Community Health Needs Assessment

2017 - 2019

December 2019

It is with great pleasure that we present the 2019 Community Health Needs Assessment (CHNA) report for Advocate Christ Medical Center and Advocate Children's Hospital-Oak Lawn. One way we understand the needs of our community is by conducting an intensive assessment of our community. This involves meeting with our Community Health Council (CHC) to discuss critical health matters and review primary and secondary data to gauge the health of our communities. Through our membership in The Alliance for Health Equity, we were afforded the opportunity to partner with other health systems, hospitals and the Illinois Public Health Institute to collect primary data from over 5,000 community members within the medical center's primary service area (PSA) and across suburban Cook County. This data is instrumental background as we shape our community health improvement strategies for the future.

Based upon comprehensive community data and feedback, our Community Health Council selected several priority areas as a result of the 2019 CHNA. The priorities selected for Advocate Christ include the following:

- Diabetes
- Mental Health/Substance Use
- Violence Prevention as a Social Determinant of Health

The priorities selected for Advocate Children's-Oak Lawn include the following:

- Access to Care
- School-based Behavioral Health Assistance
- Infant Mortality/Pre-term Deliveries/Low Birth Weight

In 2019, we look forward to expanding our efforts to address the priority health needs of our communities through partnerships with community-based organizations, faith communities, schools and hospital staff. We believe it is essential that multidisciplinary services are available to individuals experiencing social and structural barriers that prevent them from sustaining adequate health outcomes.

We thank our community members, partner organizations, faith and education institutions for the work that has already taken place to build community health programs and initiatives that address the root causes of poor health outcomes. We are privileged to be a part of such a dynamic group of individuals that share the same mission and vision for our community. Please take your time to review this CHNA report. We welcome and encourage community feedback regarding the health needs of our community and the CHNA process. A link at the end of the CHNA report will provide you with an opportunity to leave any feedback, comments or ideas.

Rich Heim
President
Advocate Christ Medical Center
South Chicagoland PSA

Mike Farrell
President
Advocate Aurora Children's Health and
Advocate NorthShore Pediatric Partners
Executive Vice President, Advocate Aurora Children's Hospital

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I. Executive Summary

In 2018, Advocate Health Care merged with Aurora Health to create Advocate Aurora Health (Advocate Aurora). Advocate Aurora is one of the largest integrated health care providers in Illinois providing community health care, outreach and education. Illinois has 12 hospitals with 10 located in six county Chicagoland area and two in central Illinois. Advocate Christ Medical Center (Advocate Christ) and Advocate Children's Hospital (Advocate Children's) are two of four hospitals in the south Chicagoland region of Illinois with a mission to serve individuals, families and communities through a holistic approach. Advocate Health Care is a founding member and leader within The Alliance for Health Equity (The Alliance), formerly known as the Health Impact Collaborative of Cook County (HICCC), which is a coalition of non-profit hospitals/medical centers, public hospitals, health departments and community-based organizations across Chicago and Cook County. The Illinois Public Health Institute (IPHI) provides the facilitation and backbone support for the shared assessment and community health improvement goals of the coalition. The non-profit hospitals fund the expenses of the coalition. In 2018-2019, The Alliance conducted a comprehensive community health needs assessment (CHNA). Primary and secondary data was collected for more than 100 indicators in Chicago and Suburban Cook County, as well as collecting over 5,000 surveys and conducting nearly 50 focus groups and community mapping sessions.

Advocate Christ convened a Community Health Council (CHC) with involvement of Advocate Children's to guide the medical center's CHNA process. The CHC was presented data from both The Alliance CHNA and also considered data pulled from a data repository purchased by Advocate Aurora for the Illinois hospitals—Conduent Healthy Communities Institute (Conduent HCI). This resource provided data at the zip code and medical center's service area levels which helped the CHC gain a deeper understanding of the health needs in our primary service area (PSA). After reviewing quantitative and qualitative data compiled by the medical center's community health department staff, the CHC engaged in a process to select the key health priorities for the medical center to address. The CHC selected social and structural determinants of health and chronic health conditions as the two priorities to address within the PSA.

For the 2017-2019 CHNA, Advocate Christ defined the community as the medical center's PSA, a geography from which 75 percent of the medical center's patients reside. The Advocate Christ PSA includes 29 zip codes with an estimated population of 924,370. The Advocate Children's-Oak Lawn total service area (TSA) includes Advocate Christ's PSA and additional communities lying beyond it for a total of 77 communities served, with an estimated pediatric population of 591,905. The population in the medical center's PSA has a median age of 38; with racial and ethnic breakdowns reflecting 23% Black/African American, 58% White and 31% Hispanic. The majority of the population is between 25 and 64 years of age. The Socio-Needs Index, provided by Conduent HCI, is a proprietary index derived from calculations using six indicators—poverty, income, unemployment, occupation, education and language—and is a measurement of socioeconomic need and its correlation to poor health outcomes. The community areas with the highest socioneeds index include West Englewood, Elsdon, Chicago Lawn and Auburn Gresham. Social Determinants of Health (SDOH) include social conditions which increase the risk for poor health outcomes and affect a person or family's ability to live well. SDOH were identified and considered for the medical center's CHNA.

The Advocate Christ PSA has experienced an increase in alcohol, substance use and mental health emergency room (ER) visits and hospitalizations. In fact, African American males and those ages 25-34 years of age were the highest group seen in the ER for issues related to substance use. In contrast, older adults (45-64 years) were the highest group seen in the ER for alcohol abuse. ER visits related to substance use was at a rate of 38.9 for adults age 18 years and older. This rate was higher than the state rate of 28.9 visits per 10,000 population.

Advocate Christ's CHC selected mental health/substance use, diabetes and violence as areas of focus to address for the 2017-2019 CHNA. Advocate Children's selected access to care, school-based behavioral health assistance and infant mortality/pre-term-birth/low birth weight as areas to address for the 2017-2019 CHNA. To ensure the medical center develops effective 2019 CHNA Implementation Plans, the medical center's CHC and community health department will collaborate with community partners and The Alliance to create strategies that address the priority health needs using a collective impact model. Metrics, goals and objectives will be created for each strategy and outcomes will be monitored to track community impact and program effectiveness.

II. Description of Advocate Aurora Health, Advocate Christ Medical Center and Advocate Children's Hospital

Advocate Aurora

Advocate Aurora Health is one of the 10 largest not-for-profit, integrated health systems in the United States (U.S.) and a leading employer in the Midwest with more than 70,000 employees, including more than 22,000 nurses and the region's largest employed medical staff and home health organization. A national leader in clinical innovation, health outcomes, consumer experience and value-based care, the system serves nearly 3 million patients annually in Illinois and Wisconsin across more than 500 sites of care. Advocate Aurora is engaged in hundreds of clinical trials and research studies and is nationally recognized for its expertise in cardiology, neurosciences, oncology and pediatrics. The organization contributed $2.1 billion in charitable care and services to its communities in 2018. We help people live well.

Advocate Christ Medical Center

Advocate Christ continues to demonstrate a strong commitment to building lifelong relationships to improve the health of individuals, families and communities that it serves. Advocate Christ, which is part of Advocate Aurora, is a not-for-profit 788-bed, premier teaching institution with more than 1,500 affiliated physicians. The medical center is one of the major referral medical centers in the Midwest for a number of specialties, including cancer care; cardiovascular services; heart, kidney and lung transplantation; neurosciences; orthopedics; and women's health. The medical center provides emergency care for more than 105,000 patient visits annually and is among the busiest Level I (the highest designation) trauma centers in Illinois.

Advocate Children's Hospital

Advocate Children's serves children ages 0-17 at two campuses in the Chicagoland area. The south campus is located on the grounds of Advocate Christ in Oak Lawn, Illinois (Advocate Children's-Oak Lawn), and the north campus is located on the grounds of Advocate Lutheran General Hospital in Park Ridge, Illinois (Advocate Children's Park Ridge). Advocate Children's-Oak Lawn has 45 pediatric beds, 24 pediatric intensive care beds, 17 cardiac critical care beds and 61 neonatal intensive care beds, with 200 total sites of care and specialty clinics from Chicago to Central Illinois. With over 234 board certified pediatricians and specialists, Advocate Children's-Oak Lawn annually provides 36,292 emergency department visits and over 62,777 total pediatric office visits. Advocate Children's is the first children's hospital in the country to receive congenital heart disease accreditation from Accreditation for Cardiovascular Excellence (ACE) for setting the highest standards of quality care for children. The hospital is a designated Pediatric Critical Care Center by the Illinois Department of Public Health. Exhibit 1 provides the annual patient volumes for Advocate Christ and Advocate Children's.

Exhibit 1: Advocate Christ and Advocate Children's-Oak Lawn Annual Statistics 2018

Area	Advocate Christ	Advocate Children's-OL	Totals
Emergency Department Visits	75,113	36,292	111,405
Outpatient Visits	299,671*	62,777*	362,448*
Inpatient Admissions	41,227	3,478	44,705
Births	4,402	NA	4,402
Neonatal Intensive Care Unit	NA	1,665	1,665

*Outpatient Surgeries (included in Total Outpatient Visits): Adult/10,689; Pediatric/2,408; Total Outpatient Surgeries: 13,097
Source: Advocate Aurora Business Development Analytics, 2019

III. Summary of the 2014-2016 CHNA and Program Implementation

Community Definition

Advocate Christ defined community for the 2014-2016 CHNA process as the medical center's PSA, consisting of approximately 947,915 individuals within 29 zip codes in Chicago and Suburban Cook County. Exhibit 2 displays Advocate Christ's PSA zip codes.

Exhibit 2: Advocate Christ PSA Zip Codes 2016

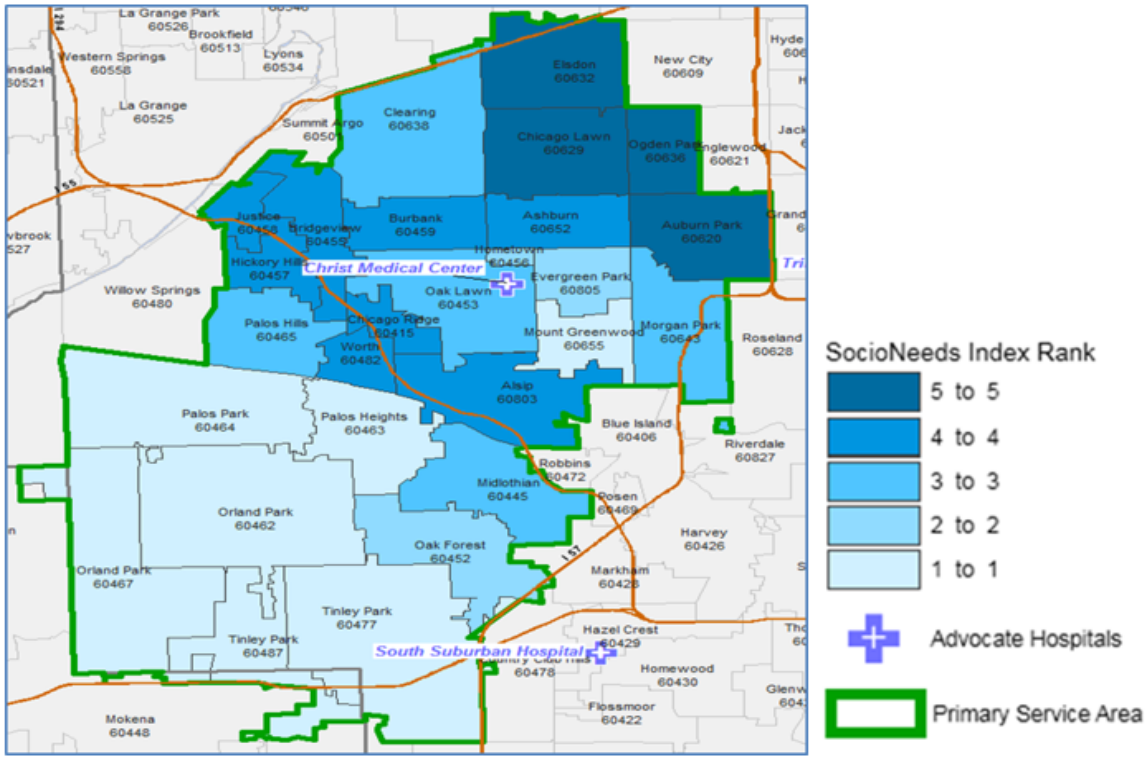
City/Community	Zip Code	City/Community	Zip Code
Alsip	60803	**Morgan Park**	60643
Ashburn	60652	**Oak Forest**	60452
Bedford Park	60499	**Mt. Greenwood**	60655
Burbank	60459	**Oak Lawn**	60453
Chicago Lawn	60629	**Orland Hills**	60467
Chicago Ridge	60415	**Orland Park**	60462
Clearing	60638	**Palos Hills**	60465
Evergreen Park	60805	**Palos Heights**	60463
Elsdon	60632	**Palos Park**	60464
Hickory Hills	60457	**Tinley Park**	60477
Hometown	60456	**West Englewood**	60636
Justice	60458	**Worth**	60482
Midlothian	60445	**Auburn Gresham**	60620

Source: Advocate Health Care Strategic Planning Department, 2016

Communities with Highest SocioNeeds Index Values

Advocate Christ used the SocioNeeds Index, created by HCI, to better understand income disparity and other socioeconomic factors that exist within the medical center's PSA. 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 (which range from poverty to education) 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 one to 100. A score of 100 represents the highest socioeconomic need. The ranking of one to five is a comparison of each zip code to all others within the PSA; a five represents areas of highest socioeconomic need in comparison to others in the specific geographic area under consideration. Four communities in the medical center's PSA were classified as level five—highest risk. These communities included Elsdon, Chicago Lawn, Ogden Park (West Englewood) and Auburn Gresham. Exhibit 3 shows the SocioNeeds Index map for zip codes in the medical center's PSA in 2016.

Exhibit 3: Advocate Christ PSA SocioNeeds Index Map 2016



Source: Healthy Communities Institute, 2016

Overview of Collaborations

For the 2014-2016 CHNA, Advocate Christ collaborated with numerous stakeholders. The key stakeholders and partners included the following:

- Health Impact Collaborative of Cook County
- Advocate Christ Community Health Council
- Advocate Christ Governing Council

Health Impact Collaborative of Cook County

In 2015, Advocate Health Care and its five hospitals/medical centers principally serving Cook County (including Advocate Christ) contributed financially and with in-kind resources to the formation and development of the Health Impact Collaborative of Cook County (HICCC), a coalition involving 26 non-profit and public hospitals/medical centers, seven health departments and nearly 100 community-based organizations. The goal of this initiative was to work collaboratively on a county-wide CHNA and implementation plan once priorities were identified. The Illinois Public Health Institute (IPHI) served as the backbone organization providing support related to data collection, analysis and dissemination. The non-profit hospitals/medical centers provided the funding for the coalition.

Given the size and diversity of Cook County (the second largest county in the U.S.), the HICCC coalition created three regions—North, South and Central—for purpose of organizing the assessment process. Advocate Christ was assigned to the South region consisting of both the south side of Chicago as well as southern suburbs of Chicago. As a part of the CHNA process, a strategic planning framework named MAPP (**M**obilizing for **A**ction through **P**artnerships and **P**lanning) was implemented in all three regions from February 2015-June 2016 in efforts to identify resources and prioritize needs within the community.

Community Health Council

Advocate Christ, in collaboration with Advocate Children's, convened a CHC to oversee a comprehensive CHNA. This Council was chaired by a member of Advocate Christ'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 CHC included representation from school districts, youth services and faith communities, as well as other community-based organizations.

Governing Council

The Governing Council at Advocate Christ is made up of local community leaders, medical center 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 Governing Council member serves as the CHC's chair. Advocate Christ'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. Advocate Christ's CHNA report was formally approved by the Governing Council on
November 21, 2016.

Summary of the Assessment Process

The Advocate Christ community health department collected and analyzed data for the medical center's primary service area. In addition, medical center utilization data and program data from clinical and community-based programs were collected. This process resulted in the identification of six community health needs that were brought to the CHC for discussion and prioritization:

- Asthma
- Cancer
- Diabetes
- Heart disease
- Mental health
- Violence/homicide

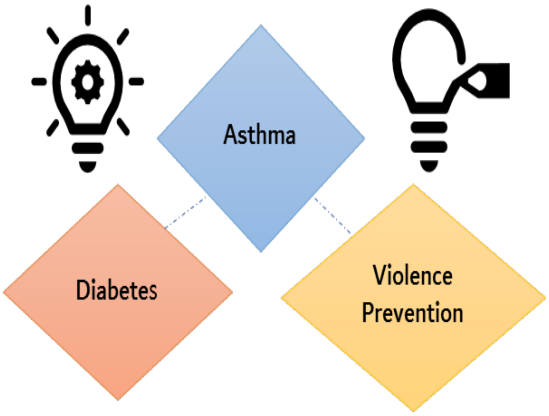
The CHC ranked the most significant community health needs using the following criteria:

- Most prevalent health needs identified based on highest mortality rates
  - Highest incidence of disease in the community
  - The highest hospital admissions
- Availability of community partnerships
- Availability of current resources needed to plan and implement programs

Needs Identified and Priorities Selected

CHC members voted and prioritized the most significant health needs identified through the data collection and analysis process. At the end of the voting session, the health issues with the highest number of votes were identified as the priority areas on which to focus during the implementation phase of the CHNA cycle. The CHC members prioritized asthma and diabetes as the priorities for all community health planning and implementation activities. Integrating social determinants of health into the medical center's community health planning and implementation activities has been an integral part of the CHNA process. Aligned with HICCC, the CHC chose to select an additional priority addressing the social, economic and structural determinants of health. CHC members determined that violence prevention would be the signature focus related to social and structural determinants given the medical center's trauma volume from street crime. Advocate Children's also selected priority areas to address during the 2014-2017 CHNA cycle. The priority areas included access to primary health care for low-income children, children's asthma management and trauma informed care.

Exhibit 4: Advocate Christ Priority Areas 2016



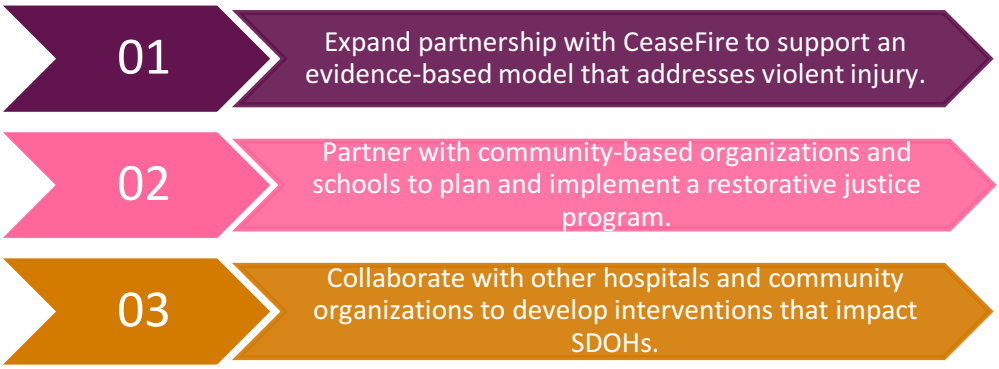
Summary of Implementation Programs and Key Accomplishments

Advocate Christ implemented several strategies to address each prioritized health need as identified through the 2014-2016 CHNA. The implementation plan strategies encompassed the Violence Prevention Initiative—Ceasefire program, the Asthma Initiative and the CDC National Diabetes Prevention Program.

Violence Prevention Initiative—CeaseFire Program

The overall goal of the violence prevention initiative was to reduce violent and intentional injuries within the medical center's PSA. Violent and intentional injuries affect both youth and adults in Advocate Christ's PSA. The medical center continued a partnership with CeaseFire, a program that uses prevention, intervention and community-mobilization strategies to reduce shootings and violence. 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. In 2004, the program began a collaboration with Advocate Christ to reduce retaliation by families and shooting victims cared for in the medical center's Level I trauma center.

Violence Prevention Program Strategies for 2018 included:



Program results for 2018 were as follows:

- A total of 563 patients received CeaseFire intervention services.
- A total of 547 violent injury patients from the medical center's PSA and SSA were treated at Advocate Christ.
- Ninety-four percent of all violent injury patients admitted for inpatient care were assessed by the medical center case manager.
- Ninety-five percent of individuals assessed were linked to long-term support by being connected to community resources.
- Seventy-six percent of individuals were linked to long-term support by being connected with a community-based outreach worker.
- Two restorative justice workshops were implemented in collaboration with community organizations and schools.

Asthma Initiative

The overall goal of the asthma initiative was to reduce the incidence of uncontrolled asthma among adults and children within the medical center's PSA. Community health staff collaborated with clinical staff in medical center inpatient units as well as the Emergency Department (ED) to improve disease self-management skills for patients and families with asthma. Advocate Christ collaborated with Advocate Children's-Oak Lawn to provide the "Kickin' Asthma" program, an evidence-based education/disease self-management program in high risk schools in the PSA.

Asthma Iniative Program Strategies for 2018 included:

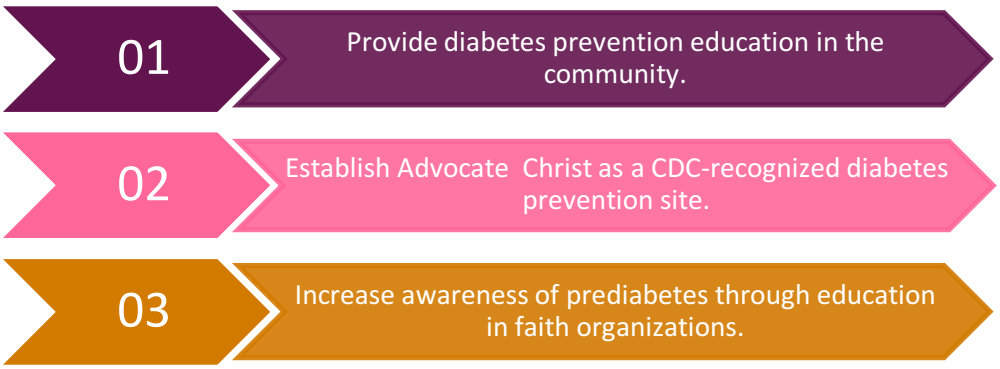
Program results as of 2018 were as follows:

- There were five staff trained in the Healthy Homes Initiative and two Healthy Home workshops were offered through collaboration with the Metropolitan Tenants Organization.
- A partnership was developed with the American Lung Association to implement the Breathe Well Live Well program. A total of two community organizations hosted the program and 8 community participants attended the four session self-management series.
- Advocate Children's health educator engaged three schools in the Kickin' Asthma program. A total of 22 students enrolled in the Kickin' Asthma program and 15 students completed all four sessions of the program.

Diabetes Prevention Program

The overall goal for the Diabetes Prevention program was to reduce the incidence of type 2 diabetes in the PSA. Advocate Christ implemented a CDC evidence-based intervention named the National Diabetes Prevention Program (DPP). The program is designed to educate individuals who have been diagnosed with pre-diabetes regarding how to prevent or delay the onset of type 2 diabetes through education, diet and exercise. The medical center partnered with clinics, local churches and community organizations to host the program.

Diabetes Prevention Program Strategies for 2018 included:



Program results for 2018 were as follows:

- One full session of 22 classes was completed in August 2018.

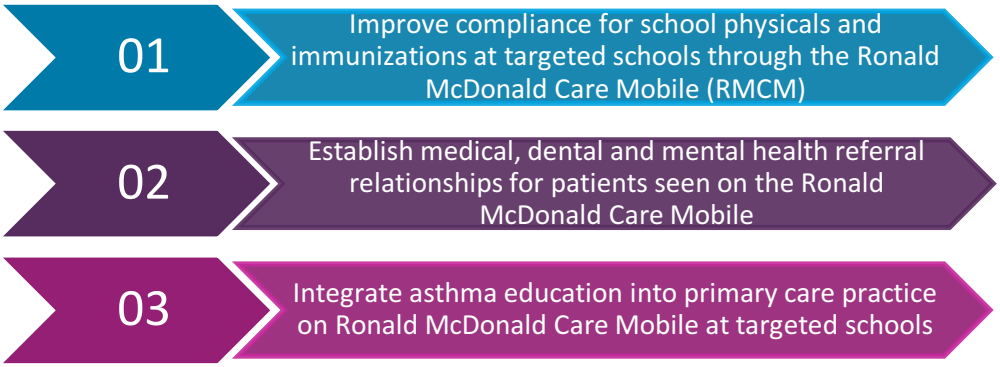
- Three new cohorts began in 2018, including one session with Trinity United Church of Christ. To increase participant retention, eight additional class sessions were added to each cohort.
- There were a total of 45 participants enrolled in the DPP program.
- Ninety-two percent of participants completed nine of the 16 sessions in the first six months.

Advocate Children's strategies to address the prioritized health need as identified through the 2014-2016 CHNA included the following: access to care for low-income children, children's asthma management and addressing violence and trauma which impacts child health outcomes.

Access to Care for Low-income Children

The overall goal of this strategy was to improve access to primary health care for children in the total service area of Advocate Children's. The program provided access to free physicals and immunizations as well as outreach and referral services through the Ronald McDonald Care Mobile. Partnerships were developed with schools, faith organizations and community organizations to reach low-income, uninsured and Medicaid covered children.

Access to Care for Low-income Children Strategies for 2018 included:



Program results for 2018 were as follows:

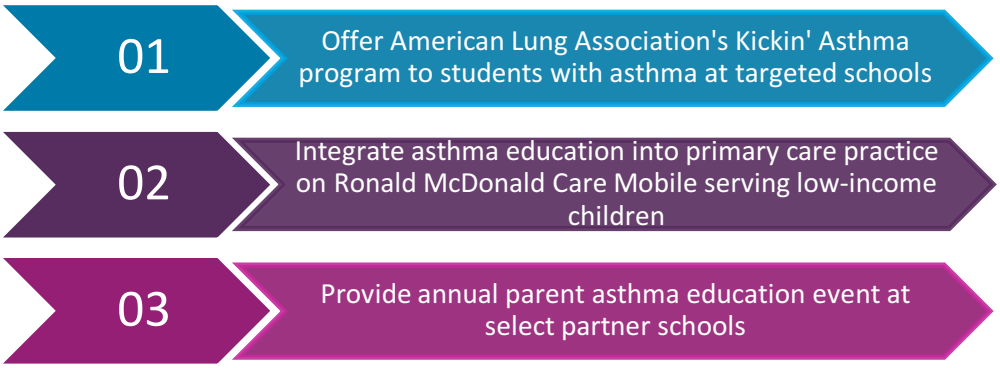
- There was a total of 1,369 children who received services through the RMCM
- Over 1,237physicals and 2,435 vaccines were provided through the RMCM
- During the 2018-2019 school year, program staff began conducting food insecurity screenings for children with 569 screened and 13% screening positive for food insecurity.
- Children who screened positive for food insecurity were provided with a backpack containing a day's worth of emergency food and referrals to local food pantries and government resources.

Children's Asthma Management

The primary goal of the children's asthma management program was to improve the management of asthma in children through education in the American Lung Association's Kickin' Asthma program. Kickin' Asthma is an asthma management program for kids ages 11–16 (grades 6-10) that educates and empowers students through a fun and interactive approach to asthma self-management. The program includes different learning techniques suitable for children and highlights self-management practices such as recognizing triggers and proper medication use. Advocate Children's developed

partnerships with primary and middle schools to host the program within the zip codes that had the highest emergency department visits related to asthma exacerbation.

Children's Asthma Management Strategies for 2018 included:



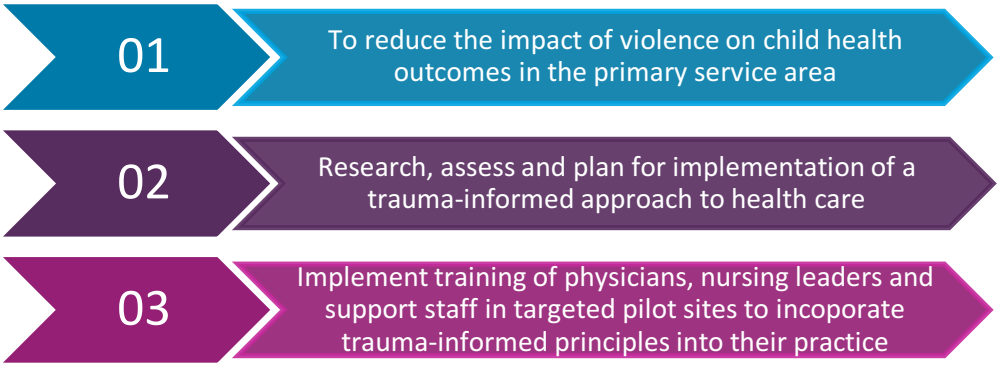
Program results for 2018 were as follows:

- A total of three schools were engaged in the Kickin' Asthma program
- A total of 22 students enrolled in the Kickin' Asthma program
- 100% students at Tonti Elementary increased knowledge of asthma as measured by the pre- and post-tests.
- 100% of the students at Oak Lawn Hometown Middle School increased knowledge of asthma as measured by the pre-and post-tests.
- 71% of the students at Scott Joplin Elementary increased knowledge of asthma as measured by pre-and post-tests.

Violence and Trauma Reduction

The overall goal of the violence and trauma informed care strategy was to reduce the impact of violence on child health outcomes in the primary service areas of the medical center. Partnerships were developed with community organizations to assess and plan for a trauma informed approach to health care provided in communities served by the medical center. Trauma informed care and adverse childhood experience trainings were implemented to understand the association of trauma and violence on lifelong health.

Violence and Trauma Reduction Strategies for 2018 included:



Program results for 2018 were as follows:

- Continued implementation of a trauma-informed approach by conducting resilience training and support for staff
- Continued focus on development of a computer-based training module for physicians and team members

Input from the Community from the 2014-2016 CHNA

Although many feedback mechanisms were put in place for the public to comment or provide input on the CHNA, the medical center did not receive any feedback from the community. Advocate Christ will continue to encourage input from the community by providing various feedback mechanisms for the 2017-2019 community health needs assessment.

