Community Health Needs Assessment

2017 - 2019

December 2019

Thank you for taking the time to learn more about Advocate Lutheran General Hospital's Community Health Needs Assessment (CHNA). This CHNA provides a comprehensive picture of the health status of the communities served by both Advocate Children's Hospital and Lutheran General Hospitals. Through understanding the health and social needs of our communities, the hospitals are able to provide safe, high-quality care with compassion and dignity.

Every three years the hospital works with community partners and stakeholders to complete a comprehensive CHNA. Data is pulled from our CHNA data platform and input from the community is solicited to gain an in-depth understanding of our communities' health needs. Collaboration and partnership is a crucial component of the hospital's CHNA process therefore the hospital is a member of The Alliance for Health Equity (The Alliance), a collaborative task force comprised of Cook County hospitals and community organizations. In addition, the hospital has a Community Health Council that provides oversight of the CHNA process and selects the hospital's priority health needs.

Based upon comprehensive community data and feedback, our Community Health Council selected three health priorities for the 2019 CHNA. The priorities selected include the following:

- Healthy Lifestyles—This priority includes chronic disease prevention and management, physical activity, nutrition and obesity prevention.
- Behavioral Health—This priority includes both substance use and mental health.
- Social Determinants of Health—This priority will focus on workforce development.

At Advocate Lutheran General, we are committed to helping people live well through proper nutrition, physical activity, awareness and access to behavioral health services and addressing social barriers to health such as employment (workforce development). We also understand that creating and sustaining community partnerships to implement evidence-based programs is critical in addressing our communities' health needs.

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. We also encourage you to review the report and provide recommendations regarding community programs or strategies that aim to address the hospital's priority health needs. The hospital has the honor of working with community partners and leaders to improve the health and wellness of diverse communities across the hospital's service area. With a comprehensive and thorough understanding of our communities' health needs, the hospitals will be well positioned to "make healthy happen" and improve the quality of life among individuals, children and families in the communities we serve.

Terika Richardson
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I. Executive Summary

Advocate Lutheran General Hospital (Advocate Lutheran General) completed a comprehensive hospital community health needs assessment (CHNA) process in 2019. This CHNA report describes the process and includes demographic and socioeconomic data for Advocate Lutheran General's primary service area (PSA) and key findings regarding the PSA's health status. For the purposes of this report, the "community" was defined as the hospital's PSA. The PSA consists of 25 zip codes in Cook County and three zip codes in Lake County.

Demographic and socioeconomic data for the hospital's PSA was collected and analyzed to obtain a thorough picture of the health needs for the PSA. Data collected included primary and secondary, quantitative and qualitative data. Data shows that the hospital's PSA is 73.12 percent White, 12.8 percent Asian, 8.36 percent Some Other Race, 2.45 percent Black/African American, 2.83 percent two or more Races, 0.36 percent American Indian/Alaskan Native and 0.03 percent Native Hawaiian/Pacific Islander. The ethnic make-up of the PSA is 20.12 percent Hispanic/Latino and 79.88 percent non-Hispanic/Latino. In addition, the PSA is 51.26 percent female and 48.74 percent male, with a PSA median household income of $85,370.

Advocate Lutheran General worked closely with Advocate Children's Hospital-Park Ridge (Advocate Children's-PR) to ensure data was collected and analyzed for the pediatric population. In addition, the director of community and health relations for Advocate Children's sits on the Advocate Lutheran General Community Health Council (CHC) and represents the health and social needs of children within the primary service area.

The hospital's CHC, comprised of hospital and community representatives, was essential to completing the CHNA process. The CHC provided oversight of the 2019 CHNA process, reviewing and analyzing data with the support of the hospital's community health department. The CHC worked through a prioritization process to determine the key health needs of the PSA. The top seven health needs of Advocate Lutheran General's PSA were determined to be:

- Obesity
- Diabetes
- Immunizations and Infectious Disease
- Heart Disease
- Mental Health
- Substance Use
- Asthma

The CHC began the initial stage of prioritization using a prioritization grid that rated each health need using criteria including severity of the health issue, effectiveness of possible interventions and the degree to which community partners are involved in addressing the health issue. After using the prioritization grid to narrow the health needs down from seven to four, the CHC used the tabulation method to vote on the final two health needs. The CHC selected healthy lifestyles

and behavioral health as the priority health needs for the medical center's PSA. The CHC also recognized the importance of addressing root causes of health issues, such as social determinants of health, thus Council members prioritized social determinants of health, with a focus on workforce development, along with the other two health priorities.

