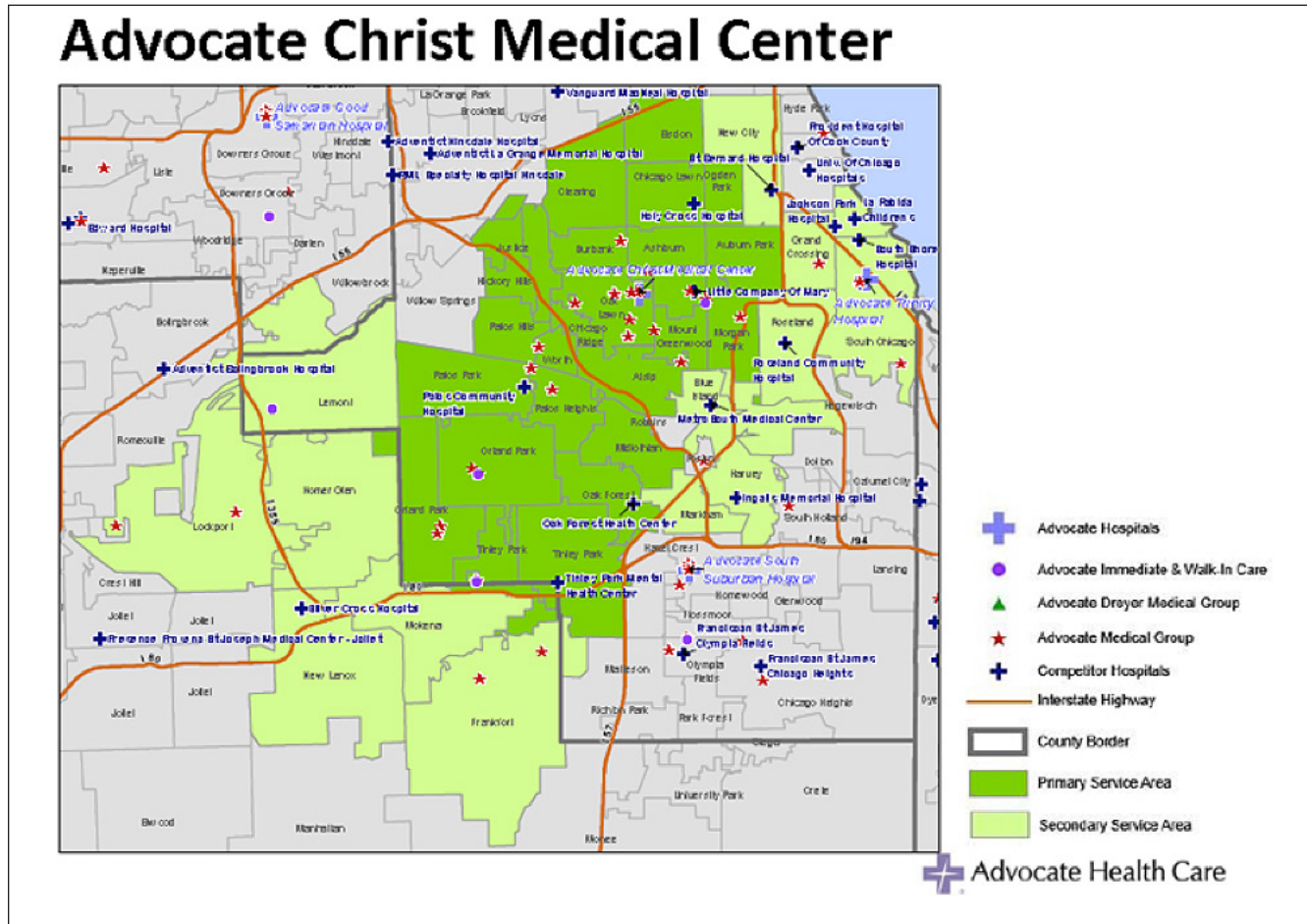
- Focus community interventions more strategically toward the PSA to ensure a greater impact in the areas that have the greatest need.
- Continue to seek and collaborate with various partners to increase the impact of community interventions.
- Disseminate information about the CHNA through various strategies using community forums, social media, email blasts and other communication channels to share the results of the CHNA.

# IV. 2014-2016 Community Health Needs Assessment

## Community Definition

Located in Oak Lawn, Illinois, Christ Medical Center has a service area that lies within Cook County and the Chicago city limits. Exhibit 2 is a map of the primary and secondary service areas, described as the total service area (TSA), for the medical center. For purposes of this CHNA, the Community Health Council defines the community as the primary service area (PSA) of the medical center located in Chicago and the south/southwest suburbs. The total population of the defined community is 947,915. Exhibit 3 contains the local community names and zip codes in the PSA.

Exhibit 2: Advocate Christ Medical Center’s Primary and Secondary Service Areas



Source: Advocate Health Care Strategic Planning Department, 2016.

**Exhibit 3: PSA Area Zip Codes**

Service Area Name	Zip Code	Service Area Name	Zip Code
Oak Lawn	60453	West Englewood	60636
Auburn Gresham	60620	Tinley Park	60477
Chicago Lawn	60629	Palos Hills	60465
Ashburn	60652	Brighton Park	60632
Burbank	60459	Oak Forest	60452
Morgan Park	60643	Hickory Hills	60457
Chicago Ridge	60415	Palos Heights	60463
Bridgeview	60455	Worth	60482
Mount Greenwood	60655	Justice	60458
Alsip	60803	Hometown	60456
Clearing	60638	Tinley Park	60487
Evergreen Park	60805	Orland Hills	60467
Orland Park	60462	Palos Park	60464
Midlothian	60445		

Source: Advocate Health Care Strategic Planning Department, 2016.

**Community Demographics**

*Race and Ethnicity*

According to US Census data, the population in the PSA increased from 938,229 to 947,915 between the years 2010 and 2016. This represents a 0.92% growth in the service area in comparison to a 0.43% growth in population in the State of Illinois during the same time period. In 2016, the population consisted of 58.6% White, 23.3% African American, 13.3% Other Race, 2.2% Asian and 0.4% American Indian/Alaskan Native. The ethnicity of the population consisted of 29.4% Hispanic/Latino and 70.6% Non-Hispanic/Latino (Healthy Communities Institute, Claritas, 2016). Racial and ethnic population data is represented in Exhibits 4 and 5.

**Exhibit 4: PSA Population by Race 2016**

Race	PSA	Cook	Illinois
White	58.6%	54.9%	70.3%
Black/African American	23.3%	23.6%	14.3%
Am Indian/AK Native	0.4%	0.4%	0.4%
Asian	2.2%	7.1%	5.3%
Native HI/PI	0.0%	0.0%	0.0%
Some Other Race	13.3%	11.2%	7.2%
2+ Races	2.2%	2.8%	2.5%

Source: Healthy Communities Institute, Claritas, 2016.

**Exhibit 5: PSA Population by Ethnicity 2016**

Ethnicity	PSA	Cook	Illinois
Hispanic/Latino	29.4%	25.3%	17.1%
Not Hispanic/Latino	70.6%	74.7%	82.9%

Source: Healthy Communities Institute, Claritas, 2016.

*Age*

Twenty four percent of their PSA population is under the age of 18 while 9.6% is between the ages of 18 to 24. The largest percent of the population is between the ages of 25 through 44 at 26.8%, and ages 45 through 64 at 25.5%. When combined, this represents over 52% of the total population within the service area. The elderly population age 65 and over represents 14% of the total population in the PSA. The median age for the service area is 37.6, which is similar to median ages in Cook County at 36.8 and in the state of Illinois at 37.8 (Healthy Communities Institute, Claritas, 2016).

**Exhibit 6: PSA Population by Age 2016**

Age	Population	Percentage
Age 0-17	228,574	24.1%
Age 18-24	90,808	9.6%
Age 25-44	254,175	26.8%
Age 45-64	241,792	25.5%
Age 65+	132,566	14.0%

Source: Healthy Communities Institute, Claritas, 2016.

*Gender*

The primary service area population consists of 50.7% females and 49.3% males. The percentage of males and females in the PSA closely mirrors the demographics of Cook County and the State of Illinois (Healthy Communities Institute, Claritas, 2016). See Exhibit 7.

**Exhibit 7: PSA Population by Gender 2016**

Gender	PSA	Cook	Illinois
Male	49.3%	49.2%	49.3%
Female	50.7%	50.7%	50.8%

Source: Healthy Communities Institute, Claritas, 2016.

*Education and Employment*

In 2016, the PSA population 25 and over with less than high school graduation was at 16.9%, which is higher than both Cook County (15%) and Illinois (12.3%). By gender, 18.2% percent of males age 25 and over had less than a high school diploma in comparison to 16% of females age 25 and over. There were 31.3% of the population with a high school diploma, 29% with some college or associate's degree, 14.8% with a bachelor's degree, and 8.1% with a master's degree or higher. Exhibit 8 depicts the educational attainment for the PSA in comparison to Cook County and Illinois.



**Exhibit 8: PSA Population 25+ by Educational Attainment in Comparison to Cook County and Illinois 2016**

Education	PSA	Cook	Illinois
Less than High School Diploma	16.9%	15.0%	12.3%
High School Grad	31.3%	24.4%	27.1%
Some College/Associate Degree	29.0%	25.5%	28.7%
Bachelor’s Degree	14.8%	21.0%	19.7%
Master’s Degree or Higher	8.1%	14.1%	12.2%

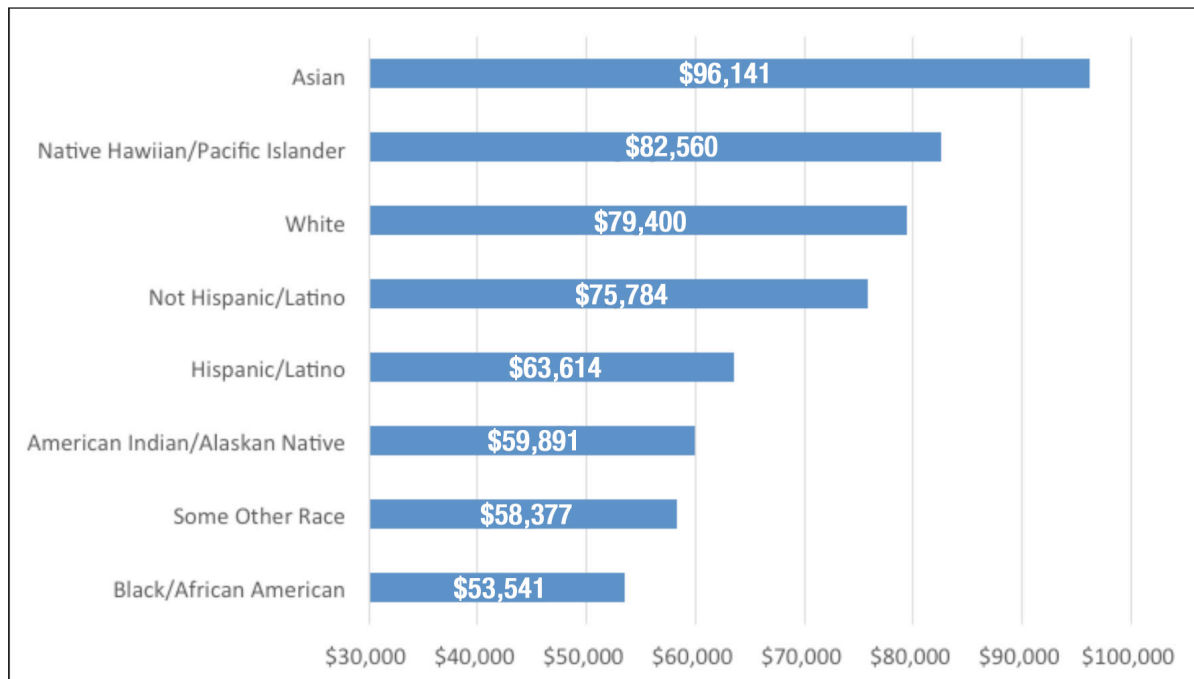
Source: Healthy Communities Institute, Claritas, 2016.

The unemployment rate in the PSA is 13.17% which is higher than the Illinois unemployment rate (9.86%) and the Cook County rate (11.52%). The male unemployment rate (13.86%) is higher when compared to Illinois (10.20%) and Cook County (11.58%). The female unemployment rate (12.40%) is also higher than Illinois (9.49%) and Cook County (11.45%).

*Household Income*

The average annual household income in 2015 for the medical center’s PSA is \$73,288, which is lower than the state’s average household income at \$81,390 (Healthy Communities Institute, Claritas, 2016). The Asian, Native Hawaiian/Pacific Islander and White racial groups have the highest average household incomes, while the Black and American Indian/Alaskan Natives subgroups have the lowest average household incomes. Income disparity also exists between the Hispanic and non-Hispanic ethnicity. The Hispanic population’s average household income for the PSA is \$63,614, while the average household income for non-Hispanics is \$75,784. Exhibit 9 represents household income by race and ethnicity in the medical center’s PSA.

**Exhibit 9: PSA Average Household Income by Race and Ethnicity 2016**



Source: Healthy Communities Institute, Claritas, 2016.

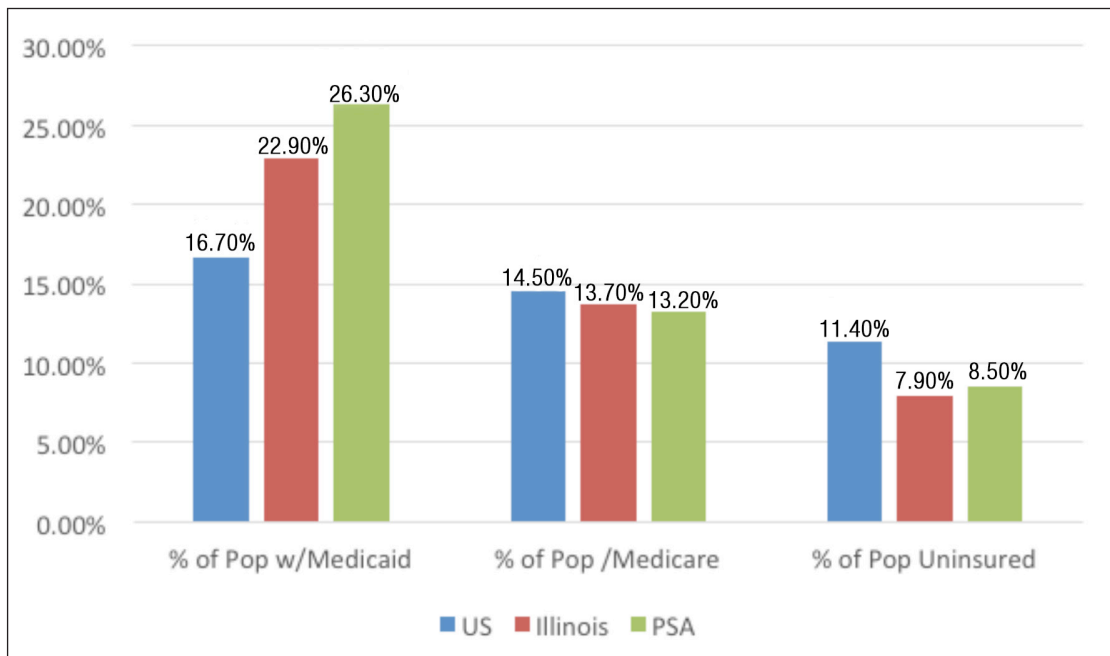
## Poverty

The federal poverty level (FPL) for Illinois in 2015 is defined as an \$11,880 gross income or below for an individual, \$16,020 for a family of two, \$20,160 for a family of three and \$24,300 for a family of four (<https://www.illinoislegalaid.org/legal-information/federal-poverty-guidelines>). In the PSA, nearly 13% of all families and 10.1% of families with children live below the federal poverty level. These percentages are higher than the state of Illinois rate of nearly 11% for families and 8.4% for families with children (Healthy Communities Institute, Claritas, 2016).

## Insurance Coverage

Health insurance coverage is an important factor as individuals access appropriate and adequate health care services. Uninsured or underinsured individuals and families are less likely to have access to health care resources due to an inability to pay for services (Centers for Disease Control and Prevention, 2015). In the PSA, 26.30% of the population has Medicaid compared to a state rate of 22.90% and US rate of 16.70%, 13.20% has Medicare compared to the state rate of 13.70% and US rate of 14.50%, and 8.50% of the population is uninsured compared to the state rate of 7.90% and US rate of 11.40%. (Healthy Communities Institute, Claritas, 2016.) Exhibit 10 represents insurance coverage for the Christ Medical Center primary service area.

**Exhibit 10: PSA Medicare and Medicaid Coverage and Uninsured by Percentage of Population 2014**

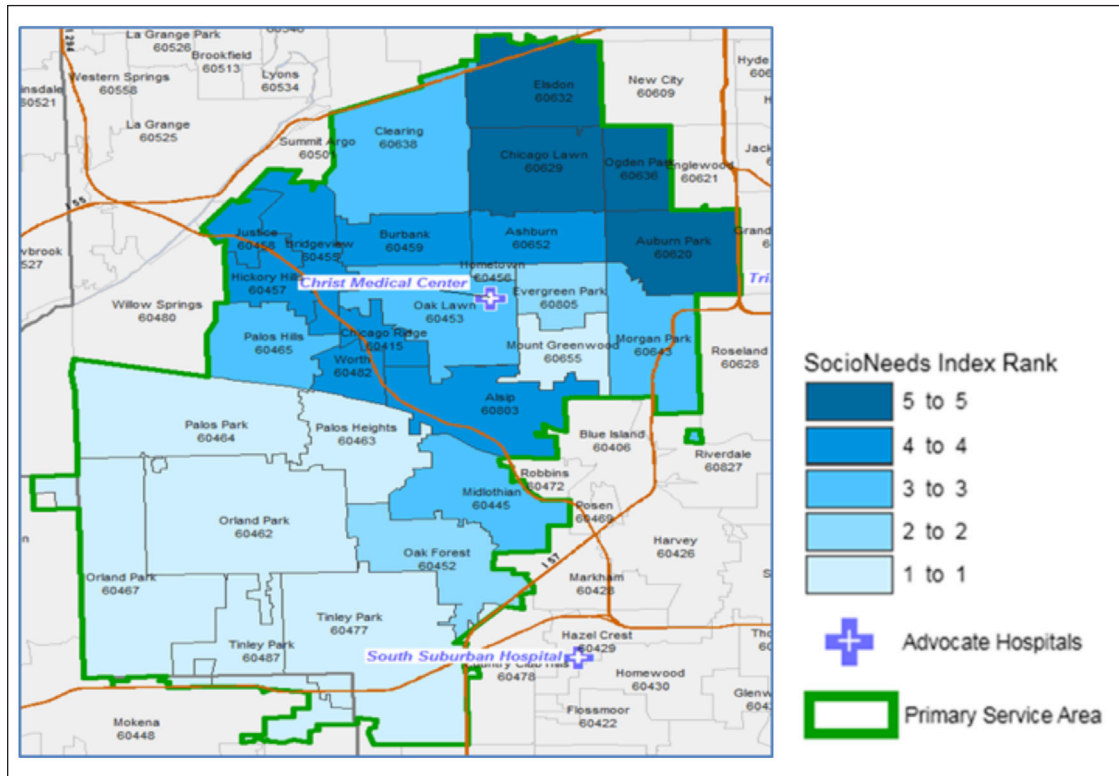


Source: Truven Insurance Coverage Estimates, 2016.

## SocioNeeds Index

To clearly illustrate the disparity of income and other socioeconomic factors that exist within Christ Medical Center's service areas, it is useful to examine how the SocioNeeds index varies across zip codes. Created by the Healthy Communities Institute, the SocioNeeds Index is a measure of socioeconomic need that is correlated with poor health outcomes. Indicators for the index are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. This index combines multiple socioeconomic indicators into a single composite value. As a single indicator, the index can serve as a concise way to explain which areas are of highest need. The scores can range from 1 to 100. A score of 100 represents the highest socioeconomic need. Within a service area, the ranking of 1-5 is a comparison of each zip code to all others within the primary service area; a 5 represents zip codes of highest socioeconomic need in the PSA. The index value for each zip code is compared to all zip codes within a service area and assigned a relative rank (1-5) using natural breaks classification. Exhibit 11 maps the SocioNeeds Index for the Christ Medical Center primary service area.