Lessons Learned from the 2014-2016 CHNA

Advocate Christ made progress toward accomplishing the strategies and initiatives adopted to address the top identified health priorities described in the 2014-2016 CHNA and Implementation Strategy Plan. Lessons learned from this past CHNA cycle include the following:

Violence Prevention Initiative—The community health team learned that collaboration with other community organizations and health providers was needed to provide comprehensive follow up and referral services for victims of trauma. The medical center will develop a strategy to engage community partners, faith organizations and other health/social service providers to increase services for victims of intentional trauma and violence.

Asthma Initiative—Program staff need to consider promotion of the asthma program to additional school districts that demonstrate a high asthma volume. Despite offering the program to multiple school partners during the 2014-2016 CHNA cycle, only three schools participated in the program with Advocate Children's to conduct asthma self-management for students using the Kickin' Asthma program. Program staff also need to evaluate current strategies for partnering with community organizations that can increase the capacity to provide asthma management education.

Diabetes Prevention Program—The community health team learned that expanding the development of relationships with community partners will assist in growing the number of sites where the program can be offered. Program staff will continue outreach to community-based organizations to promote and/or be a host site for Advocate Christ DPP classes. Program staff will continue to establish relationships with additional partners and seek avenues to conduct more sessions in Advocate Christ's PSA.

IV. 2017-2019 Community Health Needs Assessment

Community Definition

Advocate Christ defines the community as the medical center's PSA for the 2017-2019 CHNA. The PSA consists of 28 zip codes in Chicago and Suburban Cook County. The PSA zip codes and corresponding cities, towns or villages are listed in Exhibit 5.

Exhibit 5: Advocate Christ and Advocate Children's PSA Community Names and Zip Codes 2017

City/Community	Zip Code	City/Community	Zip Code
Alsip	60803	**Oak Forest**	60452
Ashburn	60652	**Mt. Greenwood**	60655
Bedford Park	60455	**Oak Lawn**	60453
Burbank	60459	**Oak Lawn**	60454
Chicago Lawn	60629	**Orland Hills**	60467
Chicago Ridge	60415	**Orland Park**	60462
Clearing	60638	**Palos Hills**	60465
Evergreen Park	60805	**Palos Heights**	60463
Elsdon	60632	**Palos Park**	60464
Hickory Hills	60457	**Tinley Park**	60477
Hometown	60456	**Tinley Park**	60487
Justice	60458	**West Englewood**	60636
Midlothian	60445	**Worth**	60482
Morgan Park	60643	**Auburn Gresham**	60620

Source: Advocate Health Care Strategic Planning Department, 2017

Population

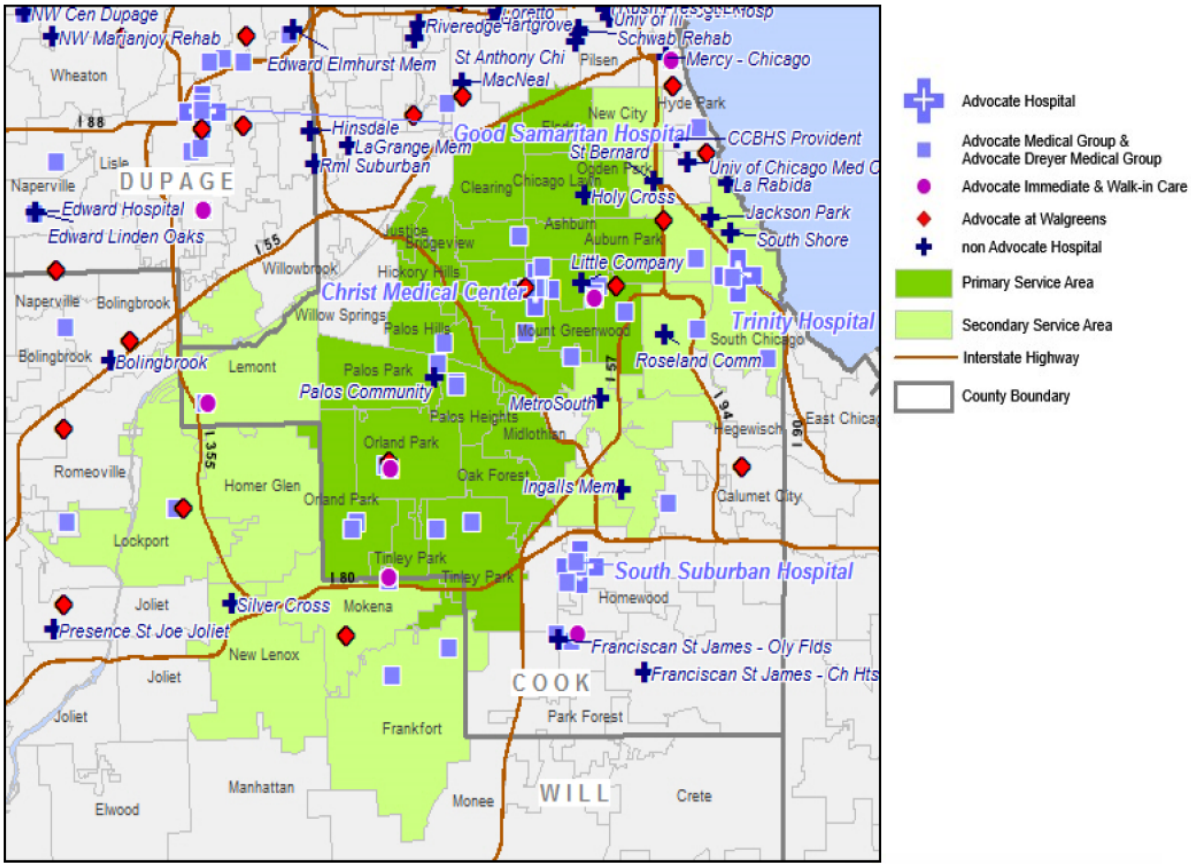
Advocate Christ Medical Center

In 2019, the Advocate Christ PSA's total population was estimated at 924,370. There has been a decrease of 0.42 percent in the population from 2010–2019. Similarly, the state of Illinois population decreased 0.46 percent (Conduent Healthy Communities Institute, 2019). A map of Advocate Christ's PSA is provided as Exhibit 6.1.

Advocate Children's Hospital

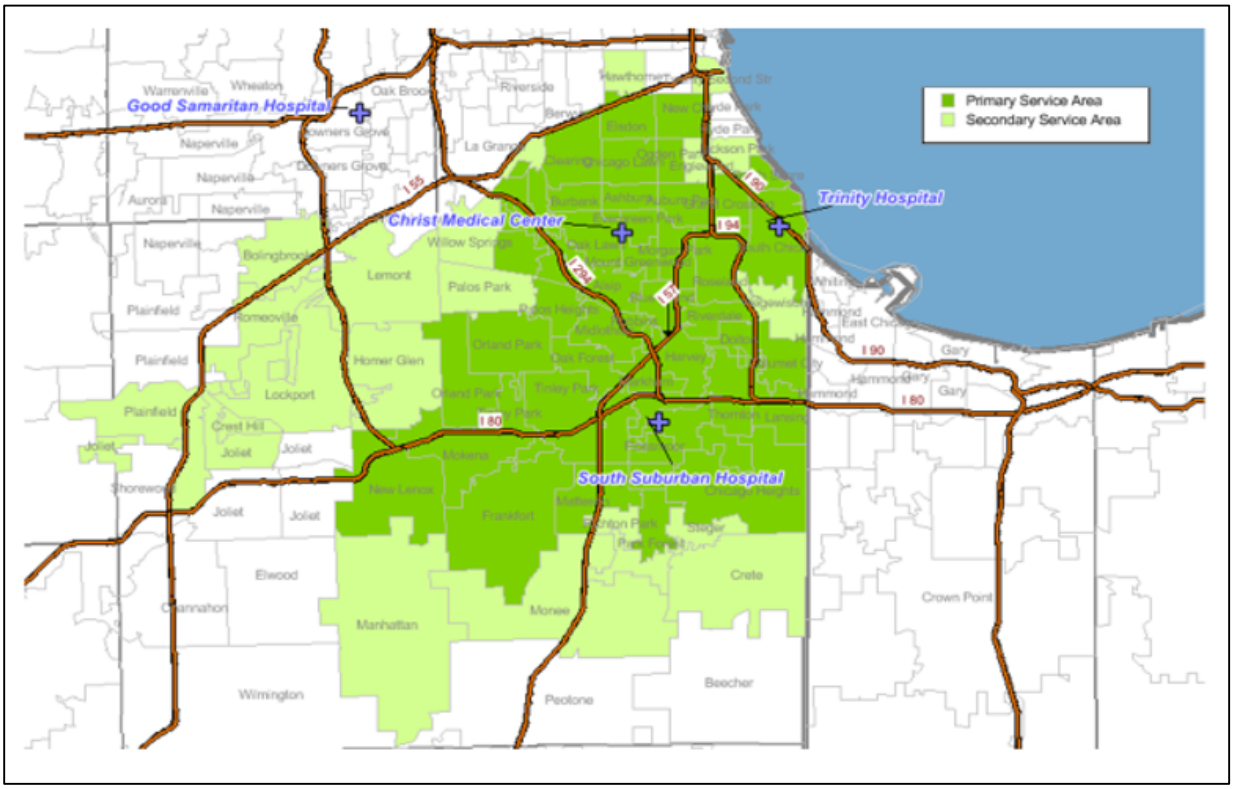
Advocate Children's Hospital-Oak Lawn is located on the campus of Advocate Christ Medical Center, shares the same tax ID number and therefore contributes data and input to Advocate Christ's CHNA. Administratively and operationally, all pediatric services report to the Advocate Children's leadership team. Demographic and hospital utilization data used in this report represent children living in Advocate Children's total service area (TSA) which covers all of Advocate Christ's PSA as well as additional communities beyond that geography. Specific community health data, however, is only available using Advocate Christ's PSA. The total pediatric population, ages 0-17 years, within Advocate Children's TSA is 591,905. A map of the Advocate Children's-Oak Lawn TSA is provided as Exhibit 6.2.

Exhibit 6.1: Advocate Christ PSA 2019



Source: Advocate Aurora Business Development Analytics, 2019

Exhibit 6.2: Advocate Children's - Oak Lawn TSA 2019



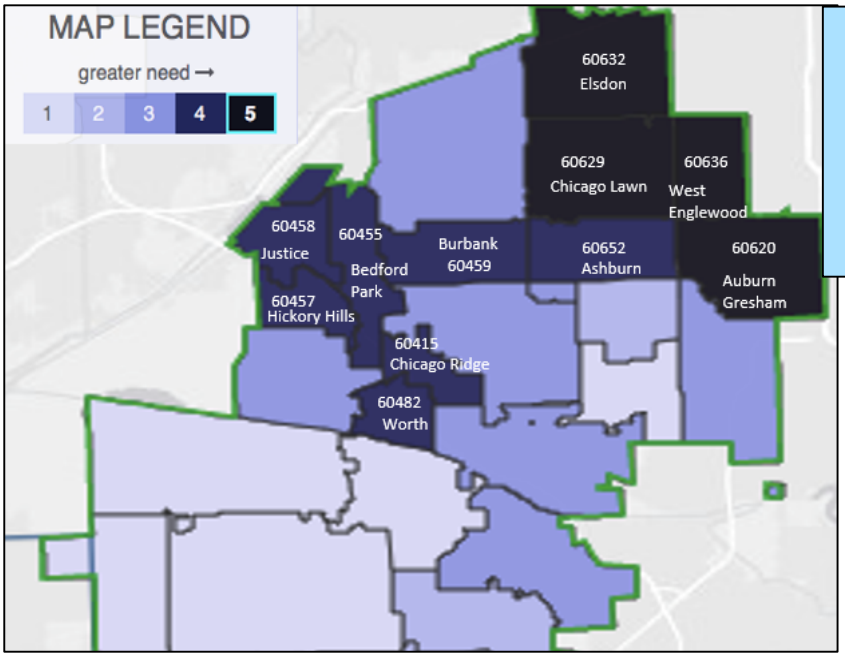
Source: Advocate Aurora Business Development Analytics, 2019

Social Determinants of Health: SocioNeeds Index

In order to better understand the social conditions that deeply affect a person's ability to live well, the medical center consulted the HCI SocioNeeds Index. The SocioNeeds Index is a Conduent Healthy Communities Institute indicator that is a measure of socioeconomic need, correlated with poor health outcomes. The index is calculated from six indicators, one each from the following topics: poverty, income, unemployment, occupation, education and language. The indicators are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. All zip codes, counties and county equivalents in the U.S. are given an index value from zero (low need) to 100 (high need). To help identify the areas of highest need within a defined geographic area, the selected zip codes are ranked from one (low need) to five (high need) based on their Index value. These values are sorted from low to high and divided into five ranks using natural breaks. These ranks are then used to color the zip codes with the highest SocioNeeds Indices with the darker colors.

The medical center has several communities within the PSA that have greater socioeconomic needs compared to other communities in the PSA. West Englewood, Elsdon, Chicago Lawn and Auburn Gresham are Advocate Christ and Advocate Children's highest socioneed communities. Exhibit 7 below, illustrates the communities with the highest ranking SocioNeeds index in the medical center's PSA.

Exhibit 7: Advocate Christ PSA SocioNeeds Index Map 2019



Highest SocioNeeds Index by Zip Code

- 60636 – West Englewood
- 60632 – Elsdon
- 60629 – Chicago Lawn
- 60620 – Auburn Gresham

Source: Conduent Healthy Communities Institute, 2019

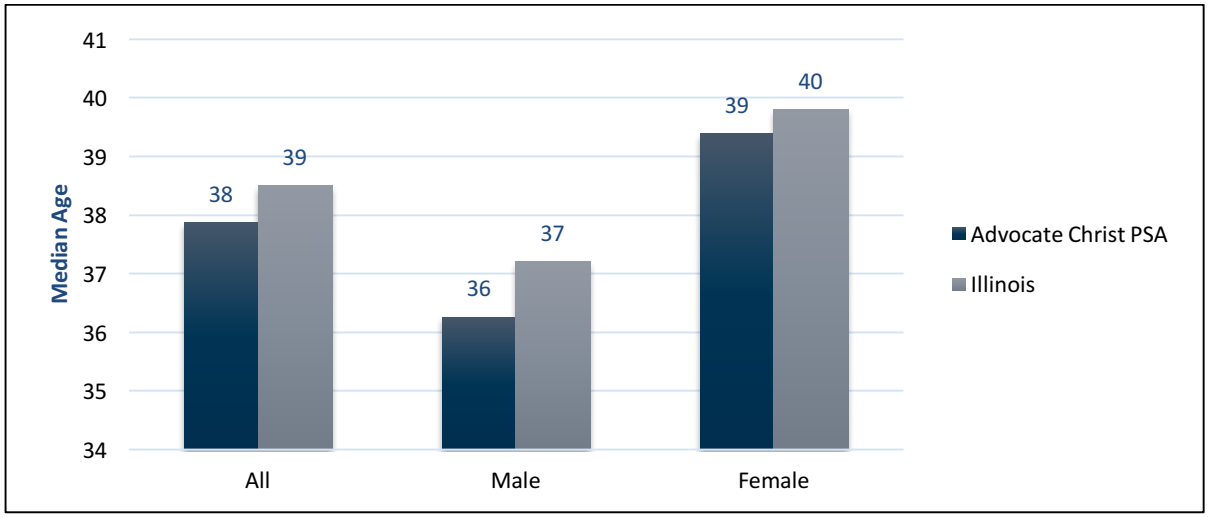
Demographics

Age and Gender

Median Age by Sex

As of 2019, the Advocate Christ PSA has a median age of 38 years compared to the state of Illinois at 39 years. The median age among females and males is relatively similar in the PSA and in the state of Illinois. Males have a median age of 36 years in the PSA comparable to a median age of 37 years in the state of Illinois. In addition, females have a median age of 39 years in the PSA compared to 40 years in the state of Illinois. Overall, there are no notable differences in median age among males and females in the medical center's PSA compared to the state of Illinois. Exhibit 8 depicts the median age by sex for the PSA and state of Illinois.

Exhibit 8: Advocate Christ PSA compared to State of Illinois Median Age by Sex 2019

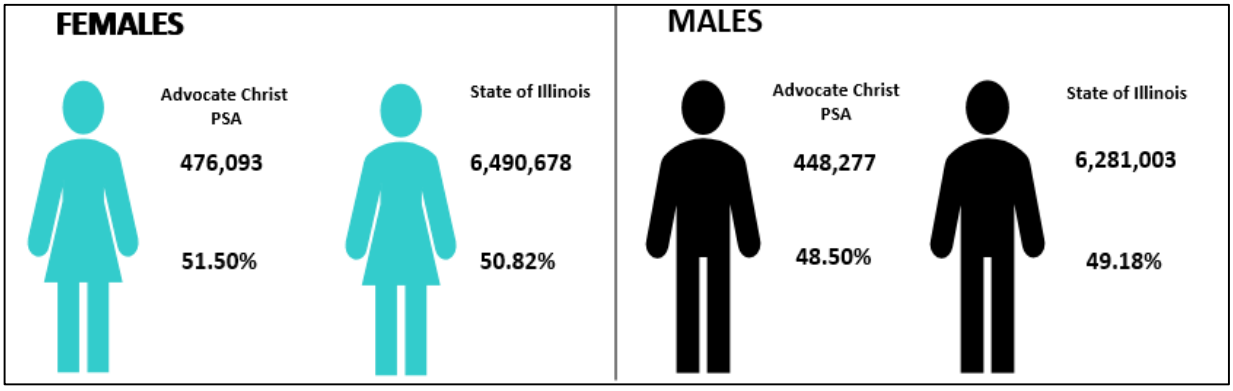


Source: Conduent Healthy Communities Institute, Claritas, 2019

Population by Sex

Males and females for the medical center's PSA are similar in the percent of population by gender when compared to the state of Illinois. There are 51.50 percent females in the medical center's PSA compared to 50.82 percent in the state of Illinois. Similarly, there are 48.50 percent males in the medical center's PSA compared to 49.18 percent in the state of Illinois. Overall, there are no notable differences in gender between the PSA and the state of Illinois among the male and female population. Exhibit 9 displays the total population by sex for the medical center's PSA as compared to the state of Illinois.

Exhibit 9: Advocate Christ PSA compared to State of Illinois Population by Sex 2019

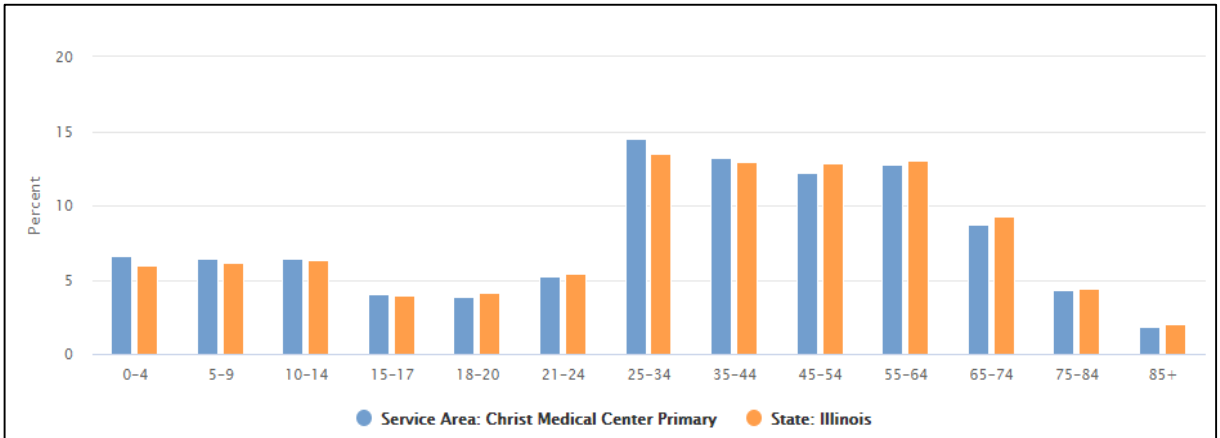


Source: Conduent Healthy Communities Institute, Claritas, 2019

Advocate Christ Population by Age Group

Individuals ages 25-64 years make up a majority of the population (52.62 percent) for the medical center's PSA and in the state of Illinois (52.34 percent). There are no notable differences in age groups among the medical center's PSA compared to the state of Illinois. Overall, individuals ages 25-34 (14.45 percent) make up the majority of the population within the PSA compared to individuals ages 25-34 (13.48 percent) that make up the majority of the population within the state of Illinois. Exhibit 10 displays the population by age group for the medical center's PSA as compared to the state of Illinois.

Exhibit 10: Advocate Christ PSA compared to State of Illinois Population by Age Group 2019



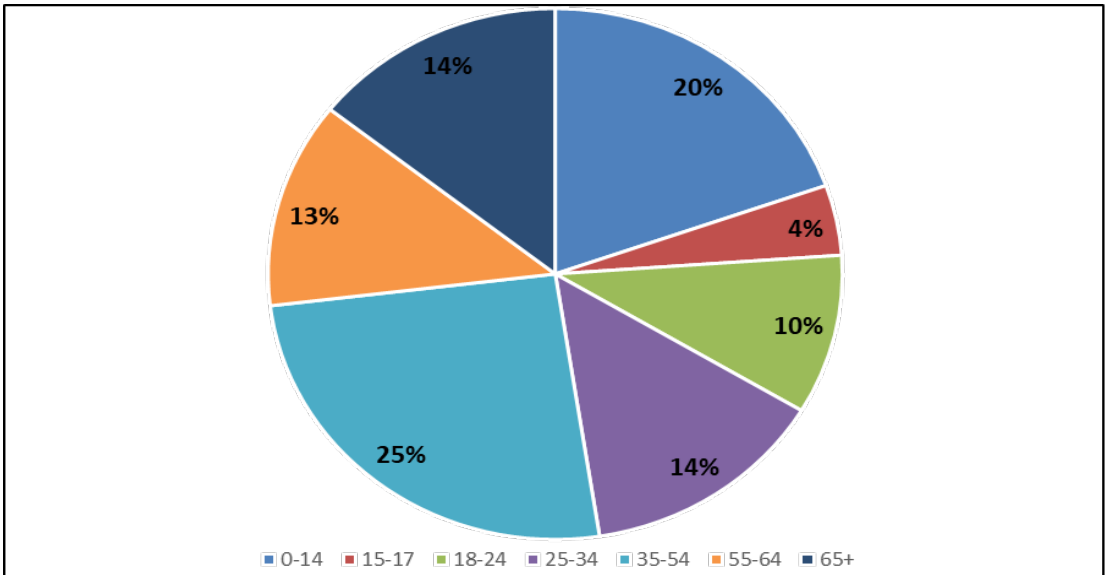
Population by Age Group	Service Area: Christ Medical Center Primary		State: Illinois	
	Persons	% of Population	Persons	% of Population
0-4	60,793	6.58%	765,044	5.99%
5-9	59,729	6.46%	780,381	6.11%
10-14	58,951	6.38%	811,994	6.36%
15-17	37,327	4.04%	505,923	3.96%
18-20	35,227	3.81%	532,593	4.17%
21-24	48,729	5.27%	692,058	5.42%
25-34	133,599	14.45%	1,721,027	13.48%
35-44	121,782	13.17%	1,656,780	12.97%
45-54	112,984	12.22%	1,644,576	12.88%
55-64	118,117	12.78%	1,661,318	13.01%
65-74	80,414	8.70%	1,178,821	9.23%
75-84	39,484	4.27%	564,342	4.42%
85+	17,234	1.86%	256,824	2.01%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Advocate Children's Population by Age Group

Children ages 0-17 make up 24 percent of the total service area population. This is slightly lower than the 35-54 age group which represents 25 percent of the total service area population. Those ages 15-17 years of age represent the lowest percentage (4 percent) of the population. All in all, individuals age 0-14 make up majority of the pediatric population for Advocate Children's Hospital.

Exhibit 11: Advocate Children's TSA Population by Age Group 2019



Population by Age Group	Service Area: Children's Total Service Area	
	Persons	% of Population
0-14	461,259	20%
15-17	100,646	4%
18-24	229,074	10%
25-34	327,821	14%
35-54	601,516	25%
55-64	295,706	13%
65+	337,853	14%

Source: Nielsen Demographics, 2019; Annual Hospital Questionnaire, 2017

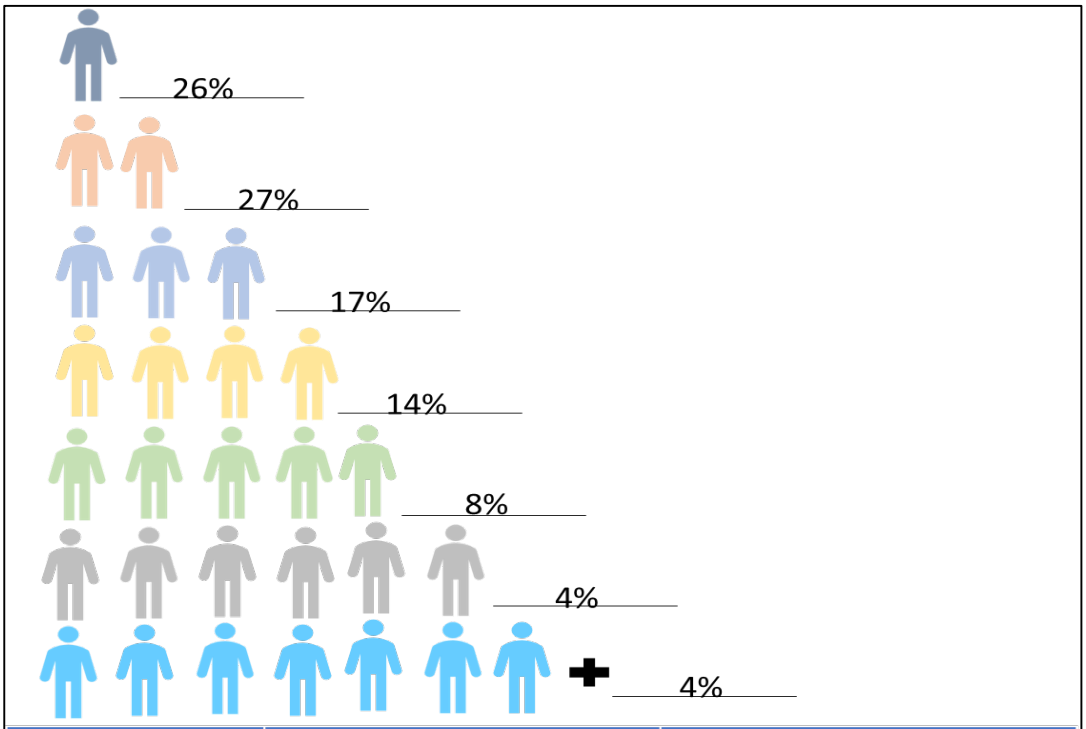
Household/Family

Average Household Size and Number of People in Household

The average household size in the medical center's PSA is 2.85 persons with 226,581 families residing in 321,623 households. There are more 2-person households in the medical center's PSA (27.27 percent) and in the state of Illinois (30.92 percent) compared to all other household sizes among all

groups. Among household's in the medical center's PSA, 37.07 percent are households with children under the age of 18 years compared to the state of Illinois with 33.45 percent of households with children under the age of 18 years (Conduent Healthy Communities Institute, 2019). Exhibit 12 shows the breakdown of the households in the medical center's PSA.

Exhibit 12: Advocate Christ PSA Households by Number of People in Household 2019



Households by Number of People in Household	Service Area: Christ Medical Center Primary Service Area		State: Illinois	
	Persons	% of Population	Person	% of Population
1-Person	82,162	25.55%	1,393,073	28.63%
2-Person	87,704	27.27%	1,504,435	30.92%
3-Person	53,086	16.51%	767,606	15.78%
4-Person	45,487	14.14%	644,735	13.25%
5-Person	27,150	8.44%	325,704	6.69%
6-Person	13,695	4.26%	138,074	2.84%
7-Person	12,339	3.84%	92,210	1.90%

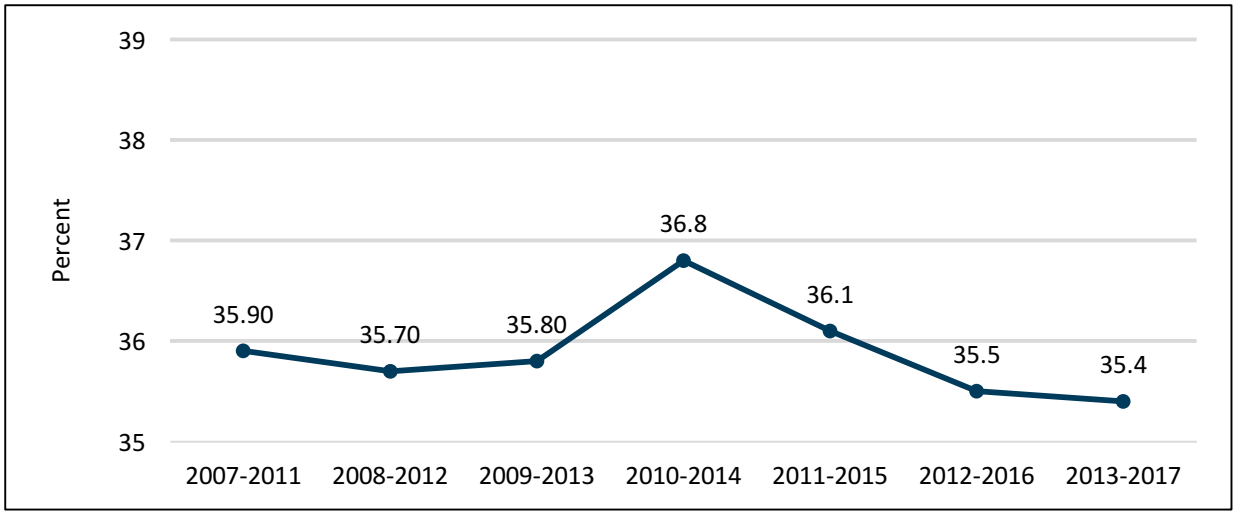
Source: Conduent Healthy Communities Institute, Claritas, 2019

Single Parent Households

A single parent household is defined as children living with a male or female householder and where no spouse is present. Single parent households are at a higher risk for adverse health conditions including emotional and behavioral health problems. Children in single parent households are more likely to develop depression, smoke, and abuse alcohol and other substances (Conduent Healthy Communities Institute, 2019). Advocate Christ's PSA had 35.4 percent of single parent households compared to

32.4 percent within the state of Illinois and 33.3 percent in the U.S. Exhibit 13 displays single parent households in Advocate Christ's PSA between years 2007–2017.