Collaboration with partners is critical to understanding and addressing complex needs of the community. Advocate Lutheran General is a member of The Alliance for Health Equity, a coalition co-founded by Advocate Aurora. The Alliance membership is comprised of Cook County non-profit and public hospitals, health departments and community-based organizations. Led by a steering committee with facilitation and support from the Illinois Public Health Institute (IPHI), the Alliance aims to impact community health through a collective impact model. This impact begins with a collaborative county-wide CHNA which aligns prioritized health needs and community improvement plans across the county. The Alliance is one of the largest community health improvement coalitions in the country. In addition to over 30 nonprofit and public hospitals, seven local health departments and more than 100 community organizations participated in the 2019 assessment and health improvement action teams. IPHI serves as the backbone organization for the collaborative and the hospitals provide funding for the shared assessment and the development of the community health improvement plan. Advocate Lutheran General supported the collaborative CHNA process through distributing community input surveys and engaging in community focus groups. The primary and qualitative data collected by The Alliance was also used by the hospital to determine the PSA's health needs.

To ensure the hospital develops an effective 2019 CHNA Implementation Plan, the hospital'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 Lutheran General Hospital and Advocate Children's Hospital

Advocate Aurora Health

Advocate Aurora Health is one of the 10 largest not-for-profit, integrated health systems in the United States 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 Lutheran General Hospital

Advocate Lutheran General began serving the community in 1897 and is now a 623-bed not-for-profit health care facility—the ninth largest hospital in Chicagoland and a leading provider in Chicago's North and Northwest Suburbs. Advocate Lutheran General is a tertiary care academic and research hospital and a Level I Trauma Center. The hospital offers a full range of inpatient and outpatient services, as well as a variety of community outreach programs. The hospital employs approximately 4,100 associates, 1,320 physicians representing 89 specialties, 1,640 nurses and provides medical education to 32 fellows, 200 residents and 900 medical students each year.

As a nationally recognized academic and research hospital, Advocate Lutheran General's patients have access to the most advanced treatment in the areas of cardiology, cancer, neurosciences, orthopedics, pediatrics and women's health. The hospital is also designated as a Resource Hospital, which requires the hospital to provide education and training to emergency medical providers. Advocate Lutheran General has been named a 100 Top Hospital 18 times by Truven© and was previously honored as an Everest Award winner for the greatest rate of improvement over five consecutive years. The hospital has also been a Magnet designated hospital for nursing excellence every year since 2005. Advocate Children's, the 14th largest children's hospital in the country, is also located on the hospital's campus and provides exceptional pediatric care to the Chicagoland community.

Advocate Children's Hospital

Advocate Children's serves children ages 0-17 through two campuses in the Chicagoland area. The south campus is located on the grounds of Advocate Christ Medical Center in Oak Lawn, Illinois (Advocate Children's-Oak Lawn). The north campus is located on the grounds of Advocate Lutheran General Hospital in Park Ridge, Illinois (Advocate Children's-Park Ridge). The hospital has 139 beds, including 54 Level III Neonatal Intensive Care beds, 15 Pediatric Intensive Care beds and 12 Psychiatry beds. There are 284 pediatricians and specialists on staff. 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.

Exhibit 1: Advocate Lutheran General and Advocate Children's-Park Ridge Annual Statistics 2018

Area	Advocate Lutheran General	Advocate Children's-Park Ridge	Totals
Emergency Department Visits	52,071	19,781	71,852
Outpatient Visits	211,696*	46,182*	257,878*
Inpatient Admissions	25,696	3,795	29,491
Births	3,851	NA	3,851
Neonatal Intensive Care Unit	NA	394	394

*Outpatient Surgeries (included in Total Outpatient Visits): Adult/9,565; Pediatric/2,365; Total Outpatient Surgeries: 11,930

Source: Advocate Aurora Business Development Analytics, 2019

III. Summary of the 2014-2016 Community Health Needs Assessment and Program Implementation

Community Definition

This section of the report provides a summary of the previous CHNA. For the 2014-2016 CHNA cycle, Advocate Lutheran General defined the "community" as the hospital's PSA. This area included approximately 1,069,146 individuals within 28 zip codes—25 in Cook County and three in Lake County.