## Exhibit 11: PSA SocioNeeds Index Map 2016



Source: Healthy Communities Institute, 2016.

Christ Medical Center has four zip codes in its primary service area with a ranking of five for the SocioNeeds Index—all within Chicago—which represent the areas with the highest socioeconomic needs: West Englewood, Brighton Park, Chicago Lawn, and Auburn Gresham. The index values for these zip codes are all over 90/100 thus representing some of the highest areas of need in the country. Exhibit 12 displays the index values for the zip codes with the highest SocioNeeds Index values with Christ Medical Center’s PSA.

### Exhibit 12: PSA Zip Codes with Highest SocioNeeds Index

Community Name	Zip Code	Socio Need Index
Auburn Gresham	60620	95.3
Brighton Park	60632	97.6
Chicago Lawn	60629	96.3
West Englewood	60636	99.2

Source: Healthy Communities Institute, 2016.

## Key Roles in the Assessment

### *System and Medical Center Leadership*

In 2014, Advocate Health Care began organizing resources to implement the 2014-2016 CHNA cycle. The system signed a three-year contract with the Healthy Communities Institute (HCI), now a Xerox Company, to provide an internet-based data resource for their eleven hospitals during the 2014-2016 CHNA cycle. This robust platform offered the hospitals 171 health and demographic indicators including thirty-one (31) hospitalization and emergency department (ED) visit indicators at the service area and zip code levels. In addition, system leaders collaborated with the Strategic Planning Department to create sets of demographic, mortality and utilization data for each hospital site. This collaboration with Strategic Planning continued during the three-year cycle ensuring that each hospital site had detailed inpatient, outpatient and emergency department data for its site.

By the end of 2014, a new Department of Community Health was established under Mission and Spiritual Care, a vice-president named to lead the department, and a plan developed to ensure that each hospital in the system would have a community health expert to coordinate its community health work. This new system level department expanded staffing resources at Christ Medical Center by adding a new coordinator position dedicated to the medical center, and the position of South Region Director for Christ Medical Center, Trinity and South Suburban Hospitals.

### *Community Health Council*

Christ Medical Center convened a Community Health Council to oversee its comprehensive community health needs assessment. This Council was chaired by a member of the medical center's Governing Council and comprised of representatives from the medical center's community health team, patient advocacy, community health relations, and business development departments. Community members on the council included representation from school districts, youth services, and faith communities as well as other community organizations. The affiliations and titles of the Christ Medical Center Community Health Council members are provided below.

- Arab American Family Services, Director
- Auburn Gresham Community Development Corporation, Executive Director
- Auburn Gresham Community Development Corporation/Southwest Smart Communities, Program Manager and Technologist
- Buschbach Insurance, Business Owner; Advocate Christ Medical Center Governing Council Member (Community Health Council Co-Chair)
- Chicago Public Schools, Community Engagement Manager
- Chicago Public Schools, Project Manager, Student Health and Wellness Project HOOD (Helping Others Obtain Destiny), Director of Community Engagement; Advocate Christ Medical Center Community Health Council Member (Community Health Council Co-Chair)
- Children's Home and Aid, Director, Youth Services
- Christian Community Health Center, Director, Quality Assurance
- Greater St. John AME Church, Faith Leader
- Hispanic Leadership Council, President
- Lights of Zion Ministries, Faith Leader
- Metropolitan Family Services, Program Supervisor
- Metropolitan Tenants Organization, Coordinator, Outreach Services
- Oak Lawn-Hometown School District 123, Superintendent
- Advocate Children's Hospital, Coordinator, Community Relations
- Advocate Children's Hospital, Director, Community & Health Relations
- Advocate Christ Medical Center, Care Manager and Oak Lawn Health Care Rotary
- Advocate Christ Medical Center, Coordinator, Community Health
- Advocate Christ Medical Center, Coordinator, Community Health and Wellness
- Advocate Christ Medical Center, Manager, Inpatient Care
- Advocate Christ Medical Center, Manager, Patient and Guest Relations
- Advocate Christ Medical Center, Ronald McDonald Care Mobile, Nurse Practitioner
- Advocate Christ Medical Center, Vice President, Mission and Spiritual Care
- Advocate Health Care, Director, Community Health, South Region



## *Governing Council*

The Governing Council at Christ Medical Center is made up of local community leaders and physicians. Governing Council members support medical center leadership in their pursuit of the medical center's goals, represent the community's interest to the medical center and serve as ambassadors in the community. A total of 68 percent of the current Governing Council members represent the community, including representatives from the faith community, while 32 percent of members are medical center affiliated physicians or Christ Medical Center leaders. A Governing Council member serves as the Community Health Council's chair.

## *Health Impact Collaborative of Cook County*

In 2015, Advocate Health Care and its five hospitals principally serving Cook County (including Advocate Christ Medical Center) contributed financially and with in-kind resources to the formation and development of the Health Impact Collaborative of Cook County (HICCC), a project involving 26 hospitals, 7 health departments and nearly 100 community-based organizations. The goal of this initiative is to work collaboratively on a county-wide CHNA and implementation plan once priorities have been identified. The Illinois Public Health Institute (IPHI) serves as the backbone organization for the collaborative including coordinating both the data collection and report preparation activities.

Given the size and diversity of Cook County (second largest county in the United States), the collaborative created three regions—North, Central and South—for purposes of organizing the assessment process. Advocate Christ Medical Center was appropriately assigned to the South region consisting of both the south side of Chicago as well as southern suburbs of Chicago. As will be described in more detail in the accompanying report—*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region*—a regional leadership team was formed including representatives from the hospitals and health departments in the region. A regional stakeholder group was also organized including members of community organizations representing various sectors. From February 2015 through June of 2016, the collaborative completed an extensive community health assessment process within each of the three regions using the public health process—MAPP—**Mobilizing for Action through Partnerships and Planning**. More details regarding the data collection and prioritization process will be presented later in this report.

## **Methodology Used for the 2014-2016 Community Health Needs Assessment**

The methodology for the CHNA had four components: 1) the MAPP process used by the Health Impact Collaborative of Cook County (2/2015-6/2016); 2) use of the Healthy Communities Institute platform to review county, service area and zip code data (3/2014-8/2016); 3) a children's community profile completed by Advocate Children's Hospital, which is co-located on the medical center campus (see Appendix 2 for detailed profile); and 4) review of other available national and local data (1/2016-8/2016).

## *Health Impact Collaborative of Cook County*

### **MAPP Process**

The Health Impact Collaborative of Cook County (HICCC) conducted a collaborative CHNA between February 2015 and June 2016. The Illinois Public Health Institute (IPHI) designed and facilitated a collaborative, community-engaged assessment based on the Mobilizing for Action through Planning and Partnerships (MAPP) framework. MAPP is a community-driven strategic planning framework that was developed by the National Association for County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC). Both the Chicago and Cook County Departments of Public Health use the MAPP framework for community health assessment and planning. The MAPP framework promotes a system focus, emphasizing the importance of community engagement, partnership development and the dynamic interplay of factors and forces within the public health system. HICCC chose this inclusive, community-driven process so that the assessment and identification of priority health issues would be informed by the direct participation of stakeholders and community residents. The MAPP framework (Exhibit 13) emphasizes partnerships and collaboration to underscore the critical importance of shared resources and responsibility to make the vision for a healthy future a reality.

### Exhibit 13: MAPP Framework



The key phases of the MAPP process include:

- Organizing for Success and Developing Partnerships
- Visioning
- Conducting the Four MAPP Assessments
- Identifying Strategic Issues
- Formulating Goals and Strategies
- Taking Action – Planning, Implementing, Evaluating

The four MAPP assessments are:

- Community Health Status Assessment (CHSA)
- Community Themes and Strengths Assessment (CTSA)
- Forces of Change Assessment (FOCA)
- Local Public Health System Assessment (LPHSA)

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

The collaborative used the County Health Rankings model to guide the selection of assessment indicators. IPHI worked with the health departments, hospitals and community stakeholders to identify available data related to Health Outcomes, Health Behaviors, Clinical Care, Physical Environment, and Social and Economic Factors. The collaborative decided to add Mental Health as an additional category of data indicators.

As part of continuing efforts to align and integrate community health assessment across Chicago and Cook County, HICCC leveraged recent assessment data from local health departments where possible for this CHNA. Both the Chicago and Cook County Departments of Public Health completed community health assessments using the MAPP model between 2014 and 2015. As a result, IPHI was able to compile data from the two health departments' respective Forces of Change and Local Public Health System Assessments for discussion with the South Stakeholder Advisory Team, and data from the Community Health Status Assessments was also incorporated into the data presentation for this CHNA.

The Community Themes and Strengths Assessment included both focus groups and community resident surveys. The purpose of collecting this community input data was to identify issues of importance to community residents, gather feedback on quality of life in the community and identify community assets that can be used to improve communities.

## Community Survey

By leveraging its partners and networks, the collaborative collected approximately 5,200 resident surveys between October 2015 and January 2016, including 2,288 in the South region. The survey was available on paper and online and was disseminated in five languages – English, Spanish, Polish, Korean, and Arabic. The majority of the responses were paper-based (about 75%) and about a quarter were submitted online.

### Community Resident Survey Topics

- ✓ Adult Education and Job Training
- ✓ Barriers to Mental Health Treatment
- ✓ Childcare, Schools, and Programs for Youth
- ✓ Community Resources and Assets
- ✓ Discrimination/Unfair Treatment
- ✓ Food Security and Food Access
- ✓ Health Insurance Coverage
- ✓ Health Status
- ✓ Housing, Transportation, Parks & Recreation
- ✓ Personal Safety
- ✓ Stress

The community resident survey was a convenience sample survey, distributed by hospitals and community-based organizations through targeted outreach to diverse communities in Chicago and Cook County, with a particular interest in reaching low income communities and diverse racial and ethnic groups to hear their input into this Community Health Needs Assessment. The community resident survey was intended to complement existing community health surveys that are conducted by local health departments for their IPLAN community health assessment processes. IPHI reviewed approximately 12 existing surveys to identify possible questions, and worked iteratively with hospitals, health departments, and stakeholders from the 3 regions to hone in on the most important survey questions. IPHI consulted with the UIC Survey Research Laboratory to refine the survey design. The data from paper surveys was entered into the online SurveyMonkey system so that electronic and paper survey data could be analyzed together. Survey data analysis was conducted using statistical analysis software (SAS), and Microsoft Excel was used to create survey data tables and charts.

The majority of survey respondents from the South region identified as heterosexual (91%, n=2146) and African American/black (57%, n=2146). Twenty-seven percent (27%) of survey respondents identified as white, 2% Asian/Pacific Islander, and 2% Native American/American Indian. Approximately 25% (n=1651) of survey respondents in the South region identified as Hispanic/Latino and approximately 10% identified as Middle Eastern (n=1651). Two-percent of survey respondents from the South region indicated that they were living in a shelter and 1% indicated that they were homeless (n=2257). The South region had the highest percentage of individuals with less than a high school education (12%, n=2027) compared to the North and Central regions of Cook County, and the majority of respondents from the South region (68%, n=1824) reported an annual household income of less than \$40,000.

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<sup>1</sup> Written surveys were available in English, Spanish, Polish and Korean; all surveys with Arabic speakers were conducted with the English version of the survey along with interpretation by staff from a community-based organization that works with Arab-American communities

<sup>2</sup> Race and ethnicity categories do not add to 100% because a few paper-based surveys included write-in responses and because 163 surveys that were conducted with Arab American Family Services included an additional race option of "Arab."

### Focus Groups in South Region

IPHI conducted eight focus groups in the South region between October 2015 and March 2016. HICCC ensured that the focus groups included populations who are typically underrepresented in community health assessments, including racial and ethno-cultural groups, immigrants, limited English speakers, low-income communities, families with children, LGBTQIA and transgender individuals and service providers, individuals with disabilities and their family members, individuals with mental health issues, formerly incarcerated individuals, veterans, seniors, and young adults.

The main goals of the focus groups were:

1. Understand needs, assets and potential resources in the different communities of Chicago and suburban Cook County; and
2. Start to gather ideas about how hospitals can partner with communities to improve health.

Each of the focus groups were hosted by a hospital or community-based organization and the host organization recruited participants. IPHI facilitated the focus groups, most of which were implemented in 90-minute sessions with approximately 8 to 10 participants. IPHI adjusted the length of some sessions to be as short as 45 minutes and as long as two hours to accommodate the needs of the participants, and some groups included as many as 25 participants. A description of the focus group participants from the South region is presented in Exhibit 14.

**Exhibit 14: HICCC Focus Groups Conducted in the South Region 2015-2016**

Focus Groups	Location and Date
<p><b><u>Arab American Family Services</u></b> Participants in the focus group at Arab American Family Services were residents in the South region and staff at the organization. Their clients include Arab American immigrants and families.</p>	Bridgeview, Illinois (12/4/2015)
<p><b><u>Chinese American Service League</u></b> Participants in the focus group at the Chinese American Service League were residents of the Chinatown neighborhood in Chicago and staff at the organization. Their clients include multiple immigrant groups, children, older adults, disabled individuals, and families.</p>	Chinatown, Chicago, Illinois (1/19/2016)
<p><b><u>Human Resources Development Institute (HRDI)</u></b> Participants were clients in HRDI's day programs on the South Side of Chicago. Individuals in the focus group had experienced mental illness at some point in the past and some had previous interactions with the criminal justice system.</p>	West Roseland, Chicago, Illinois (12/15/2015)
<p><b><u>National Alliance on Mental Illness (NAMI) South Suburban</u></b> Participants included the parents, families, and caregivers of adults with mental illness living in South suburban Cook County.</p>	Hazel Crest, Illinois (1/21/2016)
<p><b><u>Park Forest Village Hall</u></b> Community residents, health department staff, service providers, and local government representatives in the South Cook suburbs.</p>	Park Forest, Illinois (11/12/2015)
<p><b><u>Sexual Assault Nurse Examiners (SANE)</u></b> SANE providers serving the South side of Chicago and South suburbs at Advocate South Suburban Hospital.</p>	Hazel Crest, Illinois (12/17/2015)
<p><b><u>Stickney Senior Center</u></b> Participants were older adults participating in the services provided at a senior center in the South Cook suburbs.</p>	Burbank, Illinois (12/3/2015)
<p><b><u>Veterans of Foreign Wars (VFW) Post 311</u></b> Participants included veterans, retired military, and former military living in the South Cook suburbs.</p>	Richton Park, Illinois (1/28/2016)

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.



There were residents from the South region that participated in focus groups that were conducted in other regions. A focus group in the Austin community area (in the Central region) that was conducted with formerly incarcerated individuals and hosted by the National Alliance for the Empowerment of the Formerly Incarcerated included participants who were residents in the South region. A focus group in the Lakeview community area (in the North region) that was conducted with LGBTQIA and transgender individuals and hosted by Howard Brown Health Center also included several participants who were residents in the South region.

More detail on the findings of the MAPP Assessments can be found in the companion document to the Christ Medical Center CHNA report—*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region*—that is also posted on the Advocate website and at: <http://healthimpactcc.org/reports2016/>

### *Use of Healthy Communities Institute (HCI) Data Platform*

Since early 2014, each hospital in the Advocate system has had access to the Healthy Communities Institute data platform, customized to the system through providing access to data for the counties, service areas and zip codes served by the hospitals. This robust platform provided the hospitals with 171 indicators at the county level, including a variety of demographic indicators, and thirty-one (31) hospitalization and emergency department (ED) visit indicators also at the service area and zip code levels. Utilizing the Illinois Hospital Association’s COMPdata, HCI was able to summarize, age adjust and average the hospitalization and ED data for five time periods from 2009-2015. The HCI contract also provided a wealth of county and zip code data comparisons; cross tabulation of data by age, race, ethnicity and gender; a Socio Needs Index visualizing vulnerable populations within service areas and counties; a Healthy People 2020 tracker; and a database of promising and evidence-based interventions. HCI provides a gauge that illustrates comparison of indicators across counties, service areas and zip codes.

<b>Green (Good):</b>	When a high value is good, community value is equal to or higher than the 50th percentile (median), or, when a low value is good, community value is equal to or lower than the 50th percentile.
<b>Yellow (Fair):</b>	When a high value is good, community value is between the 50th and 25th percentile, or when a low value is good, the community value is between the 50th and 75th percentiles.
<b>Red (Poor):</b>	When a high value is good, the community value is less than the 25th percentile, or when a low value is good, the community value is greater than the 75th percentile.

Throughout the CHNA, indicators may be referred to as being in the green, yellow or red zone, in reference to the above value ratings from HCI.

### *Review of Other Available National and Local Data*

Between January and August of 2016, community health staff collected pertinent data regarding community health for the Christ Medical Center PSA. A comprehensive list of data sources can be found in Appendix 1.

## Summary of Results

Participation by the medical center in the Health Impact Collaborative of Cook County (HICCC) resulted in access to a substantial amount of quantitative and qualitative data that is contained in the HICCC Community Health Needs Assessment South Region Report, a companion document to this CHNA. The report served as a foundational document to the assessment process at Christ Medical Center. Important findings from this collaborative project covering data from southern Cook County include the following:

### Health inequities in Chicago and suburban Cook County

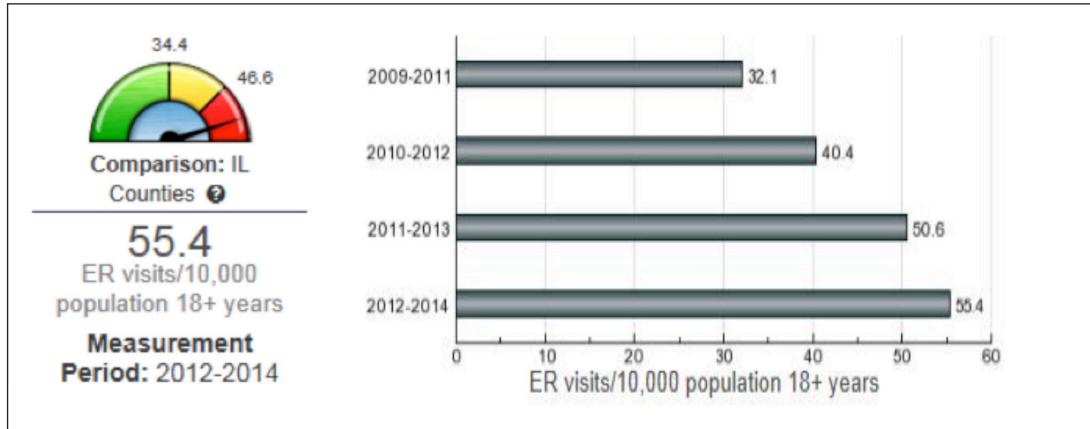
- African Americans experienced an overall increase in mortality from cardiovascular disease between 2000-2002 and 2005-2007 in suburban Cook County while whites experienced an overall decrease in cardiovascular disease-related mortality during the same time period.
- In the South region, African Americans have the highest mortality rates for cardiovascular disease, diabetes-related conditions, stroke, and cancer compared to other race/ethnic groups in the region.
- Hispanic and African American teens have much higher birth rates compared to white teens in Chicago and Suburban Cook County.
- African American infants are more than four times as likely as white infants to die before their first birthday in Chicago and suburban Cook County.
- Homicide and firearm-related mortality are highest among African Americans and Hispanics.
- In 2012, the firearm-related mortality rate in the South region (20.4 deaths per 100,000) was more than four times higher than the rate for the North region (4.6 deaths per 100,000). In 2012, the homicide mortality rate in the South region (19.8 deaths per 100,000) was more than six times higher than the rate for the North region (3.1 deaths per 100,000).
- There are significant gaps in housing equity for African American/blacks and Hispanic/Latinos compared to whites and Asians.
- The life expectancy for Chicagoans living in areas of high economic hardship is five years lower than those living in better economic conditions.