Exhibit 13: Advocate Christ PSA Single Parent Households 2007-2017

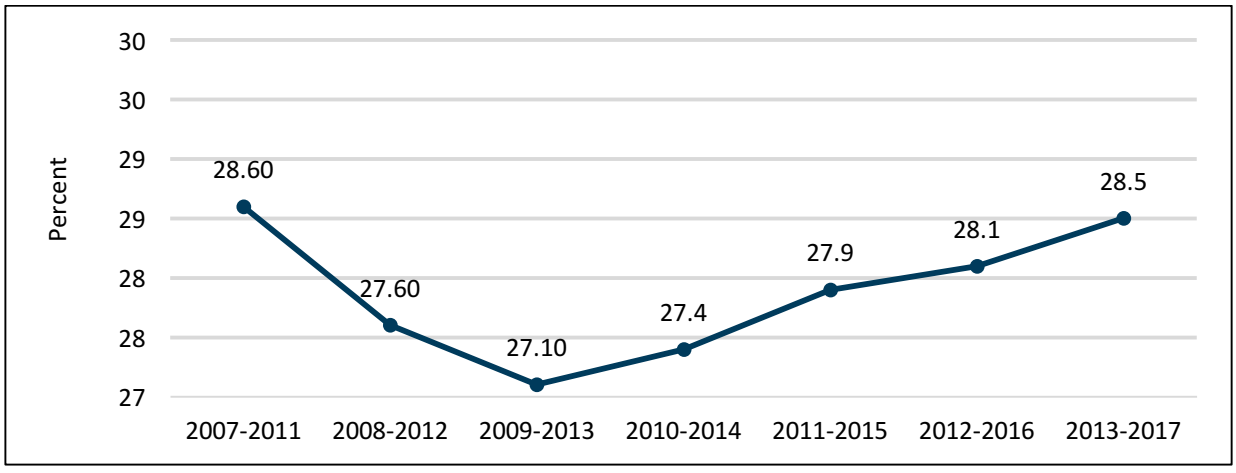


Source: Conduent Healthy Communities Institute, Claritas, 2019

People 65+ Living Alone

Older people living alone may lack social support and are at high risk for institutionalization or losing their independence. Older people living alone can be vulnerable due to social isolation, poverty, disabilities, lack of access to care or inadequate housing (Conduent Healthy Communities Institute, 2019). During the years of 2013-2017, Advocate Christ's PSA had 28.5 percent of the 65 and older population living alone. This is equivalent to the state of Illinois value of 28.5 percent and slightly above the U.S. value of 26.2 percent. See Exhibit 14.

Exhibit 14: Advocate Christ PSA People Living Alone Age 65+ 2007-2017



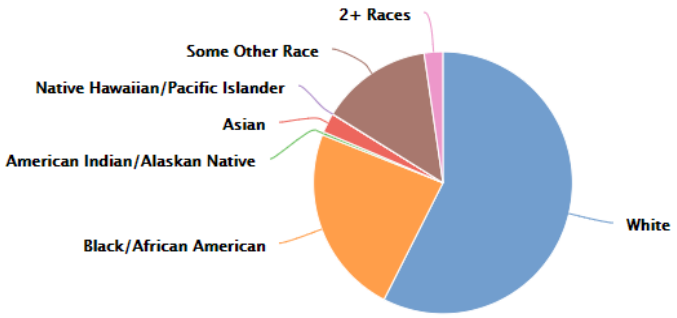
Source: Conduent Healthy Communities Institute, Claritas, 2019

Race and Ethnicity

Population by Race

Advocate Christ's PSA population is 57.53 percent White; 23.44 percent Black/African American; 13.88 percent Some Other Race; 2.33 percent 2+ Races; 2.41 percent Asian; 0.38 percent American Indian/Alaskan Native and 0.02 percent as Native Hawaiian/Pacific Islander. The PSA has a substantially higher representation of the Some Other Race population when compared to the state of Illinois. See Exhibit 15.

Exhibit 15: Advocate Christ PSA compared to State of Illinois Population by Race 2019



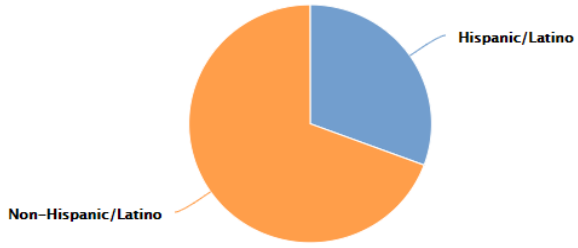
Population by Race	Service Area: Christ Medical Center Primary		State: Illinois	
	Persons	% of Population	Persons	% of Population
White	531,803	57.53%	8,872,760	69.47%
Black/African American	216,699	23.44%	1,823,605	14.28%
American Indian/Alaskan Native	3,470	0.38%	46,983	0.37%
Asian	22,306	2.41%	728,041	5.70%
Native Hawaiian/Pacific Islander	225	0.02%	4,682	0.04%
Some Other Race	128,327	13.88%	950,675	7.44%
2+ Races	21,540	2.33%	344,935	2.70%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Population by Ethnicity

The medical center's PSA has a larger Hispanic/Latino population compared to the state of Illinois with 69.36 percent Non-Hispanic and 30.64 percent Hispanic/Latino. The state of Illinois has a population of 17.62 percent Hispanic/Latino and 82.38 percent as Non-Hispanic/Latino. Exhibit 16 identifies the racial and ethnic composition of the PSA (Conduent Healthy Communities Institute, 2019).

Exhibit 16: Advocate Christ PSA compared to State of Illinois Population by Ethnicity 2019



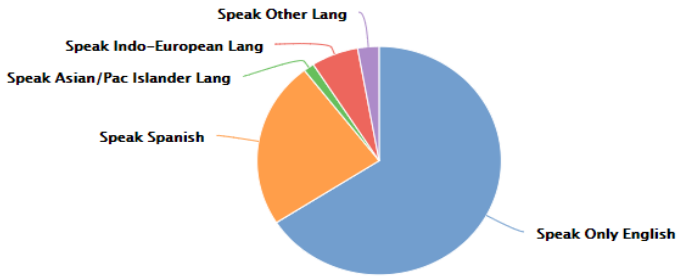
Population by Ethnicity	Service Area: Christ Medical Center Primary		State: Illinois	
	Persons	% of Population	Persons	% of Population
Hispanic/Latino	283,246	30.64%	2,250,985	17.62%
Non-Hispanic/Latino	641,124	69.36%	10,520,696	82.38%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Population Age 5+ Language Spoken at Home

Advocate Christ serves a primarily English-speaking population with 65.89 percent of the population age 5 years and older speaking only English at home and 23.63 percent speaking Spanish at home. Comparatively, the state of Illinois has 77.20 percent of the population age 5 and older speaking English only at home and 13.37 percent of the population speaking Spanish at home. See Exhibit 17.

Exhibit 17: Advocate Christ PSA compared to State of Illinois Population by Language Spoken at Home Age 5+ 2019



Population Age 5+ by Language Spoken at Home	Service Area: Christ Medical Center Primary		State: Illinois	
	Persons	% of Population Age 5+	Persons	% of Population Age 5+
Speak Only English	569,054	65.89%	9,268,824	77.20%
Speak Spanish	204,036	23.63%	1,604,939	13.37%
Speak Asian/Pac Islander Lang	12,162	1.41%	349,719	2.91%
Speak Indo-European Lang	53,934	6.25%	658,792	5.49%
Speak Other Lang	24,391	2.82%	124,363	1.04%

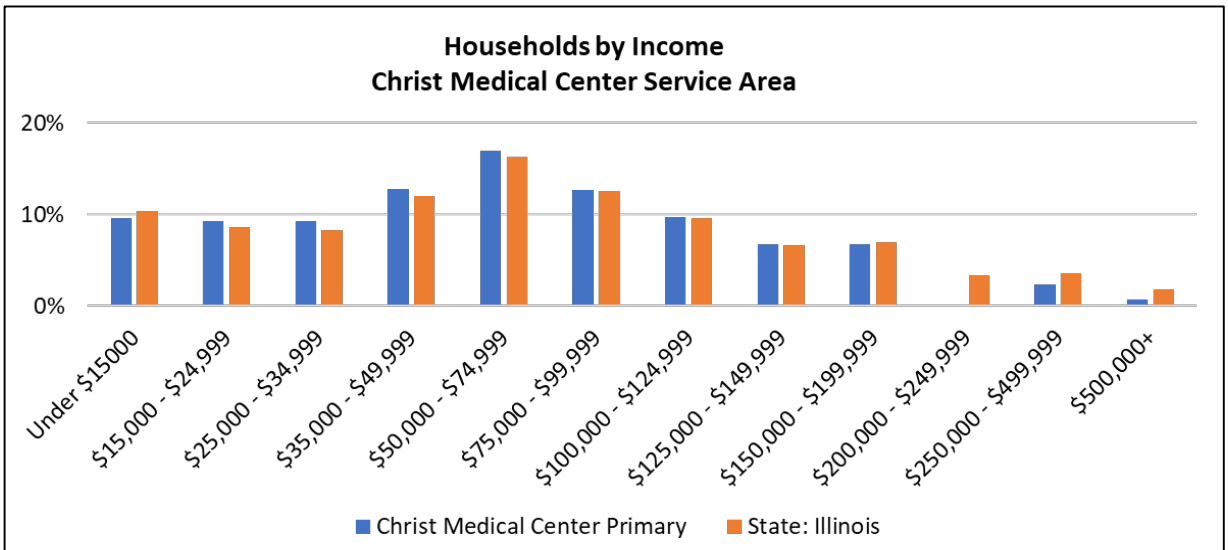
Source: Conduent Healthy Communities Institute, Claritas, 2019

Economics

Income

Poverty is a key determinant of health status and is associated with various barriers to access including health services, healthy food choices and other factors that contribute to poor health. Advocate Christ's PSA poverty level of 14.4 percent is lower than the Cook County level of 15.9 percent of the population. Households by income are relatively similar for the medical center's PSA and the state of Illinois. As of 2019, 15.52 percent of households have an income level between $50,000-$74,499. Comparatively, the state of Illinois has 16 percent of households with an income between $50,000-$74,499. Exhibit 18 depicts Advocate Christ's household income levels within the PSA.

Exhibit 18: Advocate Christ PSA compared to State of Illinois Households by Income 2019



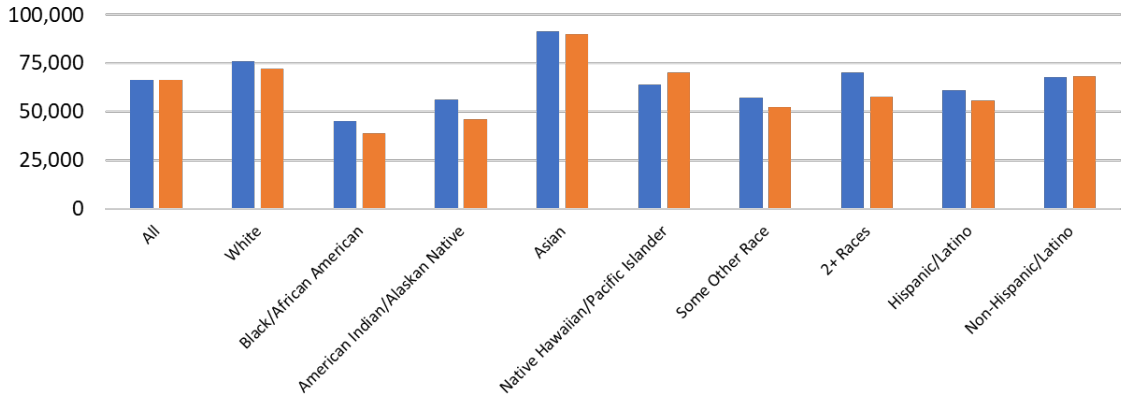
Households by Income	Christ Medical Center Primary		State: Illinois	
	Households	% of Households	Households	% of Households
Under $15000	**30,740**	9.56%	**502,369**	10.32%
$15,000 - $24,999	**29,919**	9.30%	**417,596**	8.58%
$25,000 - $34,999	**29,644**	9.22%	**403,487**	8.29%
$35,000 - $49,999	**41,295**	12.84%	**584,624**	12.01%
$50,000 - $74,999	**54,432**	16.92%	**795,830**	16.36%
$75,000 - $99,999	**40,940**	12.73%	**610,384**	12.54%
$100,000 - $124,999	**31,159**	9.69%	**466,589**	9.59%
$125,000 - $149,999	**21,800**	6.78%	**322,110**	6.62%
$150,000 - $199,999	**21,832**	6.79%	**339,204**	6.97%
$200,000 - $249,999	**9,760**	3..03%	**163,692**	3.36%
$250,000 - $499,999	**7,683**	2.39%	**172,888**	3.55%
$500,000+	**2,419**	0.75%	**87,064**	1.79%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Median Household Income by Race and Ethnicity

As of 2019, the overall median household income for the PSA is $66,374 compared to the state of Illinois at $66,487. There are notable income disparities when comparing income for Asians and Whites versus other races and ethnicities. Asians have a median income of $91,507 for the PSA and Whites have a median income of $75,998. In contrast, Black/African Americans median income level for the PSA is $45,308. Black/African Americans have the lowest median household income level for both the PSA and the state of Illinois among all racial/ethnic groups. Exhibit 19 depicts the median household income by race and ethnicity.

Exhibit 19: Advocate Christ PSA compared to State of Illinois Median Household Income by Race/Ethnicity 2019



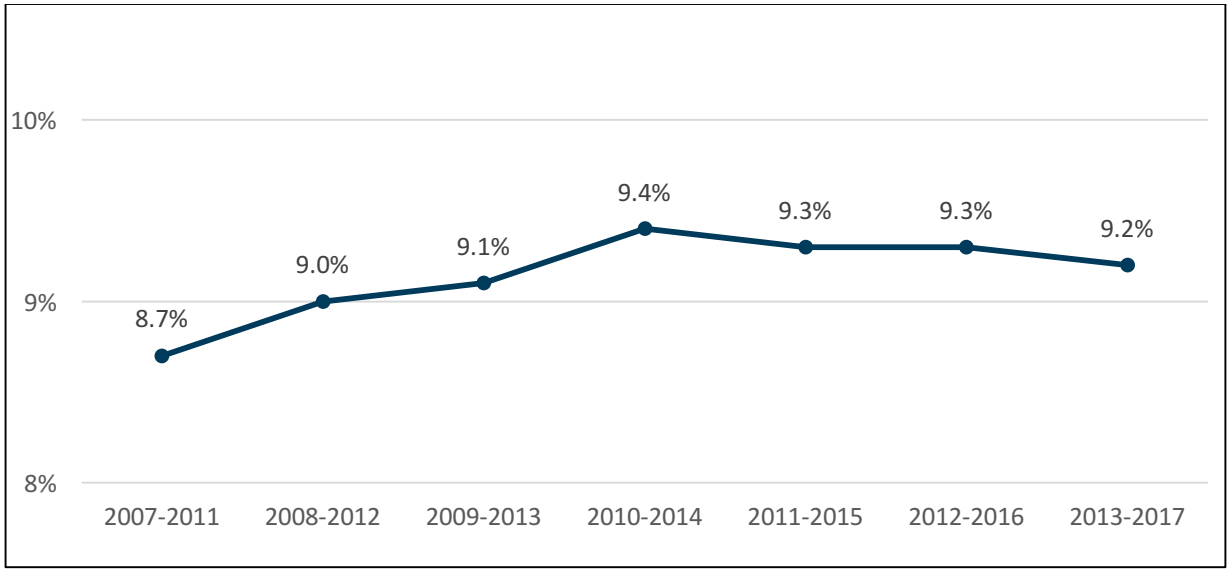
Median Household Income by Race/Ethnicity	Christ Medical Center Primary Service Area	State: Illinois
	Value	Value
All	$66,374	$66,487
White	$75,998	$71,965
Black/African American	$45,308	$39,105
American Indian/Alaskan Native	$56,240	$46,315
Asian	$91,507	$89,990
Native Hawaiian/Pacific Islander	$64,126	$70,259
Some Other Race	$57,101	$52,421
2+ Races	$70,382	$57,588
Hispanic/Latino	$60,913	$55,737
Non-Hispanic/Latino	$67,941	$68,287

Source: Conduent Healthy Communities Institute, Claritas, 2019

People Living Below the Poverty Level

The number of families living below 100 percent of the federal poverty level (FPL) in Advocate Christ's PSA is 25,665 or 11.33 percent of the population compared to 313,034 families or 9.80 percent in the state of Illinois. The number of families with children living below 100 percent FPL is 19,100 families or 8.4 percent compared to 235,695 families or 7.38 percent in the state of Illinois. The number of children identified as living below the poverty level in the PSA is 21.7 percent compared to the state of Illinois at 18.8 percent. Between the years 2013-2017 there were 9.2 percent of people 65 years and older in the PSA living below the FPL compared to 8.8 percent in the state of Illinois and 9.3 percent in the U.S. See Exhibit 20.

Exhibit 20: Advocate Christ PSA People 65+ Living Below Poverty Level 2007-2017

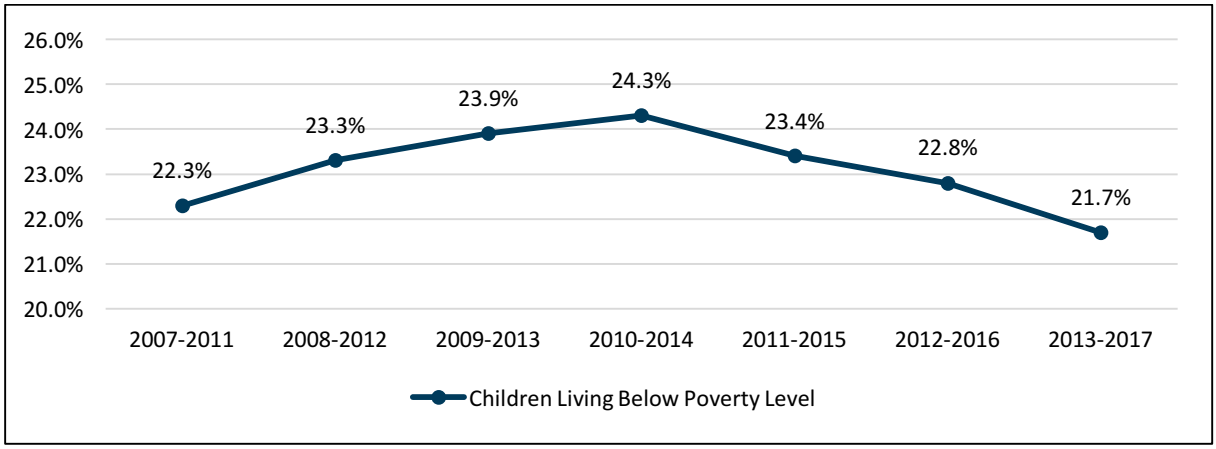


Source: Conduent Healthy Communities Institute, Claritas, 2019

Children Living Below Poverty Level

Family income can have a significant impact on a child's well-being including physical health, social well-being and emotional well-being. Data collected from 2013 to 2017 shows that there were 21.7 percent of children in the PSA living below the poverty level. This percentage is lower than the county level of 23.0 percent and higher than the state of Illinois at 18.8 percent. This indicator has slightly decreased over time since 2014 with 24.3 percent of children in the medical center's PSA living below the poverty level. Exhibit 21 shows the percentage of children living below the poverty level over time.

Exhibit 21: Advocate Christ PSA Children Living Below Poverty Level 2007-2017



Source: Conduent Healthy Communities Institute, Claritas, 2019

Employment

The unemployment rate among individuals 16 years of age or older in the medical center's PSA is 9.29 percent which is higher compared to the Illinois unemployment rate at 6.7 percent. The male unemployment rate is 9.26 percent in the medical center's PSA, comparable to the female unemployment rate at 9.33 percent. Between 2012-2016, the community areas in the medical center's PSA that had some of the highest unemployment rates within the city of Chicago included West Englewood (33.6 percent), Auburn Gresham (23.6 percent) and Chicago Lawn (21.9 percent) (Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019). The top three industries for employed citizens in Advocate Christ's PSA are in healthcare (13.20 percent), retail trade (10.89 percent) and manufacturing (10.13 percent) (Conduent Healthy Communities Institute, Claritas, 2019).

Education

Educational Level

In Advocate Christ's PSA, there are 97,084 persons or 15.57 percent of the population age 25 years and older who have attained less than a high school diploma, which is higher than the state of Illinois with 982,203 persons or 11.31 percent of the population with less than a high school diploma. Regarding higher education, there are 24 percent of people in the PSA age 25 and older who had a bachelor's degree or higher compared to the state of Illinois at 33.59 percent (Conduent Healthy Communities Institute, Claritas, 2019).

Health Care Resources in the Defined Community

There are several hospitals/medical centers, federally qualified health centers (FQHCs), Chicago Department of Public Health (CDPH) and Cook County Health System (CCHS) clinics which serve the medical center's PSA. These health care resources indicating facility type and location are listed in Exhibit 22.

Exhibit 22: Health Care Resources in the Defined Community 2019

Name of Facility	Type of Facility	Location
Advocate Christ Medical Center	Medical center	Oak Lawn, IL
Advocate Trinity Hospital	Hospital	Chicago, IL
Advocate Children's Hospital	Hospital-Pediatrics	Oak Lawn, IL
Little Company of Mary Hospital	Hospital	Evergreen Park, IL
Palos Community Hospital	Hospital	Palos Heights, IL
Holy Cross Hospital	Hospital	Chicago, IL
Cook County Health Clinics	CCHS Clinic	Chicago, IL Oak Forest, IL
Chicago Department of Health Centers	CDPH Clinic	Chicago, IL
Community Health Free Care	Federally Qualified Health Center	Chicago, IL
Beloved Community Health Center	Federally Qualified Health Center	Chicago, IL
Christian Community Health Center	Federally Qualified Health Center	Chicago, IL Oak Forest, IL

Source: Cook County Department of Public Health, 2019

Key Findings: Community Definition

- The total population in Advocate Christ's PSA decreased by 0.42 percent between 2010-2019.
- The median age of the PSA is 38 years with females at a median age of 39 and males at a median age of 36.
- Advocate Christ's PSA is a racially diverse area. The population includes 57.53 percent White, 23.44 percent Black/African American, 13.88 percent Some Other Race, 3.33 percent 2+ Races, 2.41 percent Asian, 0.38 percent American Indian/Alaskan Native and 0.02 percent Native Hawaiian/Pacific Islander.
- Thirty percent of the population identifies as Hispanic/Latino.
- Sixty-six percent of the people in the PSA speak English only at home.
- Thirty-five percent of PSA households are single-parent households.
- The median household income in the PSA is $66,374, with 11 percent of the population living below the federal poverty level.
- The communities with the highest SocioNeeds Index Values in Advocate Christ's PSA are Elsdon, West Englewood, Chicago Lawn and Auburn Gresham.
- There is a 6.70 percent unemployment rate for the PSA; lower than Cook County (7.74 percent) and equal to the state of Illinois rate (6.70 percent).

Key Roles in the 2017-2019 Community Health Needs Assessment

Advocate Aurora System and Advocate Christ/Advocate Children's Leadership

Advocate Aurora continues to partner with Conduent Healthy Communities Institute (HCI) to provide an internet-based data resource for its eleven hospitals/medical centers in Illinois for the 2017-2019 CHNA cycle. Conduent HCI provides each hospital/medical center with a multitude of health and demographic indicators for hospitalization and emergency department visits at the service area and zip code levels.

In the Advocate Aurora Chicagoland South Region, which includes Advocate Christ, a doctorate-prepared regional community health director is responsible for the overarching activities of the community health division. In March 2019, a doctorate-prepared regional manager was hired for the south Chicagoland region for Advocate Aurora. The regional manager oversees the CHNA process, including the convening of the CHC, community health planning/program development and community benefit reporting at the three south region hospitals/medical centers. The manager is also responsible for providing leadership to assure that the community health interventions are aligned with the medical center's CHNA findings and Advocate Aurora's population health mission. Additionally, a community health coordinator is responsible for executing the Advocate Christ's CHNA and implementation plan.

Governing Council

The medical center's Governing Council is comprised of community leaders and executive level medical center staff. The principal roles of each governing council member are to support medical center leadership in achievement of the medical center's goals, represent the community's interests to the medical center and to serve as a medical center ambassador in the community. Advocate Christ's Governing Council is comprised of 26 members representing a broad spectrum across community sectors. Members represent the faith community, medical, and business and industry fields. A total of 57 percent of the current Governing Council members represent the community, including representatives from the faith community, while 43 percent of members are medical center affiliated physicians or Advocate Christ leaders. One Governing Council member also serves as the chair of the CHC to ensure the sharing of information between the two councils. On October 17, 2019, leaders of the CHC presented the CHNA process and prioritized health needs to the Governing Council which voted full approval and adoption by the medical center.

Community Health Council

Advocate Christ and Advocate Children's convened a CHC in March 2019. The CHC's responsibilities are to oversee the CHNA process, prioritize health needs and oversee community health strategy for the medical center. The CHC also contributes to the development of an implementation plan to address prioritized community health needs. Chaired by a member of Advocate Christ's Governing Council and managed by the regional director of community health and regional manager for community health, the council is comprised of a variety of representatives from the community. The CHC functions as a subset of the medical center's Governing Council and all activities and decisions made by the CHC regarding the CHNA are submitted for approval by the full Governing Council. The community health council members represent medically underserved, low-income minority populations. The affiliations

and titles of the Advocate Christ CHC members are provided below. The CHC members representing the medically underserved, low-income and/or minority populations have the populations they represent in parentheses following their titles.

Advocate Christ Community Health Council

Members from the Community

- Auburn Gresham Community Development Corporation, Executive Director (serves medically underserved, low-income and/or minority populations)
- Auburn Gresham Community Development Corporation/Southwest Smart Communities, Program Manager and Technologist (serves medically underserved, low-income and/or minority populations)
- Chicago Public Schools, Community Engagement Manager
- Children's Home and Aid, Director, Youth Services (serves medically underserved, low-income and/or minority populations)
- Christian Community Health Center, Director, Quality Assurance (serves medically underserved, low-income and/or minority populations)
- Bethlehem Evangelical Lutheran Church, Faith Leader; Advocate Christ Governing Council Member, CHC Chairperson
- Greater St. John AME Church, Faith Leader
- Hispanic Leadership Council, President (serves medically underserved, low-income and/or minority populations)
- Metropolitan Family Services, Program Supervisor (serves medically underserved, low-income and/or minority populations)
- Metropolitan Tenants Organization, Coordinator, Outreach Services (serves medically underserved, low-income and/or minority populations)
- Oak Lawn Public Library, Youth Services Outreach Librarian
- Oak Lawn Public Library, Interlibrary Loan Coordinator
- Oak Lawn-Hometown School District 123, Superintendent
- Oak Lawn-Hometown School District 123, Director, Family and Community Resource Network
- YMCA Metro Chicago, Operations Director, Family and Community Engagement
- YMCA Metro Chicago, Operations Director, Health and Nutrition

Members from Advocate Aurora, Advocate Christ/Advocate Children's

- Advocate Children's, Director, Community & Health Relations
- Advocate Children's, Manager Community Outreach and Population Health
- Advocate Christ, Care Manager and Oak Lawn Health Care Rotary
- Advocate Christ, Coordinator, Community Health
- Advocate Christ, Manager, Inpatient Care
- Advocate Christ, Manager, Patient and Guest Relations
- Advocate Christ, Ronald McDonald Care Mobile, Nurse Practitioner
- Advocate Aurora, Vice President PSA, Mission and Spiritual Care
- Advocate Aurora, Manager, Community Health, South Chicagoland Region
- Advocate Aurora, Director, Community Health, South Chicagoland Region

Collaborations with Health Departments and/or Hospitals/Medical Centers

The Alliance for Health Equity

Advocate Christ is a member of The Alliance, a collaboration of 37 non-profit and public hospitals/medical centers working with health departments and regional and community-based organizations to improve health equity, wellness, and quality of life across Chicago and Suburban Cook County. Led by a steering committee of which Advocate Aurora is a member and leader, and supported by the Illinois Public Health Institute (IPHI), the collaborative shares resources and works together on data collection, priority setting and implementation planning for the region. The non-profit hospitals/medical centers provide the funding for The Alliance support and shared work. Exhibit 23 lists the hospitals/medical centers and health systems that are members of the Alliance.

Hospitals/medical centers and health systems that are members of The Alliance are very active in designing and implementing a collective health equity purpose and together have worked to:

- Collaborate with IPHI, health departments, and community organizations to design and implement the CHNA process;
- Participate in identifying indicators for data analysis, developing survey questions and prioritizing focus groups for input;
- Share existing data or assessments that are relevant and/or contribute to interpretation of data;
- Engage networks of community partners and hospital/medical center staff to collect community input and take that input into account in defining community health priorities for local service areas;
- Review assessment data and assist with developing findings and identifying priority strategic issues; and
- Designate a steering committee representative to provide strategic guidance to The Alliance and IPHI staff.

Exhibit 23: The Alliance for Health Equity Members 2019

Nonprofit Hospital/Medical Center Members	
Advocate Children's Hospital	Loyola Medicine-Gottlieb Memorial Hospital
Advocate Christ Medical Center	Loyola Medicine-Loyola University Medical Center
Advocate Illinois Masonic Medical Center	Loyola Medicine-MacNeal Hospital
Advocate Lutheran General Hospital	Mercy Hospital & Medical Center
Advocate South Suburban Hospital	Northwestern Memorial Hospital
Advocate Trinity Hospital	Norwegian American Hospital
AMITA Adventist Medical Center La Grange	Palos Community Hospital
AMITA Alexian Brothers Medical Center, Elk Grove Village	Roseland Community Hospital
AMITA Holy Family Medical Center	Rush Oak Park Hospital
AMITA Resurrection Medical Center	Rush University Medical Center
AMITA St. Alexius Medical Center and Alexian Brothers Behavioral Health Hospital	Sinai Health System-Holy Cross Hospital

AMITA Saint Francis Hospital	Sinai Health System-Mount Sinai Hospital
AMITA Saint Joseph Hospital	Sinai Health System- Schwab Rehabilitation Hospital
AMITA Saints Mary and Elizabeth Medical Center	South Shore Hospital
Ann & Robert H. Lurie Children's Hospital of Chicago	Swedish Covenant Hospital
Jackson Park Hospital	University of Chicago Medicine
The Loretto Hospital	University of Chicago Medicine-Ingalls Memorial Hospital
Public Hospital Partners	
Cook County Health-Stroger Hospital	Cook County Health-Provident Hospital
University of Illinois Hospital & Health Sciences System	
Public Health Department Partners	
Chicago Department of Public Health	Evanston Health and Human Services Department
Cook County Department of Public Health	Village of Skokie, Health Department

Source: The Alliance for Health Equity, 2019

Collaborations with other Key Stakeholders

As mentioned above, through The Alliance, other key stakeholders include the Cook County Department of Public Health, the National Alliance for Mental Health and community-based organizations. Detailed information related to other collaborations may be found in the accompanying report—Community Health Needs Assessment for Chicago and Suburban Cook County, 2019 https://allhealthequity.org/projects/2019-chna-reports/.