Advocate Lutheran General's PSA includes the following communities, listed in order of greatest to lowest socioeconomic need, as defined by the HCI SocioNeed Index (explained below): Irving Park/Portage (60641), Dunning (60634), Des Plaines (60018), Elmwood Park (60707), Harwood Heights (60706), Jefferson Park (60630), Palatine (60074), Mount Prospect (60656), Niles (60714), Skokie (60077), Prospect Heights (60070), Wheeling (60090), Des Plaines (60016), Skokie (60076), Morton Grove (60053), Harwood Heights (60056), Norwood Park (60631), Arlington Heights (60005), Forest Glen (60646), Arlington Heights (60004), Glenview (60025), Park Ridge (60068), Buffalo Grove (60089), Palatine (60067), Northbrook (60062), Glenview (60026), Lake Zurich (60047) and Deerfield (60015).

Communities with Highest SocioNeeds Index Values

In order to better understand social and economic factors as correlated with health outcomes, Advocate Lutheran General utilized the Conduent Healthy Communities Institute (HCI) SocioNeeds Index. This proprietary index employs six demographic, social and economic need indicators correlated with poor health outcomes, including income, unemployment, occupation, education, language and poverty. Indicators for the index are weighted to maximize the correlation of the index with premature death and preventable hospitalization rates. Index values

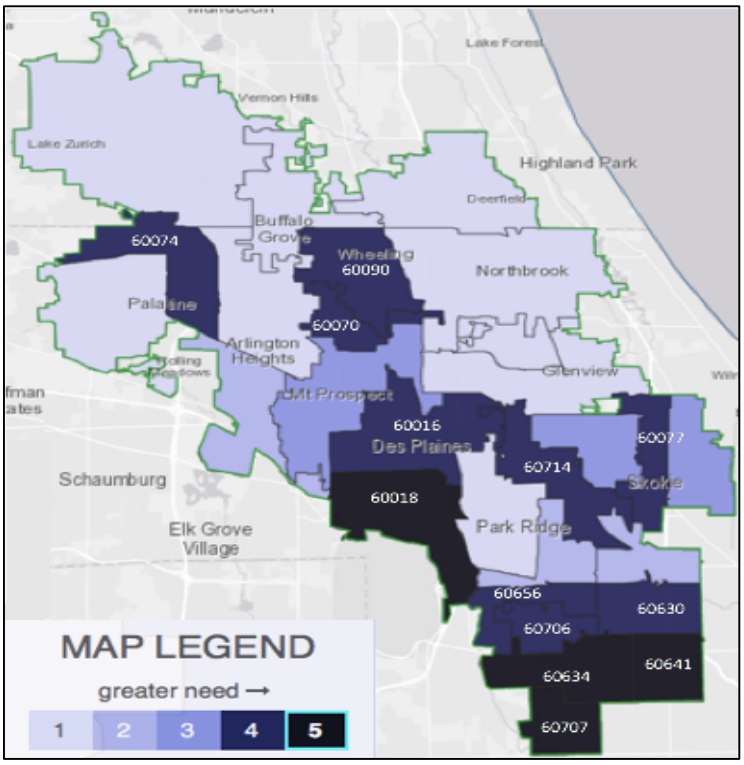
range from zero to 100 and can be compared across geographic locations. The ranking of one to five is a comparison of the index value for each zip code to all others within the PSA; a five represents areas of higher socioeconomic need relative to others in the defined geographic area.

Exhibit 1: Advocate Lutheran General PSA SocioNeeds Index
Communities with High Risk 2016

City/Town	Zip Code	Index	Rank
Irving Park/Portage	**60641**	**82.2**	**5**
Dunning	**60634**	**71.2**	**5**
Des Plaines	**60018**	**63.8**	**5**
Elmwood Park	**60707**	**61.1**	**5**
Harwood Heights	**60706**	**60.2**	**5**
Jefferson Park	**60630**	**59.6**	**5**

Source: Healthy Communities Institute, 2016

Exhibit 2: Advocate Lutheran General PSA SocioNeeds Index Map 2016



Source: Healthy Communities Institute, 2016

Overview of Collaboration

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

- Advocate Lutheran General Hospital Community Health Council
- Advocate Lutheran General Hospital Governing Council
- Cook County Health Department
- Advocate system and hospital leadership
- Health Impact Collaborative of Cook County

In 2015, the Health Impact Collaborative of Cook County (HICCC) was co-founded by Advocate Health Care. Advocate Health Care and all five Advocate hospitals principally serving Cook County (including Advocate Lutheran General) contributed financially and with in-kind resources to support HICCC, a coalition involving 26 hospitals, seven health departments and nearly 100 community-based organizations. The goal of this coalition was to work collaboratively on a countywide CHNA and collaborative implementation plan once priorities were identified. The Illinois Public Health Institute (IPHI) served as the backbone organization for the collaborative through coordination of the data collection and report preparation activities.