As a complement to the extensive data collection completed by the HICCC, the community health team at Christ Medical Center reviewed and analyzed additional health data for the medical center's primary service area, medical center utilization data and program data from clinical and community programs. This resulted in the identification of six community health needs that were brought to the Community Health Council for discussion and prioritization—asthma, cancer, diabetes, heart disease, hypertension and violence. A summary of the data presented to the Community Health Council about each of these health needs follows.

## Asthma

People of all ages are affected by asthma. Asthma often begins in childhood. According to the National Heart, Lung, and Blood Institute, more than 25 million people in the United States are known to have asthma, about 7 million of whom are children. According to Illinois Hospital Association COMPdata from 2009–2014, there has been a consistent increase in asthma emergency room visit rates for Christ Medical Center’s PSA (see Exhibit 15). For 2012-2014, the rate of 55.4 visits/10,000 population 18 years or older was in the HCI red zone in comparison to Illinois counties. Since 2009, the ER visit rate due to Adult Asthma for the PSA has increased by nearly 73%.

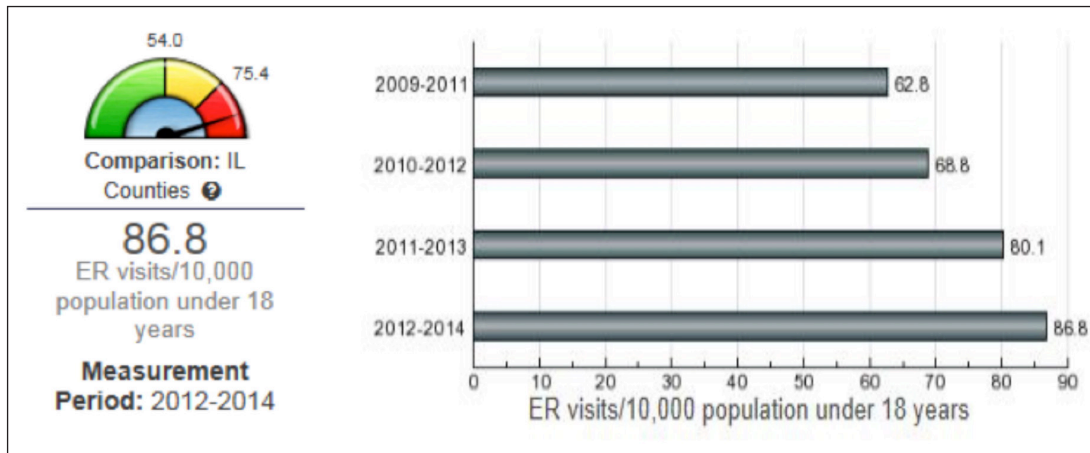
**Exhibit 15: PSA Age-Adjusted ER Rate due to Adult Asthma 2009-2014**



Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2015.

Not only is the current rate of ER Visits due to Adult Asthma in the HCI red zone for the PSA, but the level of ER Visits due to Pediatric Asthma is also in the HCI red zone at 86.8/10,000 population under age 18. There has also been a 38.21% increase in these visits from 2009 to 2014 (Exhibit 16) during the same time period. Comparatively, the Cook County rate increased by 17.4%.

**Exhibit 16: PSA Age-Adjusted ER Rate due to Pediatric Asthma 2009-2014**



Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2015.

Christ Medical Center’s primary service area has four zip codes that have a higher incidence of ER utilization for adult asthma in comparison to other zip codes and the overall PSA. The zip codes and names are identified in Exhibit 17.

**Exhibit 17: PSA Zip Codes Most Impacted by Adult Asthma ER Visits 2009–2014**

Community Name	Zip Code	Rate of Adult Asthma ER Visits/ 10,000 Aged 18+ 2012-2014	% of Increase
Auburn Gresham	60620	168.7	126%
Chicago Lawn	60629	69.0	42%
Morgan Park	60643	89.4	67%
West Englewood	60636	260.3	76%

Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2015.

## Cancer

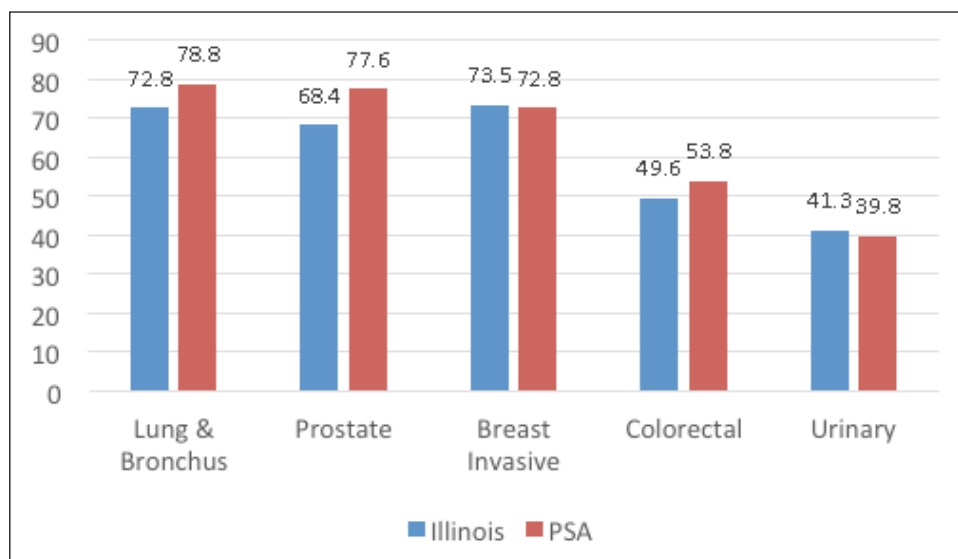
Cancer is the second leading cause of death in the US as well as within the primary service area. According to the National Cancer Institute, lung, colorectal, breast, pancreatic and prostate cancer lead to the greatest number of annual deaths (Healthy Communities Institute, 2016). The top five cancer incidence rates in the PSA (age adjusted), five year average for 2008-2012, are:

1. Lung & Bronchus (rate: 78.8 per 100,000 population)
2. Prostate (rate: 77.6 per 100,000 population)
3. Breast Invasive (rate: 72.8 per 100,000 population)
4. Colorectal (rate: 53.8 per 100,000 population)
5. Urinary (rate: 39.8 per 100,000 population)

Source: Illinois Department of Public Health, Illinois State Cancer Registry; Nielson Demographics 2010, Public Dataset, March 2016.

Exhibit 18 shows the top five cancer incidence rates for the medical center’s PSA in comparison to the Illinois Incidence rates. In the PSA, lung and bronchus, prostate and colorectal are higher than state rates during the same time period.

**Exhibit 18: Top Five Cancer Incidence Rates per 100,000 of PSA Compared to Illinois Incidence Rates per 100,000 population 2008-2012**

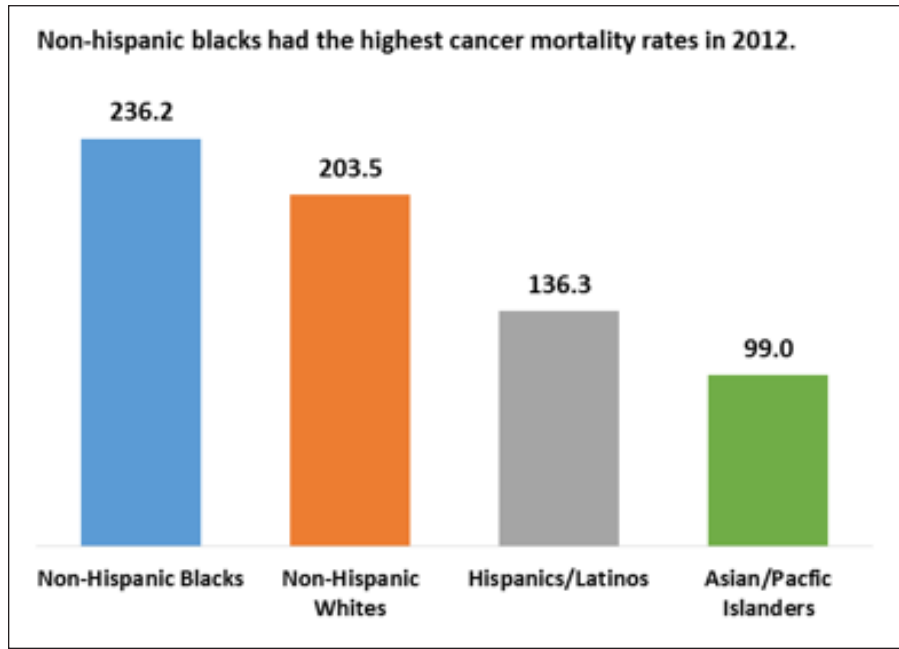


Source: Illinois Department of Public Health, Illinois State Cancer Registry; Nielson Demographics, 2010, Public Dataset, March 2016.

Although cervical cancer was not included in the PSA's top cancer incidence rates, the cervical cancer incidence rate for the same time period was higher than the state rate. From 2008-2012, the Illinois incidence rate was 4.3 per 100,000 population, however for the PSA, the incidence rate was 5.7 per 100,000 population.

Racial and ethnic disparities in cancer mortality rates persist in the South region of Chicago and Cook County, as shown in Exhibit 19.

**Exhibit 19: Cancer Mortality Rates for the South Region of Cook County per 100,000 by Race and Ethnicity 2012**



Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; Illinois Department of Public Health, 2012.

The 5 year average age-adjusted cancer incidence rate per 100,000 population for the State of Illinois from 2008-2012 is 511.2 and for Cook County is 487.3. For Christ Medical Center's PSA for the same time period, the incidence rate of 543.8 per 100,000 population is higher than both the state and the Cook County rates. (Illinois Department of Public Health, Illinois State Cancer Registry, Nielson Demographics, 2010, Public Dataset as of March 2016.)

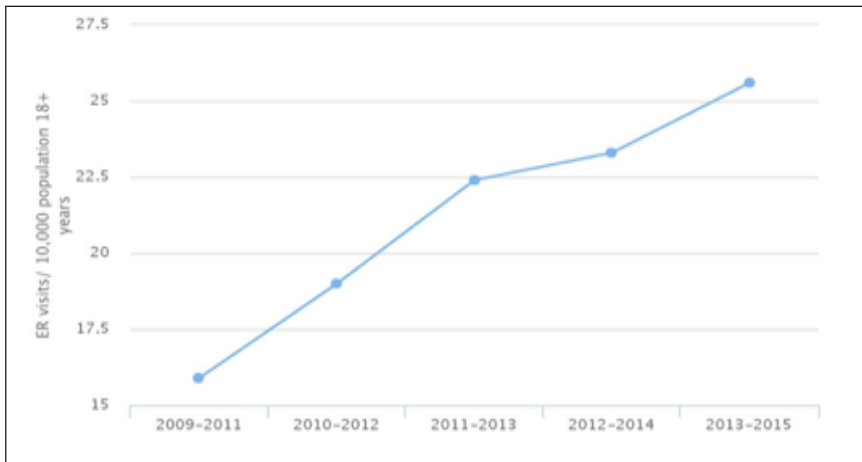
## *Diabetes*

According to the Centers for Disease Control (CDC), the rate of new cases of diagnosed diabetes in the United States has started to decline, however the prevalence of diabetes in communities served by the medical center remain high (<http://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>).

Reviewing hospitalization and ER visit data for the medical center's PSA identified that utilization of services for diabetes and diabetes related complications are increasing. The age-adjusted ER rate due to diabetes continued to increase from 15.9 per 10,000 population in 2009-2011 to 25.6 per 10,000 population in 2013-2015. The age-adjusted hospitalization rate due to diabetes for the PSA was 25.8 per 10,000 population compared to an Illinois rate of 18.8 per 10,000 population in 2013-2015. This PSA rate also represents a 61% increase since 2009 (Exhibit 20).



**Exhibit 20: Age-Adjusted ER Rate due to Diabetes for PSA 2009-2015**



Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2016.

Even greater disparities exist within the four zip codes that are identified as having a high SocioNeeds Index. See Exhibit 21.

**Exhibit 21: Age-Adjusted Hospitalization Rate due to Diabetes for PSA Zip Codes with High SocioNeeds Index 2013-2015**

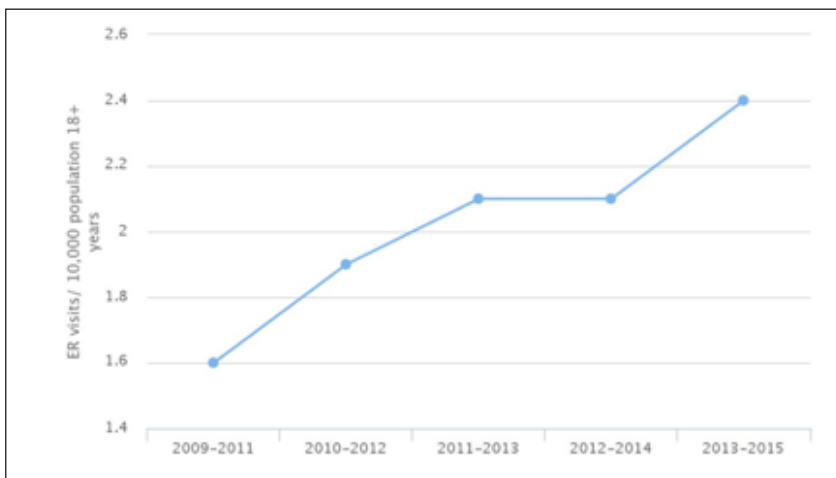
Community Name	Zip Code	Diabetes Hospitalization Rate	Percent Difference Compared to PSA Rate
Auburn Gresham	60620	48.4	+88%
Brighton Park	60632	28.8	+12%
Chicago Lawn	60629	39.1	+52%
West Englewood	60636	63.0	+144%

Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2016.

The 2013-2015 average age-adjusted ER rate due to diabetes for the PSA is 25.6 per 10,000 population, a 61% percentage increase since 2009 (Exhibit 21).

The age-adjusted ER rate due to uncontrolled diabetes for the PSA while still in the HCI green zone compared to Illinois counties has increased by 50% since 2009 (Exhibit 22). However, both the hospitalization rates for diabetes and for long-term complications of diabetes in the medical center’s primary service area are in the HCI red zone compared to counties in Illinois (Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2016).

**Exhibit 22: PSA Age-Adjusted ER Visit Rate per 10,000 Population due to Uncontrolled Diabetes 2009-2015**



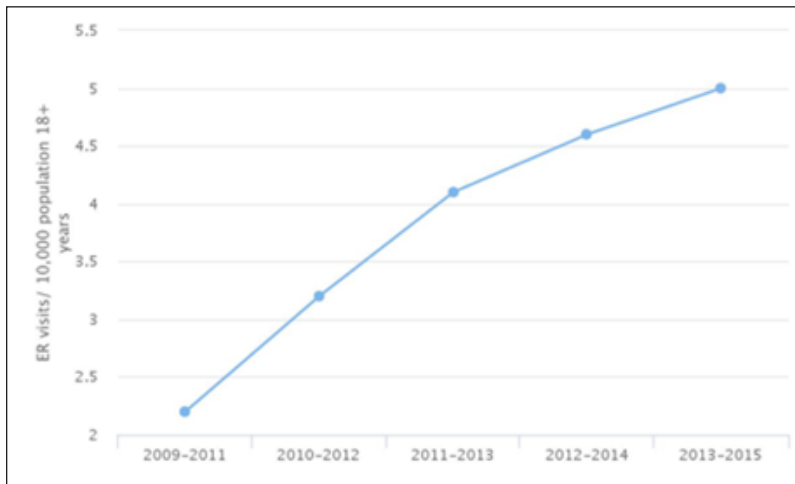
Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2016.

## Heart Disease

According to the CDC, cardiovascular disease and related conditions is the leading cause of disease among both women and men. Heart disease consists of several different types of heart conditions of which the most common form is coronary artery disease. Heart disease and related conditions include heart attack, coronary artery disease, stroke, high blood pressure, and heart failure.

In the PSA, the heart disease age-adjusted mortality rate ranges from 159.8 per 100,000 population up to 330.7 per 100,000 population in some communities. In comparison, the state rate is 112.1 per 100,000 population (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*). The age-adjusted ER rate due to heart failure for the PSA is 5.0 ER visits/10,000 population 18+ years compared to the state value of 8.1. A closer look over the time period from 2009 to 2015, indicates a steady increase in the ER Rate (Exhibit 23).

**Exhibit 23: PSA Age-Adjusted ER Rate per 10,000 Population due to Heart Failure 2009-2015**



Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2015.

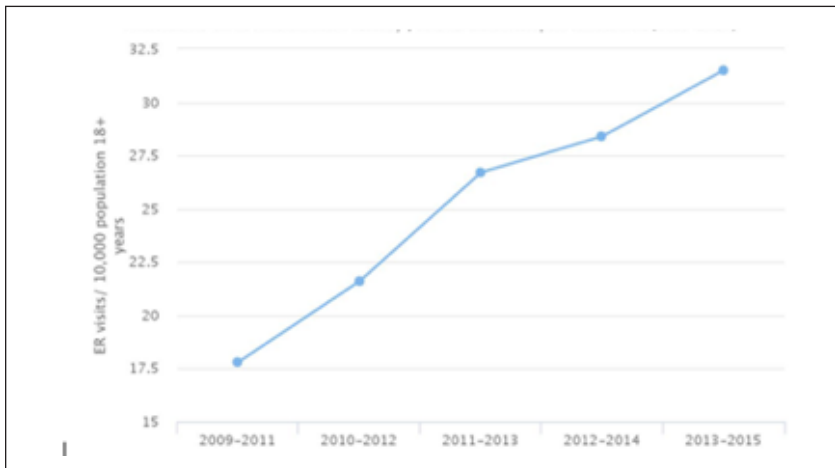
The age-adjusted hospitalization rate due to heart failure for the PSA is 46.6 per 10,000 population age 18 years and older compared to the Illinois rate of 36.6 per 10,000 population. Communities that have SocioNeeds indices of 5 in the PSA, have rates that are double the state rate including West Englewood (110.0), Chicago Lawn (61.5) and Auburn Gresham (89.2).

## Hypertension and Cerebrovascular Disease

High blood pressure is the common name that is used to describe hypertension. High blood pressure is a significant increase in blood pressure in the arteries. Many people with hypertension may not experience symptoms, even if their blood pressure is dangerously high. Hypertension increases the risk for heart disease and is a major risk factor for cerebrovascular disease also known as stroke (Centers for Disease Control and Prevention, 2014).

The 2013-2015 PSA age-adjusted ER rate due to hypertension is 31.5 per 10,000 population 18+. In the PSA, the age-adjusted ER rate increased from 17.8 to 31.5 from 2011-2015 (see Exhibit 24). Although the rate for the overall PSA is in the HCI yellow zone, Auburn Gresham (76.2/10,000) and West Englewood (88.6/10,000) have rates that are greater than both the overall PSA and Illinois rates.

**Exhibit 24: PSA Age-Adjusted ER Rate due to Hypertension 2009-2015**

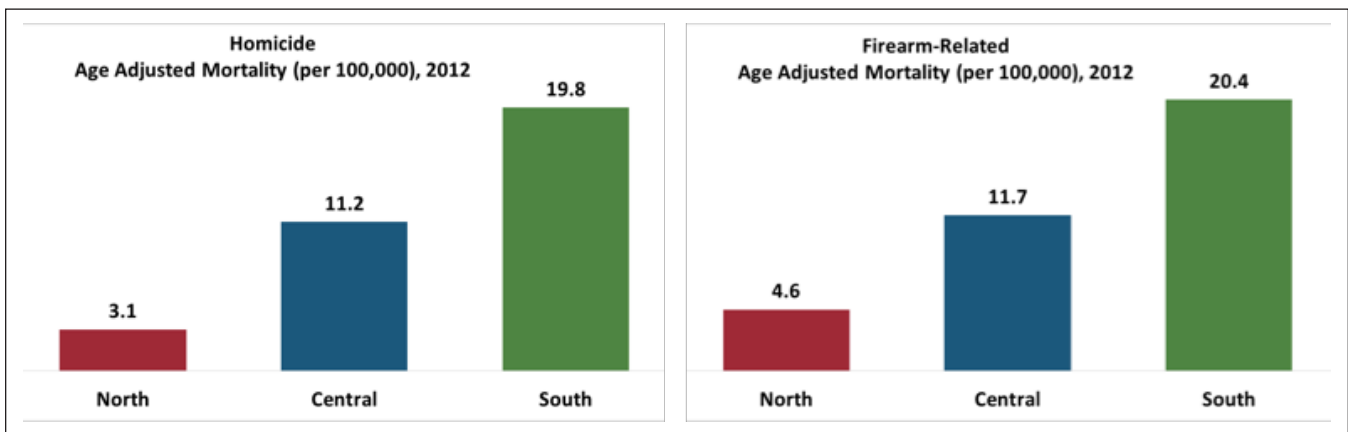


Source: Healthy Communities Institute, Illinois Hospital Association, COMPdata, 2015.