Methodology

Timeline

The methodology for the CHNA had several components including: 1) Primary and secondary data from The Alliance (October 2018-February 2019); 2) use of the Conduent Healthy Communities Institute's platform to review county, service area data and zip code data (March 2017-August 2019); 3) a children's community profile completed by Advocate Children's-Oak Lawn; and 4) review of other available national and local data (January 2017-August 2019).

Collaborative Assessment Model and Process

The Alliance completed a collaborative CHNA between March 2018 and March 2019. Primary and secondary data from a diverse range of sources were utilized for robust data analysis and to identify community health needs in Chicago and Suburban Cook County. IPHI worked with the CHNA committee and steering committee, both of which included Advocate Christ representatives, to design

and facilitate a collaborative, community-engaged assessment. As with the HICCC 2016 collaborative CHNA, the 2019 CHNA process is adapted from the Mobilizing for Action through Planning and Partnerships (MAPP) framework, a community-engaged strategic planning framework that was developed by the National Association for County and City Health Officials (NACCHO) and the 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. The Alliance chose this inclusive, community-driven process to leverage and align with health department assessments and to actively engage stakeholders, including community members, in identifying and addressing strategic priorities to advance health equity.

Primary Data Collection for The Alliance CHNA

Multiple data collection strategies were employed to collect data for the 2017-2019 CHNA. Primary data collection for the CHNA was conducted by The Alliance and collaborative partners through four methods:

1. Community input surveys
2. Community resident focus groups and learning map sessions
3. Health care and social service provider focus groups
4. Stakeholder assessments led by partner health departments—Forces of Change Assessment and Health Equity Capacity Assessment

Community Input Surveys

Advocate Christ partnered with The Alliance to conduct community input surveys in the PSA. Between October 2018 and February 2019, The Alliance partners collected 5,934 community-wide input surveys from individuals 18 or older living in Chicago and Suburban Cook County. There were 641 survey responses collected from Advocate Christ's service area. The surveys were available on paper and online and were disseminated in English, Spanish, Chinese, and Polish. The surveys included questions asking respondents about the health status of their communities, community strengths, opportunities for improvement, and priority health needs. Hospitals/medical centers, community-based organizations and health departments distributed the surveys with the intention of gaining insight from priority populations that are typically underrepresented in assessment processes. Some of the priority populations were communities of color, immigrants, LGBTQ+ community members, individuals with disabilities and low-income communities.

The intention of the community input survey was to complement existing community health surveys distributed by local health departments throughout Chicago and Suburban Cook County. IPHI and the CHNA committee took the following steps to develop the survey tool:
(1) IPHI drafted a survey based on review of 13 example community input surveys; (2) CHNA committee members from hospitals/medical centers and health departments provided input;
(3) IPHI incorporated revisions from CHNA committee members and the University of Illinois at Chicago Survey Research Laboratory; (4) IPHI made edits based on a health literacy review;
(5) IPHI and two member hospitals piloted the survey at three community-based events; and

(6) IPHI made final edits to address minor challenges identified at the pilot events. The final survey tool included 16 questions—three questions related to zip code/community of residence, nine demographic questions, two multi-select questions about health problems and what's needed for a healthy community, and two open-ended questions about community strengths and improvements needed. Exhibit 24 depicts the demographics of survey respondents from the Advocate Christ PSA.

Paper surveys were entered into the SurveyGizmo online platform so that electronic and paper surveys could be analyzed together. Survey data analysis was conducted using SAS 9.4 statistical analysis software and Microsoft Excel 2016.

Exhibit 24: Advocate Christ PSA Survey Respondents Demographics 2019

ALLIANCE for HEALTH EQUITY Hospitals and Communities Improving Health Across Chicago and Cook County

Survey Responses from Advocate Christ PSA

Race/Ethnicity (n=601)	
African American/Black	23%
Asian	4%
Hispanic/Latino(a)	29%
Middle Eastern/Arab American	1%
White	40%
Multiracial	4%

Household Income (n=509)	
Less than $10,000	13%
$10,000 to $19,999	11%
$20,000 to $39,999	20%
$40,000 to $59,999	23%
$60,000 to $79,999	12%
$80,000 to $99,999	9%
Over $100,000	13%

Age (n=588)	
18-24	17%
25-34	10%
35-44	10%
45-54	17%
55-64	18%
65-74	19%
75-84	10%
85 or older	5%

Someone in the Household with a Disability (n=603)	
Yes	25%
No	75%

Children in Household (n=602)	
None	64%
Yes, age 0-4	12%
Yes, age 5-12	18%
Yes, age 13-17	20%

Source: The Alliance for Health Equity, 2019

Focus Group and Learning Map Host Organizations

Between August 2018 and February 2019, IPHI worked with The Alliance partners to hold a total of 52 community input sessions (focus groups and learning map sessions) with priority populations such as veterans, individuals living with mental illness, communities of color, older adults, caregivers, teens and young adults, LGBTQ+ community members, adults and teens experiencing homelessness, families with children, faith communities, adults with disabilities, and children and adults living with chronic conditions, such as diabetes and asthma. The community input sessions included 31 focus groups conducted by IPHI and 21 learning map sessions led by West Side United with notetaking by IPHI. In addition to the 52 community input sessions, there were also five focus groups with health care and social service providers hosted by Swedish Covenant Hospital, MacNeal Hospital and South Shore Hospital. Exhibits 25.1 and 25.2 list all of the focus group and learning map session host organizations.

Exhibit 25.1: List of Focus Group and Learning Map Host Organizations 2019

ABJ Services	Greater Galilee Baptist Church
Affinity Community Services	Habilitative Systems
After School Matters (2 groups)	Hanul Family Alliance
Alivio Medical Center	Housing Forward - Tenant's Club Meeting
AMITA Saints Mary and Elizabeth Medical Center	Kedvale New Mount Zion M.B. Church
Asian Human Services Family Health Center	Maine Community Youth Assistance Foundation
Breakthrough	NAMI Chicago family members
BUILD, Inc.	NAMI Chicago individuals with lived experience
By the Hand	New Moms (2 groups)
Chicago Public Library - Austin-Irving Park	New Morning Star MB Church (2 groups)
Chicago Public Library - Edgebrook Branch	Northwest Side Housing Center
Chicago Public Library - Jefferson Park Branch	Oak Park River Forest Food Pantry
Chicago Public Library - Oriole Park Branch	Oakley Square Apartments (3 groups)
Chicago Youth Programs	PLOWS Council on Aging
CJE SeniorLife	Restoration Ministries
Coalition of Hope	Rich Township VFW Post 311
Cristo Rey Jesuit High School	Saint Stephen AME
Deborah's Place	Solutions for Care
El Valor	Southwest Organizing Project (2 groups)
Enlace Chicago	Teen Living Program
Evanston General Assistance (2 groups)	Temple of Faith MB Church
Friedman Place	Theace Goldsberry Community House (2 groups, parents and youth)
Frisbie Senior Center	TCA Health, Inc.
Garfield Park Community Council	Timothy Community Corporation
Gary Comer Youth Center	UCAN (2 groups, community residents and youth)

Source: The Alliance for Health Equity, 2019

Exhibit 25.2: Community Leader and Provider Focus Groups 2019

Faith Leaders, countywide
Immigrant service providers
South Shore Hospital community service providers
Swedish Covenant Hospital community service providers
MacNeal Hospital health care providers

Source: The Alliance for Health Equity, 2019

Focus group facilitators asked participants about the underlying root causes of health issues seen in their communities and specific strategies for addressing those health needs. IPHI developed the

focus group questions using resources from existing CHNA toolkits and peer-reviewed studies, in consultation with the CHNA committee and colleagues at partner health departments. Each focus group was hosted by a community-based organization or hospital, and participation ranged from three to forty people. Most focus groups were 90 minutes long with an average of 10 participants. Community input from all 52 community input sessions (focus groups and learning map sessions) was combined and included in the assessment, along with input from five provider focus groups.

Secondary Data Collection

As indicated in the section above, Advocate Christ collaborated with many partners to collect PSA, county and state data. Secondary data collection was conducted through the use of several platforms including the Conduent Healthy Communities Institute. Details regarding the medical center's 2017-2019 CHNA's secondary data sources are listed below.

Conduent Healthy Communities Institute

In early 2017, Advocate Health Care signed a second three-year contract with Conduent Healthy Communities Institute (HCI) to continue to provide an internet-based data resource for the Illinois hospitals/medical centers during the 2017-2019 CHNA cycle. This robust platform offered the hospitals/medical centers 198 health and demographic indicators, including 38 hospitalization and emergency department (ED) visit indicators at the service area and zip code levels. Utilizing the Illinois Hospital Association COMPdata, Conduent HCI was able to summarize, age adjust and average the hospitalization and ED data for five-time periods from 2009-2017. The HCI contract also provided a wealth of county and zip code data comparisons, a SocioNeeds Index visualizing vulnerable populations within service areas and counties, a Healthy People 2020 tracker and a database of promising and evidence-based interventions.

As indicated, Conduent HCI was a key source of data for the 2017-2019 CHNA. This secondary data was crucial in analyzing the medical center's PSA health needs as the database was the only source that provided such an extensive amount of data specific to the defined community. All data collected through Conduent HCI was quantitative and included data comparisons between PSA communities and counties in Illinois. These comparisons were exemplified in the form of community dashboards, which provided great insight on the health status of the medical center's PSA in comparison to other counties and communities in Illinois.

Conduent HCI provides a gauge that illustrates comparison of indicators across counties, service areas and zip codes.

Green (Good):	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.
Yellow (Fair):	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.
Red (Poor):	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 community health needs assessment, indicators may be referred to as being in the green, yellow or red zone, about the above value ratings from Conduent HCI.

Other Available National and Local Data

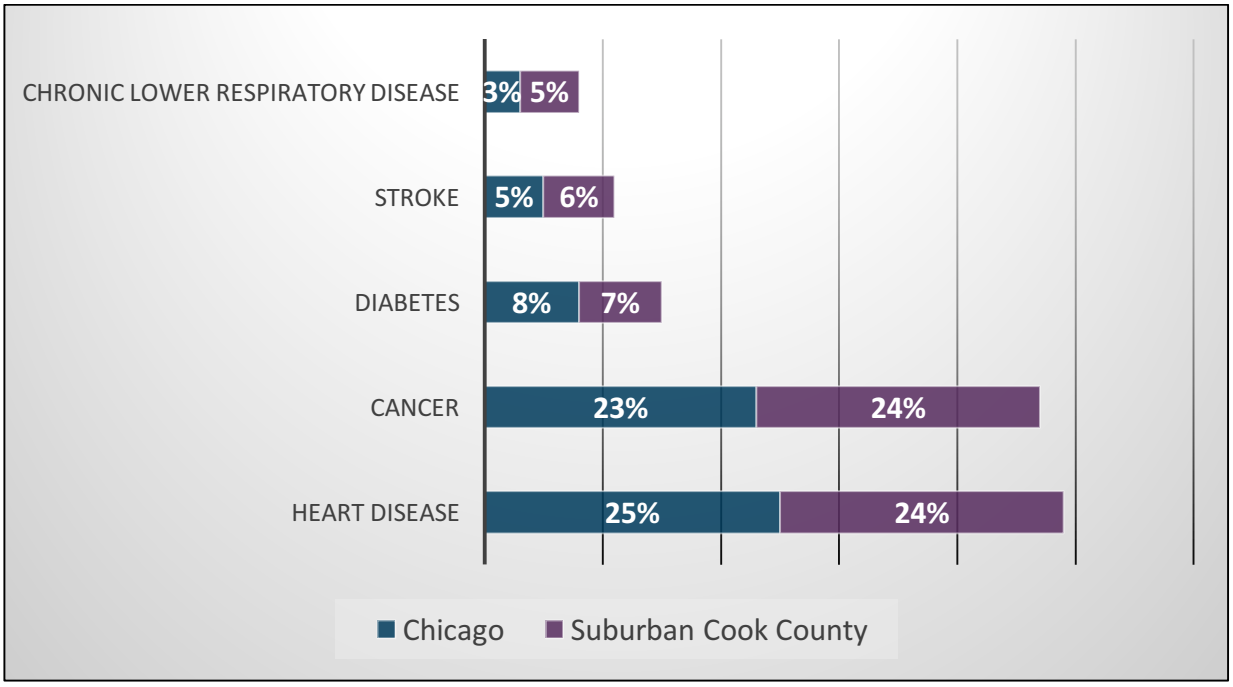
Between June 2018 and June 2019, Advocate Christ staff collected pertinent community health data for the medical center's PSA. Other data sources reviewed included the Chicago Health Atlas, Illinois Department of Public Health, Chicago Department of Public Health, Advocate Christ patient utilization data, City of Chicago-Healthy Chicago 2.0, Cook County Department of Public Health, Healthy People 2020, and CDC (state and county health data). A comprehensive list of data resources is provided in Appendix 1.

Health Status

Leading Causes of Death

In the U.S., 60 percent of adults have a chronic disease and 40 percent of adults have two or more chronic diseases. Chronic diseases such as heart disease, cancer and diabetes are the leading causes of death and disability in the U.S. and are a leading driver of healthcare costs (CDC, 2019). According to the Illinois Department of Public Health, heart disease, cancer, stroke, accidents and lower respiratory disease are the top five causes of death in the state. From 2014 to 2016, 65 percent of all deaths in Chicago and Suburban Cook County were attributable to chronic diseases. Exhibit 26 shows the leading causes of death in Chicago and Suburban Cook County.

Exhibit 26: Chicago and Suburban Cook County Leading Causes of Death 2014-2016

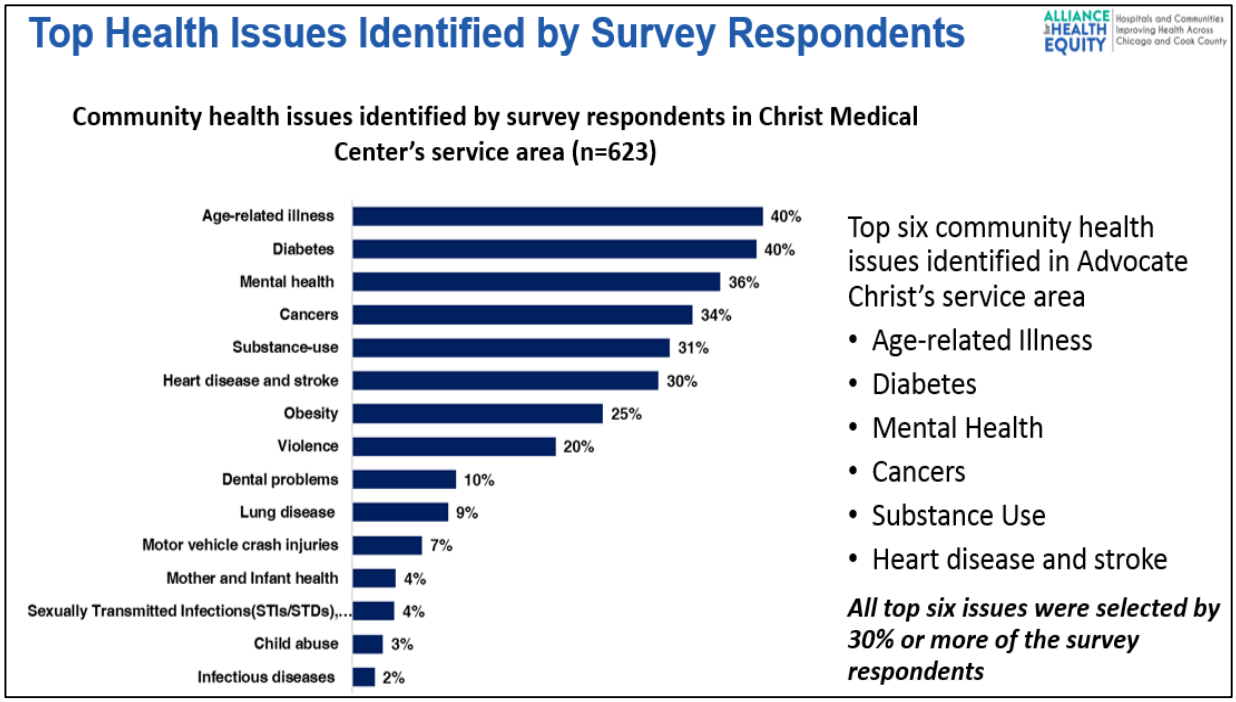


Source: The Alliance for Health Equity, 2019

Top Health Issues in Advocate Christ PSA

The survey conducted by The Alliance identified the top health concerns from survey respondents in Advocate Christ's service area. When asked to identify the top health problems in the community, respondents indicated that age-related illness (40 percent), diabetes (40 percent), mental health (36 percent), cancers (34 percent), substance use (31 percent) and heart disease and stroke (30 percent) are the top health concerns. Exhibit 27 shows the top health issues identified in Advocate Christ's PSA.

Exhibit 27: Advocate Christ PSA Top Health Issues Identified by Survey Respondents 2019



Source: Alliance for Health Equity, 2019

Life Expectancy

According to the World Health Report, life expectancy is defined as the average number of years that a new born is expected to live if current mortality rates continue to apply. Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all groups—children and adolescents, adults and the elderly. From 2010-2015, the average life expectancy at birth for the Advocate Christ PSA is 78.1 compared to 79.3 years for Cook County (National Center for Health Statistics—USALEEP, 2019). Data indicate that individuals residing in more affluent communities have a longer life expectancy when compared to individuals that reside in the lower socio-economic communities. For example, the life expectancy for someone living in West Englewood is 69 years compared to the life expectancy of someone living in Palos Heights/Palos Park of 81.5 years—nearly a 13-year difference. Exhibit 28 displays the life expectancy for the zip codes in the Advocate Christ PSA.

Exhibit 28: Advocate Christ PSA Life Expectancy by Zip Code 2010-2015

Neighborhood	Zip code	Life Expectancy	Neighborhood	Zip code	Life Expectancy
Alsip	60803	77.9	Midlothian	60445	77.4
Ashburn	60652	76.0	Morgan Park	60643	75.0
Auburn Gresham	60620	72.0	Oak Forest	60452	77.6
Bedford Park/ Bridgeview	60455	76.2	Mt. Greenwood	60655	77.0
Burbank	60459	78.5	Oak Lawn	60453; 60454	78.8
Chicago Lawn	60629	75.0	Orland Hills	60467	82.1
Chicago Ridge	60415	74.8	Orland Park	60462	80.5
Clearing	60638	76.0	Palos Hills	60465	80.1
Country Club Hills	60487	77.8	Palos Heights/ Palos Park	60463	81.5
Evergreen Park	60805	77.8	Tinley Park	60477	79.0
Elsdon	60632	81.0	West Englewood	60636	69.0
Hickory Hills	60457	77.0	Worth	60482	75.5
Hometown	60456	76.1			
Justice	60458	75.2			

Source: Metopio, National Center for Health Statistics, USALEEP, 2019

Key Findings: Health Status

- Between 2014 and 2016, the five leading causes of death in the medical center's PSA are heart disease, cancer, diabetes, stroke and chronic lower respiratory disease.
- Sixty-five percent of all deaths are due to chronic disease; heart disease and cancer account for almost 50 percent of those deaths.
- The average life expectancy for the medical center's PSA is 78.1 years compared to that of Cook County which is 78.5 years and the state of Illinois which is 78.7 years.
- Individuals residing in more affluent communities have a longer life expectancy when compared to individuals that reside in the lower socio-economic communities.
- Communities with the lowest life expectancy in the medical center's PSA include West Englewood, Auburn Gresham and Chicago Ridge.

Health Care Coverage and Access to Care

Health Care Coverage

Medical costs in the U.S. are extremely high, resulting in individuals without health insurance often being unable to afford medical treatment or prescription drugs. They are also less likely to get routine checkups and screenings, so if they do become ill, they may not seek treatment until the condition is

more advanced and therefore more difficult and costlier to treat. Many small businesses are unable to offer health insurance to employees due to rising health insurance premiums (Conduent Healthy Communities Institute, American Community Survey, 2019). In this section, data was analyzed using county level data due to lack of availability of PSA data for adults and children with health insurance and persons with private and public insurance. The indicator “Health Insurance Coverage by Households” was analyzed using PSA level data.

Adults with Health Insurance

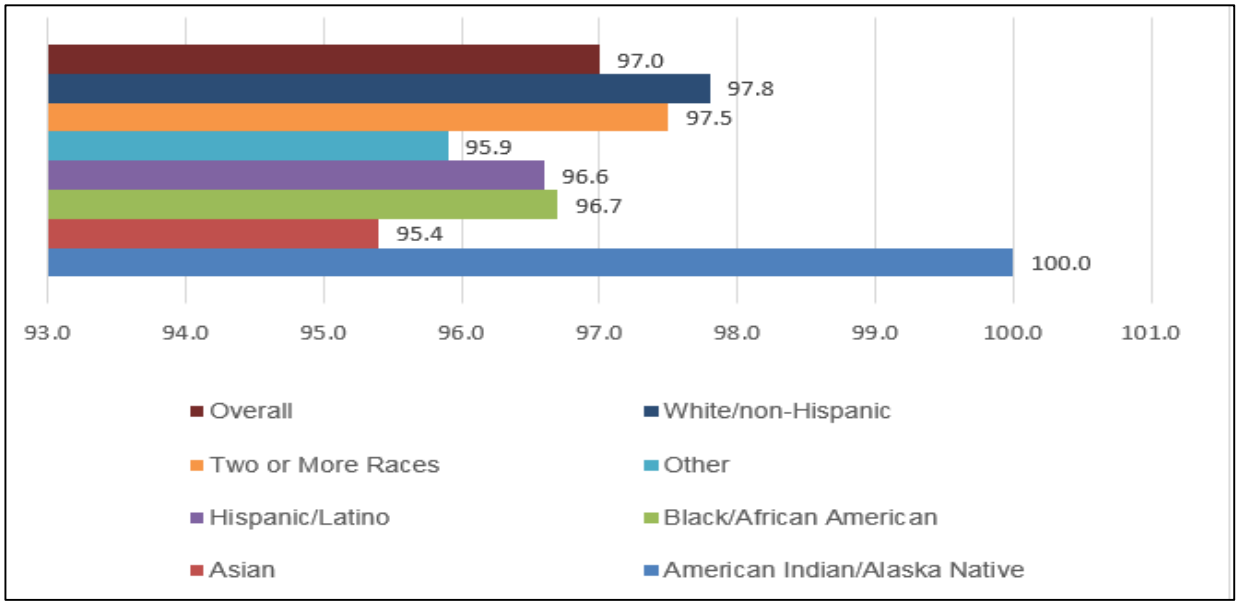
In Cook County, 87.4 percent of adults age 19 and over are identified as having health insurance. This value is slightly lower than the state and U.S. values of 90.2 percent and 87.7 percent respectively. More females (89.0 percent) have health insurance when compared to males (85.7 percent) in the county. This value is the lowest when compared to the six counties surrounding Cook County (Conduent Healthy Communities Institute, American Community Survey, 2019).

Children with Health Insurance

Health insurance for children is particularly important. To stay healthy, children require regular checkups, dental and vision care and medical attention for illness and injury. Children with health insurance are more likely to have better health throughout their childhood and adolescence. They are more likely to receive required immunizations, fall ill less frequently, obtain necessary treatment when they do get sick, and perform better at school. Having health insurance lowers barriers to accessing care, which is likely to prevent the development of more serious illnesses. This is not only of benefit to the child but also helps lower overall family health costs. Due to the implementation of the Affordable Care Act, changes were made to the definition of a "qualifying child." Under the ACA, a qualifying child is under age 19 at the close of the calendar year. Therefore, age categories used to measure health insurance now define those aged 18 and under as children (Conduent Healthy Communities Institute, 2019).

In Cook County, 97.0 percent of children have health insurance. This value is comparable to the state of Illinois value of 97.1 percent and higher that the U.S. value of 95.0 percent. Data indicates that in all race and ethnicity categories, more than 95 percent of children under age 19 had health insurance. Interestingly, 100 percent of children surveyed in the American Indian/Alaska Native population had health insurance. Exhibit 29 defines the percent of children with health insurance among ethnicities (Conduent Healthy Communities Institute, American Community Survey, 2019).

Exhibit 29: Cook County Percent of Children with Health Insurance by Ethnicity 2017

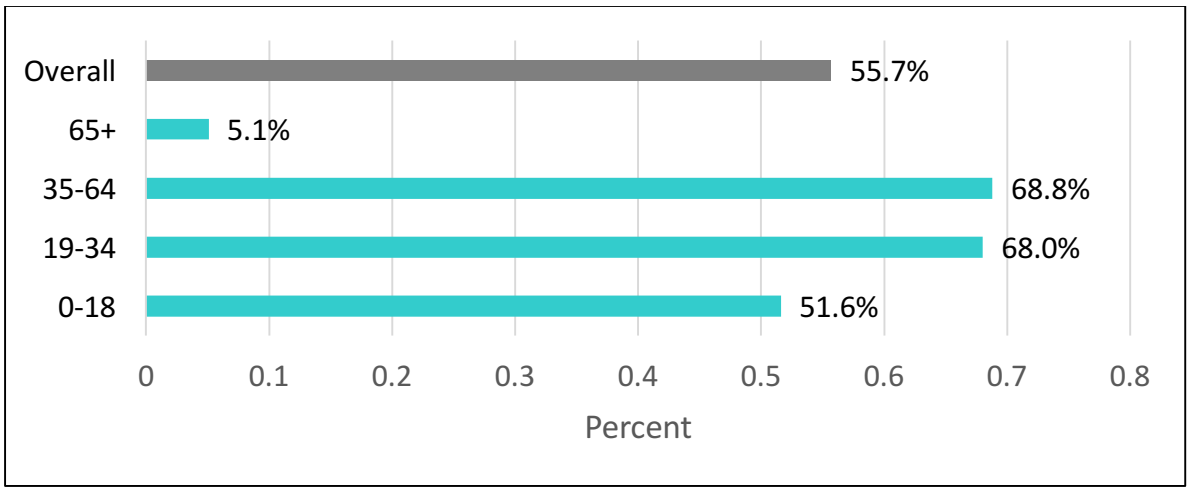


Source: Conduent Healthy Communities Institute, American Community Survey, 2019

Persons with Private Health Insurance Only

Private health insurance is the most common type of health insurance in the U.S. In 2017, 55.7 percent of people who reside in Cook County had private health insurance. This value is lower than the Illinois value of 59 percent and the U.S. value of 55.8 percent. Most covered individuals are 19-64 years of age (Exhibit 30).

Exhibit 30: Cook County Persons by Age with Private Health Insurance Only 2019

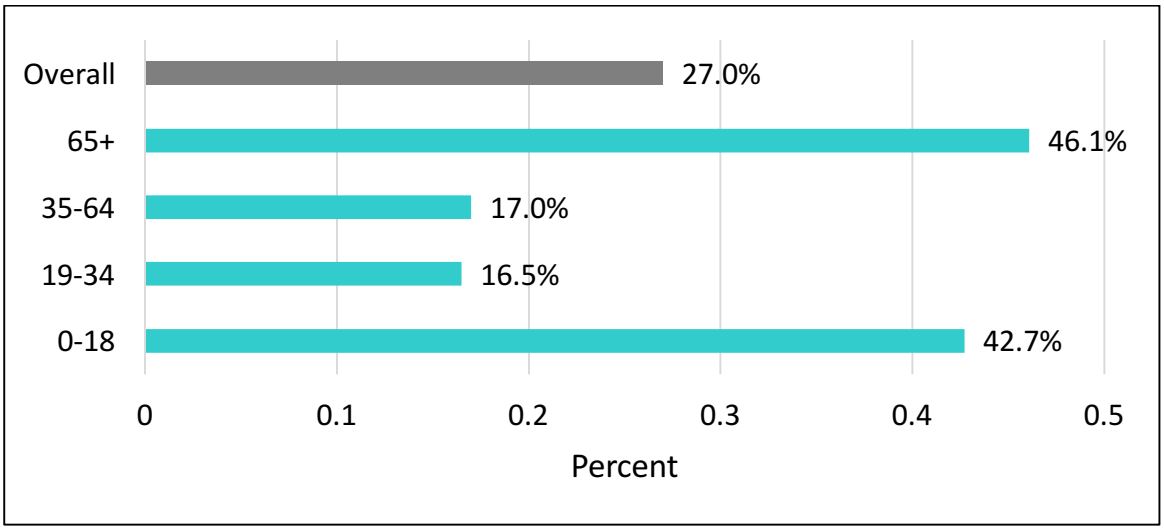


Source: Conduent Healthy Communities Institute, American Community Survey, 2019

Persons with Public Health Insurance Only

This indicator identifies the percentage of persons who have public health insurance only. Public health coverage includes the federal programs Medicare, Medicaid, and VA Health Care (provided through the Department of Veterans Affairs); the Children's Health Insurance Program (CHIP); and individual state health plans. In Cook County, 27.0 percent of the population had public health insurance; higher than the state rate of 23.3 percent and the U.S. rate of 23.6. The age groups of 65 and over (46.1 percent) and 0-18 years (42.7 percent) had the greatest level of public health insurance. Exhibit 31 illustrates the populations with public health insurance.