Given the size and diversity of Cook County, the collaborative created three regions—North, Central and South—for purposes of organizing the assessment process. Advocate Lutheran General was appropriately assigned to and co-led the north region process consisting of both the north side of Chicago as well as the northern and northwest suburbs of Cook County. In addition to multiple hospitals and health departments, a regional stakeholder group was also organized including members of community-based organizations representing various sectors, with approximately 30 stakeholders in the north region. From February 2015 through June 2016, the collaborative completed an extensive CHNA process within each of the three regions using the public health process, Mobilizing for Action through Partnerships and Planning (MAPP). More details regarding the data collection and prioritization process will be presented later in this report.

Summary of the Assessment Process

For the 2014-2016 CHNA, Advocate Lutheran General convened a CHC to oversee the assessment process. The council was comprised of community and internal leaders. Over the course of the three-year assessment process, the council reviewed and analyzed primary, secondary, qualitative and quantitative data, including demographic, health outcome, hospital utilization and health disparity data. A wide array of secondary data was retrieved from the Healthy Communities Institute (HCI), which is a centralized data platform purchased by Advocate Health Care. This robust platform offered the hospitals 198 health and demographic indicators including thirty-one (31) hospitalization and emergency department (ED) visit indicators at the service area and zip code levels.

Additionally, Advocate Lutheran General was involved in the HICCC, which provided access to additional qualitative and quantitative data and results of a county-wide survey. Community experts also spoke to the CHC regarding existing assets and needs within the community.

Before selecting health priorities, Advocate Lutheran General's community health staff analyzed key data points and presented this information to the CHC throughout the course of several meetings. Following the data presentations, the CHC selected priorities using the Hanlon Method, an evidence-based process/tool. This tool was utilized to assist in the process of prioritizing the health needs in the high-risk communities and included the following criteria: (1) size of the problem; (2) seriousness of the health problem; and (3) effectiveness of interventions. Additional social determinant of health priorities were selected using an online voting platform.

Needs Identified and Priorities Selected

After reviewing multiple data sources, the hospital identified diabetes, cardiovascular disease, access to health care, cancer, mental health, substance abuse, infectious disease, respiratory disease and social determinants of health as the top nine health needs for the hospital's PSA. After presentation of additional expert feedback, thorough review of data and employing the Hanlon Method, the CHC selected three health priorities for the hospital to address. These three 2014–2016 CHNA priorities include: 1) access to care with a focus on health literacy; 2) cardiovascular disease in high-risk communities; and 3) social determinants of health (SDOH) with a focus on workforce development.

Summary of Implementation Programs and Key Accomplishments

An Implementation Plan with several strategies was created for each health priority and included various process and impact indicators to evaluate and track strategy outcomes.

Empowered to Serve

Advocate Lutheran General (CHC) selected Irving Park (60641), one of the hospital's high-risk communities, to implement the Empowered To Serve program. Irving Park was the largest community in the PSA and was identified by the SocioNeeds Index as the community with the greatest need. Advocate Lutheran General partnered with the American Heart Association (AHA) and Presence Resurrection Medical Center (PRMC) to implement the Empowered To Serve (ETS) program. The six-week series included free blood pressure screenings and free heart-healthy produce boxes. Advocate Lutheran General implemented ETS at various organizations in the Irving Park community, including schools, health centers and food pantries. As a way to meet the needs of diverse populations, the program was offered in English and

Spanish. Since 2017, the program has drawn over 160 participants including food pantry clients, parents and seniors.

Health Literacy

The hospital's CHC chose to address improving access to care by focusing on strategies to improve health literacy. The implementation plan included two core strategies to impact the internal (hospital) and the external environment. Strategy one involved partnering with Advocate Children's–Park Ridge to engage and support local school districts in implementing Navigating the Health Care System, an evidence-based health literacy curriculum.