**Violence**

Violent crime disproportionately affects residents living in communities of color in Chicago and suburban Cook County.<sup>3</sup> In addition, homicide and firearm-related mortality is highest in the south and central regions of the county and in African American and Hispanic/Latino communities. In 2012, the firearm-related mortality rate in the South region (20.4 deaths per 100,000) was more than four times higher than the rate for the north region (4.6 deaths per 100,000). In 2012, the homicide mortality rate in the South region (19.8 deaths per 100,000) was more than six times higher than the rate for the north region (3.1 deaths per 100,000).

**Exhibit 26: Homicide and Firearm-Related Mortality by Cook County Region 2012**

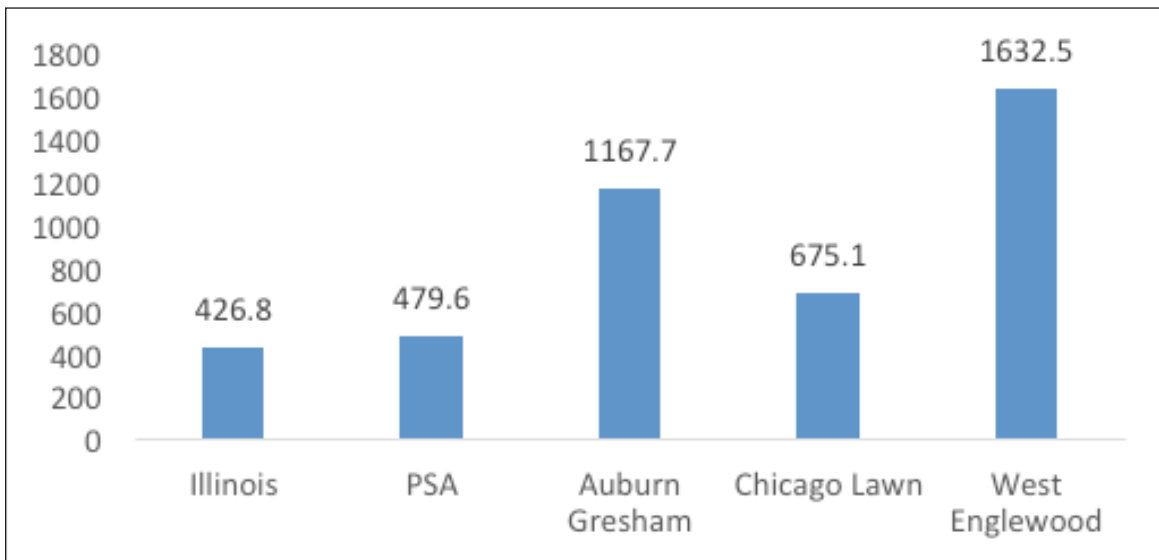


Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Report, 2016; Illinois Department of Public Health, 2012.

In 2014, the PSA rate of population with an ED visit for assault per 100,000 of the total population was 479.6, while the state rate was 426.8. A review of all of the communities in the PSA indicated that there are three communities with much higher rates. The communities are as follows: Auburn Gresham (1,167.7), Chicago Lawn (675.1) and West Englewood (1632.5). See Exhibit 27.

<sup>3</sup> Mayor, S. (2002). WHO report shows public health impact of violence. *BMJ*, 325(7367).

**Exhibit 27: Illinois, PSA, and PSA High Risk Communities ER Visit for Assault Rate per 100,000 population 2013-2014**



Source: Illinois Hospital Association, COMPdata, July 2013–June 2014.

Data from the HICCC community survey indicates that community residents in the South region feel that gang activity, drug use/drug trafficking, the presence of guns, domestic violence, child abuse, human trafficking, property crimes (home break-ins, theft, muggings), a lack of positive community policing, and poorly maintained foreclosed or vacant properties were some of the primary reasons that they felt unsafe in their communities (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*). Exposure to violence not only causes physical injuries and death, but it also has been linked to negative psychological effects such as depression, stress and anxiety, as well as self-harm and suicide attempts.

## **Prioritization of Health Needs**

### *Health Impact Collaborative of Cook County*

Through a data-driven collaborative prioritization process, the HICCC identified four priority focus areas. (See Exhibit 28.) As the Health Impact Collaborative moves from assessment to implementation planning, the partners are working together to determine the best infrastructure for implementing collaborative strategies related to the four focus areas. Addressing the social, economic and structural determinants of health has been identified as an overarching priority that will be an important focus for collaborative planning and implementation among all hospital participants. Thus, for Advocate Christ Medical Center, an initial priority for implementation is to address collaboratively one or more of the social, economic and structural determinants of health.

**Exhibit 28: The Four Focus Areas for the Health Impact Collaborative of Cook County**

1. Improving social, economic, and structural determinants of health/reducing social and economic inequities.\*
  2. Improving mental and behavioral health.
  3. Preventing and reducing chronic disease  
(focus on risk factors—nutrition, physical activity, and tobacco).
  4. Increasing access to care and community resources.
- \* All hospitals within the Collaborative will include the first focus area – Improving social, economic, and structural determinants of health – as a priority in their CHNA and implementation plan. Each hospital will also select at least one of the other focus areas as a priority.*
- \* Policy, Advocacy, and Data Systems are strategies that should be applied across all priorities.*

Key Community Health Needs for Each of the Collaborative Focus Areas:			
Social, economic and structural determinants of health	Mental health and substance abuse (Behavioral health)	Chronic disease	Access to care and community resources
<ul style="list-style-type: none"> <li>• Economic inequities and poverty</li> <li>• Education inequities</li> <li>• Systemic racism</li> <li>• Housing</li> <li>• Healthy environment</li> <li>• Safety and violence</li> </ul>	<ul style="list-style-type: none"> <li>• Overall access to services and funding</li> <li>• Violence and trauma, and its ties to mental health</li> </ul>	<ul style="list-style-type: none"> <li>• Focus on risk factors – nutrition, physical activity, tobacco</li> <li>• Healthy environment</li> </ul>	<ul style="list-style-type: none"> <li>• Cultural &amp; linguistic competency/ humility</li> <li>• Health literacy</li> <li>• Access to healthcare and social services, particularly for uninsured and underinsured</li> <li>• Navigating complex health care system and insurance</li> </ul>

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

**Community Health Council Priority Setting**

To select the remaining priorities for the next three years, the community health team facilitated a multi-voting exercise by the Community Health Council on July 20, 2016. The council was asked to consider the following criteria in making selections:

- The alignment of the medical center’s mission and existing programs;
- The ability to make an impact within a reasonable time frame;
- Medical center and community resources to address the health issue;
- The importance of the health problem to the community; and
- Availability of evidence-based programs with proven measurable outcome to address identified community needs.

Each member used five dots as votes to select the health need(s) that they perceived to be the most important in the community. During the prioritization session, Community Health Council members were asked to place their five votes in any distribution, weighting any health condition with more than one vote, if they wished. Members were instructed to vote by putting the dots onto flip charts posted around the meeting room. Each flip chart represented one of five health needs identified in the previous section—asthma, cancer, diabetes, heart disease and hypertension. Violence was removed from the list as it is included in the social economic and structural determinants priority of the Health Impact Collaborative of Cook County that was already selected as a priority for implementation.



### **Needs Selected as Priorities**

Through this process the Community Health Council members selected asthma and diabetes as their two priorities. Therefore, as a result of the 2014-2016 CHNA process, Christ Medical Center will have three priorities for implementation planning:

- Social, economic and structural determinants of health including violence
- Asthma
- Diabetes

### **Needs Not Selected as Priorities**

While cancer, heart disease and hypertension are important health concerns in the PSA, the Council felt that asthma and diabetes were the most important in terms of unmet community health needs. The primary reason for this decision is because Christ Medical Center already has institutes that are focused on cancer, heart disease, and stroke.

#### ***Cancer***

Christ Medical Center's cancer program has been certified by the American College of Surgeons, Commission on Cancer and includes both inpatient and outpatient units, a radiation oncology unit, CyberKnife treatment, intraoperative electron radiation therapy (IOERT), a home health/hospice program, a breast health program and a community education program. Nutritional services, social services, pastoral care, and an oncology certified pharmacist are available on site to work with patients and their families. Clinical research trials are also available through the Children's Oncology Group (COG), the Eastern Cooperative Oncology Group (ECOG) and the Gynecologic Oncology Group (GOG).

Christ Medical Center offers cancer focused hospice care and free seminars open to the public. A specially trained oncology nutritionist sees patients in the medical center and those undergoing outpatient treatment. The palliative care team works closely with physicians and patients to provide comfort, communication assistance and assess patients' physical needs to enhance their quality of life at any stage of illness. In addition, there is an on-site American Cancer Society patient representative and a Gilda's Club satellite location.

#### ***Heart Disease***

Advocate Heart Institute at Christ Medical Center is Illinois' most comprehensive center for heart care. The Heart Institute offers a full range of treatments and programs including preventative, diagnostics, clinical trials, heart transplants and rehabilitation services. Rehabilitation plays a key role in recovery from a heart attack or heart surgery. The goal of the comprehensive cardiac rehabilitation program is to help patients regain strength and improve their health and quality of life after a heart attack or heart surgery. The Heart Institute has been certified by the American Association of Cardiac and Pulmonary Rehabilitation.

Christ Medical Center offers a series of community health classes that increase awareness of heart disease and support individuals in their journey to better heart health. A variety of support groups are also provided that encourage healthy heart care in the community. The Live from the Heart program, a partnership between Chicago's Museum of Science and Industry and Christ Medical Center, educates high school students about heart health through live interactive heart surgeries provided through video monitoring in a classroom. The interactive program also helps to foster interest in the health sciences.

#### ***Hypertension and Cerebrovascular Disease***

Hypertension is a known risk factor for cerebrovascular disease (stroke). Advocate Christ Medical Center Neurosciences Institute is a comprehensive stroke center accredited by Det Norske Veritas (DNV) Healthcare, Inc. As one of the busiest stroke centers in the Chicagoland area, the medical center treats more than 900 new stroke patients each year. Because the stroke team sees such a large volume and variety of stroke cases, the physicians have the skills and experience to treat all levels of stroke cases, especially in managing post stroke recovery and rehabilitation. The Neurosciences Institute's community education programs include health fairs, community lectures and educational partnerships with local schools. The institute also hosts monthly community stroke support groups.

### *Approval of CHNA by Governing Council*

Christ Medical Center's Governing Council received a written executive summary as well as a presentation of findings and recommendations for priority health needs at the October 27, 2016, Governing Council meeting. The Governing Council was sent a link to the full CHNA report on November 14, 2016, along with an electronic ballot. After reviewing the document, each member returned a ballot indicating formal approval of the CHNA report. Christ Medical Center's CHNA report was formally approved by the Governing Council on November 21, 2016.

## V. Implementation Planning

While the full implementation plan for addressing the medical center's three priorities will be posted in 2017, this section reviews the goal, potential strategies, and potential partners for each of the health needs as well as a plan for disseminating information about the CHNA to the community.

### Priority Area: Social Determinants of Health – Violence

**Goal:** Reduce violence and increase awareness of violence prevention in the primary service area.

**Potential Strategies:**

- Expand partnership with CeaseFire to implement an evidence-based model that addresses violence prevention in PSA communities.
- Work with the Health Impact Collaborative of Cook County to identify resources to support violence prevention strategies.
- Collaborate with Chicago Safe Start to support and offer programs that raise awareness regarding violence and its impact on children in the community.

### Priority Area: Asthma

**Goal:** Reduce the incidence of uncontrolled asthma among adults and children within Christ Medical Center's primary service area.

**Potential Strategies:**

- Partner with Metropolitan Tenant Organization on the Healthy Homes Initiative for children and asthma.
- Collaborate with clinical staff in inpatient medical center units and ED to improve disease self-management skills for patients and families with asthma.
- Collaborate with the Children's Hospital to provide the "Kickin' Asthma" education program in high risk schools in the medical center's PSA.

### Priority Area: Diabetes

**Goal:** Reduce incidence of diabetes in communities that have the highest SocioNeeds Index – Auburn Gresham, Chicago Lawn, Brighton Park, and West Englewood.

**Potential Strategies:**

- Implement the National Diabetes Prevention Program (DPP) Prevent T2 in community areas in partnership with community based organizations and faith communities.
- Work to establish Christ Medical Center as a designated diabetes prevention program approved site by collaborating with clinical diabetes education team.
- Increase community educational opportunities to support diabetes self-management skills.

## VI. Community Feedback Mechanism

Thank you for reading this CHNA Report. We welcome your feedback regarding the report. If you would like to comment on this report, please click on the link below to complete a CHNA feedback form. We will respond to your questions/comments within thirty days. Your comments will also be considered during our next CHNA assessment cycle. <http://www.advocatehealth.com/chnareportfeedback>

If you experience any issues with the link to our feedback form or have any other questions, please click below to send an email to us at: [AHC-CHNAReportCmtyFeedback@advocatehealth.com](mailto:AHC-CHNAReportCmtyFeedback@advocatehealth.com)

This report can be viewed online at Advocate Health Care's CHNA Report webpage via the following link: <http://www.advocatehealth.com/chnareports>

A paper copy of this report may also be requested by contacting the Christ Medical Center's Community Health Department.

### Other Communication and Feedback Opportunities

In addition to the opportunity to provide feedback through the means described above, Advocate Christ Medical Center also plans to communicate the CHNA findings and preliminary implementation plans, as available, to the community through the following:

- Auburn Gresham Community Development Corporation – Presentation to be provided to Auburn Gresham Community Development Corporation Board members at its second quarter 2017 meeting.
- Oak Lawn Community Partnership – Presentation to interested Oak Lawn residents in April 2017.
- Christ Medical Center Health Rotary – Presentation to medical center's Health Rotary in May 2017.

## VII. Appendices

### Appendix 1: 2014-2016 Community Health Needs Assessment Data Sources

(All data and website links were verified as of the date of Governing Council approval.)

#### Primary Sources

Advocate Christ Medical Center, Finance Department, 2016.

Advocate Health Care Strategic Planning Department, 2016.

Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, Surveys and Focus Groups for the South Region, 2016.

#### Secondary Sources

American Stroke Association, May 2016.

[http://www.strokeassociation.org/STROKEORG/LifeAfterStroke/HealthyLivingAfterStroke/UnderstandingRiskyConditions/Blood-Pressure-and-Stroke\\_UCM\\_310427\\_Article.jsp#.WA-P7YrR\\_mU](http://www.strokeassociation.org/STROKEORG/LifeAfterStroke/HealthyLivingAfterStroke/UnderstandingRiskyConditions/Blood-Pressure-and-Stroke_UCM_310427_Article.jsp#.WA-P7YrR_mU)

CeaseFire: A Public Health Approach to Reduce Shootings and Killings by Nancy Ritter, *NIJ Journal*, 2009.  
<https://www.ncjrs.gov/pdffiles1/nij/228386.pdf>

Centers for Disease Control and Prevention, 2015.

[http://www.cdc.gov/nchs/data/factsheets/factsheet\\_health\\_insurance.htm](http://www.cdc.gov/nchs/data/factsheets/factsheet_health_insurance.htm)

Centers for Disease Control and Prevention, 2016.

<http://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>

Centers for Disease Control and Prevention, Social Determinants of Health, 2014.

[www.cdc.gov/nchhstp/socialdeterminants/faq](http://www.cdc.gov/nchhstp/socialdeterminants/faq)

Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

<http://healthimpactcc.org/reports2016/>

The following data sources were accessed through the Health Impact Collaborative of Cook County data:

Centers for Disease Control and Prevention Behavioral Risk Factor Surveillance System, 2012-2013.

<http://www.cdc.gov/brfss/index.html>

Chicago Department of Public Health data, 2009-2013.

<http://www.cityofchicago.org/city/en/depts/cdph.html>

Illinois Department of Public Health data, 2012.

<http://www.idph.state.il.us>

Healthy Communities Institute (HCI), a Xerox Company, 2016, accessed via a contract with Advocate Health Care. Website unavailable to the public. The following data sources were accessed through the HCI portal:

American Community Survey, 2010-2014.

<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

American Lung Association, 2010-2013. <http://www.stateoftheair.org/2015/states/?referrer=http://admin.advocatehealth.thehcn.net/modules.php?op=modload&name=NS-Indicator&file=indicator&iid=17946037>

American Journal of Public Health, April 2010.

<https://www.coloradocollege.edu/dotAsset/50e39f0e-9490-42d2-a791-80d0f09de17f.pdf>

Centers for Disease Control and Prevention Diabetes Data and Statistics, 2012.

<http://www.cdc.gov/diabetes/atlas/countydata/atlas.html>

Claritas, 2016. Website unavailable to public.



Illinois Behavioral Risk Factor Surveillance System, 2013. <http://app.idph.state.il.us/brfss/>

Illinois Hospital Association, COMPdata, 2009-2016. Data unavailable to public.

Illinois Department of Public Health Death Rates, 2010-2011. <http://www.idph.state.il.us>

Illinois Department of Public Health, Illinois State Cancer Registry, Neilson Demographics, 2010, Public Dataset, March 2016. <http://www.idph.state.il.us>

Illinois Legal Aid, 2016.

<https://www.illinoislegalaid.org/legal-information/federal-poverty-guidelines>

Kaiser Family Foundation, Key Facts on Health and Health Care by Race and Ethnicity, June 2016. [www.kff.org](http://www.kff.org)

National Heart, Lung, and Blood Institute, August 2014.

<https://www.nhlbi.nih.gov/health/health-topics/topics/asthma>

Truven Insurance Coverage Estimates, 2016.

US Census, American Community Survey, 2008-2012.

<http://www.census.gov>

US Department of Health and Human Services, Office of Minority Health, 2016.

<http://www.minorityhealth.hhs.gov/omh>

## Appendix 2: Advocate Children’s Hospital – Oak Lawn Community Profile

### Advocate Children’s Hospital – Oak Lawn, Illinois

Advocate Children’s Hospital, located on two campuses in the Chicagoland area, serves children ages 0-17. The north campus is located on the grounds of Advocate Lutheran General Hospital in Park Ridge, IL (Advocate Children’s Hospital Park Ridge) with which it shares the same tax ID number. The south campus is located on the grounds of Advocate Christ Medical Center in Oak Lawn, IL (Advocate Children’s Hospital Oak Lawn) with which it shares the same tax ID number. A children’s hospital community profile was completed to supplement the comprehensive Community Health Needs Assessment (CHNA) process of the respective Advocate hospitals. This supplemental profile and plan has been completed as part of Advocate Christ Medical Center’s CHNA process and covers the Children’s Hospital Oak Lawn service area.