Exhibit 31: Cook County Persons by Age with Public Health Insurance Only 2017

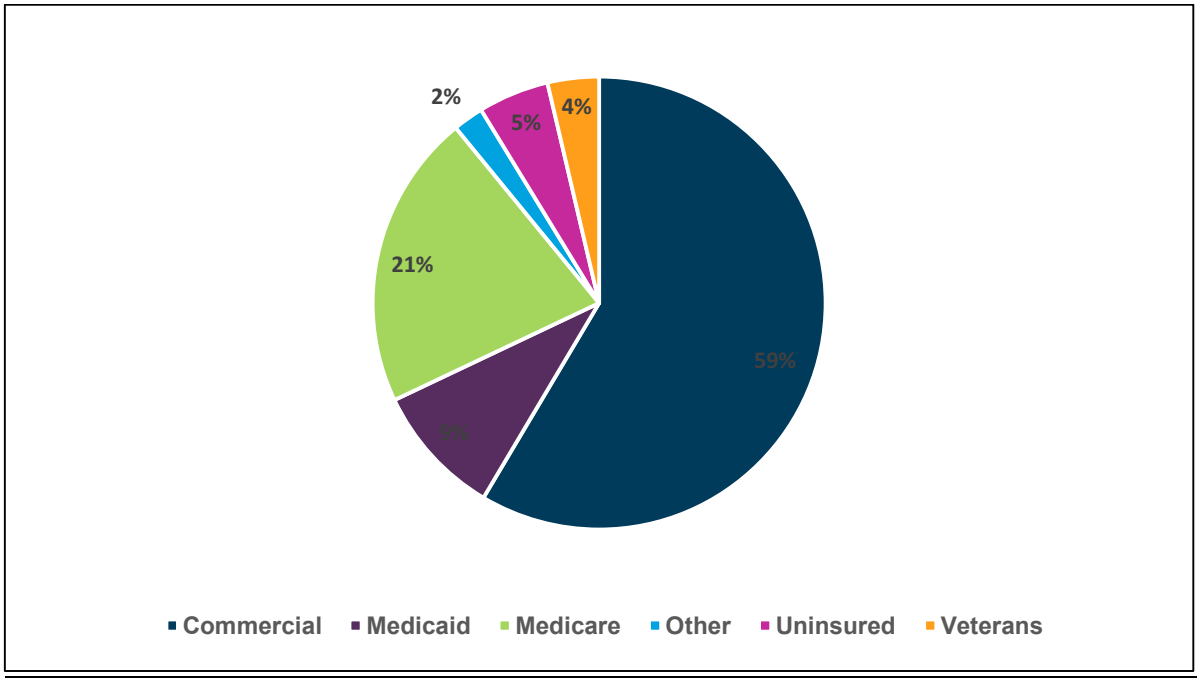


Source: Conduent Healthy Communities Institute, American Community Survey, 2019

Health Insurance Coverage by Households

In Advocate Christ's PSA, 59 percent of households are covered by commercial insurance, 21 percent by Medicare, 10 percent by Medicaid and 5 percent of households are uninsured. A total of 327,992 households have health insurance coverage in the PSA. Exhibit 32 depicts insurance coverage by households in the PSA.

Exhibit 32: Advocate Christ PSA Health Insurance Coverage by Household 2019



Source: Advocate Aurora Business Development Analytics, Sg2, 2019

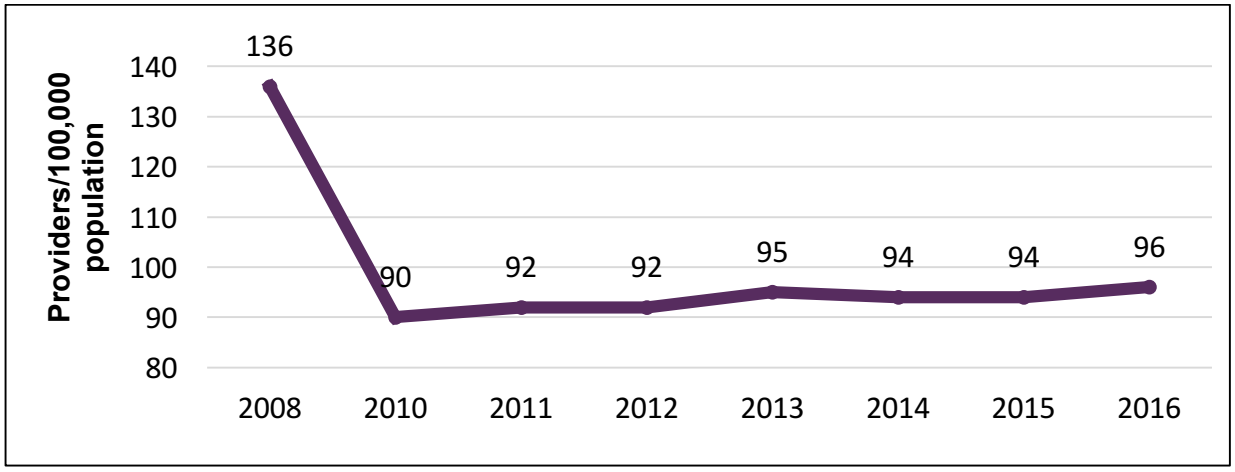
Access to Care

Primary Care Provider Rate

Primary care providers include practicing physicians specializing in general practice medicine, family medicine, internal medicine, and pediatrics. Access to primary care providers increases the likelihood that community members will have routine checkups and screenings. Moreover, those with access to primary care are more likely to know where to go for treatment in acute situations. Communities that lack a sufficient number of primary care providers typically have members who delay necessary care when sick and conditions can become more severe and complicated (Conduent Healthy Communities Institute, 2019). Due to lack of PSA data, county level data was used to analyze the indicators for primary care providers and non-physician primary care providers.

Compared to Illinois Counties, Cook County has a value of 96 providers per 100,000 population, which is in the top 50 percent of counties. Counties in the top 50 percent have a value of 43 providers per 100,000 population and above while counties in the bottom 25 percent have a value of 31 providers per 100,000 population and below (Conduent Healthy Communities Institute, 2019). Exhibit 33 depicts the primary care provider rate between 2008-2016.

Exhibit 33: Cook County Primary Care Provider Rate 2008-2016

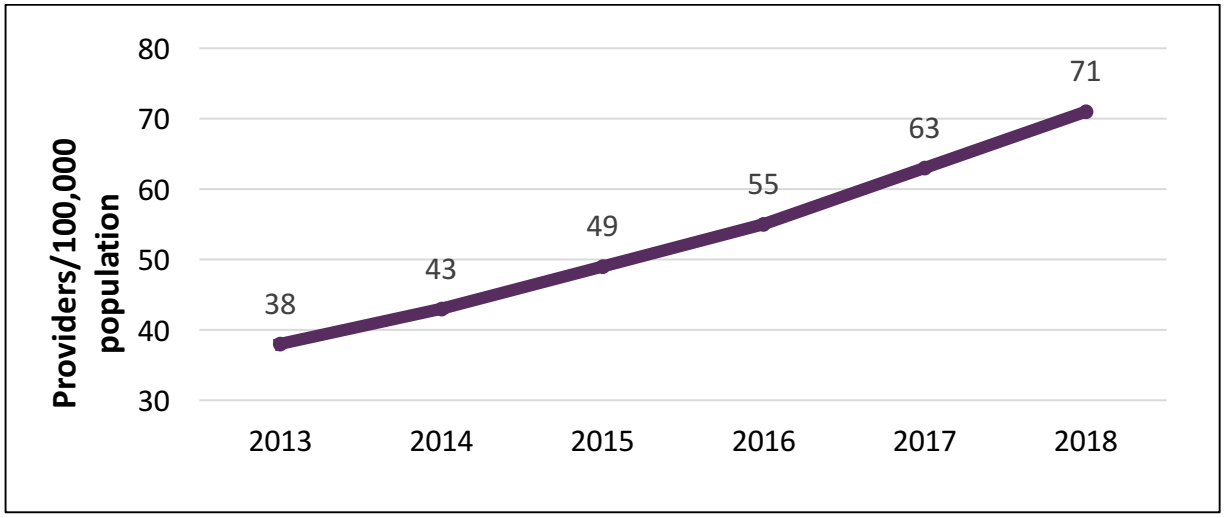


Note: Due to a change in the source's calculation methodology, comparison of 2010 data with earlier data is not recommended.
Source: Conduent Healthy Communities Institute, County Health Rankings, 2019

Non-Physician Primary Care Provider Rate

The number of non-physician clinicians has been increasing and is projected to continue to rise, partially making up for the shortfall of physicians. Primary care providers who are not physicians include nurse practitioners (NPs), physician assistants (PAs) and clinical nurse specialists. Compared to Illinois Counties, Cook County has a value of 71 providers per 100,000 population which is in the top 50 percent of counties. Counties in the top 50 percent have a value of 56 providers per 100,000 population and above while counties in the lowest 25 percent have a value of 38 providers per 100,000 population and below. Since 2013, the number of non-physician clinicians has nearly doubled, rising from 38 providers per 100,000 population to 71 providers per 100,000 population over a six-year span (Exhibit 34).

Exhibit 34: Cook County Non-Physician Primary Care Provider Rate 2013-2018



Note: Due to a change in the source's calculation methodology, comparison of 2010 data with earlier data is not recommended.
Source: Conduent Healthy Communities Institute, County Health Rankings, 2019

Key Findings: Health Care Coverage and Access to Care

- Eighty-seven point four percent of adults age 19 and older living in Cook County were identified as having health insurance.
- Ninety-seven percent of children residing in Cook County had health insurance.
- One hundred percent of children of American Indian/Alaska Native decent had health insurance.
- Of the 55.7 percent of people who reside in Cook County who have private health insurance, the majority are individuals ages 19-64.
- In Cook County, 27 percent of the population had public health insurance compared to the state of Illinois at 23.3 percent.
- Ranking in the top 50 percent Cook County has the most primary care and non-primary care providers among all counties in Illinois.

Modifiable Health Behaviors

Tobacco Use

Tobacco is the agent most responsible for avoidable illness and death in America today. The World Health Organization states that approximately one-third of all tobacco users in this country will die prematurely because of their dependence on tobacco. Areas with a high smoking prevalence will also have greater exposure to secondhand smoke for non-smokers, which can cause or exacerbate a wide range of adverse health effects such as cancer, respiratory infections and asthma (Conduent Healthy Communities Institute, 2019). Due to the lack of PSA data, county data was analyzed for this indicator to understand the significance of the indicator for adults and teens who smoke.

Adults who Smoke

Fourteen percent of adults in Cook County smoke, a slight improvement from the previous measurement period of 14.6 percent. This value is better than the State of Illinois (15.8 percent) and other U.S. counties (17.1 percent). According to the CDC, tobacco use brings premature death to almost half a million Americans each year, and it contributes to profound disability and pain in many others (Conduent Healthy Communities Institute, 2019).

Teens who Smoke

Health behavior patterns formed in adolescence play a crucial role in health throughout life. Individuals who start smoking young are more likely to have a long-term addiction to nicotine than people who start smoking later in life, putting them at greater risk for smoking-related illness and death. According to the CDC, tobacco use is responsible for nearly half a million deaths per year among adults in the U.S. If smoking prevalence among adolescents persists, it is estimated that 5 million persons under the age of 18 will die prematurely from smoking-related diseases. Since 2010, there has been a consistent decline in the number of teens who smoke in Cook County—declining from 16 percent in 2010 to five percent in 2016. This value is also favorably lower than the state of Illinois, which is at nine percent (Conduent Healthy Communities Institute, 2019).

Alcohol Use

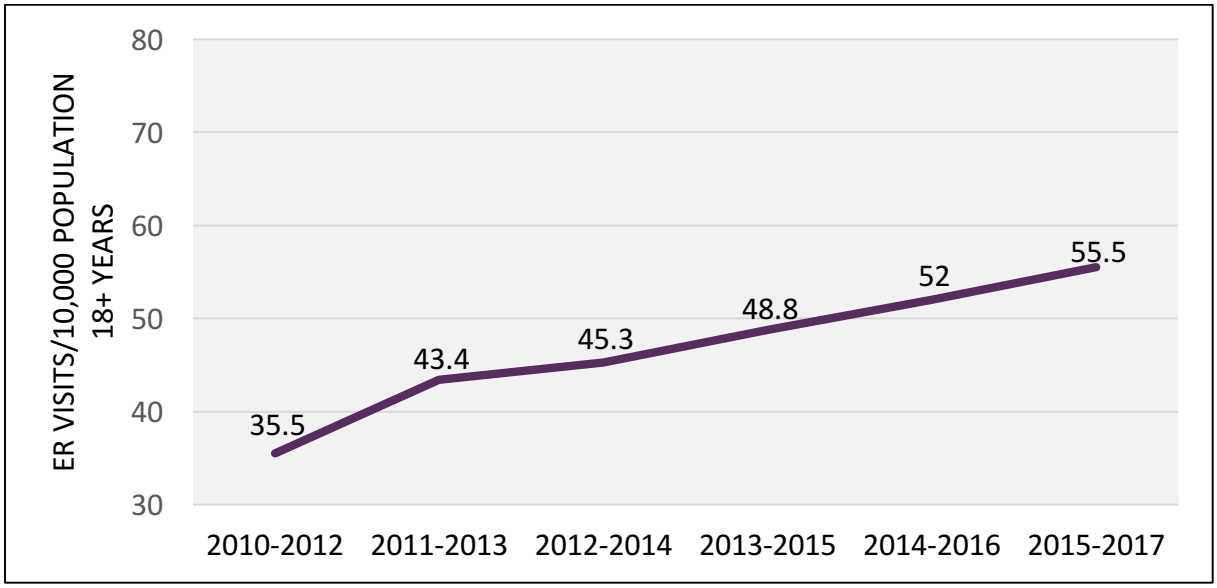
According to research by the National Institute on Alcohol Abuse and Alcoholism, adolescents who begin drinking at a young age are more likely to develop alcohol dependence than those who begin drinking at age 21. Patterns formed during adolescence play a critical role in health throughout adulthood. Alcohol use also impairs judgment and can lead to other high-risk behaviors such as drunk driving and unprotected sexual activity (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rate due to Alcohol Use

Alcohol abuse includes alcohol dependence syndrome, nondependent alcohol abuse, alcoholic psychoses, toxic effects of alcohol, and excessive blood level of alcohol. According to the CDC, excessive alcohol use, either in the form of heavy drinking or binge drinking can lead to increased risk of health problems such as liver disease or unintentional injuries (Conduent Healthy Communities Institute, 2019).

The rate of alcohol use continues to increase in the medical center's PSA. Advocate Christ's PSA age-adjusted ER rate due to alcohol use for adults 18 years and older is 55.5 per 10,000 population, which is equivalent to the state rate of 55.0 per 10,000 population but lower than the Cook County rate of 69.2 per 10,000 population. Note: Due to changes in methodology, data should not be compared to previous or following time periods (Exhibit 35). The medical center's PSA communities with highest age-adjusted ER visit rates due to alcohol abuse include Oak Forest (76.4), Auburn Gresham (77.3), Worth (112.3) and West Englewood (132.6).

Exhibit 35: Advocate Christ PSA Age-Adjusted ER Rate due to Alcohol Use in Adults 2010-2017

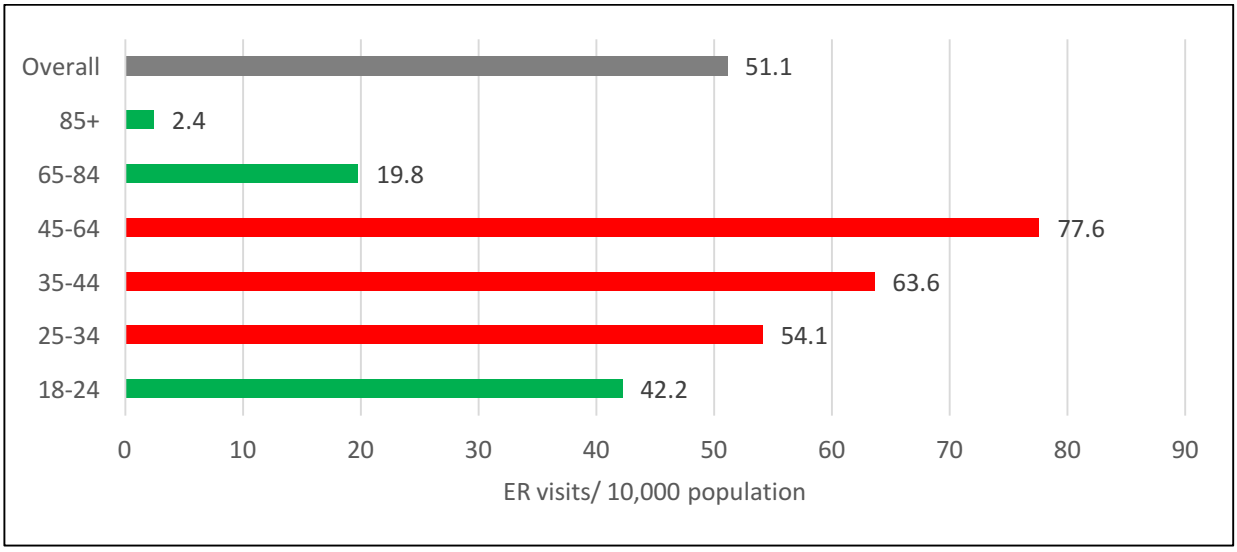


Note: Due to introduction of ICD-10 in 2015, 2013-2017 data should not be compared with previous data.
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted ER Rate due to Alcohol Abuse by Age

In 2015-2017, the age-adjusted ER rate due to alcohol abuse by age in the medical center's PSA is 42.2 per 10,000 population in the 18-24 age group, 54.1 in the 25-34 age group, 63.6 in the 35-44 age group, and 77.6 per 10,000 population in the 45-64 age group. When compared to the overall rate, data indicate that individuals between the ages of 35–64 years of age had a significantly higher rate of alcohol abuse than all age groups (Exhibit 36).

Exhibit 36: Advocate Christ PSA ER Rate due to Alcohol Abuse Age 18+ 2015-2017

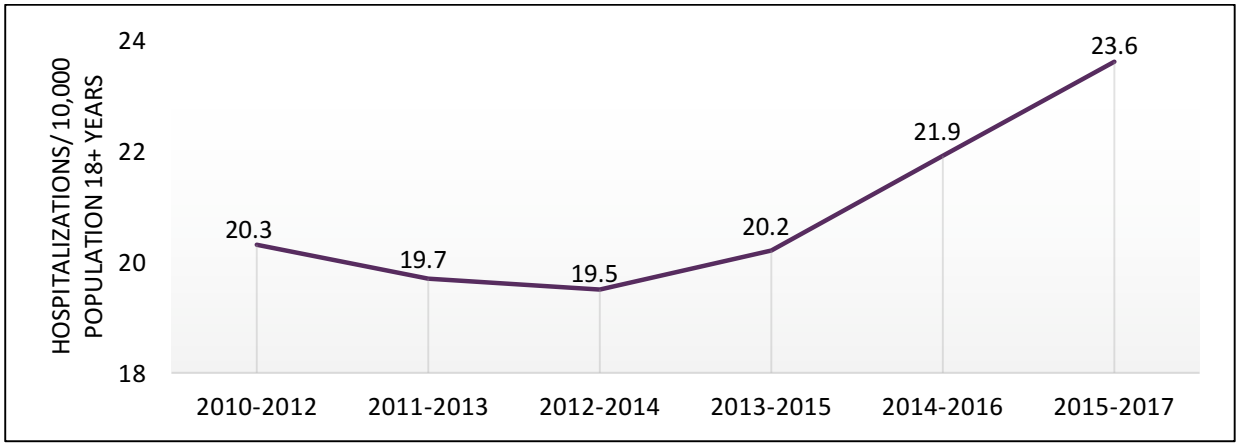


Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted Hospitalization Rate due to Alcohol Use

From 2010 to 2017, the age-adjusted hospitalization rate due to alcohol use for adults age 18 and older in the medical center's PSA fluctuated over time, partially due to different methods of ICD-10 coding. From 2010-2012, the age adjusted hospitalization rate was at 20.3 per 10,000 population and 19.5 per 10,000 population in 2012-2014. The hospitalization rate was 23.6 per 10,000 population in 2015-2017 compared to a state rate of 18.1 per 10,000 population (Exhibit 37).

Exhibit 37: Advocate Christ PSA Age-Adjusted Hospitalization Rate due to Alcohol Use Age 18+ 2010-2017

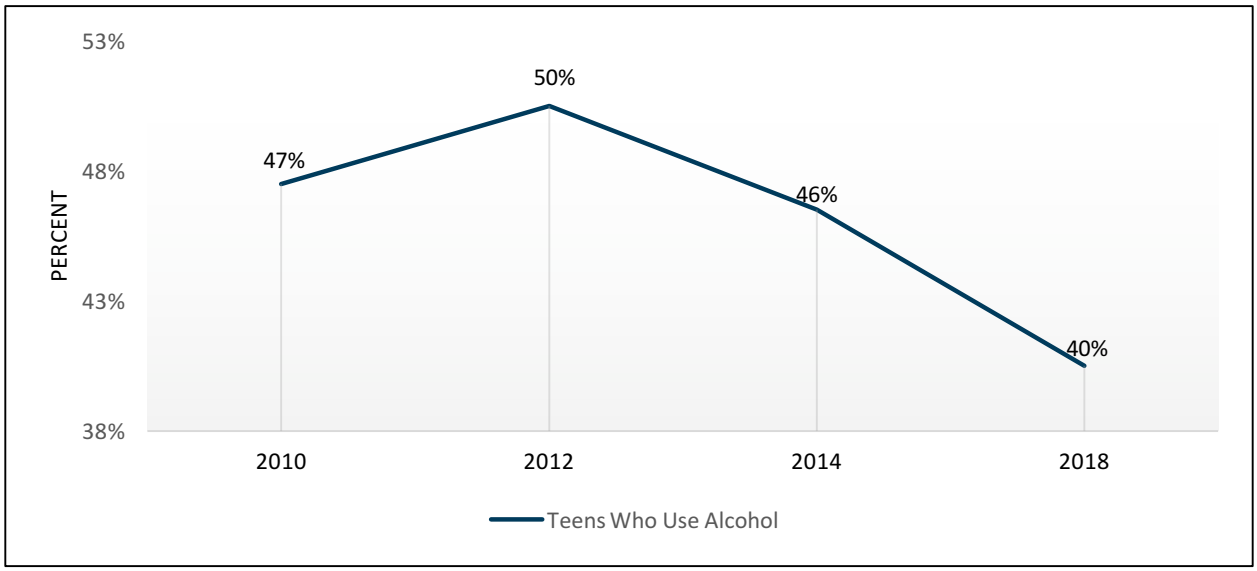


Note: Due to introduction of ICD-10 in 2015, 2013-2017 data should not be compared with previous data.
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Cook County Teens Who Use Alcohol

Data on teens who use alcohol was analyzed at the county level due to the data being unavailable for the primary service area. The percentage of alcohol use has trended downward from 2012 through 2018. The percentage of teens who used alcohol in 2012 (50 percent) decreased by 10 percent in 2018 (40 percent). See Exhibit 38.

Exhibit 38: Cook County Teens Who Use Alcohol 2010-2018



Note: Due to introduction of ICD-10 in 2015, 2013-2017 data should not be compared with previous data.
Source: Conduent Healthy Communities Institute, Illinois Youth Survey, 2019

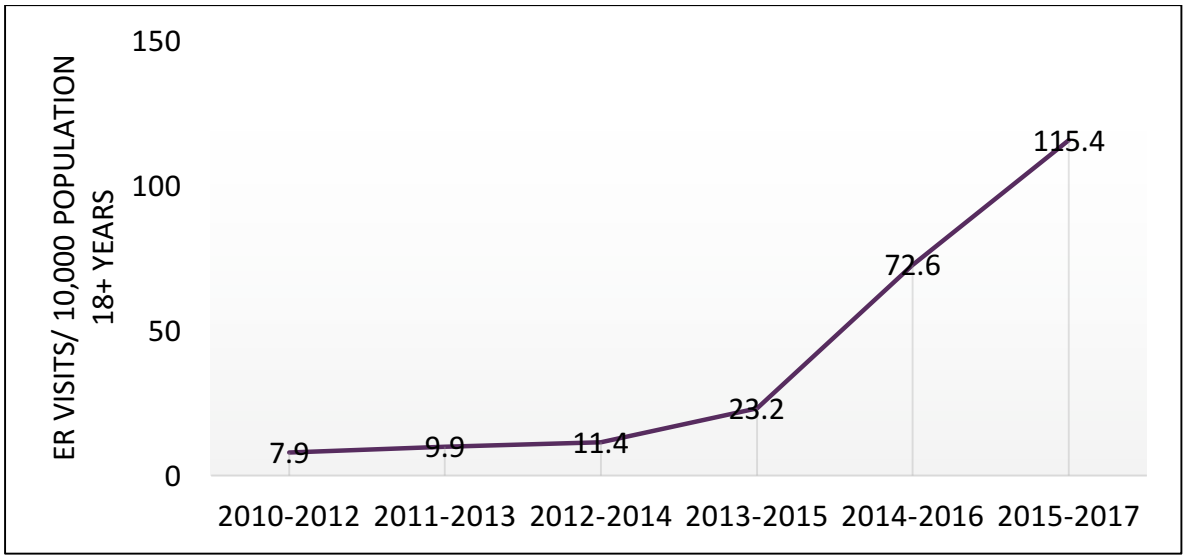
Substance Use

Substance abuse is a major public health issue that has a strong impact on individuals, families, and communities. The use of illicit drugs, abuse of alcohol, and addiction to pharmaceuticals is linked to serious health conditions including heart disease, cancer and liver disease. Substance abuse also contributes to a wide range of social, physical, mental and public health problems (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rate due to Substance Use

In Cook County, the age-adjusted ER rate due to substance use is 40.2 ER visits per 10,000 population,18 years and over. This number is high when compared to the state of Illinois value of 28.9 ER visits per 10,000 population. The medical center's PSA rate in 2015-2017 is 38.9 per 10,000 population, which is lower than the county rate. The PSA communities with the highest age-adjusted ER visit rates due to substance abuse are West Englewood (84.1), Tinley Park (93.6), Midlothian (112.3) and Oak Forest (120.4). It should be noted that during this survey cycle, there was a change in methodology due to the introduction of ICD-10 in 2015 (Exhibit 39).

Exhibit 39: Advocate Christ PSA Age-Adjusted ER Rate due to Substance Use Age 18+ 2010-2017

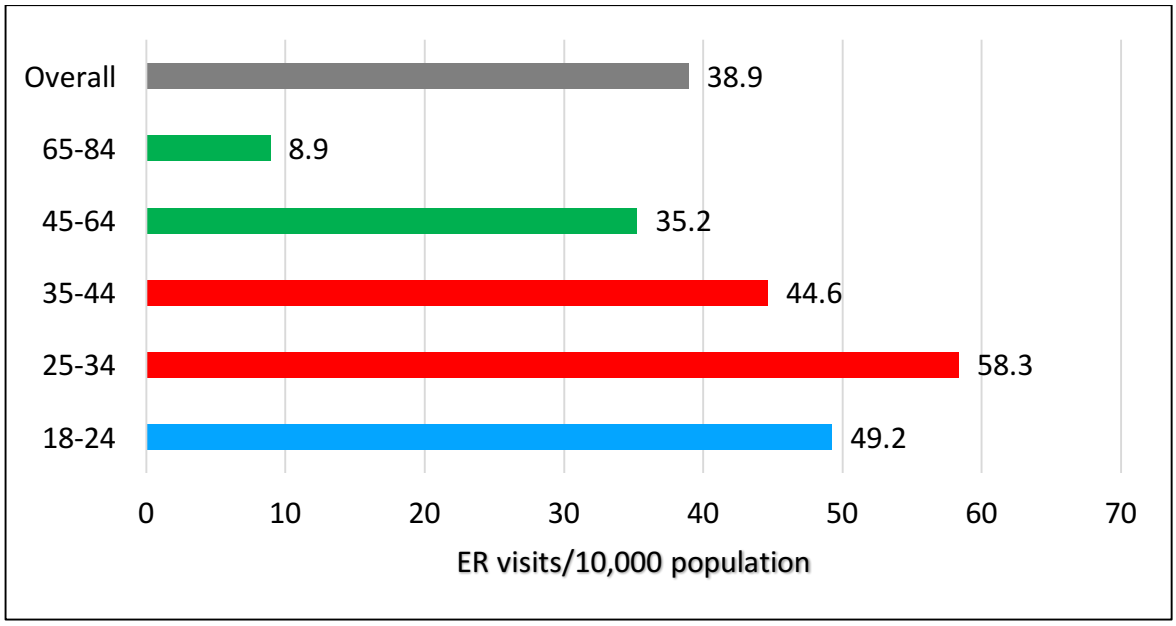


Note: Due to introduction of ICD-10 in 2015, 2013-2017 data should not be compared to previous data.
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted ER Rate due to Substance Use by Age/Gender/Race and Ethnicity

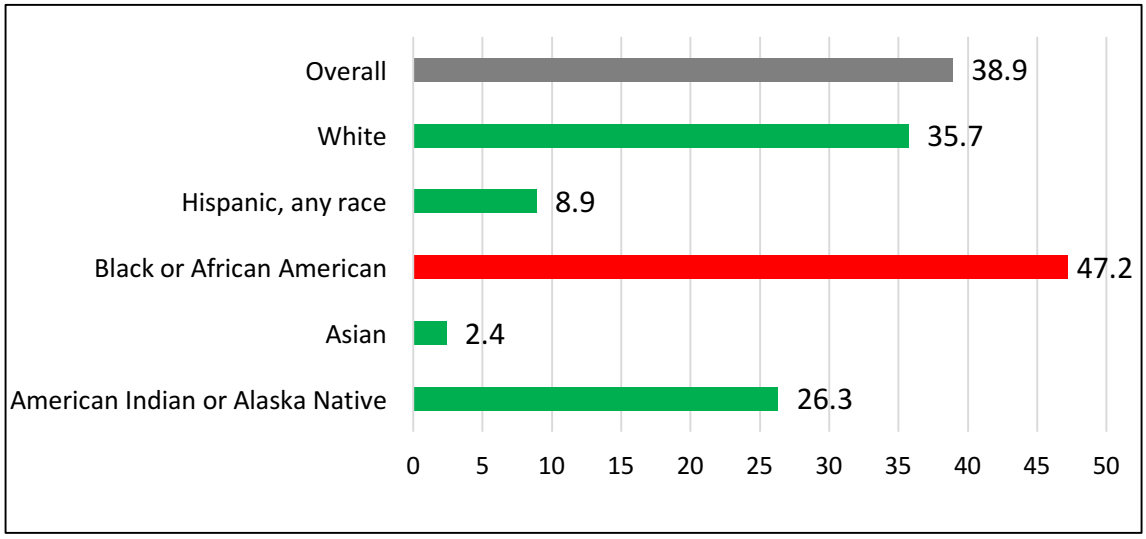
From 2015-2017, the ER rate due to substance abuse by age in the medical center's PSA is 49.2 per 10,000 population in the 18-24 age group, 58.3 in the 25-34 age group, 44.6 in the 35-44 age group, and 35.2 in the 45-64 age group. When compared to the overall rate, data indicate that individuals between the ages of 18-44 years of age had a significantly worse rate of substance abuse than the overall rate for all age groups combined (Exhibit 40). In the medical center's PSA, males (49.9) have a higher substance abuse rate when compared to females (28.3). A comparison of substance abuse rates by race/ethnicity shows that African American males have a higher substance abuse rate of 47.2 per 10,000 population than any other race (Exhibit 41).

Exhibit 40: Advocate Christ PSA Age-Adjusted ER Rate due to Substance Abuse 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Exhibit 41: Advocate Christ PSA Age-Adjusted ER Rate due to Substance Abuse by Race/Ethnicity 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Key Findings: Modifiable Health Behaviors

- There is a consistent reduction in smoking rates in Cook County for both adults and adolescents between 2012 and 2016. The number of teens who smoke in Cook County declined from 16 percent in 2010 to five percent in 2018.
- The medical center's PSA communities with the highest age-adjusted ER visit rates due to alcohol abuse include Oak Forest, Auburn Gresham, Worth and West Englewood.
- From 2015-2017, substance abuse in the medical center's PSA was higher (45.8) than the Cook County's rate of 49.1 per 10,000 population.
- The medical center's PSA communities with highest age-adjusted ER visit rates due to substance abuse include West Englewood, Oak Forest, Midlothian and Tinley Park.
- African American males have a higher substance abuse rate than any other race.

Disease and Chronic Conditions

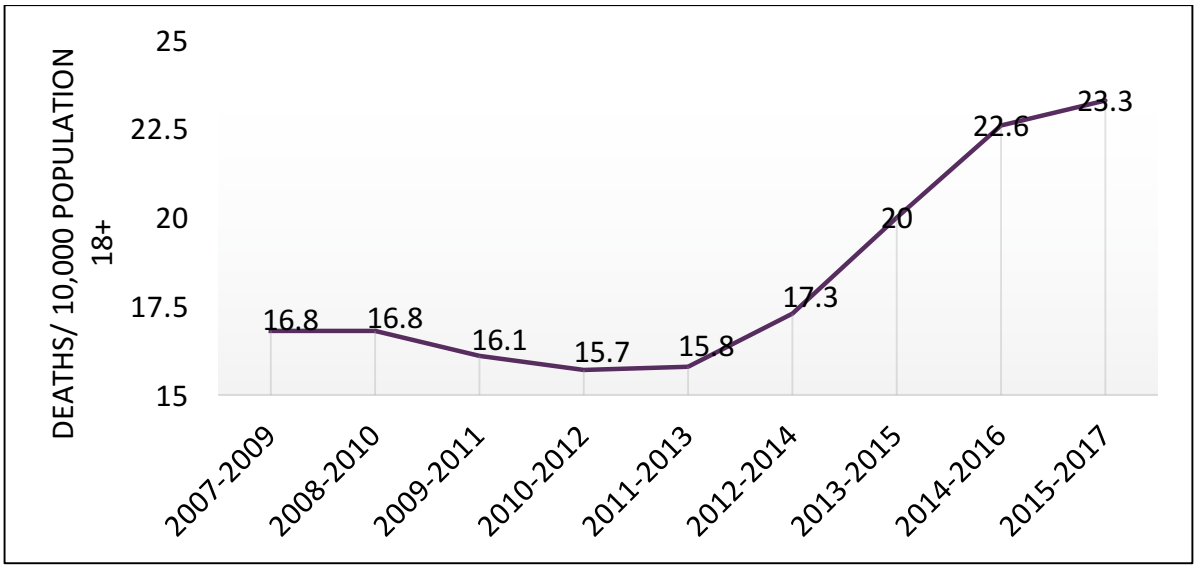
Alzheimer's Disease or Dementia

According to the CDC, Alzheimer's disease is the fifth leading cause of death among adults aged 65 and older. The Alzheimer's Association notes that the number of people age 65 and older with Alzheimer's disease is estimated to reach 7.1 million by 2025—a 40 percent increase from an estimated 5 million adults age 65 and older currently affected by the disease. Medicare costs for those with Alzheimer's and other dementias were estimated to be $107 billion dollars in 2013. Females have a higher incidence of Alzheimer's disease than males within the county (Healthy Communities Institute, 2019). Due to the lack of PSA-level data, county-level data was used to analyze rates of Alzheimer's Disease.

Age-Adjusted Death Rate due to Alzheimer's Disease

In Cook County, the age-adjusted death rate due to Alzheimer's Disease is 23.3 deaths per 100,000 population. Although the value is increasing over a period of 2015-2017, the rate is lower than the Illinois value of 25.2 and the U.S. value of 30.3 deaths per 100,000 population. When compared to Illinois counties, Cook County's rate is in the top 50 percent (Exhibit 42).

Exhibit 42: Cook County Age-Adjusted Death Rate due to Alzheimer's Disease 2007-2017



Source: Conduent Healthy Communities Institute, Centers for Medicare and Medicaid Services, 2019

Cancer

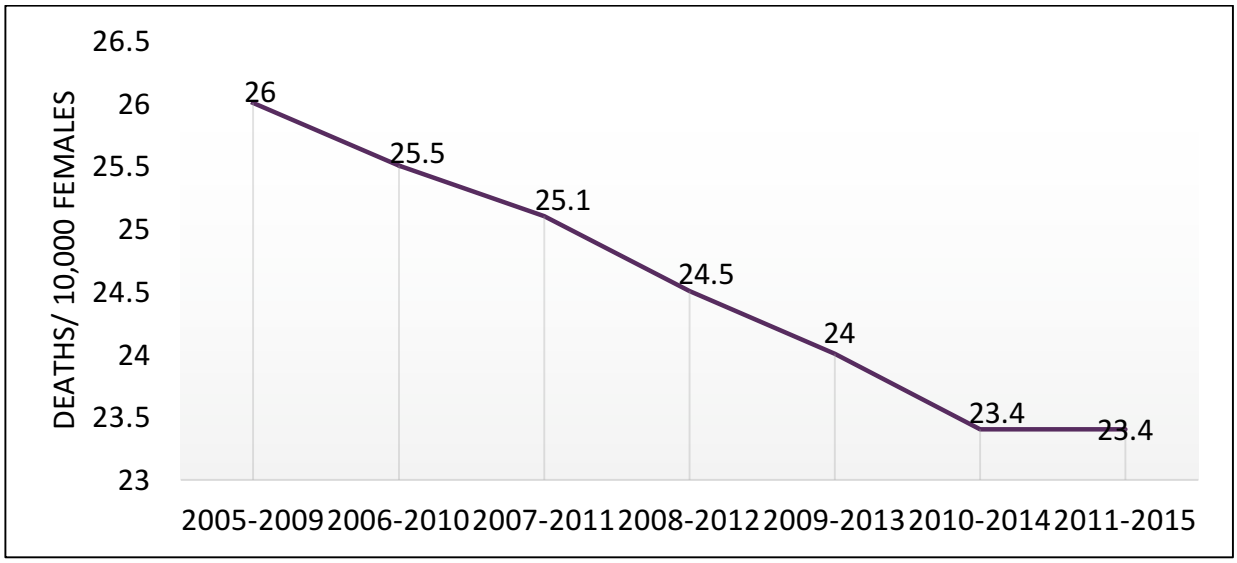
Breast Cancer

Breast cancer is a leading cause of cancer death among women in the U.S. According to the American Cancer Society, about 1 in 8 women will develop breast cancer and about 1 in 36 women will die from breast cancer. Breast cancer is associated with increased age, hereditary factors, obesity and alcohol use. Since 1990, breast cancer death rates have declined progressively due to advancements in treatment and detection (Conduent Healthy Communities Institute, 2019). Due to the lack of PSA-level data, county-level data use was analyzed to determine breast cancer death and incidence rates.

Age-Adjusted Death Rate due to Breast Cancer

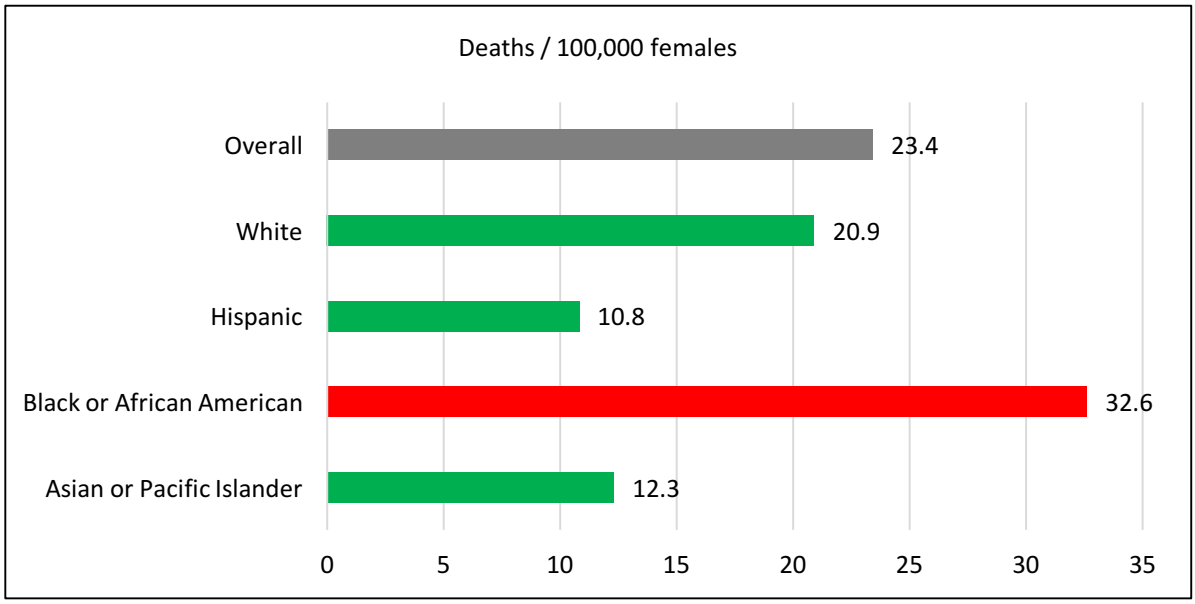
The age-adjusted death rate due to breast cancer in Cook County is 23.4 deaths per 100,000 females slightly higher compared to the Illinois rate of 22.4 deaths per 100,000 females. Although the rates are declining the values are higher than the U.S. value of 20.9 deaths per 100,000 females (Exhibit 43). The age-adjusted death rate due to cancer among Blacks/African Americans remains the highest in the county at 32.6 deaths per 100,000 females which is highest among all race and ethnicities (Exhibit 44).

Exhibit 43: Cook County Age-Adjusted Death Rate due to Breast Cancer 2005-2015



Source: Conduent Healthy Communities Institute, National Cancer Institute, 2019

Exhibit 44: Cook County Age-Adjusted Death Rate due to Breast Cancer by Race/Ethnicity 2011-2015



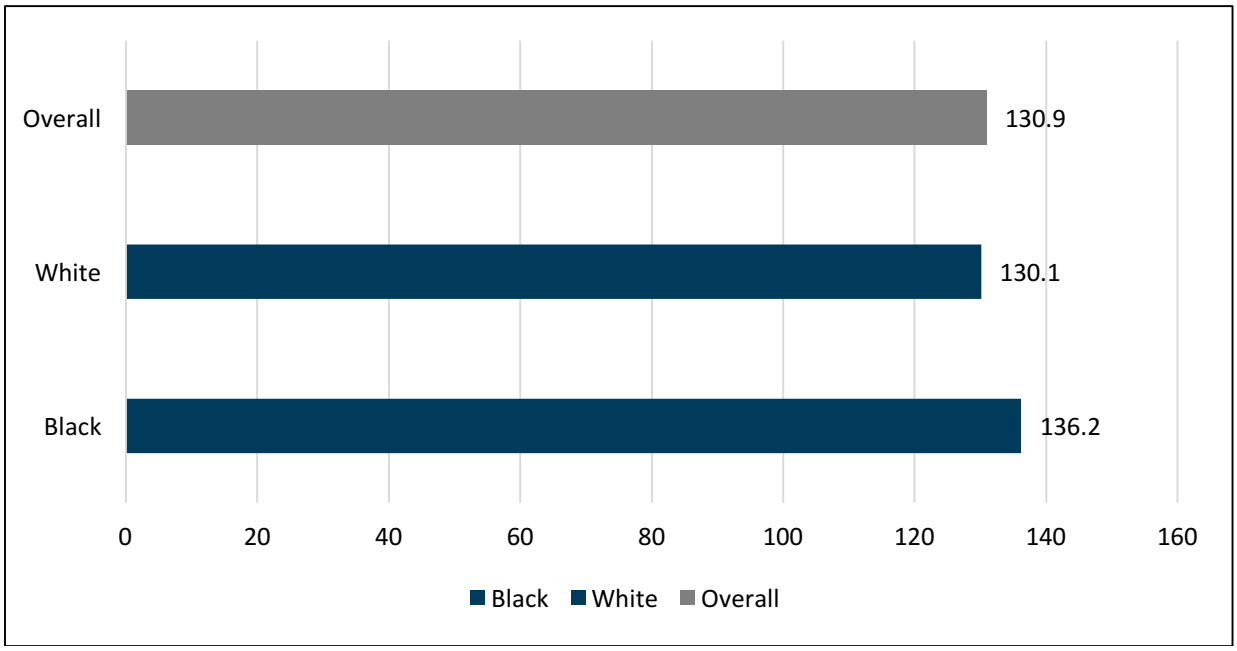
Source: Conduent Healthy Communities Institute, National Cancer Institute, 2019

Breast Cancer Incidence Rate

The incidence rate for breast cancer in Cook County is 130.9 cases per 100,000 females, which is in the second worst quartile of counties in Illinois. Counties in the best 50 percent have a value lower than 125.9 cases per 100,000 females, while counties in the worst 25 percent have a value higher than 134.5. However, the county value is in comparison to the state value of 131.7 per 100,000 population.

Data indicate that when comparing the breast cancer incidence rate between black and white women, there is not a significant difference from the overall value of 130.9 (Exhibit 45).

Exhibit 45: Cook County Breast Cancer Incidence Rate 2011-2015



Source: Conduent Healthy Communities Institute, National Cancer Institute, 2018

Colorectal Cancer

According to the CDC colorectal cancer—cancer of the colon or rectum—is one of the most commonly diagnosed cancers and the second leading cancer killer in the U.S. The CDC estimates that if all adults aged 50 or older had regular screening tests for colon cancer, as many as 60% of the deaths from colorectal cancer could be prevented (Conduent Healthy Communities Institute, 2019). Due to lack of PSA level data, county level data was used to analyze the indicators for colorectal cancer.

Age-Adjusted Death Rate due to Colorectal Cancer

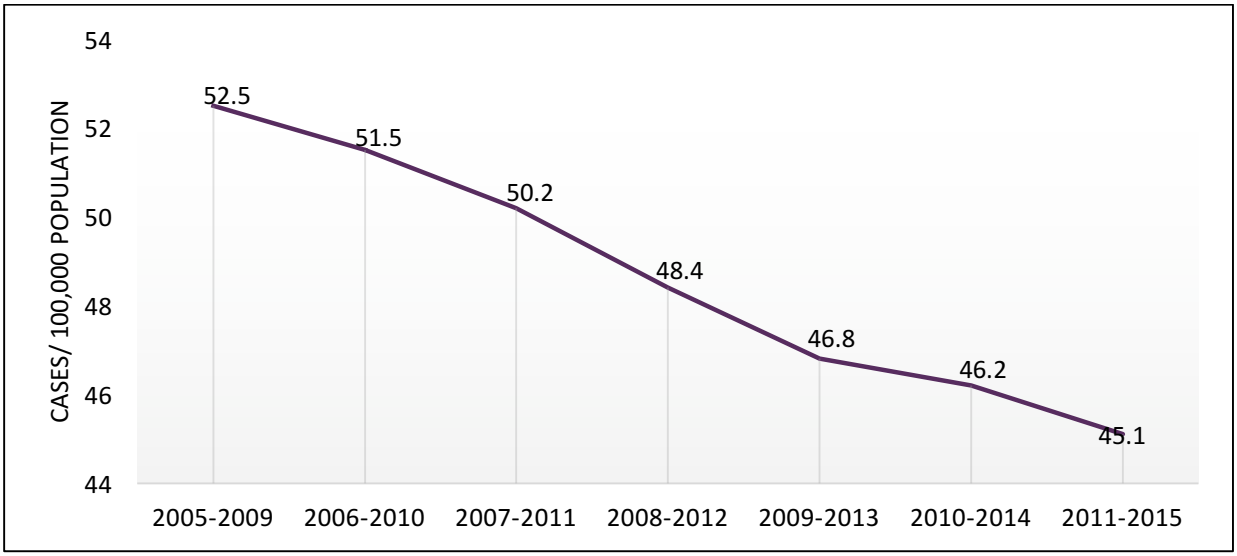
The age-adjusted death rate due to colorectal cancer in Cook County is 16.5 deaths per 100,000 population, trending favorably down from the previous value of 19.4. Although the death rate has continued to decline since 2005 at 19.4 deaths per 100,000 population, the rate for males remains high at 20.4 per 100,000 population; and is even higher for Blacks/African Americans at 24.4 deaths per 100,000 population (Conduent Healthy Communities Institute, 2019).

Colorectal Cancer Incidence Rate

The incidence rate of colorectal cancer in Cook County is decreasing over time (Exhibit 46). However, the incidence rate of colorectal cancer among Blacks/African American population is 54.9 cases per 100,00 population significantly worse than the overall value of 45.1 cases per 100,00 population in Cook County. The incidence rate for the White population is 41.9 cases per 100,000 population—better

than the overall rate in Cook County. The Cook County rate is higher than both the state of Illinois rate of 43.9 cases per 100,000 population and the county value of 39.2 cases per 100,000 population. Males and African Americans have the highest number of cases per 100,000 population in the gender and race/ethnicity categories (Conduent Healthy Communities Institute, 2019).

Exhibit 46: Cook County Colorectal Cancer Incidence Rate 2005-2015



Source: Conduent Healthy Communities Institute, National Cancer Institute, 2018

Cervical Cancer

Cervical cancer that is detected early is one of the most successfully treatable cancers and can be cured by removing or destroying the pre-cancerous or cancerous tissue. Cervical cancer is detected by Pap test screenings and is most often caused by human papillomavirus (HPV), which is a type of infection transmitted through sexual contact (Conduent Healthy Communities Institute, 2019). Due to lack of PSA level data, county level data was used to analyze the indicators for cervical cancer.

Cervical Cancer Incidence Rate

In suburban Cook County, 68.5 percent of women 18 and over had a Pap smear in the past year. Although this is good news when compared to the Illinois value of 65.6 percent, the value has unfavorably decreased from a prior value of 74.9 percent. Since 2005, the incidence rate for cervical cancer has demonstrated continued improvement, decreasing from 10.3 cases per 100,000 to 8.4 cases per 100,000 females. However, the number of cases for Blacks/African Americans remains higher at 11.1 cases per 100,000 population when compared to the overall rate. The White population experienced a better rate than the overall rate with a rate of 7.6 cases per 100,000 population (Conduent Healthy Communities Institute, 2019).

Lung Cancer

According to the American Lung Association, more people die from lung cancer annually than any other type of cancer, exceeding the total deaths caused by breast cancer, colorectal cancer and prostate cancer combined. The greatest risk factor for lung cancer is duration and quantity of smoking. While the mortality rate due to lung cancer among men has reached a plateau, the mortality rate due to lung cancer among women continues to increase. African Americans have the highest risk of developing lung cancer (Conduent Healthy Communities Institute, 2019). Due to lack of PSA level data, county level data was used to analyze the indicators for lung cancer.

Age-Adjusted Death Rate due to Lung Cancer

The age-adjusted death rate due to lung cancer in Cook County is 42.7 deaths per 100,000 population. Over time, the Cook County value has significantly decreased. The value is lower than the Illinois value of 46.3, the U.S. value of 43.4 and the prior value of 44.0. When compared to Illinois and U.S. counties, Cook County has a rate in the best 50 percent of counties. In the county the age-adjusted death rate for males is substantially higher with a value of 53.4 deaths per 100,000 population; this disparity is even greater by race/ethnicity with a value of 56.2 deaths per 100,000 population among Blacks (Conduent Healthy Communities Institute, 2018).

Lung Cancer Incidence Rate

Over a ten-year period, the incidence rate for lung cancer has favorably declined from 68.1 cases per 100,000 population to 61.3 cases per 100,000 population. However, as indicated above, males and Blacks continue to have the highest number of cases per 100,000 population (Conduent Healthy Communities Institute, 2019).

Prostate Cancer

Prostate cancer is a leading cause of cancer death among men in the U.S. According to the American Cancer Society, about 1 in 7 men will be diagnosed with prostate cancer and about 1 in 36 will die from prostate cancer. The two greatest risk factors for prostate cancer are age and race, with men over the age of 65 and men of African descent possessing the highest incidence rates of prostate cancer in the U.S. (Conduent Healthy Communities Institute, 2019). Due to lack of PSA level data, county level data was used to analyze the indicators for prostate cancer.

Age-Adjusted Death Rate due to Prostate Cancer

Over a ten-year period, Cook County has seen a consistent decrease in the age-adjusted death rate due to prostate cancer. Compared to a rate of 29.4 in 2005, the current rate of 23.7 deaths per 100,000 males, shows marked improvement within the county. However, the county rate remains higher than the Illinois rate of 20.5 deaths per 100,000 males and the U.S. value of 19.5 deaths per 100,000 males (Conduent Healthy Communities Institute, 2019).

Prostate Cancer Incidence Rate

In Cook County, the incidence rate for those impacted by prostate cancer is 118.7 per 100,000 population. This rate is higher than the Illinois rate of 114.9 per 100,000 population and higher than the U.S. rate of 109.0 per 100,000 population. Compared to Illinois counties, Cook County has a rate which is in the second worst quartile of counties. The incidence rate of prostate cancer cases has seen a significant decline in the same ten-year period. However, as stated above, Blacks continue to have the highest rates of prostate cancer with 175.7 cases per 100,000 population (Conduent Healthy Communities Institute, 2019).

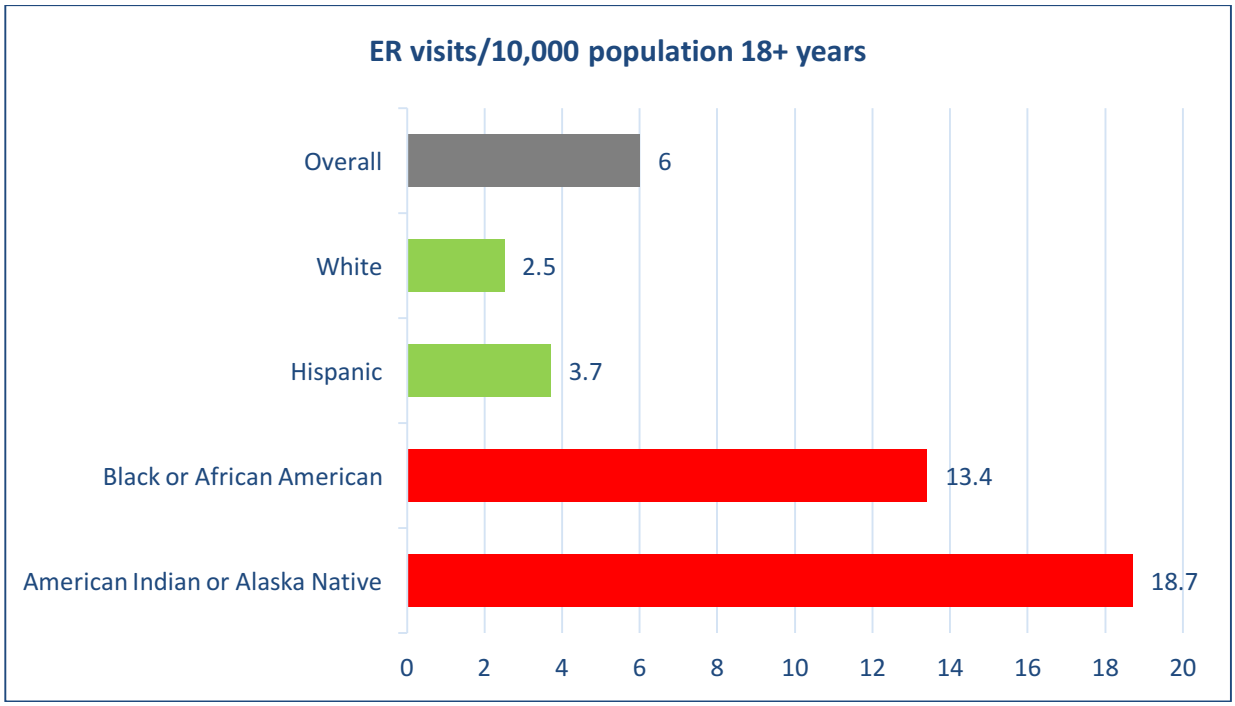
Cardiovascular Disease

Heart failure is a condition in which the heart can't pump enough blood to the body's other organs. This can result from a variety of conditions including coronary artery disease, diabetes, previous heart attack, hypertension, heart infections, diseases of the heart valves or muscle, and congenital heart defects. According to the CDC, approximately 5.7 million people in the U.S. have heart failure, and about half of people who develop heart failure will die within five years of diagnosis (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rates due to Heart Failure

In Advocate Christ's PSA, the age-adjusted ER rate due to heart failure for 18+ years is 6.0 ER visits per 10,000 population, which is lower than the Cook County rate of 7.1 and the state rate of 8.7 per 10,000 population. The age-adjusted ER rate due to heart failure is highest in those age 45 and older ranging from 15.7 per 10,000 population to 40.2 per 10,000 population. Males have a higher rate of heart failure at 6.5.3 per 10,000 population compared to females at 5.5 per 10,000 population. American Indian or Alaska Native and African Americans have more than double the rate of heart failure when compared to all races (Exhibit 47). Communities in Advocate Christ's PSA that have the highest rates due to heart failure are West Englewood (22.7) and Auburn Gresham (17.9).

Exhibit 47: Advocate Christ PSA Age-Adjusted ER Rate due to Heart Failure by Race/Ethnicity 2015-2017

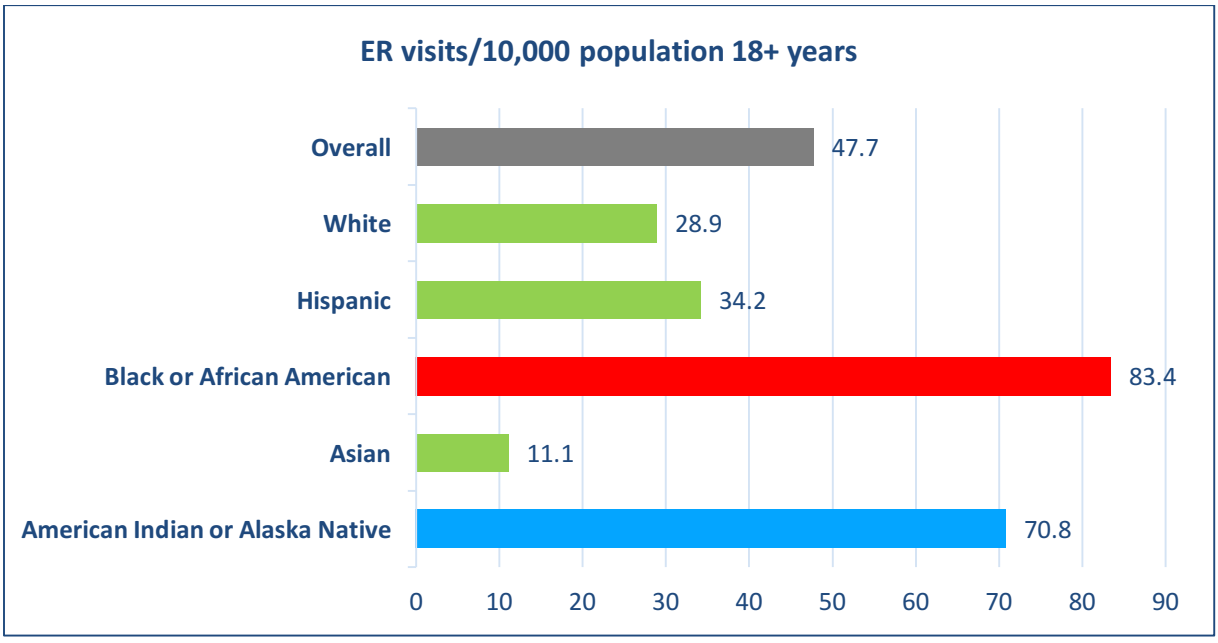


Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted Hospitalization Rate due to Heart Failure

The age-adjusted hospitalization rate due to heart failure for the PSA is 47.7 per 10,000 age 18 years and older compared to the Illinois state rate of 36.3 per 10,000 population. Populations most affected by hospitalization due to heart failure are populations age 65 and older. African Americans have the highest hospitalization rates due to heart failure which is almost double the overall rate for all races (Exhibit 48). Communities that have the highest rates in the medical center's PSA are West Englewood (125.1), Chicago Lawn (57.1) and Auburn Gresham (100.7).