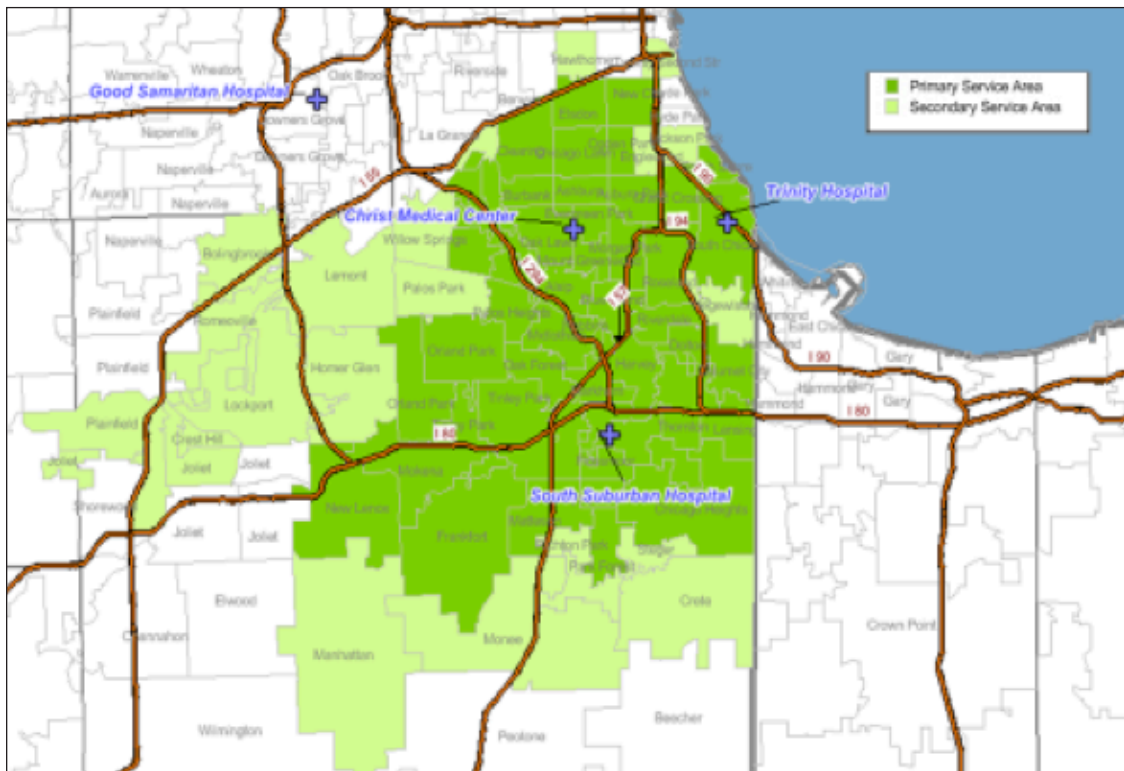
Advocate Children’s Hospital Oak Lawn is located in south Cook County and is in close proximity to the Chicago city limits. While an important part of the Christ Medical Center campus, administratively and operationally, all pediatric services report to the Advocate Children’s Hospital leadership team.

### Community Profile—Advocate Children’s Hospital, Oak Lawn Total Service Area

Exhibit 1 shows the primary and secondary service areas of Children’s Hospital Oak Lawn. These combined service areas are known as the hospital’s total service area (TSA). The TSA of Advocate Children’s Hospital Oak Lawn also includes geographic areas or communities served by Advocate Trinity Hospital on Chicago’s south and southeast sides, Advocate South Suburban Hospital in Chicago’s south suburbs and Advocate Good Samaritan Hospital in the west and southwest suburban Chicago area.

The total pediatric population, ages 0-17 years, within the Children’s Hospital Oak Lawn TSA is 591,263 children in 77 communities, or 25% of the total population within the same area.

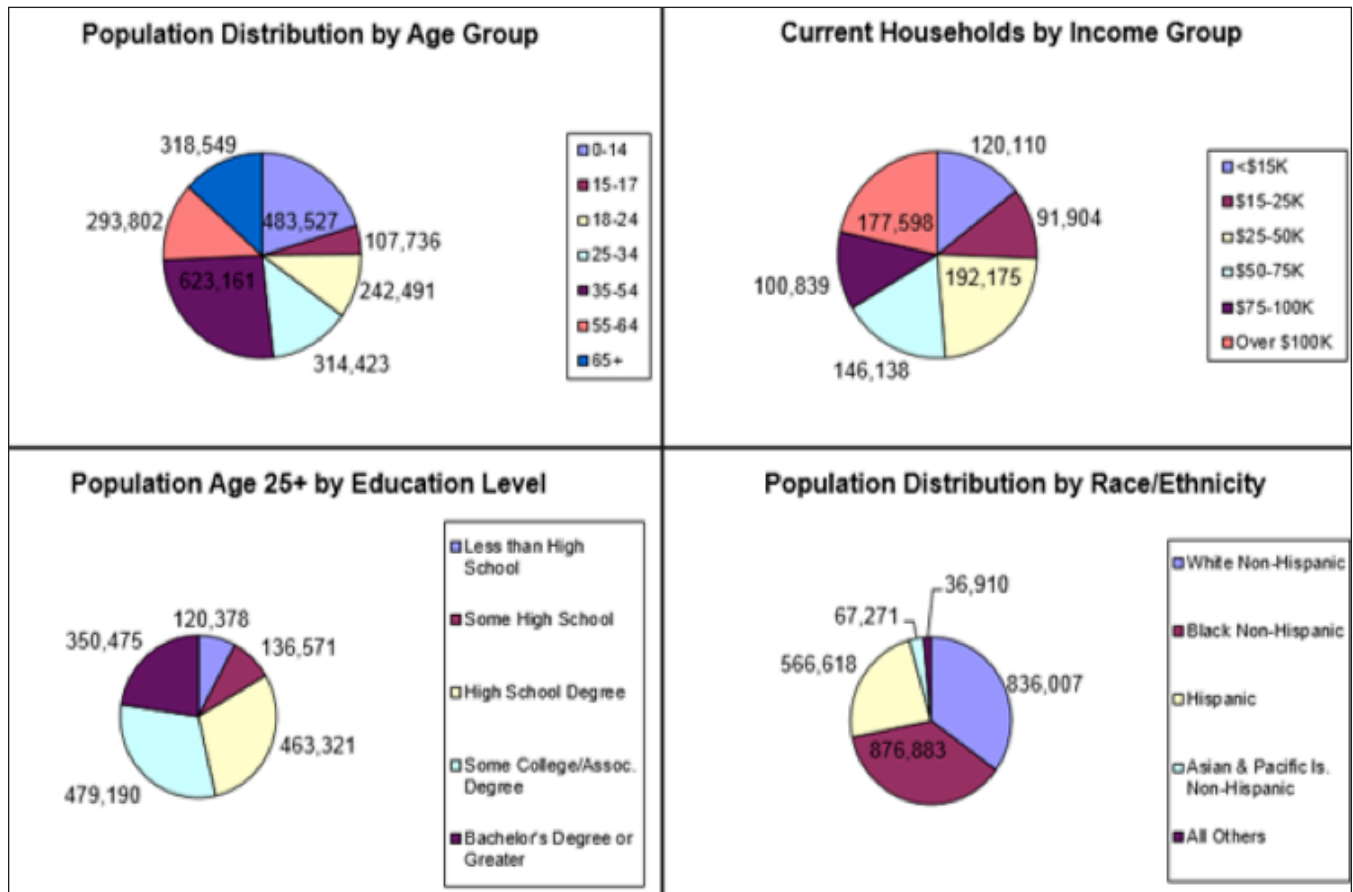
Exhibit 1: Advocate Children’s Hospital Oak Lawn Total Service Area



Source: Advocate Health Care Strategic Planning Department, 2013.

Exhibit 2 illustrates the Advocate Children’s Hospital Oak Lawn TSA demographic snapshot including household income showing that 26% of households in the TSA earn less than \$25,000/year and 46% have a high school education or less. The TSA is 37% Black/Non-Hispanic, 35% White/Non-Hispanic and 24% Hispanic. Within the TSA, 56.3% of patients (children ages 0-17) receive Medicaid, 38.9% are covered by managed care health insurance and 4.5% have other payment plans. Advocate Children’s Hospital Oak Lawn has 106 beds and 195 pediatricians and specialists on staff, and reported over 7,300 admissions, nearly 3,500 surgeries, over 32,000 emergency department visits, 2,100 medical transports between Advocate and other hospitals, and nearly 200,000 patient office visits.

**Exhibit 2: Advocate Children’s Hospital Oak Lawn TSA Demographic Snapshot**

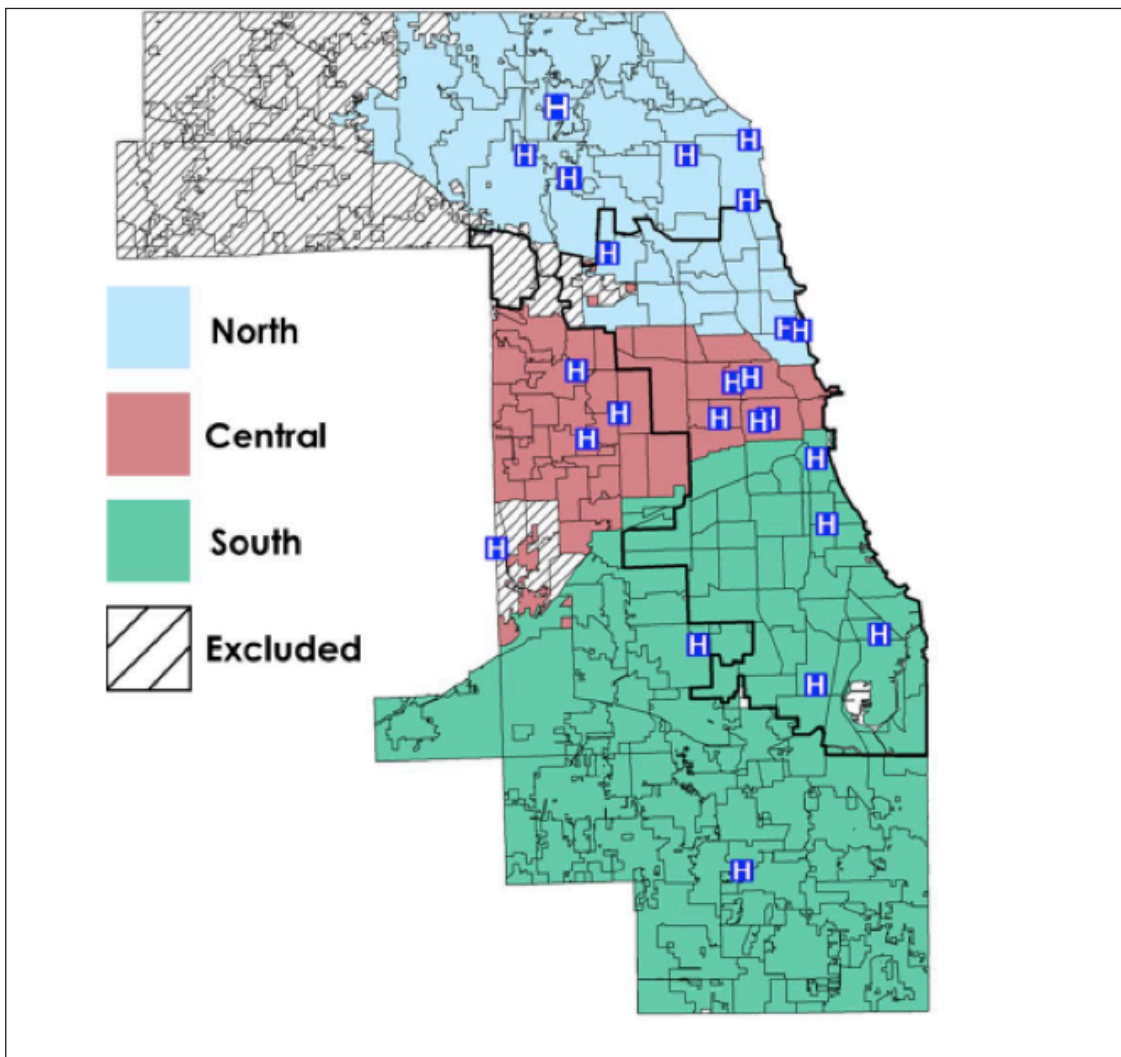


Source: Truven Health Analytics, The Nielson Company, 2016.

### *Methodology for Profile—Community Partners*

As Advocate Children’s Hospital Oak Lawn serves children within multiple communities located in both the city of Chicago as well as suburban Cook County, the hospital elected to participate in two different hospital collaborative efforts. The Health Impact Collaborative of Cook County (HICCC) is a coalition of 27 hospitals, 6 health departments and over 100 community stakeholders designed to assess community health needs and assets, and implement a shared plan to maximize health equity and wellness. HICCC is described in detail in the Christ Medical Center CHNA report. Advocate Children’s Hospital was an active participant in the HICCC process in both the north and south regions as the respective campuses are located in those regions. Given the large geography of Cook County, the Collaborative decided to divide into three regions—North, Central and South. Exhibit 3 shows a map of these three regions across Cook County.

### Exhibit 3: HICCC CHNA Regions in Cook County, Illinois



\*Advocate Children’s Hospital is co-located at Advocate Lutheran General Hospital and Advocate Christ Medical Center sites and does not have a separate Hospital icon.

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

This profile was created using primary and secondary data from multiple sources including hospital utilization and Emergency Department (ED) visit data, focus group data and publicly available health outcome and demographic data, as well as pertinent data gathered from the primary surveys administered by the HICCC survey process which was disseminated in four languages available in paper and online formats. Approximately 5,200 surveys were collected from community residents through targeted outreach to communities affected by health disparities across the city and county between October 2015 and January 2016. About 2,250 or 43% of the surveys were collected from residents in the South region which is largely served by Advocate Children’s Hospital Oak Lawn.

Through collaborative prioritization processes involving hospitals, health departments and Stakeholder Advisory Teams, the Health Impact Collaborative of Cook County identified four focus areas as significant health needs:

1. Improving social, economic and structural determinants of health while reducing social and economic inequities.
2. Improving mental health and decreasing substance abuse.
3. Preventing and reducing chronic disease, with a focus on risk factors – nutrition, physical activity, and tobacco.
4. Increasing access to care and community resources.

All hospitals within the Collaborative will include the first focus area—Improving social, economic and structural determinants of health—as a priority in their CHNA and implementation plan. Each hospital will also select at least one of the other focus areas as a priority.

Advocate Children’s Hospital has also been an active participant in the Healthy Chicago Hospital Collaborative which is working together to address three health issues identified by participating hospitals in the 2014-2016 current CHNA cycle, including access to care, mental health and obesity. The Healthy Chicago Hospital Collaborative concentrated its efforts on data collected by and input from the Chicago Health Department.

### *Key Assessment Findings*

Advocate Children’s Hospital’s active participation in the HICCC assessment process yielded significant data which is helpful in defining children’s health needs in the South region and shaping plans to address them. Guiding the process is the mission, vision, and values of HICCC which has a strong focus on improved health equity in Chicago and suburban Cook County. Social and structural determinants of health such as poverty, unequal access to healthcare, lack of education, structural racism, and environmental conditions are underlying root causes of health inequities. Additionally, social determinants of health often vary by geography, gender, sexual orientation, age, race, disability and ethnicity. (Centers for Disease Control and Prevention, 2013; CDC Health Disparities and Inequalities Report, Morbidity and Mortality Weekly Report, 62.3.) The strong connections between social, economic, and environmental factors and health are apparent in Chicago and suburban Cook County, with health inequities being even more pronounced than most of the national trends. Disparities related to socioeconomic status, built environment, safety and violence, policies, and structural racism were identified in the South region as being key drivers of community health and individual health outcomes. Some of the major inequities include:

- Hispanic and African American teens have much higher birth rates compared to white teens in Chicago and suburban Cook County.
- African American infants are more than four times as likely as white infants to die before their first birthday in Chicago and suburban Cook County.
- Homicide and firearm-related mortality are highest among African Americans and were highest in the South region of Chicago and suburban Cook County.
- Over 75% of enrolled school children in the South region of Chicago and Suburban Cook County are eligible for free or reduced price lunch.
- There are significant gaps in housing equity for African American/blacks and Hispanic/Latinos compared to whites and Asians.

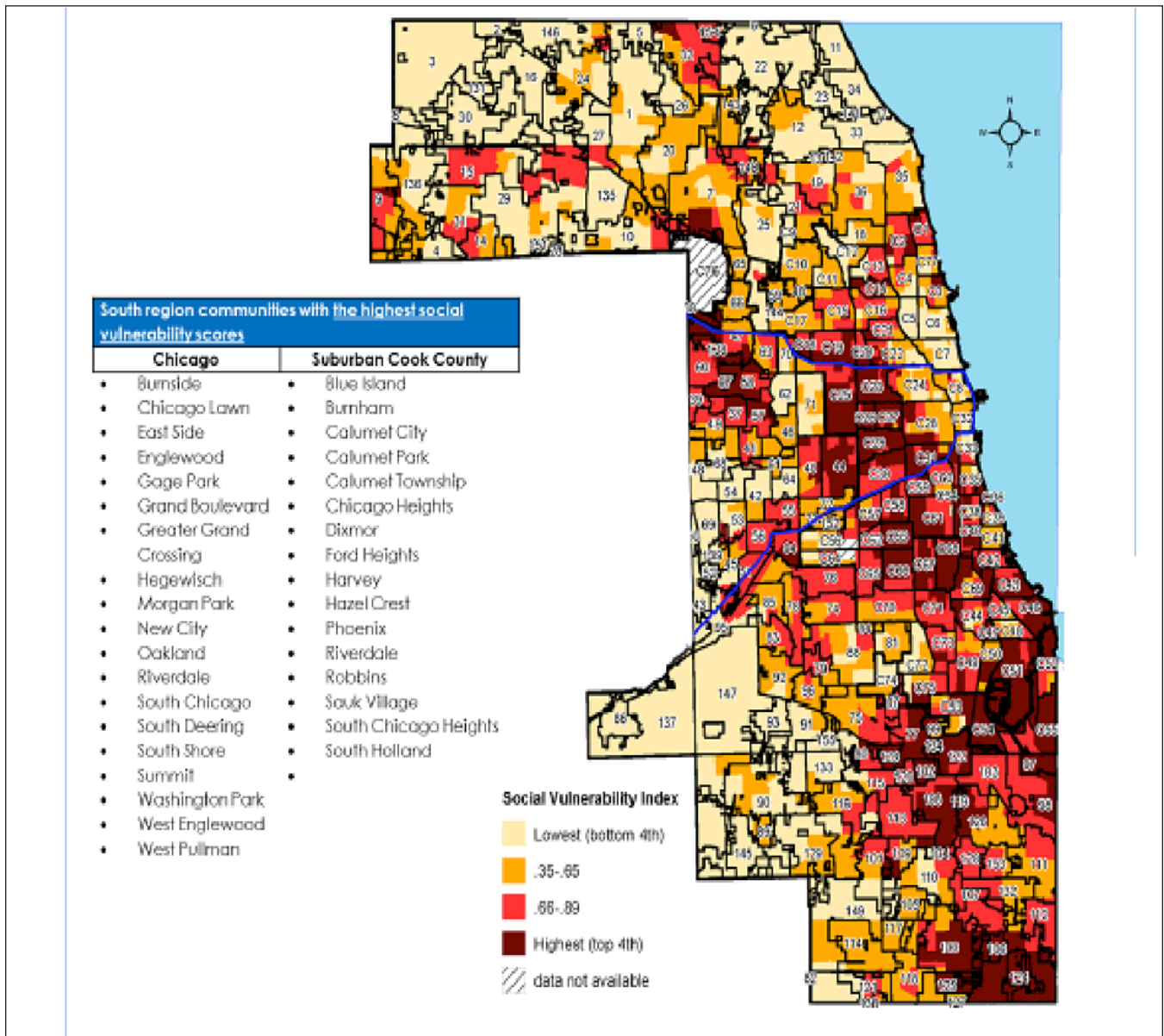
Data and information illustrating the current state of community health in the South region are found below, as well as indicators that can contribute negatively to children’s health in the area.



## Social Vulnerability Index

The Social Vulnerability Index is an aggregate measure of the capacity of communities to prepare for and respond to external stressors on human health, such as natural or human-caused disasters, or disease outbreaks. The Social Vulnerability Index ranks each census tract on 14 social factors, including poverty, lack of vehicle access, and crowded housing. Communities with high Social Vulnerability Index scores have less capacity to deal with or prepare for external stressors and, as a result, are more vulnerable to threats on human health. Many communities in Advocate Children’s Hospital’s TSA rank high in social vulnerability which can have a negative impact on children’s health.