Exhibit 48: Advocate Christ PSA Age-Adjusted Hospitalization Rate due to Heart Failure by Race/Ethnicity 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

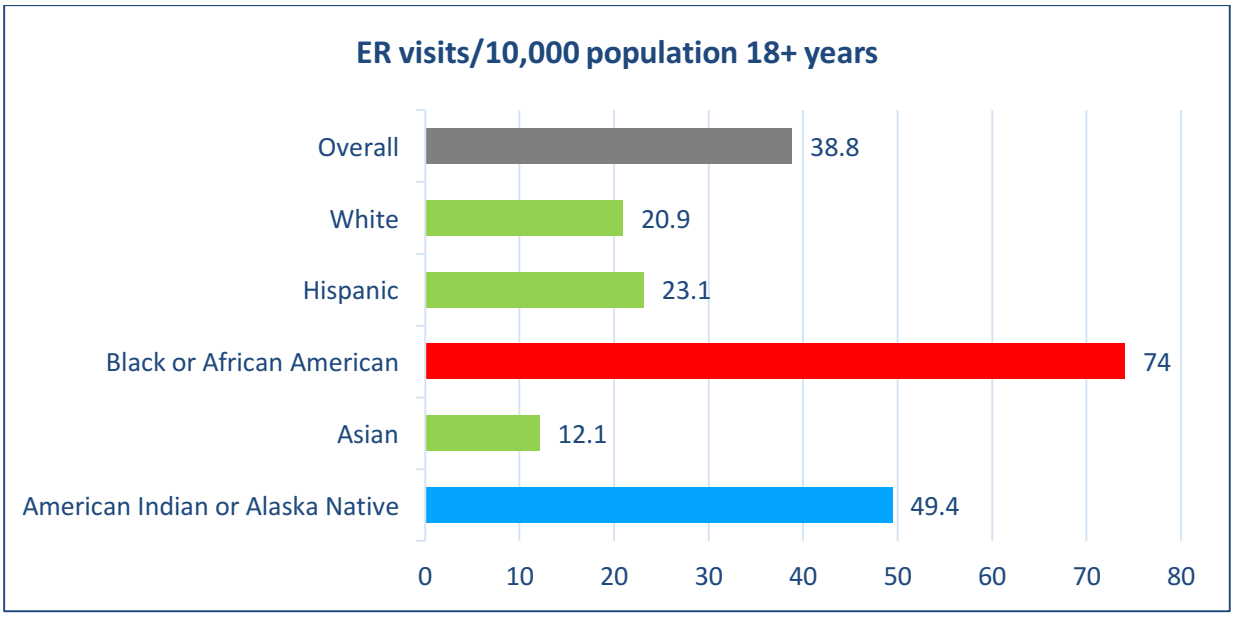
Hypertension

Hypertension, also known as high blood pressure, is a significant increase in blood pressure in the arteries. Hypertension is the leading cause of stroke and a major cause of heart attacks and, if left untreated, can lead to damage of the blood vessels and kidneys, vision loss and angina. Many factors affect blood pressure, including salt intake, kidney health and hormone levels. The risk for high blood pressure increases with obesity, diabetes, high salt intake, high stress levels, high alcohol intake and tobacco use. According to the CDC, nearly 1 in 3 adults have hypertension, with only half of these individuals having their condition under control (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rate due to Hypertension

In the Advocate Christ PSA, the adjusted ER rate due to Hypertension is 38.8 ER visits per 10,000 population 18 years and older. This rate is slightly higher than the state rate of 36.4 ER visits per 10,000 population 18 years and older. Females have a higher age-adjusted ER rate at 42.6 per 10,000 population compared to males at 33.7 per 10,000 population. African Americans have significantly higher ER rates (74.0 per 10,000 population) than other races. The communities of West Englewood (93.4 per 10,000 population) and Auburn Gresham (85.8 per 10,000 population) have significantly higher rates than both the overall Advocate PSA and the Illinois rates (Exhibit 49).

Exhibit 49: Advocate Christ PSA Age-Adjusted ER Rate due to Hypertension by Race Ethnicity 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted Hospitalization Rate due to Hypertension

The current rate for Advocate Christ PSA is 6.3 hospitalizations per 10,000 population 18 years and older. This rate is higher than the state rate of 5.1 per hospitalizations per 10,000 population 18 years and older. Since 2010, the age adjusted hospitalization rate due to hypertension in the medical center's PSA demonstrated slight improvements during a four-year period with a rate of 7.5 per 10,000 population in 2013 and a rate of 6.2 per 10,000 population in 2017. African Americans have a higher hospitalization rate (14.5 per 10,000) due to hypertension when compared to the overall rate of 6.3 per 10,000 (Conduent Healthy Communities Institute, 2019).

Cerebrovascular Disease (Stroke)

Cerebrovascular disease refers to conditions, including stroke, caused by problems with the blood vessels supplying the brain with blood. Cerebrovascular disease is a leading cause of death in the U.S., and although it is more common in older adults, it can occur at any age. The most important modifiable risk factor for cerebrovascular disease and stroke is high blood pressure. Other risk factors include high cholesterol, heart disease, diabetes mellitus, physical inactivity, obesity, excessive alcohol use and tobacco use. Cerebrovascular (stroke) and coronary heart disease rates were analyzed using county level data due to lack of availability of PSA level data (Conduent Healthy Communities Institute, 2019).

Age-Adjusted Death Rate due to Stroke

The age-adjusted death rate due to stroke for Cook County is 40.2 deaths per 100,000 population (CDC, 2015-2017). The age-adjusted death rate from stroke is higher in Cook County when compared to Illinois (38.8) and the U.S. (34.8) deaths per 100,000 population. The rate for African Americans of

58.0 deaths per 100,000 population is significantly worse than the overall rate for all races (Conduent Healthy Communities Institute, 2019).

Age-Adjusted Death Rate due to Coronary Heart Disease

In Cook County, there has been a decrease in mortality rates for coronary heart disease. Over the past decade, Cook County's heart disease death rate has dropped favorably from 132.9 to 88.9 deaths per 100,000 population. This rate is also below the Healthy People 2020 target of 103.4 per 100,000 population (Conduent Healthy Communities Institute, 2019).

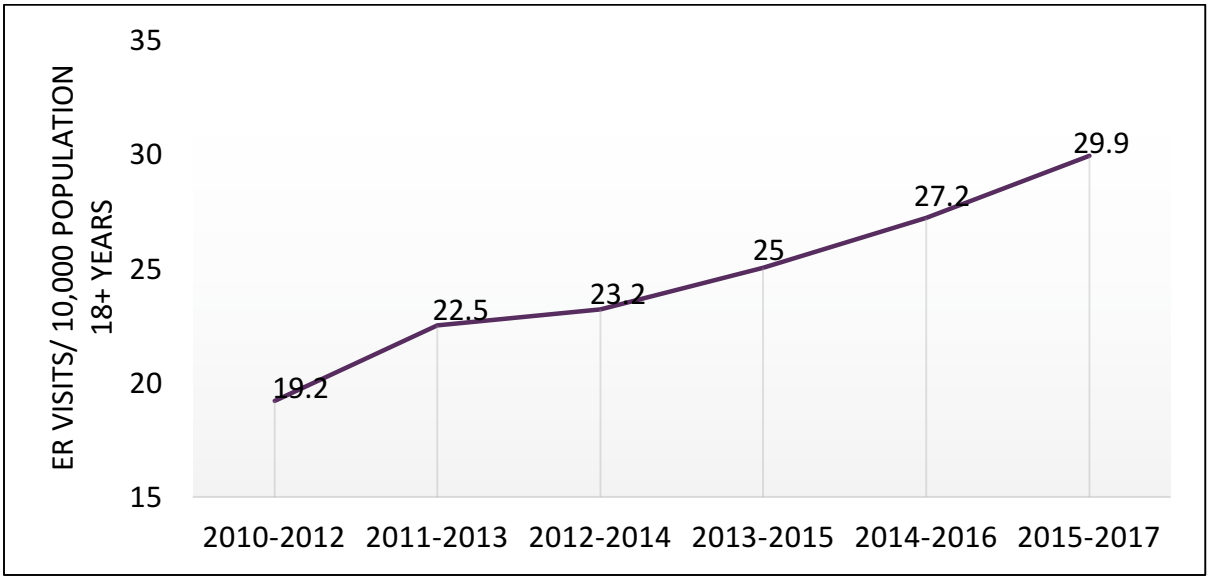
Diabetes

According to National Diabetes Education Program, "diabetes is a group of diseases marked by high levels of blood glucose resulting from defects in insulin production, insulin action, or both." Diabetes can have a harmful effect on most organ systems in the human body; it is a frequent cause of renal disease and lower-extremity amputation and a leading cause of blindness among working age adults. Persons with diabetes are also at increased risk for ischemic heart disease, neuropathy and stroke. The prevalence of diagnosed type 2 diabetes increased six-fold in the latter half of the last century according to the CDC. Diabetes risk factors such as obesity and physical inactivity have played a major role in this dramatic increase. Age, race and ethnicity are also important risk factors. The CDC estimates the direct economic cost of diabetes in the U.S. to be about $100 billion per year. This figure does not consider the indirect economic costs attributable to potential work time lost to diabetes-related illness or premature death (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rate due to Diabetes

In the Advocate Christ PSA, the age-adjusted ER rate due to diabetes is 29.9 ER visits per 10,000 population which is higher than the state rate of 27.7 ER visits per 10,000 population. The communities with the highest rates of diabetes include Midlothian (51.8), Auburn Gresham (56.7), Oak Forest (60.7) and West Englewood (71.6). Exhibit 50 shows the trend over time of the age-adjusted ER rates due to diabetes in the Advocate Christ PSA. The trend in ER diabetes rates can generally be interpreted as unfavorably increasing due to the introduction of ICD 10 coding.

Exhibit 50: Advocate Christ PSA Age-Adjusted ER Rate due to Diabetes 2010-2017



Note: Due to introduction of ICD-10 in 2015, 2013-2017 data should not be compared to previous data.
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted Hospitalization Rate due to Diabetes

In the Advocate Christ PSA, the age-adjusted hospitalization rate due to diabetes is 23.7 hospitalizations per 10,000 population 18 years and older, which is higher than the state rate of 17.6 hospitalizations per 10,000 population 18 years and older. The age-adjusted hospitalization rates are highest for the communities of Midlothian (51.8), Auburn Gresham (46.7), Oak Forest (60.7) and West Englewood (71.6).

Mental Health

According to the CDC, mental health is an important part of overall health and well- being. Mental health includes an individual's emotional, psychological and social well-being. It affects how one thinks, feels and acts. It also helps determine how individuals handle stress, relate to others and make healthy choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood. Mental disorders are one of the leading causes of disability in the U.S. In any given year, approximately 13 million American adults have a seriously debilitating mental illness. Furthermore, unstable mental health can lead to suicide, which accounts for the death of approximately 30,000 Americans every year (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Rate due to Mental Health

In the Advocate Christ PSA, the age-adjusted ER rate due to mental health is 86.3 ER visits per 10,000 population 18 years and older which is lower than the state rate of 95.3 visits per 10,000 population due to mental health visits. The ER rate due to mental health by age is greatest for those aged 18 to 34 with a rate of 133.6 per 10,000 for those aged 18-24 and 115.6 per 10,000 population for those who are 25-

34. These rates are than the PSA rate of 86.3 per 10,000 population. The age-adjusted ER rate due to pediatric mental health is 49.8 ER visits per 10,000 population under 18 years of age which is substantially lower than the state of Illinois rate of 64.5 and the county rate of 54.5 visits per 10,000 population. Children in the age group of 10-14 and 15-17 have a significantly high rate of ER visits per 10,000 population. The age-adjusted ER rate due to suicide and intentional self-inflicted injury is 27.8 ER visits per 10,000 population. The rate is favorably lower than the state of Illinois rate of 34.3 and the county rate of 32.3 ER visits per 10,000 population.

There are 13 zip codes in the medical center PSA that exceed the total PSA rate of 86.3 ER visits per 10,000 for age-adjusted ER rates due to mental health. The communities are listed in Exhibit 51.

Exhibit 51: Advocate Christ PSA Communities that Exceed the Total PSA Rate due to Mental Health 2015-2017

Zip Code	Community	Age-Adjusted ER Rate due to Mental Health
60452	Oak Forest	87.8
60458	Justice	88.0
60629	Chicago Lawn	89.5
60805	Evergreen Park	89.9
60803	Alsip	91.7
60445	Midlothian	96.1
60455	Bridgeview	104.2
60643	Morgan Park	107.0
60482	Worth	119.3
60415	Chicago Ridge	123.0
60456	Hometown	144.5
60620	Auburn Gresham	157.8
60636	West Englewood	205.4

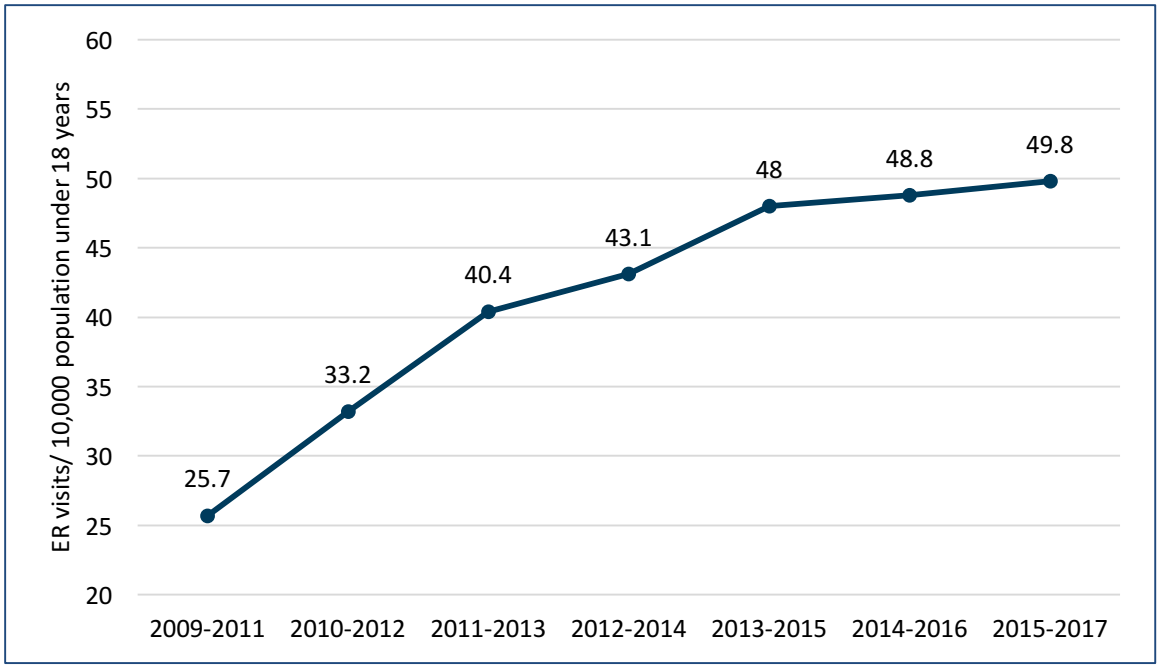
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2015-2017

Age-Adjusted ER Rate Due to Pediatric Mental Health

Youth who experience depression often have co-occurring disorders including substance abuse, anxiety and disorderly behavior. According to the 2019 State of Mental Health in Americans Report, 50% of youth who experienced a major depressive episode (MDE) do not receive treatment. In Illinois, 59.4 percent of youth who experience an MDE remained untreated. Twelve percent of youth reported they suffered from one MDE in the past year (Conduent Healthy Communities Institute, 2019).

In Advocate Christ's PSA, the age-adjusted ER rate due to pediatric mental health has steadily increased since 2009 (25.7 per 10,000 population) to 2011 (40.4 per 10,000 population). The age-adjusted ER rate due to pediatric mental health is 49.8 per 10,000 population in 2015-2017 which is favorably lower than the state of Illinois at 64.5 ER visits per 10,000 population under 18 years of age. Exhibit 52 displays the age-adjusted ER visit rate due to pediatric mental health for the population under 18 years of age.

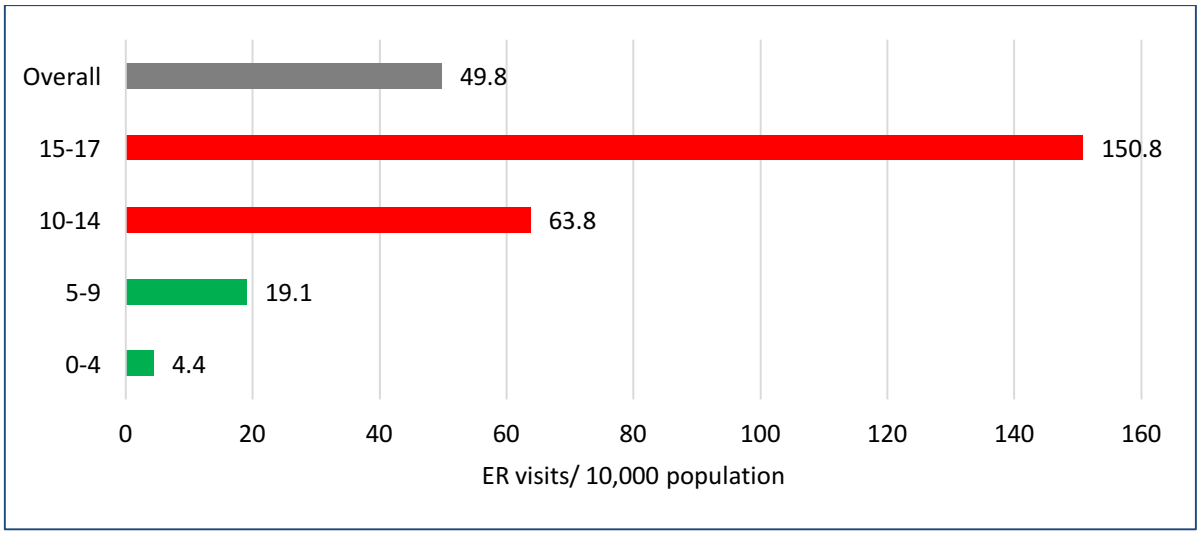
Exhibit 52: Advocate Christ PSA Age-Adjusted ER Rate Pediatric Mental Health Population Age 18 and Under 2009-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

A comparison among age groups indicates that the 10-14 year old group has 63.8 ER visits per 10,000 population and the 15-17 year old age group has 150.8 ER visits per 10,000 population. The 15-17 year old age group rate is triple the overall average PSA rate and over double the state of Illinois rate. Exhibit 53 shows age-adjusted ER rates for pediatric mental health issues by age.

Exhibit 53: Advocate Christ PSA Age-Adjusted ER Rate due to Pediatric Mental Health by Age 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Respiratory Disease

Asthma

Asthma is a disease that affects the lungs, in which a person's air passages become inflamed and the narrowing of the respiratory passages makes it difficult to breathe. Asthma is one of the most common long-term diseases of children, but it also affects millions of adults nationwide. Asthma in children is a serious public health problem in the U.S. and is one of the most common long-term diseases in children. The National Health Interview Survey has found that persons under 18 years of age have higher rates of asthma than any other age group. Asthma in children results in missed days of school, limitations on daily activities, emergency department visits, and hospitalizations. Moreover, asthma disproportionately affects low-income and minority children (Conduent Healthy Communities Institute, 2019).

Age-Adjusted ER Visit Rate Due to Asthma

In the Advocate Christ PSA, the age-adjusted ER rate due to asthma is 48.5 ER visits per 10,000 population. The PSA rate is higher than the state rate of 41.9 and lower than the Cook County rate of 54.6 per 10,000 population. The age-adjusted ER rate due to adult asthma is 40.5 ER visits per 10,000 population. The PSA rate is higher than the state rate of 34.7and lower than the Cook County rate of 44.9 per 10,000 population. The age group from 0 to 14 have the highest rate of age-adjusted ER rates due to asthma compared to the overall rate among all age groups (Exhibit 52).

Age-Adjusted Hospitalization Rate Due to Asthma

In the medical center's PSA, the age-adjusted hospitalization rate due to asthma is 9.7 hospitalizations per 10,000 population, which is higher than the state of Illinois rate at 7.0 hospitalizations per 10,000 population. The age-adjusted hospitalization rate due to pediatric asthma is 11.7 for the PSA, which is higher when compared to the Illinois rate of 8.5 hospitalizations per 10,000 population and the Cook County rate of 8.5 hospitalizations per 10,000 population. (Exhibit 54)

Exhibit 54: Advocate Christ PSA Age-Adjusted ER and Hospitalization Rates Due to Asthma 2015-2017

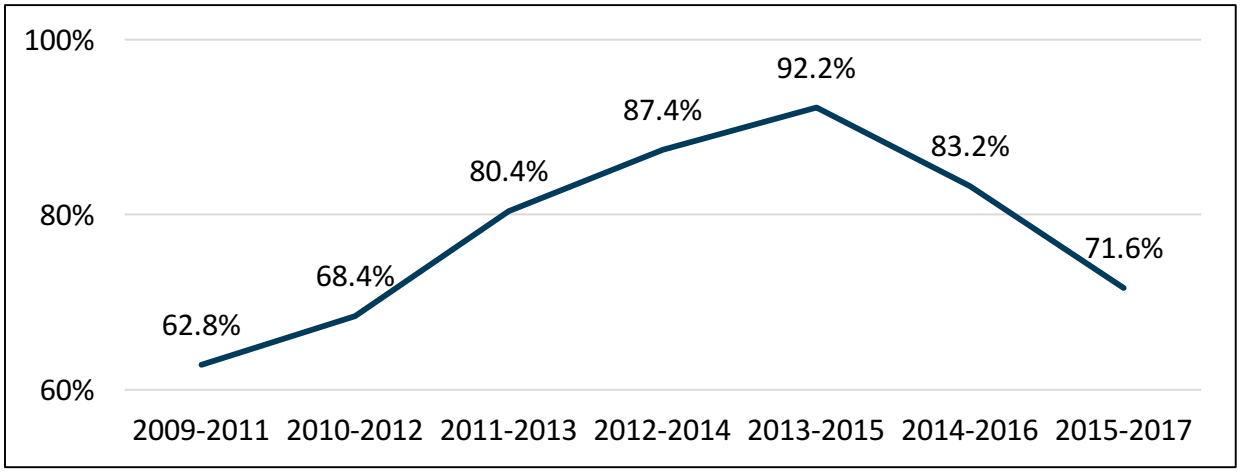
Indicator per 10,000 population	Advocate Christ PSA	Cook County	Illinois
Age-Adjusted ER Rate Due to Asthma	48.5	54.6	41.9
Age-Adjusted ER Rate Due to Adult Asthma	40.5	44.9	34.7
Age-Adjusted ER Rate Due to Pediatric Asthma	71.6	82.6	62.6
Age-Adjusted Hospitalization Rate Due to Asthma	9.7	9.9	7.0
Age-Adjusted Hospitalization Rate Adult Asthma	9.0	9.9	7.0
Age-Adjusted Hospitalization Rate Pediatric Asthma	11.7	12.0	8.5

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Age-Adjusted Rates due to Pediatric Asthma

In the Advocate Christ PSA, the age-adjusted emergency room rates for pediatrics was 71.6 percent. Due to changes in the ICD-10 coding data from previous years was not compared to 2017 data.

Exhibit 55: Advocate Christ PSA Age-Adjusted ER Rate due to Pediatric Asthma 2015-2017



Note: Age adjusted rates were used for the Christ PSA due to Advocate Children's PSA data being unavailable. Also, due to introduction of ICD-10 in 2012-2015, 2013-2017 data should not be compared to previous data.
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Key Findings: Disease and Chronic Conditions

- Breast cancer continues to be the leading cause of death among women in the U.S., however cancer death rates are declining overall in breast, colorectal, cervical, lung and prostate cancer.
- Cardiovascular disease is increasing in the medical center's PSA with the highest rates among American Indian or Alaska Native and African Americans.
- African Americans have more than three times the rate of heart failure compared to Whites.
- The overall age-adjusted ER rate due to hypertension in the medical center PSA is equitably comparable to the state rate and the Cook County rate.
- The age-adjusted ER rate due to diabetes in the medical center's PSA is slightly higher than the state rate but equitably comparable to the Cook County rate.
- Multiple mental health indicators show an unfavorable increase for both the PSA and Cook County.
- Youth between the ages of 15 to 17 have the highest ER visit rate due to adolescent suicide and intentional self-inflicted injury.
- Asthma rates in the medical center's PSA are slightly higher than the state rate and favorably lower than the Cook County rate.

Maternal and Child Health

Infant Mortality

The Infant mortality rate continues to be one of the most widely used indicators of the overall health status of a community. The leading causes of death among infants are birth defects, preterm delivery, low birth weight, Sudden Infant Death Syndrome (SIDS), and maternal complications during pregnancy (Conduent Healthy Communities Institute, 2019). Data for this section was available by county and community areas in the City of Chicago that are part of Advocate Christ's PSA.

Exhibit 56 represents infant mortality rates collected from the Chicago Health Atlas for community areas within the medical center's service area. The communities with the highest infant mortality rates (deaths per 1,000 live births) include South Shore (13.3), Riverdale (12.2), Roseland (12.2) and South Chicago (13.1). These communities are also identified as having unfavorably high SocioNeeds index rankings. Comparatively, the infant mortality rate for Cook County is 6.9 deaths per 1,000 live births and the city of Chicago rate is 7.1 deaths per 1,000 live births (Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019). Note: There are likely other community areas in suburban Cook County that have comparably high percentages, but this data was not available.

Exhibit 56: Advocate Christ PSA Infant Mortality Rate per 1,000 Live Births 2017

Community Area	Rate	Community Area	Rate
Riverdale (60827)	12.2	Mount Greenwood (60655)	3.4
Roseland (60628)	12.2	South Shore (60649)	13.3
South Chicago (60617)	13.1	New City (60609)	7.7
Hegewisch (60633)	9.2	Clearing (60638)	4.7
Ashburn (60652)	4.6	Chicago Lawn (60629)	8.0
Chicago	7.1		
Illinois	6.9		

Source: Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019

Pre-Term Births

Babies born prematurely are likely to require specialized medical care and oftentimes must stay in intensive care nurseries. While there have been many medical advances enabling premature infants to survive, there is still risk of infant death or long-term disability. To prevent prematurity and low birth weight, the most impactful actions an expectant mother can follow are to take prenatal vitamins, stop smoking, stop drinking alcohol and using drugs, and get prenatal care (Conduent Healthy Communities Institute, 2019).

The preterm birth percentage for both Cook County and the state of Illinois is 10.4 percent of births with less than 37 weeks gestation among all births with valid gestation age. Exhibit 57 represents the percentage of preterm births collected from the Chicago Health Atlas for community areas within the medical center's service area. The communities with the highest percentage of preterm births include South Shore, Roseland, Riverdale and South Chicago. These communities are also communities identified as having some of the highest SocioNeeds Index rankings (Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019). Note: There are likely other community areas in suburban Cook County that have comparably high percentages, but this data was not available.

Exhibit 57: Advocate Christ PSA Percentage of Preterm Births 2017

Community Area	Percentage	Community Area	Percentage
Riverdale (60827)	14.6	Mount Greenwood (60655)	8.5
Roseland (60628)	13.5	South Shore (60649)	12.0
South Chicago (60617)	11.8	New City (60609)	10.7
Hegewisch (60633)	9.0	Clearing (60638)	7.4
Ashburn (60652)	11.6	Chicago Lawn (60629)	11.6
Chicago	10.5		
Illinois	10.4		

Source: Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019

Babies with Low Birth Weight

Babies born with low birth weight are more likely than babies of normal weight to have health problems and require specialized medical care in the neonatal intensive care unit. Low birth weight is typically caused by premature birth and fetal growth restriction, both of which are influenced by a mother's health and genetics. The most important things an expectant mother can do to prevent low birth weight are to seek prenatal care, take prenatal vitamins, stop smoking, and stop drinking alcohol and using drugs (Conduent Healthy Communities Institute, 2019).

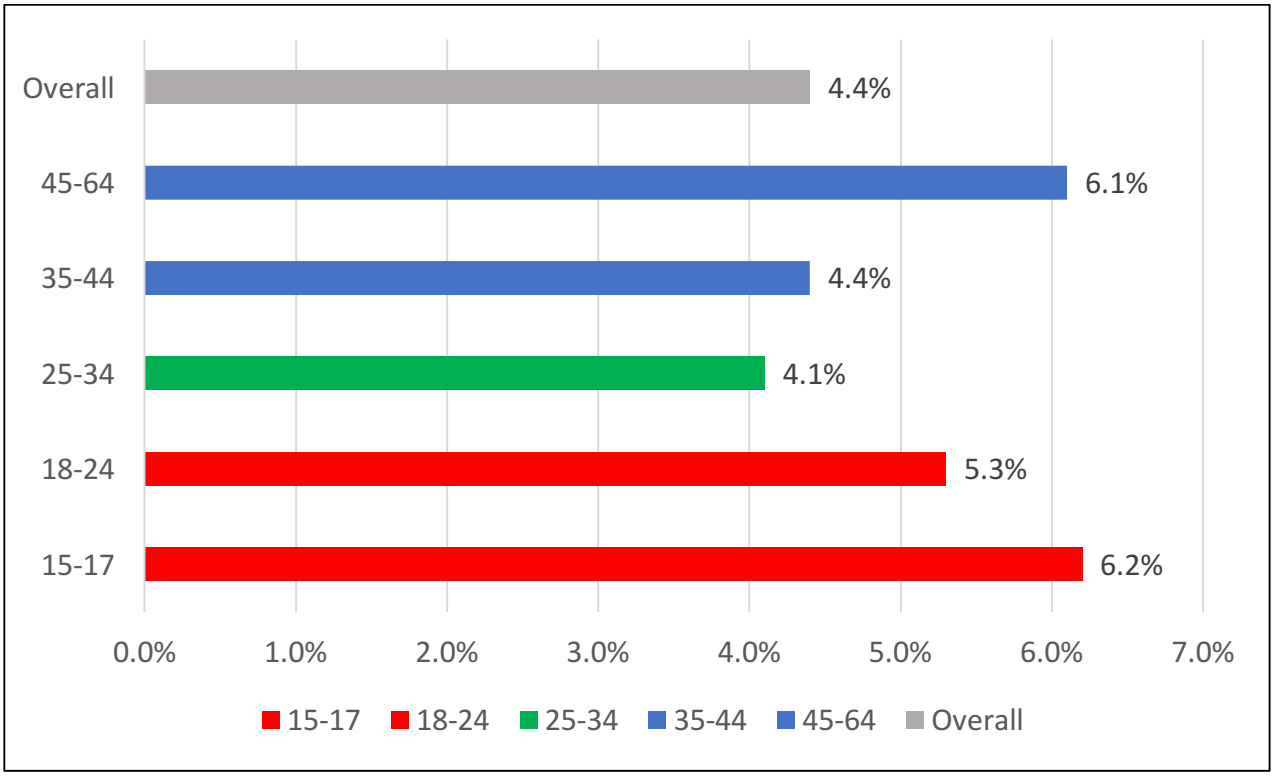
The percentage of babies born with low birth weight for Cook County is 9.0 percent which is slightly higher than the state of Illinois rate (8.5) and the U.S. rate (8.3 percent). Exhibit 58 represents the percentage of babies born with low birth weight collected from the Chicago Health Atlas for community areas within the medical center's service area. The communities with the highest percentage of babies born with low birth weight include South Shore, Roseland, Riverdale and South Chicago. These communities are also communities identified as having some of the highest SocioNeeds (Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019). Note: There are likely other community areas in suburban Cook County that have comparably high percentages, but this data was not available. Exhibit 59 represents the percentage of preterm labor and delivery hospitalization by age in Cook County. Children ages 15-17 years has the highest percent compared to the overall cook county rate of 4.4 percent.

Exhibit 58: Advocate Christ PSA Percentage of Babies with Low Birth Weight 2017

Community Area	Percentage	Community Area	Percentage
Riverdale (60827)	13.4	Mount Greenwood (60655)	6.1
Roseland (60628)	14.0	South Shore (60649)	13.1
South Chicago (60617)	12.7	New City (60609)	9.0
Hegewisch (60633)	8.1	Clearing (60638)	6.4
Ashburn (60652)	9.2	Chicago Lawn (60629)	10.8
Chicago	9.4		
Illinois	8.5		

Source: Chicago Health Atlas, Illinois Department of Public Health, Vital Statistics, 2019

Exhibit 59: Cook County Preterm Labor and Delivery Hospitalization by Age 2016-2018



Note: Data for Advocate Children's TSA was not available.
Source: Healthy Communities Institute, Illinois Hospital Association, 2019

Key Findings: Maternal and Child Health

- The infant mortality rate indicator continues to be a marker for overall community health status. In Advocate Christ's PSA, there are four communities within the city of Chicago with rates higher than the city and state rates, including Riverdale, Roseland, South Chicago and South Shore.
- Cook County has a rate of 6.9 deaths per 1,000 live births among infants over the time period 2014-2016. Although this measurement is unfavorably higher than the Illinois value of 6.3 deaths per 1,000 live births, Cook County's trend value has decreased significantly over multiple time periods.
- According to the Illinois Department of Public Health, the leading causes of death among infants are birth defects, premature delivery, low birth weight, SIDS and maternal complications during pregnancy.
- Cook County's percent of babies with a low birth weight of 5 pounds and 8 ounces or less is 9.0 percent. This measurement is higher than both the Illinois value (8.5 percent) and the Healthy People 2020 national target (7.8 percent). Communities with the highest rates of babies with a low birth weight in Advocate Christ's PSA include Riverdale, Roseland, South Chicago and South Shore.

Environment

Homeownership

Homeownership has many benefits for both individuals and communities. Homeowners are more likely to improve their homes and to be involved in civic affairs, both of which benefit the individual and the community. In addition, homeownership provides tax benefits. Of the housing units in the PSA, 63.7 percent are occupied by homeowners. This value is favorably higher than both the Illinois value of 59.7 percent and U.S. value of 56 percent. In Cook County, 50.9 percent of all housing units are occupied by homeowners compared to 59.7 percent of homeowners in the state of Illinois (Conduent Healthy Communities Institute, 2019).

Renters Spending 30% or More of Household Income on Rent

Spending a high percentage of household income on rent can create financial hardship, especially for lower-income renters. With a limited income, paying a high rent may not leave enough money for other expenses, such as food, transportation and medical. Moreover, high rent reduces the proportion of income a household can allocate to savings each month. In the medical center's PSA, 55.1 percent of renters spend 30 percent of their household income on rent, compared to Cook County where 50.8 percent of renters spend 30 percent or more of their income on rent (Conduent Healthy Communities Institute, 2019).

Transportation

Lengthy commutes cut into workers' free time and can contribute to health problems such as headaches, anxiety and increased blood pressure. Longer commutes require workers to consume more fuel, which is both expensive for workers and damaging to the environment. Public transportation offers mobility to U.S. residents, particularly people without cars. Transit can help bridge the spatial divide between people and jobs, services and training opportunities. Public transportation is also beneficial because it reduces fuel consumption, minimizes air pollution and relieves traffic. Driving alone to work consumes more fuel and resources than other modes of transportation, such as carpooling, public transportation, biking and walking. Driving alone also increases traffic congestion, especially in areas of greater population density (Conduent Healthy Communities Institute, 2019).

Mean Travel Time to Work and Commute by Public Transportation

In the medical center's PSA, 11.6 percent of households do not have a vehicle. Vehicle ownership is directly related to the ability to travel. Generally, people living in a household without a car make fewer than half the number of journeys compared to those with a car. This limits their access to essential local services such as supermarkets, post offices, doctors' offices and medical centers. The average time for workers in Advocate Christ's PSA to travel to work is 34.5 minutes. This value is unfavorably higher than the Illinois and U.S. values of 28.7 and 26.4 minutes, respectively. The percentage of workers in the medical center's PSA who commute by public transportation is 13.7. This percentage is higher than the state of Illinois at 9.4 percent and higher than the U.S. at 5.1 percent. In the medical center's PSA,

71.2 percent of workers drive alone to work, which is favorably lower than the state of Illinois at 73.3 percent and the U.S. at 76.4 percent (Conduent Healthy Communities Institute, 2019).

Food Security and Access to Healthy Foods

Food insecurity is an economic and social indicator of the health of a community. The U.S. Department of Agriculture (USDA) defines food insecurity as limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways. Poverty and unemployment are frequently predictors of food insecurity in the U.S. Food insecurity is associated with chronic health problems in adults, including diabetes, heart disease, high blood pressure, hyperlipidemia, obesity and mental health issues including major depression. The availability and affordability of healthy food options in the community increases the likelihood that residents will have a balanced and nutritious diet. Low income and underserved areas often have limited numbers of stores that sell healthy foods. People who live far away from grocery stores are less likely to access healthy food options on a regular basis and more likely to consume foods which are readily available at convenience stores and fast food outlets (Conduent Healthy Communities Institute, 2019).

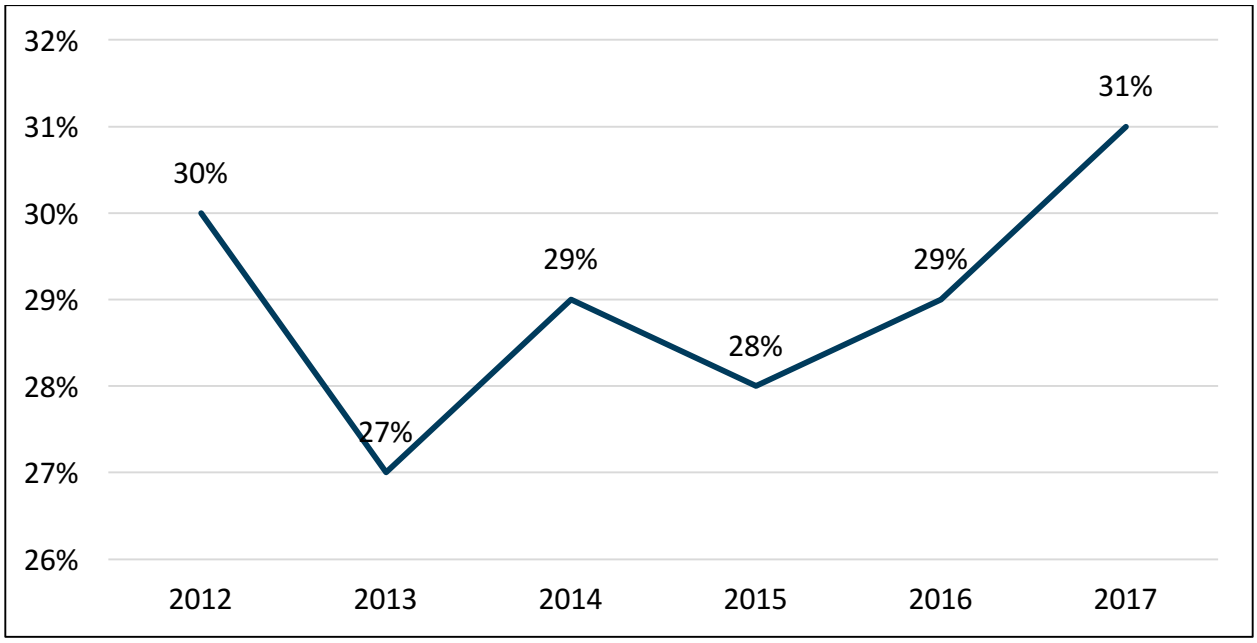
Food Insecurity Rate

Cook County has a higher percentage of the population that experience food insecurity at a rate of 12 percent compared to the Illinois rate of 10.9%, but it is better than the U.S. value of 12.5 percent. Since 2011 this value has steadily declined from 16.6 percent to 12.0 percent. The rate of low-income and low access to a grocery store in Cook County remained relatively the same from 1.8 percent to 1.7 percent. The rate for people 65 and older with low access to a grocery store also remained stable in a five-year period, from 1.1 in 2010 to 1.0 percent in 2015 (Conduent Healthy Communities Institute, 2019).

Food Insecurity in Children Likely Ineligible for Assistance

Children's Food Insecurity rates in Cook County have been decreasing since 2013 (20.9%) to the current 15.8% in 2017, however the percentage of children ineligible for assistance is higher at 31% (Exhibit 60). This indicator shows the percentage of food insecure children living in households with incomes above 185% of the federal poverty level who are likely not income-eligible for federal nutrition assistance.

Exhibit 60: Cook County Food Insecurity in Children Likely Ineligible for Assistance 2012-2017



Note: Data for Advocate Children's TSA was not available.
Source: Conduent Healthy Communities Institute, Feeding America, 2017

Social Environment

Violent Crime Rate

A violent crime is a crime in which the offender uses or threatens to use violent force upon the victim. Violent crimes include homicide, forcible rape, robbery and aggravated assault. Violence negatively impacts communities by reducing productivity, decreasing property value and disrupting social services. For the indicator of violent crime, data was analyzed using county level data due to lack of availability of PSA data. In Cook County, the violent crime rate is 619.8 crimes per 100,000 population between 2014-2016. This value is significantly greater than the 2014-2016 state of Illinois value and the U.S. value of 403.1 and 386.5 crimes per 100,000 population, respectively (Conduent Healthy Communities Institute, County Health Rankings, 2019).

Homicide by District

Homicide is an indicator that represents neighborhood and community safety. Neighborhoods that are shaded yellow in the display had homicides between 49-70 in 2017. Several neighborhoods that fall into yellow or blue districts are part of the Advocate Christ PSA. Exhibit 61 shows homicide by district and reflects the criminal homicides by district.

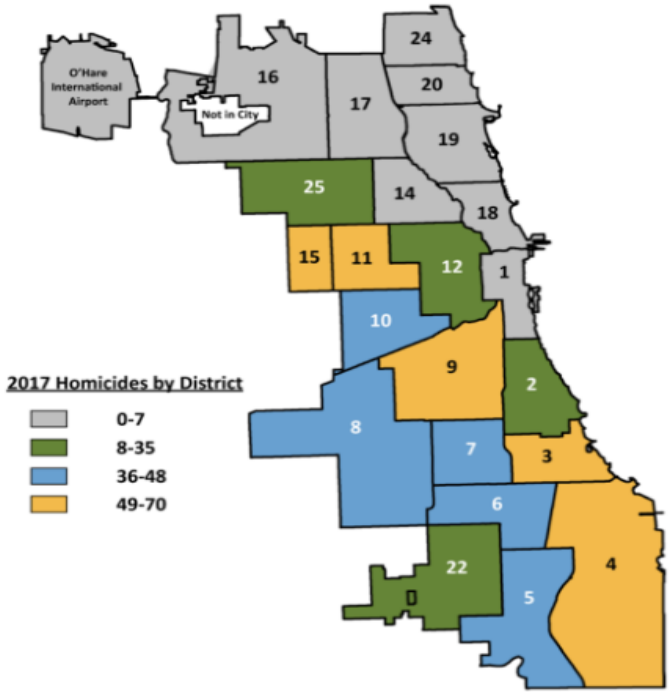
District 3: South Shore (60649)
District 4: South Shore (60649), South Chicago (60617), Hegewisch (60633)
District 9: New City (60609)
District 5: Roseland (60628), Riverdale (60827)
District 6: Roseland (60628)
District 7: Englewood (60621)
District 8: Clearing (60638), Ashburn (60652), Chicago Lawn (60629).

Exhibit 61: Advocate Christ PSA Homicides by District in 2017

Criminal Homicide (Murder)—Supplemental Information

Criminal Homicide by District

District	2016	2017	% Change
1	9	4	-55.56%
2	26	28	7.69%
3	39	51	30.77%
4	40	49	22.50%
5	44	46	4.55%
6	59	47	-20.34%
7	86	48	-44.19%
8	58	43	-25.86%
9	64	51	-20.31%
10	49	44	-10.20%
11	94	70	-25.53%
12	27	26	-3.70%
14	10	6	-40.00%
15	59	54	-8.47%
16	4	4	0.00%
17	11	4	-63.64%
18	5	6	20.00%
19	8	5	-37.50%
20	3	2	-33.33%
22	26	24	-7.69%
24	12	7	-41.67%
25	36	34	-5.56%
Total	769	653	-15.08%



Source: Chicago Police Department Annual Report, 2019, https://home.chicagopolice.org/uploads/2018/10/2017-Annual-report.pdf

Key Findings: Environment

- Within the Advocate Christ PSA, 63.9 percent of housing units in the PSA are occupied by homeowners which is favorably higher than both the Illinois value of 59.7 percent and the U.S. value of 56.0 percent.
- For the time period 2013-2017, the percent of workers aged 16 years or older who commute to work by use of public transportation has a value of 13.7 percent. This PSA value is 4.3 percent favorably higher than the Illinois value of 9.4 percent).
- Advocate Christ's PSA has the lowest value of children with low access to a grocery store compared to other Illinois counties.
- In Cook County, the violent crime rate is 619.8 crimes per 100,000 population. This value is significantly greater than the state of Illinois value and the U.S. value of 403.1 and 386.5 crimes per 100,000 population, respectively.

V. Prioritization of Health-Related Issues

Priority-Setting Process

Advocate Christ's community health department reviewed additional data from primary and secondary sources. The data highlighted the prevalent health issues within the medical center's PSA. After review of medical center data, The Alliance data and HCI data, the most significant health issues were summarized and presented to the medical center's CHC for prioritization. Data presented to the CHC targeted the following significant health conditions for Advocate Christ's PSA: heart disease, cancer, diabetes, mental health, substance abuse and asthma.

A structured prioritization process provided a framework to analyze health problems as well as explore solutions that will have the greatest impact on the health of the community. In order to determine the health priorities, a prioritization matrix was presented to the CHC during the May 2019 meeting.

The process enabled CHC members to prioritize health needs by narrowing options and systematically comparing choices through the selection and application of criteria. The process was selected because it provided a strong solution to effectively and successfully guide implementation of interventions.

The following steps were used during the prioritization process:

1. Selection matrix – CHC members used a prioritization matrix to select the health indicators to be addressed. The health needs the CHC was voting on included heart disease, cancer, diabetes, mental health/substance abuse.
2. Ranking of health indicators against criteria – Each CHC member was given the prioritization matrix and asked to complete it individually based on the following rating scale—high priority = 3, medium priority = 2 and low priority = 1. After completing the matrix, each team member individually discussed their decision process including regarding their ratings.
3. Calculating priority scores – Final priority scores were calculated by adding the weighted scores across the row. All row totals were added in order to reach a grand total.

Through the process described above, CHC members selected two chronic diseases—diabetes and mental health—as the priority health needs to address for the 2020-2023 implementation cycle. In addition, violence prevention was identified as the social determinant of health which aligns with The Alliance's social determinant priorities for having more collective impact.

Health Needs Selected as Priorities

To summarize, as a result of the 2017-2019 CHNA process, Advocate Christ selected three priorities for implementation planning from 2020-2022, including:

- Mental Health/Substance Abuse;
- Diabetes; and
- Violence Prevention (social, economic and structural determinants of health).

Mental Health/Substance Abuse

Data trends indicate that mental health and substance use are increasing and the need for programming is continuing to grow. Mental health and substance use often co-occur. The CHC has recommended developing approaches and interventions that address both health issues. The medical center will address the mental health and substance use issues of individuals impacted by trauma through the Trauma Recovery Center. The high rates of ED visits and hospitalization due to mental health issues are preventable through employing coping mechanisms and resilience training. Examples include restorative justice activities, mental health first aide trainings, and trauma informed workshops. The medical center will adopt strategies that improve the rates of mental health emergencies and decrease ED visits and hospitalization due to mental health issues. In addition, Advocate Christ will continue to build a partnership with staff from the medical center's trauma recovery center.

Diabetes

Hospitalization and emergency department (ED) visits are indicative of poorly controlled chronic diseases and a lack of access to routine preventive care. Poorly controlled diabetes can lead to severe or life-threatening complications, such as heart and blood vessel disease, nerve damage, kidney damage, eye damage and blindness, foot damage and lower extremity amputation, hearing impairment, skin conditions and Alzheimer's disease.

ED visits for diabetes are heavily concentrated in the West and South Sides of Chicago and the southern region of Suburban Cook County. The areas with high rates of ED visits largely overlap with communities with high rates of poverty, unemployment and cost-burdened households. As a result, the medical center's CHC decided that diabetes initiatives in this service area are still needed and continue to be a burden for residents (Alliance for Health Equity, 2019).

Violence Prevention

To a large extent, the conditions of the environments in which we live, work, play, grow and age determine our quality of life and health outcomes. These conditions are called Social Determinants of Health, and they explain why some people face a more difficult challenge in achieving and maintaining good health.

Violence has profound direct and indirect impacts on health in communities and can have broader socioeconomic effects that further impact the health of communities. Violence in communities has been associated with reduced investment in community resources such as parks, recreational facilities and programs that promote healthy activity (Prevention Institute, 2011). Food resources such as supermarkets are more reluctant to enter communities of color with higher rates of violence further reducing access to healthy foods (Odoms-Young et al., 2009; Zenk et al., 2005). Gun violence can significantly decrease the growth of new retail and service businesses, decrease the number of new jobs available and slow home value appreciation (Irvin-Erickson et al., 2017). In addition, high rates of gun violence are associated with lower home values, credit scores and home ownership rates (Irvin-Erickson et al., 2017).

The CHC identified violence prevention as a significant determinant of health in the PSA and will work with internal and external stakeholders to develop new and strengthen existing efforts to prevent violence in the community.

Advocate Children's-Oak Lawn will address the following priority areas for implementation planning from 2020-2022, including:

- Access to primary health care for low-income children
- School-based Behavioral Health Assistance
- Infant Mortality/Pre-term Deliveries/Low Birth Weight

Access to Care

Access to primary care is important for the health and well-being of children and adolescents. Improvement in children's health outcomes can only be achieved if children are able to access care (Ray and Mehrotra, 2016). High-quality primary care services have been found to significantly reduce children's non-urgent ER visits. A consistent source of primary care can fill the need for screening, appropriate treatment and preventative services for children and adolescents (National Committee for Quality Assurance, 2019).

Advocate Children's will offer school-based health services at no charge to high risk, low income children who are uninsured or receiving Medicaid. Services provided by the Ronald McDonald Care Mobile will include free physicals, immunizations, completion of HPV vaccine series, assistance with securing a medical home, wellness and health education, community-based social service referrals and food insecurity screening.

School-based Behavioral Health Assistance

Advocate Children's will offer school-based social services and resource assistance to improve social and psychological functioning of children and families to maximize family well-being and the academic functioning of children. Services will be provided by a licensed clinical social worker on site at select partner schools. Clinical functions will include screening and assessments for identified families, brief interventions and referral to treatment, coordination with pediatricians, school personal, community partners and allied therapists, and parent education and training.

Infant Mortality/Pre-term Deliveries/Low Birth Weight

Infant mortality is an important indicator for the overall health status of a community. Infant mortality is the death of an infant before his or her first birthday. Low birthweight and pre-term deliveries are leading causes of infant death (Centers for Disease Control and Prevention, 2019). Advocate Children's will provide the Centering Pregnancy program, a group prenatal care model where pregnant women receive monthly exams, social support and extensive education in a group setting. The program is designed to engage women in their pregnancy with the goal to reduce premature births, infant mortality and low birth weight babies while developing a much-needed social support system.

Health Needs Not Selected as Priorities

While cancer, heart disease/stroke and asthma are important health concerns in the PSA, the CHC felt that these health concerns were among the highest resourced health needs in the community. In addition, Advocate Christ already has well established clinical institutes and respiratory health resources that are focused on cancer, heart disease/stroke and asthma.

Cancer

Advocate Christ'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).

Advocate Christ 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/Stroke

Advocate Heart Institute at Advocate Christ 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.

Advocate Christ offers a series of community health classes that increase awareness of heart disease and supports 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 Advocate Christ, 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. Advocate Children's is the first children's hospital in the country to receive congenital heart disease accreditation from ACE (Accreditation for Cardiovascular Excellence) for setting the highest standards of quality care for children. The hospital is a designated Pediatric Critical Care Center by the Illinois Department of Public Health.

Asthma

Advocate Christ offers comprehensive, multi-disciplinary services for lung and respiratory care, including the treatment of asthma. The lung and respiratory care center provides inpatient and outpatient respiratory care services to help patients achieve a better quality of life. With board certified pulmonologists who collaborate with related specialists, airway diseases are treated from prevention and diagnostics to advanced treatment and support services. The department offers advanced treatment of asthma through bronchial thermoplasty, a safe and effective FDA-approved treatment option that uses a proven medical device procedure for adults with severe or persistent asthma. In addition, Advocate Children's allergy and asthma specialists work with children and their families to manage asthma and provide education on how to prevent asthma attacks. Respiratory care specialists provide family consultation, treatment to eliminate chronic problems from allergy and asthma triggers and education on asthma management. Lastly, Advocate Children's offers a variety of educational resources through the asthma center which provides educational resources for children, teens and parents and one-to-one asthma education to patients on the Ronald McDonald Care Mobile.

VI. Approval of Community Health Needs Assessment

Advocate Christ's Governing Council fully approved the 2017-2019 CHNA report, including identified priorities for future action, on October 17, 2019. The Advocate Health Care Network Board approved Advocate Christ's 2017-2019 CHNA report at the system level on December 16, 2019.

VII. Overview of 2020-2022 Implementation Plan Goals and Community Resources

While the full implementation plan for addressing Advocate Christ's and Advocate Children's priorities will be posted in May 2020, the goals, potential strategies and potential partners for each of the health needs selected, as well as a plan for disseminating results of the CHNA to the community, are summarized below.

Priority Area: Diabetes

Goal

Reduce the incidence of Type 2 Diabetes in Advocate Christ's PSA

Potential Strategies

- Expand diabetes prevention and self-management programs to community-based organizations, federally qualified health centers and faith communities
- Collaborate with Advocate Christ's marketing and public affairs department to increase awareness and provide information about established diabetes prevention programs and success stories
- Collaborate with Christ Medical Center's clinical diabetes education team to offer diabetes education for individuals diagnosed with Type 2 diabetes

Partnership Resources

- Advocate Christ PSA community-based organizations, faith communities and federally qualified health centers
- Advocate clinical diabetes educators
- CHC members

Priority Area: Mental Health/Substance Abuse

Goal

Increase access and availability of mental health and substance use/abuse resources in Advocate Christ's PSA

Potential Strategies

- Collaborate and partner with the trauma recovery center and community-based organizations who screen and treat for mental health and substance use disorders
- Plan and implement Mental First Aid 8-hour training to reduce stigma, and educate community members regarding mental health and resources
- Conduct mental health and substance use/abuse asset mapping in the medical center's PSA

Community Resources

- County health departments, community-based organizations, hospitals/medical centers and federally qualified health centers
- CHC members
- Advocate Christ's behavioral health department
- Chicago HEAL Initiative Partners
- Advocate Christ's Trauma Recovery Center
- Southland RISE Partners

Priority Area: Social Determinant of Health – Violence

Goal

Increase access, awareness and availability of violence prevention resources in Advocate Christ's PSA

Potential Strategies

- Maintain and build on Chicago HEAL (Hospital, Engagement, Action and Leadership) initiatives convened by Senator Dick Durbin to reduce gun violence, heal the physical and mental trauma of individuals and communities, increase family supporting jobs and create development opportunities for community members in the PSA
- Continue to strengthen collaboration with The Alliance to identify resources and to support violence prevention strategies
- Develop and implement trauma-informed workshops and trainings
- Partner with large academic and faith institutions to increase access to resources for small community-based organizations that are currently addressing trauma and violence

Community Resources

- Advocate Christ's behavioral health department
- Chicago HEAL Initiative Partners
- Advocate Christ's Trauma Recovery Center
- Southland RISE Partners

Priority Area: Access to Care

Goal

Increase access to primary care health services in Advocate Children's TSA

Potential Strategies

- Partner with area schools, faith based and community-based organizations to provide on-site services through the Ronald McDonald Care Mobile
- Plan and implement process to provide complete two-dose HPV vaccine series to Care Mobile patients
- Develop and implement community-based social service referral system

Priority Area: School-based Behavioral Health Assistance

Goal

Increase access and availability of resource assistance for behavioral health services/interventions at partner schools in Advocate Children's TSA

Potential Strategies

- Partner with area schools to provide on-site screenings and assessments, interventions and treatment referrals
- Provide parent education and training on behavioral health
- Enroll appropriate adolescents in a multi-year research project offering traditional group therapy vs an online, self-directed model

Priority Area: Infant Mortality/Preterm Deliveries/Low Birth Weight Babies

Goal

Decrease infant mortality, preterm deliveries and low birth weight babies in Advocate Children's TSA

Potential Strategies

- Provide Centering Pregnancy program for group prenatal care to at-risk pregnant women
- Develop and implement community-based social service referral and support process

VIII. Vehicle for Community Feedback

Community Feedback

Advocate Christ welcomes all feedback regarding the 2019 CHNA. Any member of the community wishing to comment on this report, can click on the link below to complete a CHNA feedback form. Questions will be addressed and will also be considered during the next CHNA cycle. Please click below to access the CHNA feedback form at: 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

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 medical center's Community Health Department.

Sharing Results

Dissemination of results and activities with internal and external stakeholders is an instrumental part of the hospitals community health activities. Results will be shared through several mechanisms including social media, hospital intranet, during community health council meetings, at local events related to community health priorities and during internal hospital staff meetings. Advocate Christ will also consider presenting at local conferences and events regarding programmatic outcomes. Some tools that will be used to deliver this information include power point presentations, factsheets, short reports and posters.

IX. Appendices

(All data was verified and website links were fully functional within the CHNA Report and Appendices as of September 1, 2019.)

Appendix 1: 2017-2019 Community Health Needs Assessment Data Sources

Advocate Aurora Business Development Analytics, 2019
Advocate Aurora Business Development Analytics, Sg2, 2019
Advocate Health Care Strategic Planning Department, 2016 and 2017

Alliance for Health Equity, Community Healthy Needs Assessment, 2019
Community Health Needs Assessment for Chicago and Suburban Cook, 2019
https://allhealthequity.org/projects/2019-chna-reports/

Chicago Health Atlas, 2019
https://www.chicagohealthatlas.org/
The following data sources were accessed through the Chicago Health Atlas portal:
Illinois Department of Public Health
Feeding America

CDC, Leading Causes of Death, 2019
https://www.cdc.gov/nchs/fastats/leading-causes-of-death.htm

Chicago Department of Public Health, Healthy Chicago 2.0, 2016
https://www.chicago.gov/city/en/depts/cdph/provdrs/healthychicago.html

Chicago Police Department, Annual Report, 2019
https://home.chicagopolice.org/uploads/2018/10/2017-Annual-report.pdf

Conduent Healthy Communities Institute, 2018 Healthy Communities Institute (HCI), a Xerox Company, 2019, accessed via a contract with Advocate Health Care. Website unavailable to public. The following data sources were accessed through the HCI portal:

- American Community Survey, 2019
- Cook County Department of Public Health, 2019
- County Health Rankings, 2019
- Centers for Medicare and Medicaid Services, 2019
- Illinois Hospital Association, 2018
- National Cancer Institute, 2018-2019

Illinois Department of Public Health, Infant Mortality Statistics, 2018
http://www.dph.illinois.gov/data-statistics/vital-statistics/infant-mortality-statistics

Metopio National Center for Health Statistics, USALEEP, Life Expectancy, 2019
https://www.cdc.gov/nchs/nvss/usaleep/usaleep.html

NAMI Chicago, Roadmap to Wellness, 2019
https://namichicago.org/en/roadmap/

WePLAN 2020, Community Health Assessment, 2016
https://www.cookcountypublichealth.org/health-equity/weplan-2020/

Appendix 2: Prioritization Grid

Prioritization Grid

Use this worksheet to list potential health problems or priority issues and your thoughts about their level of priority.

Prioritization Grid:

- **Important to the community**: Important to diverse community stakeholders and community members
- **Inequities / Disparities**: Priority populations (such as low income, communities of color, LGBTQ+, etc.) are disproportionately affected
- **Size of the problem**: Number of people per 1,000, 10,000, or 100,000
- **Seriousness of not addressing the issue**: Impact on individual, family and community levels
- **Feasibility**: Cost, internal resources and potential external resources, time commitment
- **Available expertise**: Can we make an important contribution?

	A	B	C	D	E	F	
Community Health Issue	**Important to the Community**	**Inequities (Disparities)**	**Size of the Problem**	**Seriousness of Not Addressing**	**Feasibility Cost, Time, Resources**	**Available Expertise**	**Comments, Questions or Additional Thoughts**
Levels of Priority: High, Medium, or Low	High, Med, Low	High, Med, Low	High, Med, Low	High, Med, Low	High, Med, Low	High, Med, Low	

Discuss priority issues in small or large group.