**Exhibit 4: HICCC South Region Social Vulnerability Index by Census Tract 2010**

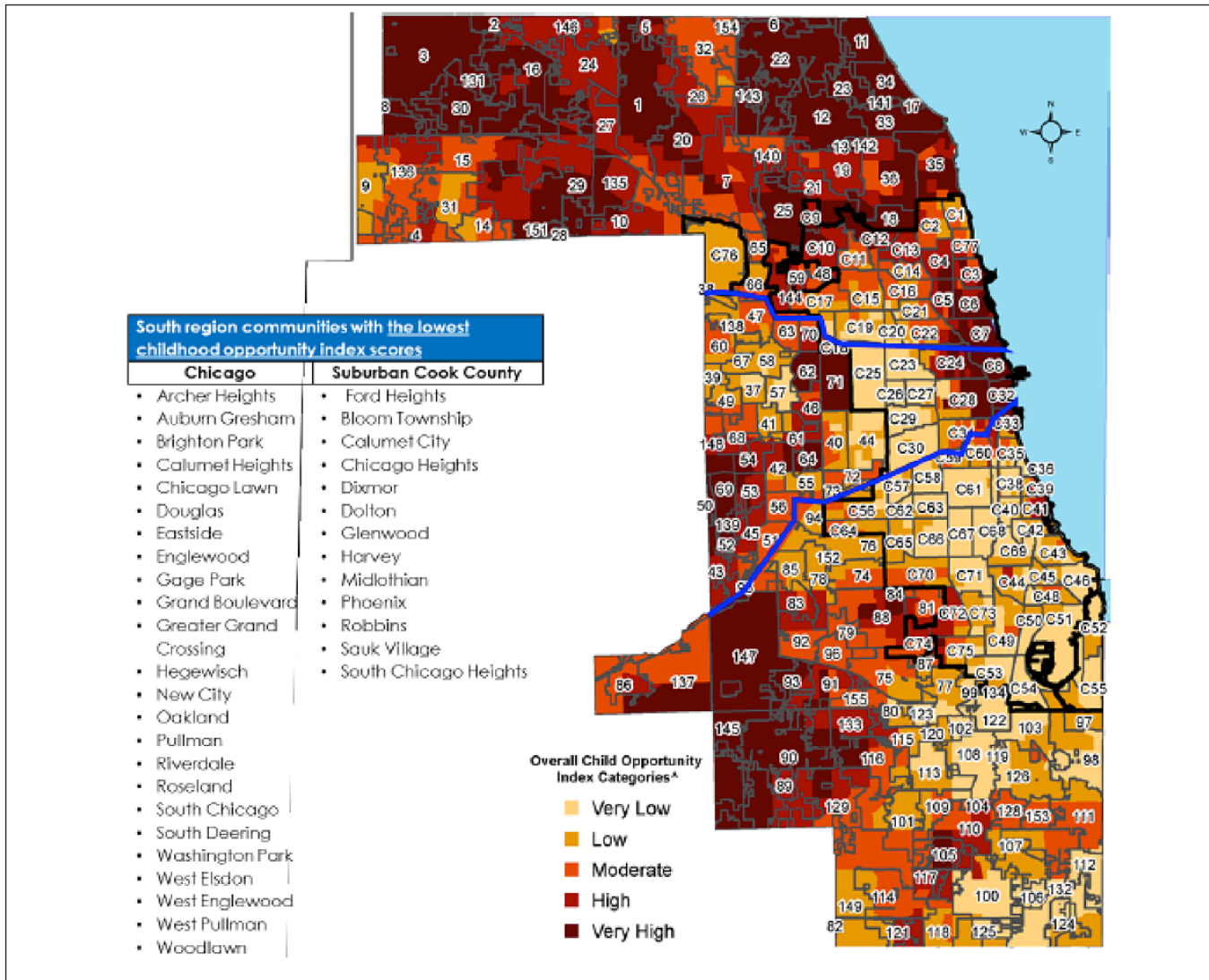


Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; Agency for Toxic Substances and Disease Registry, 2014; The Social Vulnerability Index. <http://svi.cdc.gov/>

## Childhood Opportunity Index

The Childhood Opportunity Index is based on several indicators in each of the following categories: demographics and diversity; early childhood education; residential and school segregation; maternal and child health; neighborhood characteristics of children; and child poverty. Children who live in areas of low opportunity have an increased risk for a variety of negative health indicators such as premature mortality, are more likely to be exposed to serious psychological distress and are more likely to have poor school performance.

**Exhibit 5: HICCC South Region Childhood Opportunity Index by Census Tract 2007-2013**



Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

As cited in Healthy Chicago 2.0 by the Chicago Public Health Department, 48% of Chicago’s children are living in low child opportunity areas and one in two African American and Hispanic children live in low child opportunity areas compared to one in 50 white children. (Chicago Public Health Department; Healthy Chicago 2.0, 2016.)

Of the Chicago Communities with lowest child opportunity – 11 of 16 are in Advocate Children’s Hospital TSA (\*).

- Austin
- West Englewood\*
- New City\*
- Archer Heights\*
- West Garfield Park
- Englewood\*
- Fuller Park\*
- Brighton Park\*
- North Lawndale
- Washington Park\*
- East Side
- Riverdale\*
- South Lawndale
- West Pullman\*
- Hegewisch\*
- South Deering\*

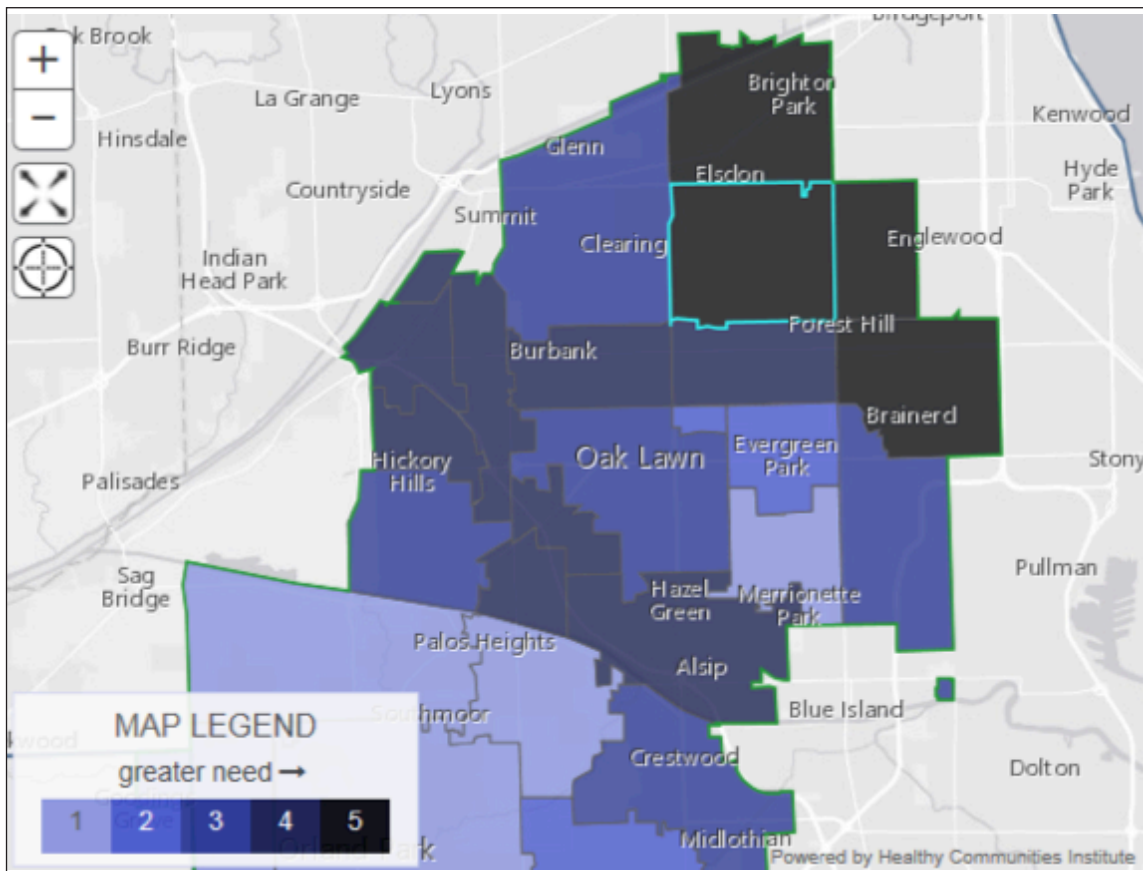
Source: Chicago Public Health Department; Healthy Chicago 2.0, 2016.

### *SocioNeeds Index*

To clearly illustrate the disparity of income and other socioeconomic factors that exist within much of the Advocate Children’s Hospital service area, it is useful to examine how the SocioNeeds index varies across zip codes. Created by the Healthy Communities Institute, the SocioNeeds Index is a measure of socioeconomic need that is correlated with poor health outcomes. Indicators for the index are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. This index combines multiple socioeconomic indicators into a single composite value. As a single indicator, the index can serve as a concise way to explain which areas are of highest need. The scores can range from 1 to 100. A score of 100 represents the highest socio-economic need.

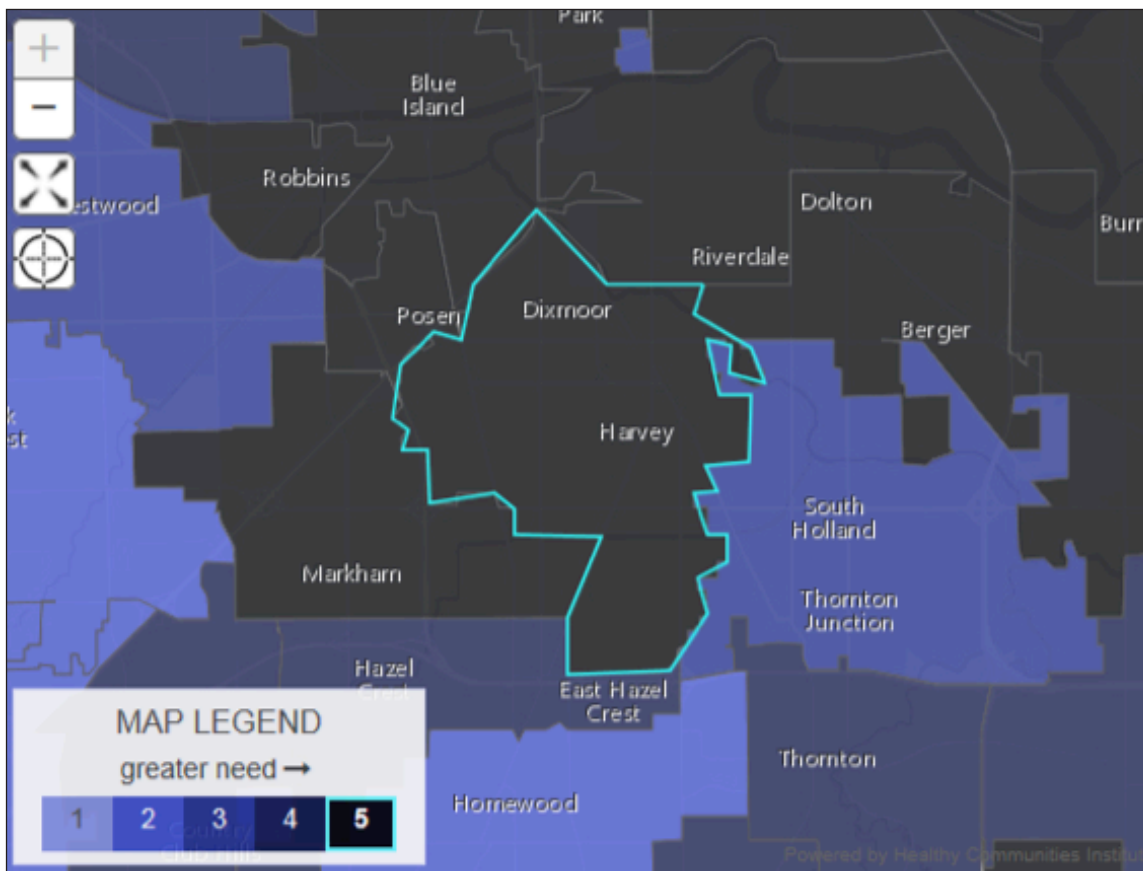
As a SocioNeeds Index is not available specifically for Advocate Children’s Hospital TSA, Christ Medical Center’s SocioNeeds Index for primary and secondary service areas will be used in this report. Within a service area, the ranking of 1-5 is a comparison of each zip code to all others within the primary service area; a 5 represents zip codes of highest socio-economic need. The index value for each zip code is compared to all zip codes within a service area and assigned a relative rank (1-5) using natural breaks classification. Exhibit 4 illustrates Christ Medical Center’s primary service area only. The communities with the highest need within Advocate Children’s Hospital Oak Lawn’s primary service area include suburban Alsip, Chicago Ridge, Worth, Burbank, Bridgeview, Justice and Hickory Hills, as well as the following neighborhoods in Chicago: Ashburn, Chicago Lawn, Auburn Park, Ogden Park and Elsdon. Exhibit 4 provides a visual map of the SocioNeeds Index for the Christ Medical Center primary service area, while Exhibit 5 shows the Christ Medical Center secondary service area.

**Exhibit 4: Advocate Children’s Hospital Primary Service Area SocioNeeds Index Map**



Source: Healthy Communities Institute, 2016.

**Exhibit 5: Advocate Children’s Hospital Secondary Service Area SocioNeeds Index Map**



Source: Healthy Communities Institute, 2016.

## Poverty, Economic and Education Inequity

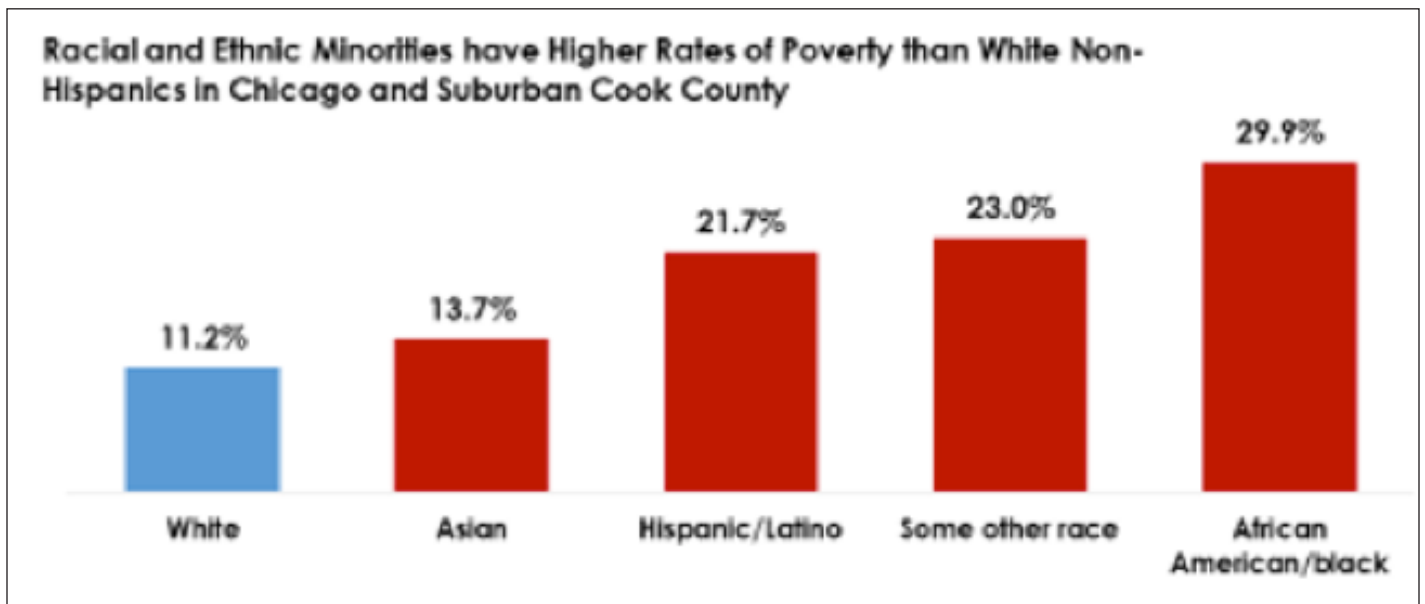
Poverty can create barriers to accessing health services, healthy food, and other necessities needed for good health status. (Health Impact Collaborative of Cook County, American Community Survey, 2010-2014; [CommunityCommons.org](http://CommunityCommons.org), CHNA Data, 2015).

Poverty can also affect housing status, educational opportunities, an individual's physical environment, and health behaviors. (Health Impact Collaborative of Cook County, American Community Survey, 2010-2014; [CommunityCommons.org](http://CommunityCommons.org) CHNA Data, 2015).

The Federal Poverty Guidelines define poverty based on household size, ranging from \$11,880 for a one-person household to \$24,300 for a four-person household and \$40,890 for an eight-person household. (US Department of Health and Human Services, Poverty Guidelines, 2016. <https://aspe.hhs.gov/poverty-guidelines>)

Nearly half of all children living in Chicago and Cook County live at or below 200% of the federal poverty level. The percentage of children in poverty is higher for Cook County than it is for Illinois and the US, and African American and Latino children have much higher poverty rates than non-Hispanic White children. Although the number of children living in poverty decreased overall in Chicago between 2009 and 2013, the number of children living in poverty doubled in suburban Cook County. As shown in the map of the Childhood Opportunity Index in Exhibit 3, there are large inequities in childhood opportunity across Chicago and suburban Cook County with the majority of communities in the South region having low or very low economic opportunity.

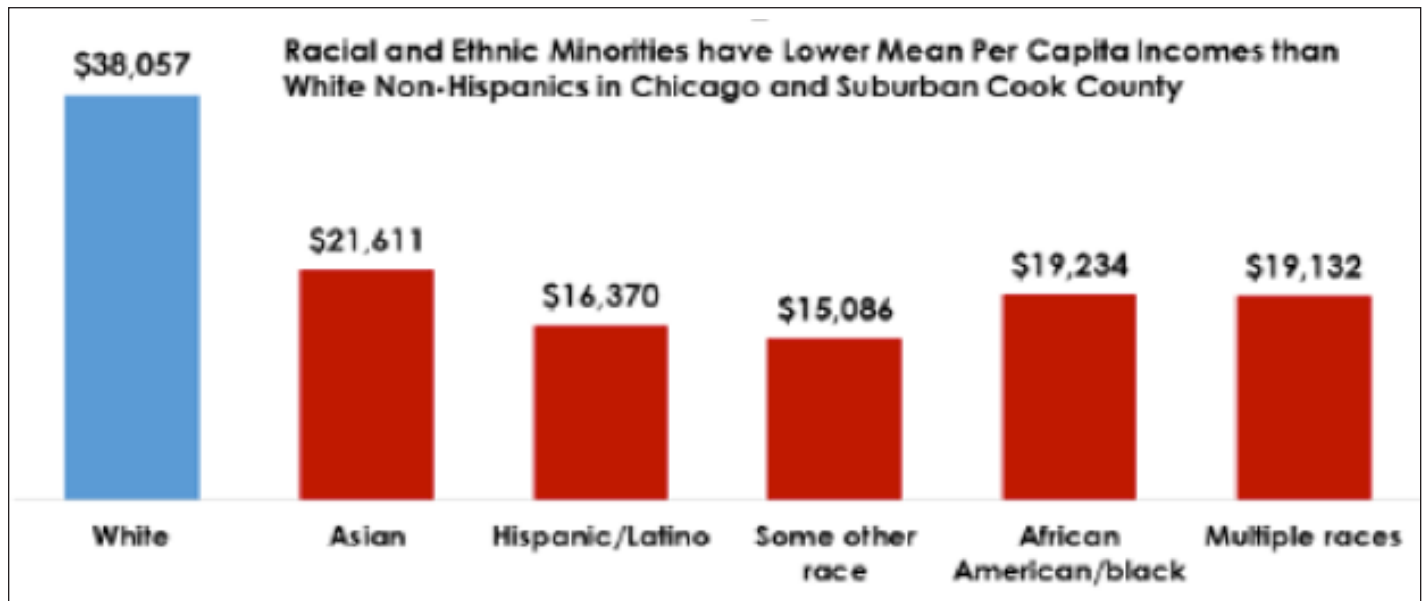
**Exhibit 6: Percentage of Population Living at or Below 100% Federal Poverty Level by Race and Ethnicity in Chicago and Suburban Cook County 2009-2013**



Source: *Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; American Community Survey, 2009-2013.



Exhibit 7: Per Capita Income by Race and Ethnicity in Chicago and Suburban Cook County 2009-2013



Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; American Community Survey, 2009-2013.

As reported in Healthy Chicago 2.0, 835,249 Chicagoans were living in high economic hardship in 2014 as defined by crowded housing, poverty, unemployment, education, dependency, income. Chicago Communities most impacted – 14 of 26 are in Advocate Children’s Hospital’s TSA (\*).

- Belmont-Cragin
- Hermosa
- Humboldt Park
- West Garfield Park
- East Garfield Park
- North Lawndale
- South Lawndale
- Lower West Side
- Armour Square
- Archer Heights\*
- Brighton Park\*
- New City\*
- Fuller Park \*
- Oakland
- Gage Park\*
- Chicago Lawn\*
- West Englewood\*
- Englewood\*
- Washington Park\*
- Greater Grand Crossing\*
- Auburn Gresham\*
- Burnside\*
- South Chicago
- Riverdale\*
- Austin
- West Elsdon\*

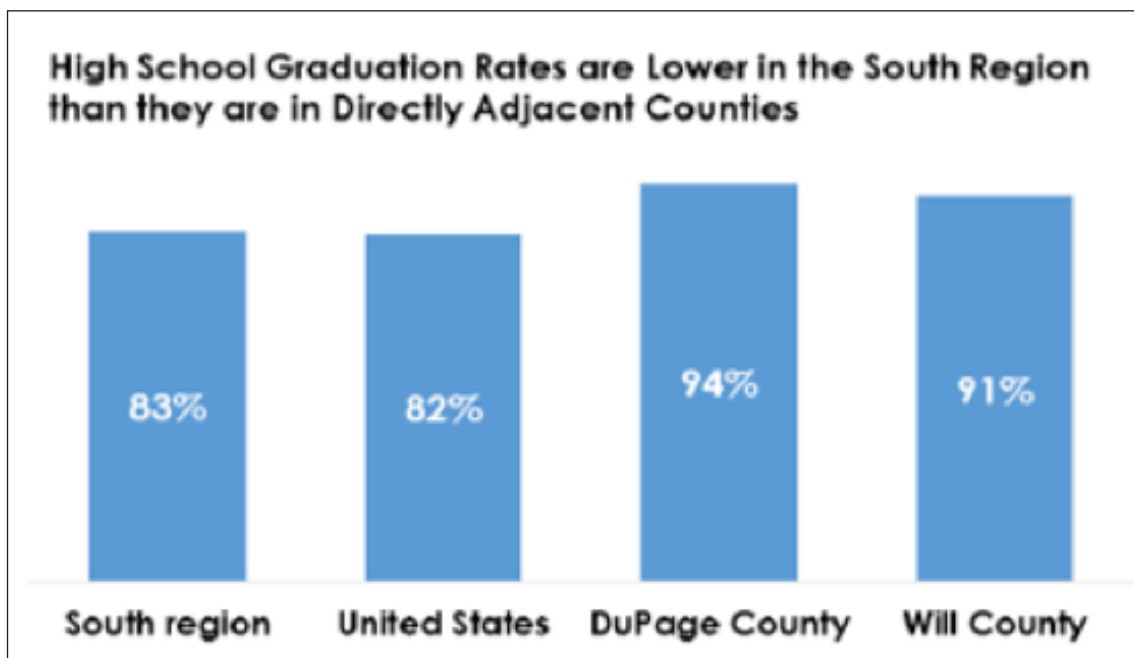
Source: Chicago Department of Public Health; Healthy Chicago 2.0, 2016.



## Education

The high school graduation rates in the HICCC South region (83%) are only slightly lower than the state and national averages of 85% and 84%, respectively. However, the high school graduation rates for the South region (83%) are substantially lower than those in neighboring DuPage (94%) and Will (91%) counties. Education is an important social determinant of health, because the rate of poverty is higher among those without a high school diploma or GED. In addition, as previously mentioned, those without a high school education are at a higher risk of developing certain chronic illnesses, such as diabetes. The Forces of Change Assessment (FOCA) conducted by the Chicago and Cook County Departments of Public Health identified multiple trends and factors influencing educational attainment in Chicago and suburban Cook County including inequities in school quality and early childhood education, school closings in Chicago, and unequal application of discipline policies for black and Hispanic/Latino youth. These factors and trends produce threats to health such as lack of job- and college-readiness as well as an increased risk of becoming chronically involved with the criminal justice system as an adult. Opportunities to address education issues include efforts to apply evidence-based school improvement programs, vocational learning opportunities, advocacy, and using maternal/child health funding to improve early childhood outcomes.

**Exhibit 8: High School Graduation Rates in Chicago and Suburban Cook County 2011-2012**



Source: *Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; US Department of Education, EDData, 2011-2012.

## Food Access and Food Security

Food insecurity is defined as the household-level economic and social condition of limited or uncertain access to adequate food. Factors and trends related to food and systems that were identified in the FOCA include lack of healthy food access, unhealthy food environments driven by federal food policies and food marketing, and increasing community gardens/urban agriculture. Threats to health related to the forces of change include increasing obesity and chronic disease and lowered school performance. Numerous opportunities were identified to address food systems in Chicago and suburban Cook County, including Supplemental Nutrition Assistance Program (SNAP) double bucks programs, incentivizing grocery store and community gardens, using hospital campus/land as places for gardens, increasing the number of farmers markets and grocery stores, and the workforce development prospects for urban agriculture. Approximately 15% of the population in Chicago and suburban Cook County have experienced food insecurity in the report year 2013. According to the USDA in 2014, all households with children, single-parent households, non-Hispanic black households, Hispanic/Latino households, and low-income households below 185% of the poverty threshold had higher food insecurity rates compared to other populations in the US (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; USDA 2014; <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/key-statistics-graphics.aspx#insecure>).

Focus group participants reported that there is high food insecurity among children in some of the communities on the Southside of Chicago and that it has profound effects on child health and development. Approximately 48% of survey respondents from the South region indicated that they or their families have had to worry about whether or not their food would run out before they had the money to buy more. Over 75% of enrolled schoolchildren in the HICCC South region of Chicago and Suburban Cook County are eligible for free or reduced price lunches. In addition, 21% of all households in the South region are receiving SNAP benefits, the highest percentage of all the regions.

## Safety and Violence

Although violent crime occurs in all communities, violent crime disproportionately affects communities of color in Chicago and suburban Cook County. Factors and trends in safety and violence identified in the FOCA include gun violence, intimate partner violence, police violence, and bullying. The threats to health from these forces include the links between community violence, chronic disease, and mental health problems, in addition to the impact of fear and stress on health and well-being. Opportunities to address safety and violence issues in Chicago and suburban Cook County include supporting the role of schools in violence prevention and services for families, and increasing communication between communities and police. (Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; Chicago Department of Public Health, Healthy Chicago 2.0, 2016). In addition, there are multiple negative health outcomes associated with exposure to violence and trauma. Concerns about safety and violence were echoed in the focus group results. Participants in six out of the eight focus groups in the South region mentioned safety concerns in their communities. Safety issues highlighted by participants in the South region include lack of positive community policing, gang activity, and drug use/drug trafficking, domestic violence, child abuse, robbery, and personal safety.

Residents who live in the South Cook suburbs described how the foreclosure crisis has led to many abandoned properties and that those properties have become hubs of drug activity and other illegal activities in their communities. The focus group results align with the results of the Community Resident Survey where respondents from the South region indicated that gang activity (31%), drug use/drug dealing (26%), and presence of guns in the neighborhood (21%) as the top reasons that they felt unsafe in the last 12 months. Homicide and firearm mortality were highest in the South region of Chicago and suburban Cook County. As reported in Healthy Chicago 2.0, in 2014, there were 390 firearm-related homicides, 2,435 non-fatal shootings and 9,577 incidents of gun-related violent crime in public places in Chicago. (Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; Chicago Department of Public Health; Healthy Chicago 2.0, 2016).

Chicago Community Areas most impacted by gun violence – 13 of 18 are in Advocate Children’s Hospital’s TSA (\*).

- West Garfield Park
- North Lawndale
- Fuller Park\*
- South Chicago\*
- Great Grand Crossing\*
- Woodlawn
- Auburn Gresham\*
- Chatham\*
- Avalon Park
- Englewood\*
- Roseland\*
- Riverdale\*
- Washington Park\*
- Burnside\*
- West Englewood\*
- Washington Heights\*
- West Pullman\*
- South Shore

Source: Chicago Department of Public Health; Healthy Chicago 2.0, 2016.

Suburban cities in the South region with the highest violent crime rates – All are in Advocate Children’s Hospital’s TSA.

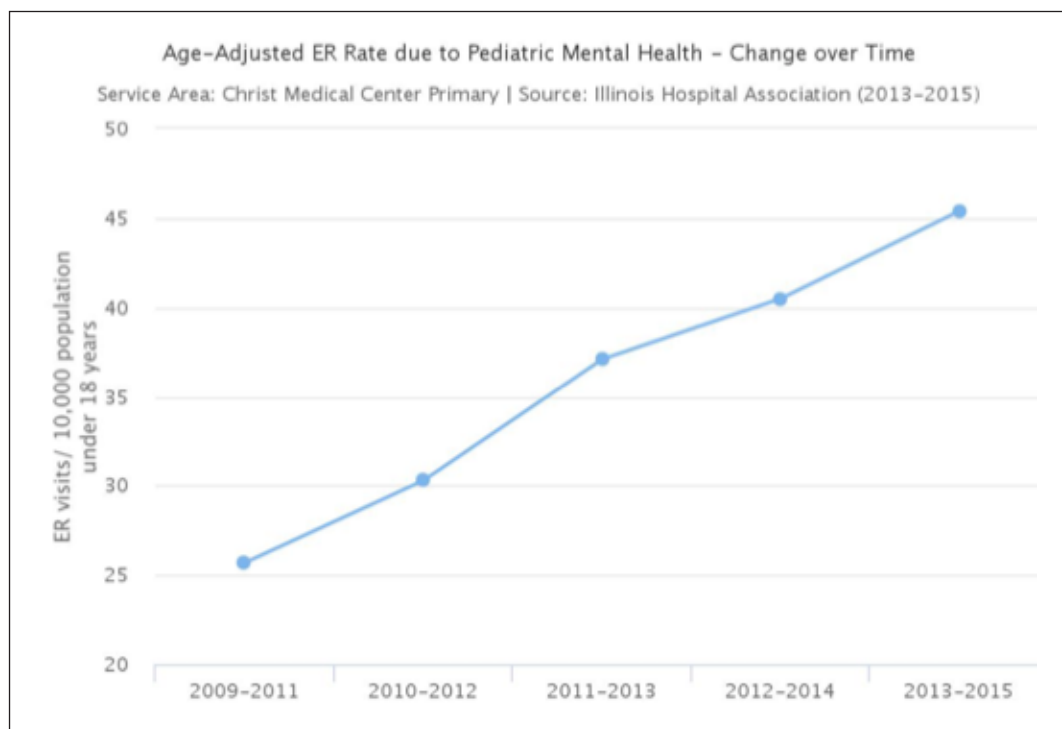
- Harvey
- Sauk Village
- Robbins
- Phoenix
- Chicago Heights
- Burnham

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016; US Dept. of Agriculture, 2014.

## Improving Mental Health and Decreasing Substance Abuse

Mental health and substance use rose as key issues in the assessment process in the South region. In particular, the HICCC CHNA found that funding and systems are inadequate across the board to support the behavioral health needs of communities in Chicago and Cook County. Hospital utilization statistics show that in 2015, Advocate Children’s Hospital Oak Lawn treated 1,580 children for behavioral health issues, a third of whom came through the Emergency Department. Twenty-two were admitted as inpatients while the remainder were seen as outpatients in the hospital-based program. (Advocate Children’s Hospital utilization data, 2015).

**Exhibit 9: Age Adjusted ER Rate due to Pediatric Mental Health 2013-2015.**



Source: Healthy Communities Institute, 2016; Illinois Hospital Association, COMPdata, 2013-2015.

**Exhibit 10: HICCC South Region Communities with High ED Visit Rates for Behavioral Health**

Communities in the South region that have high rates of emergency department (ED) visits for behavioral health	
Chicago	Suburban Cook County
<ul style="list-style-type: none"> <li>• Auburn Gresham</li> <li>• Chicago Lawn</li> <li>• East Side</li> <li>• Englewood</li> <li>• Gage Park</li> <li>• Greater Grand Crossing</li> <li>• Hegewisch</li> <li>• New City</li> <li>• Riverdale</li> <li>• Roseland</li> <li>• South Chicago</li> <li>• South Deering</li> <li>• South Lawndale</li> <li>• South Shore</li> <li>• Summit</li> <li>• Washington Park</li> <li>• West Elsdon</li> <li>• West Englewood</li> <li>• West Pullman</li> <li>• Woodlawn</li> </ul>	<ul style="list-style-type: none"> <li>• Bloom Township</li> <li>• Burnham</li> <li>• Calumet City</li> <li>• Calumet Park</li> <li>• Calumet Township</li> <li>• Chicago Heights</li> <li>• Dixmor</li> <li>• Dolton</li> <li>• East Hazel Crest</li> <li>• Ford Heights</li> <li>• Glenwood</li> <li>• Harvey</li> <li>• Hazel Crest</li> <li>• Midlothian</li> <li>• Phoenix</li> <li>• Riverdale</li> <li>• Robbins</li> <li>• Sauk Village</li> <li>• South Chicago Heights</li> </ul>

Source: Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016.

Community mental health issues are exacerbated by long-standing inadequate funding as well as recent cuts to social services, healthcare, and public health. As noted previously, one-third of all pediatric behavioral health admissions come through the Emergency Department, possibly due to limited availability of services in the community. The World Health Organization (WHO) emphasizes the need for a network of community-based mental health services. (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; World Health Organization, 2007. <http://www.who.int/mediacentre/news/notes/2007/np25en/>)

In addition, research indicates that better integration of behavioral health services, including substance use treatment into the healthcare continuum, can have a positive impact on overall health outcomes. (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; American Hospital Association, *Bringing Behavioral Health into the Care Continuum: Opportunities to Improve Quality, Costs, and Outcomes, 2012*. <http://www.aha.org/research/reports/tw/12jan-tw-behavhealth.pdf>)

In terms of the connections between trauma and mental health, substantial evidence has emerged over the past decade that adverse childhood experiences (ACEs) strongly relate to a wide range of physical and mental health issues throughout a person's lifespan. ACEs include physical and emotional abuse and neglect, observing violence against relatives or friends, substance misuse within the household, mental illness in the household, and forced separation from a parent or close family member through incarceration or other means. (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*. <http://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences>)

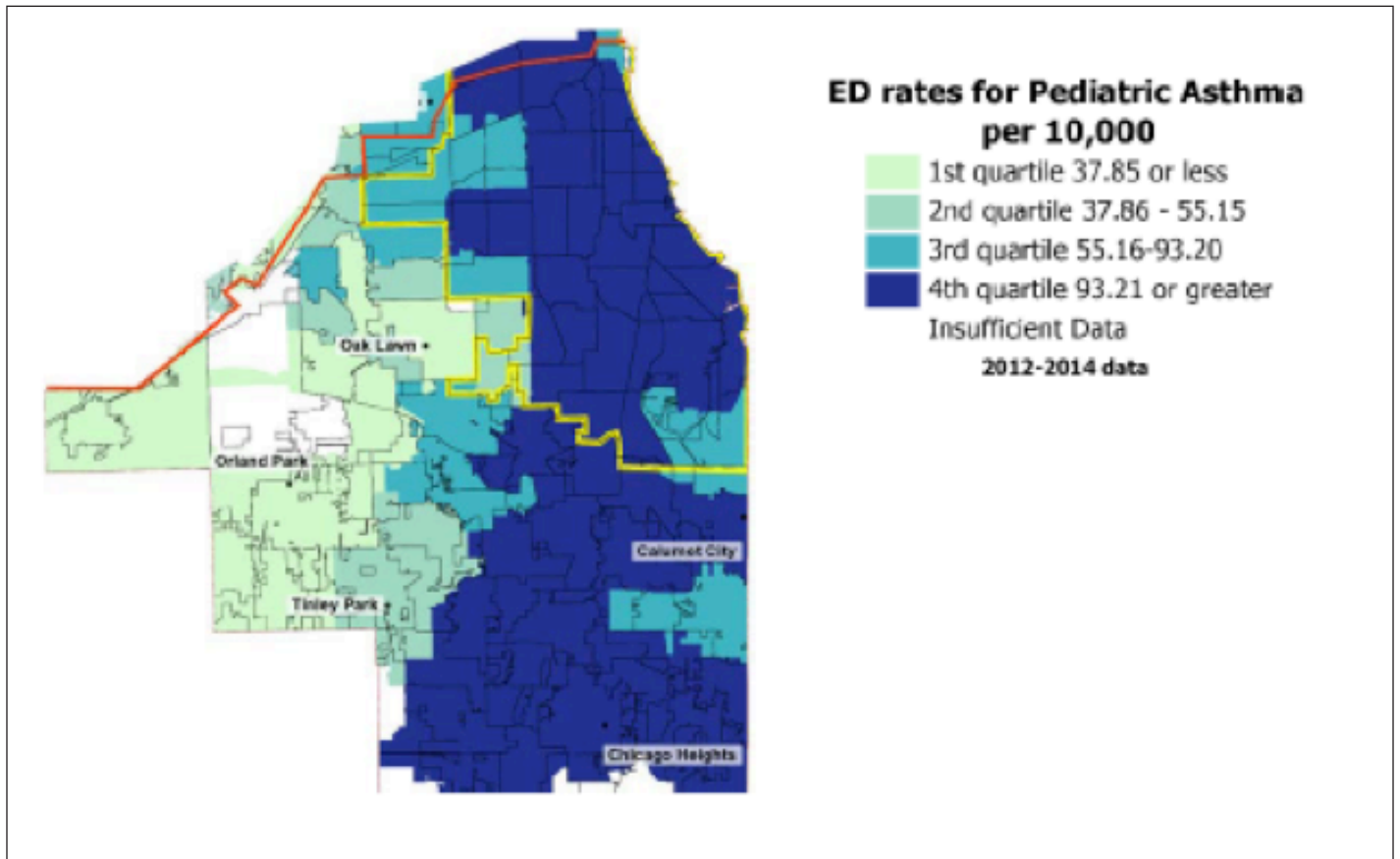
### *Chronic Disease and Conditions Affecting Children*

Chronic diseases are a significant health burden for children and adults and a potential area for collaboration between Advocate Christ Medical Center and Advocate Children's Hospital. This section summarizes needs and issues related to the chronic diseases affecting children, including obesity and asthma. The South region CHNA findings emphasize that preventing chronic disease requires a focus on risk factors such as nutrition and healthy eating, physical activity and active living, and tobacco use. The findings across all assessments emphasized that chronic disease is an issue that affects population groups across income levels and race and ethnic groups in the South region. However, social and economic inequities have profound impact on which individuals and communities are most affected by chronic disease. Priority populations to consider in terms of chronic disease prevention include: children and adolescents, low-income families, immigrants, diverse racial and ethnic groups, older adults and caregivers, uninsured individuals, and those insured through Medicaid, individuals living with mental illness, individuals living in residential facilities, and incarcerated or formerly incarcerated individuals. (*Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*).

#### **Asthma**

Exhibit 11 shows the geographic distributions of emergency department (ED) visits due to pediatric asthma. Communities on the South Side of Chicago and South Cook suburbs have disproportionately high rates of ED visits for asthma. ED visits are indicative of increased exposure to environmental contaminants that can trigger asthma as well as poorly managed asthma. Hospital utilization data shows that asthma is one of the top diagnoses for both pediatric inpatients and ED visits. (Advocate Children's Hospital Utilization Data; Advocate Decision Support System-EPsi, 2015.)

**Exhibit 11: HICCC South Region Emergency Department visits due to Pediatric Asthma (age-adjusted rates per 10,000) by Zip Code 2012-2014**



Source: *Health Impact Collaborative of Cook County, Community Health Needs Assessment, South Region, 2016*; Healthy Communities Institute; Illinois Hospital Association, COMPdata, 2012-2014.

As reported in Healthy Chicago 2.0, African American children visit the emergency department for their asthma twice as often as Chicago children overall.

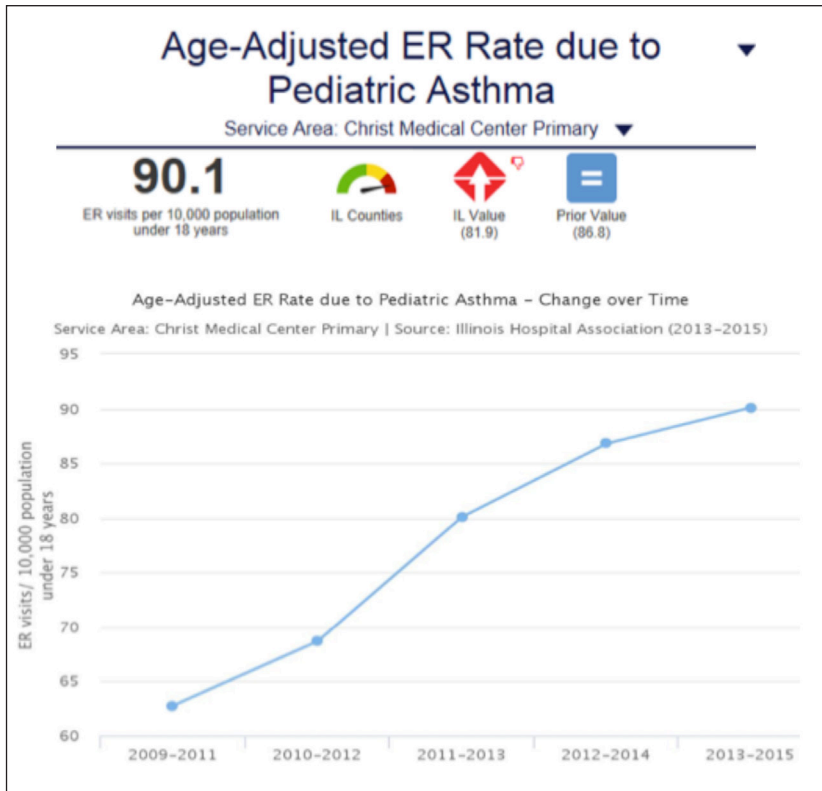
Chicago zip codes most affected by asthma - 6 out of 9 are in Advocate Children’s Hospital’s TSA (\*).

- 60644 Austin\*
- 60653 Bronzeville
- 60637 Washington Park\*
- 60624 West Side
- 60636 West Englewood\*
- 60619 Chatham\*
- 60612 Garfield Park
- 60621 Englewood\*
- 60649 Roseland/South Shore\*

Source: Chicago Department of Public Health; Healthy Chicago 2.0, 2016.

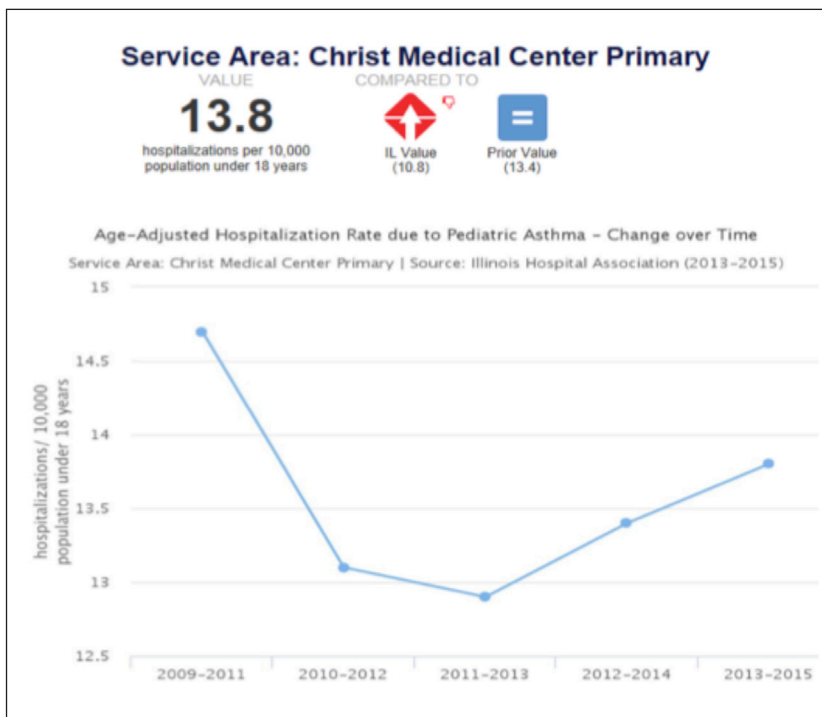
Exhibit 12 illustrates the high rates for pediatric asthma in the ED, which are higher than prior measurements and the overall Illinois rate, as well as showing the steady increase in ED rates since 2009. Exhibit 13 shows inpatient admissions due to pediatric asthma on the rise since 2011.

**Exhibit 12: Advocate Children’s Hospital Oak Lawn Age-adjusted ED Rate for Pediatric Asthma**



Source: Healthy Communities Institute, 2016; Illinois Hospital Association, 2013-2015.

**Exhibit 13: Advocate Children’s Hospital Oak Lawn Age-adjusted Hospitalization Rate due to Pediatric Asthma**



Source: Healthy Communities Institute, 2016; Illinois Hospital Association, 2013-2015.



Advocate Children’s Hospital utilization data shows the following top 10 communities (Chicago and Suburbs) for asthma diagnoses. These communities account for 50% of all asthma patient discharges and potential areas of concentration for intervention activities.

- Chicago Lawn (Chicago)
- Auburn Park (Chicago)
- Roseland (Chicago)
- Morgan Park (Chicago)
- Ashburn (Chicago)
- Oak Lawn
- Alsip
- South Chicago (Chicago)
- Blue Island
- Clearing (Chicago)

Source: Advocate Children’s Hospital Utilization Data; Advocate Decision Support System-EPSS, 2015.

### Obesity

Childhood obesity has both immediate and long-term health impact. Children and adolescents who are obese are at greater risk for bone and joint problems, sleep apnea, and are more likely than normal weight peers to be teased and stigmatized which can lead to poor self-esteem. Moreover, obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. Finally, overweight and obese youth are more likely than normal weight peers to be overweight or obese adults and are therefore at risk for the associated adult health problems, including heart disease, type 2 diabetes, stroke, several types of cancer, and osteoarthritis. (Healthy Communities Institute, 2016.)

Poor diet and a lack of physical activity are two of the major predictors for obesity and diabetes. Low consumption of healthy foods may also be an indicator of inequities in food access. One in five kindergarteners enrolled in Chicago Public Schools were obese in the 2012-2013 academic year and 19% of all CPS students are obese. In 2014, 29.2% of adults living in Chicago consumed the recommended five or more servings of fruits and vegetables daily, while less than 20% of high school students did the same in 2013. In 2013, only 19.6% of high school students met the recommended federal physical activity guidelines for youth. (Chicago Department of Public Health; Healthy Chicago 2.0, 2016.)

Obesity rates among K, 6th and 9th graders in Chicago Public Schools – 19% of all CPS kids are obese. Community Areas most impacted – 11 of 19 are in Advocate Children’s Hospital TSA (\*).

- Montclair
- Belmont-Cragin
- Hermosa
- Avondale
- Logan Square
- Humboldt Park
- South Lawndale
- Lower West Side
- Garfield Ridge\*
- West Elsdon\*
- Gage Park\*
- New City\*
- Fuller Park\*
- Ashburn\*
- Burnside\*
- South Deering\*
- Brighton Park\*
- McKinley Park\*
- East Side\*

Source: Chicago Department of Public Health; Healthy Chicago 2.0, 2016.

Obesity rates for Pre-schoolers in Cook County are also high relative to other US Counties. Exhibit 12 shows the percentage of children aged 2-4 participating in federally funded health and nutrition programs who are obese. For children aged 2-4 years, obesity is defined as BMI-for-age above 95th percentile.

## Exhibit 14: Cook County Low Income Preschool Obesity



Source: Healthy Communities Institute, 2016; US Department of Agriculture Food Environment, 2009-2011.

### *Increasing Access to Care and Community Resources*

Healthy People 2020 states that access to comprehensive healthcare services is important for achieving health equity and improving quality of life for everyone (<https://www.healthypeople.gov/2020/topics-objectives/topic/Access-to-Health-Services>). Disparities in access to care and community resources were identified as underlying root causes of many of the health inequities experienced by residents in the South region. Access is a complex and multi-faceted concept that includes potential obstacles such as proximity, affordability, availability, convenience, accommodation, and reliability; quality and acceptability; openness, cultural competency, appropriateness and approachability.

Advocate Children’s Hospital’s Ronald McDonald Care Mobile Program works to increase access to care for the South region’s most vulnerable children. The Care Mobile is a doctor’s office on wheels providing free physicals and immunizations to low income and uninsured/underinsured students in the community. In 2015, the Care Mobile team saw 2,292 patients, provided 1,141 physicals and 1,709 vaccines. (Advocate Children’s Hospital Utilization Data, *Advocate Decision Support System-EPSI*, 2015.

#### **Oral Health**

Oral health is an essential and integral component of overall health throughout life, and is much more than healthy teeth. Because the mouth is an integral part of the human anatomy, oral health is intimately related to the health of the rest of the body. Mounting evidence suggests that infections in the mouth, such as periodontal (gum) diseases, can increase the risk of heart disease, can put pregnant women at greater risk for premature delivery, and can complicate control of blood sugar for people living with diabetes. (<http://www.dph.illinois.gov/topics-services/prevention-wellness/oral-health>).

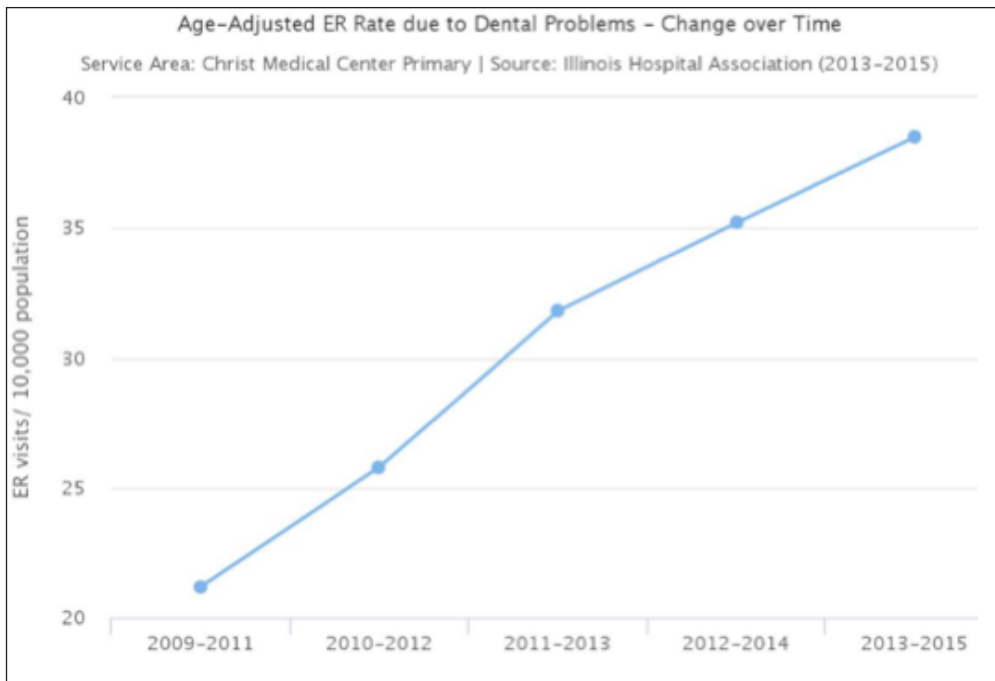
The State of Illinois requires that public school students submit a comprehensive oral exam upon entering kindergarten, 2nd grade and 6th grade.

2nd graders in Advocate Children’s Hospital Total Service Area

- Total number of 2nd grade students –209,410
- 32% have had cavities as compared to 22% statewide
- 20% have cavities which are untreated as compared to 18% statewide
- 355 students required urgent dental treatment

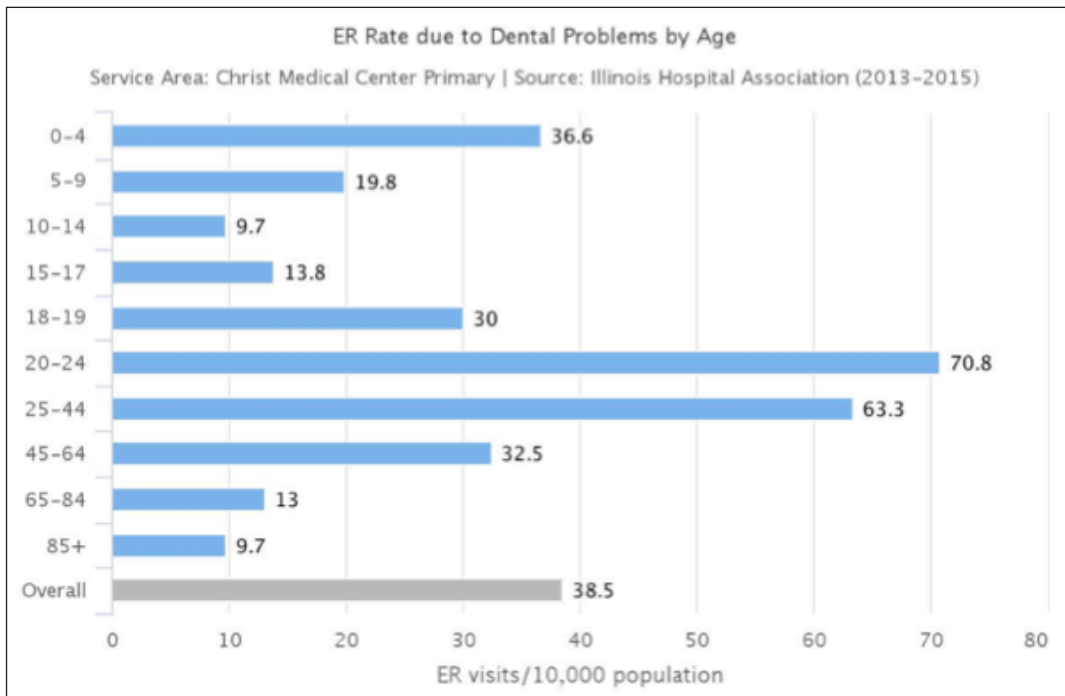
Source: Delta Dental of Illinois Foundation, 2016; Illinois State Board of Education 2013-2014.

**Exhibit 15: Age-Adjusted ER Rate Due to Dental Problems 2009-2015**



Source: Healthy Communities Institute, 2016; Illinois Hospital Association, 2013-2015.

**Exhibit 16: ER Rate due to Dental Problems by Age 2013-2015**



Source: Healthy Communities Institute, 2016; Illinois Hospital Association, 2013-2015.

### *Advocate-sponsored Medicaid Managed Care Program Enrollee Utilization*

Illinois recipients of Medicaid, a federally funded program that assists low-income families or individuals with hospitalization and medical insurance, began enrolling in Medicaid managed care programs in 2014. During this enrollment period, Advocate Health Care offered the largest health care provider-sponsored program in the state. The goal of Medicaid Managed Care is to reduce the cost of providing health care benefits while improving the quality of care and health outcomes of this vulnerable population. Advocate Children’s Hospital will manage the health care of approximately 41,000 children in the Hospital’s Oak Lawn service area. A total of 100,000 children are enrolled across Advocate Children’s Hospital’s Oak Lawn and Park Ridge service areas.

Analyzing historical claims utilization data for this population helps the hospital pinpoint services needed to maintain or improve health status for these potentially vulnerable, underserved children.

Utilization rates for currently enrolled pediatric patients are presented below. This data mirrors an earlier statement that communities on the South Side of Chicago and South Cook suburbs have disproportionately high rates of ED visits for asthma. ED visits are indicative of increased exposure to environmental contaminants that can trigger asthma as well as poorly managed asthma. Relative to access to care issues, this data also makes the comparison between areas of high economic hardship and access to primary care given that patients seek medical care for relatively low level illnesses in the ED. The following area utilization and diagnoses statistics for Medicaid Managed Care patients in the Advocate Children’s Hospital Oak Lawn service area.

#### Top 5 Diagnoses for Hospital Admissions of the Pediatric Medicaid Managed Care Patients

- Single Newborn
- Asthma
- Bronchitis
- Twin Newborns
- Upper Respiratory Infections

#### Top 5 Diagnoses for Emergency Department Visits

- Upper Respiratory Infections/Asthma
- General Symptoms
- Otitis Media
- Digestive System Symptoms
- Pharyngitis (sore throat)

#### Top 10 Communities Utilizing Emergency Department Services

- Chicago Lawn (Chicago)
- Ashburn (Chicago)
- Oak Lawn
- South Chicago (Chicago)
- Bolingbrook
- Pullman (Chicago)
- Joliet
- Orland Park/Orland Hills
- Burbank
- Auburn Gresham (Chicago)

#### Top 10 Communities Utilizing Inpatient Hospital Admissions

- Pullman (Chicago)
- West Lawn/Chicago Lawn (Chicago)
- Joliet
- Tinley Park
- Bolingbrook
- Ashburn (Chicago)
- Oak Lawn
- Burbank
- South Chicago (Chicago)
- Auburn Gresham (Chicago)

Source: Health Data and Management Solutions, DART Database, Advocate Physician Partners, 2015.

## **Children's Health Issues to be Addressed by Advocate Children's Hospital Oak Lawn 2017-2019**

### *Violence and Adverse Childhood Experiences*

Advocate Children's Hospital is developing plans to become the first trauma-informed children's hospital in the metropolitan Chicago area. Advocate Children's Hospital is further partnering with the Adverse Childhood Experiences (ACE) program of the Health and Medicine Policy Research Group, to determine best practices for training the hospital's clinical team on ACEs and their impact on improving health outcomes. The hospital will work closely with the Chicago Department of Public Health to assist in reaching its Healthy Chicago 2.0 goal of becoming a trauma-informed city and with Illinois Senator Dick Durbin to support legislation to further trauma-informed care for children. Additionally, the hospital will partner with Advocate Christ Medical Center to support violence interruption services and prevention education in partner school in the Chicago Lawn and Ashburn communities which have high Medicaid Managed Care enrollment.

### *Medicaid Managed Care/Population Health Initiative*

Plans include offering targeted, school-based health services to high risk, low income children receiving Medicaid. Services to include primary medical care, immunizations, asthma and weight management, wellness and health education. Advocate Children's Hospital will work closely with the Healthy Schools Campaign and the Chicago Public Schools to develop and pilot a sustainable and replicable model for the delivery of comprehensive and coordinated health services in schools with plans for expansion to the suburban area. The model will include an integrated team of Children's Hospital clinicians and school staff to create an overall environment to promote health and wellness among students, their families and school staff. Under this model, schools become an important delivery point for screening, prevention and disease management services to support children's physical, mental and behavioral health. Advocate will pilot the program in select schools that have a high percentage of Medicaid Managed Care patients, but is committed to serving all students in the selected schools. Mobile Health Services provided by the Hospital's Ronald McDonald Care Mobile will be an integral part to the school-based, coordinated health program.

### *Asthma*

Plans include partnering with Advocate Christ Medical Center on asthma prevention, education and management programming in areas of high Emergency Department utilization and diagnosed patient concentration. Plans may include the assistance of community health workers where appropriate, as well as targeting services to schools serving vulnerable students in our Medicaid Managed Care program and those patients seen on the Ronald McDonald Care Mobile. Another featured program to be offered by Advocate Children's Hospital respiratory care specialists and health educators is the National Lung Association's *Kickin' Asthma*, a school-based asthma education program for middle school and high school age students.



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