The second health literacy strategy involved partnering with Advocate Lutheran General's physicians and residents to implement the Agency for Healthcare Research and Quality (AHRQ) literacy training, which aims to increase and improve health literacy in the clinical setting. The training consists of health literacy education and awareness, a health literacy assessment and an action plan based upon assessment results. In partnership with the Manager of the Medical Residency Program, the Community Health Department implemented the AHRQ health literacy training to Advocate Lutheran General's medical residents. The training provided residents with health literacy education and all attendees completed the AHRQ assessment, and action plans were completed. Technical support was offered to assist medical residents in implementing action plan strategies.

Social Determinants of Health

The third priority identified in the 2014-2016 CHNA was social determinants of health. The hospital partnered with the JumpStart program to increase internships and job opportunities for high-risk students attending Maine Township District 207 (ages 16-25 years of age). JumpStart is a youth employment program that is federally funded through the Work Force Innovation and Opportunity Act (WIOA). The strategy included collaboration with local stakeholders from Park Ridge, Niles and the Des Plaines Chamber of Commerce to increase the number of job opportunities for JumpStart participants. Advocate Lutheran General also served as an internship site for JumpStart participants and works with JumpStart leadership to identify more permanent employment opportunities for program participants. Since 2010, Advocate Lutheran General has provided over 100 JumpStart youth with a paid work experience and has hired over 50 JumpStart youth into permanent positions within the hospital.

Advocate Children's-Park Ridge

Access to Care

Access to care for underserved communities was addressed through the hospital's Ronald McDonald Care Mobile which is a mobile clinic providing free physicals and immunizations to low income, uninsured and underinsured children. In 2018, 2,398 children received over 2,000

physicals and over 4,300 vaccines. The clinical team also provided referrals to primary care providers and specialists, as well as community resources. During year three of the previous CHNA cycle, the team began screening patients for food insecurity. Children screening positive for food insecurity were given a backpack filled with a day's worth of food and provided with referrals to local food pantries and federal and state assistance programs. Approximately 30% of patients received assistance.

Trauma Informed Care

Research shows that adverse childhood experiences can have a profound effect on health status and outcomes. Acknowledging this finding, Advocate Children's launched plans to become a trauma-informed hospital where the entire care team, including physicians, clinical and support staff, provide care using a trauma-sensitive approach. A multi-year project, becoming a trauma-informed hospital includes education and awareness, resilience training and support, and screening and referrals to community-based social services. The current focus is on developing a computer-based training module for physicians which will be adapted for all hospital team members.

Input from the Community

Although many feedback mechanisms were put in place for the public to comment or provide input on the CHNA, the hospital did not receive any feedback from the community. The hospital will continue to encourage input from the community by providing various feedback mechanisms for the 2017-2019 CHNA.

Lessons Learned

One of the hospital's biggest lessons learned was the need for community programs to be offered in multiple languages. Advocate Lutheran General did not have the capacity or expertise to offer community programs such as ETS in Polish and Korean, which are two out of the three most spoken languages in the PSA. In addition, due to inconsistent attendance, capturing blood pressure outcomes and improvements over time was also a challenge in the ETS program. Blood pressure is also an uncontrolled variable, so utilizing the indicator to determine health status improvement over time was not a reliable metric. Advocate Lutheran General identified additional communities in need of heart health education; therefore, the target population was expanded to additional communities beyond Irving Park.

The community health staff also learned that implementing the Navigating the Healthcare System program in a school setting required many planning meetings with administration and teacher approval(s). Teachers were resistant to compromising their class time with students, which made it difficult to implement the program. Due to this barrier, the hospital expanded the target population so the program could be offered to adults as well as students. In addition, we learned that implementing the AHRQ strategy required extensive outreach and leadership

commitment to ensure thorough strategy implementation and follow-up. To gain buy-in and leadership commitment, the hospital's community health department worked with the manager of Medical Residency Program to coordinate various AHRQ workshops and trainings. Finally, the hospital learned that aligning improved health literacy with clinical metrics and outcomes is extremely challenging. The Patient Satisfaction Survey was the only tool that measured health literacy progress, however, the tool was not properly aligned with the AHRQ tool kit. The hospital will continue to convene various departments and leaders to more closely align the AHRQ tool kit with the Patient Satisfaction Survey and brainstorm additional ways to measure any improvement in health literacy as a result of the AHRQ training.

IV. 2017-2019 Community Health Needs Assessment

Community Definition

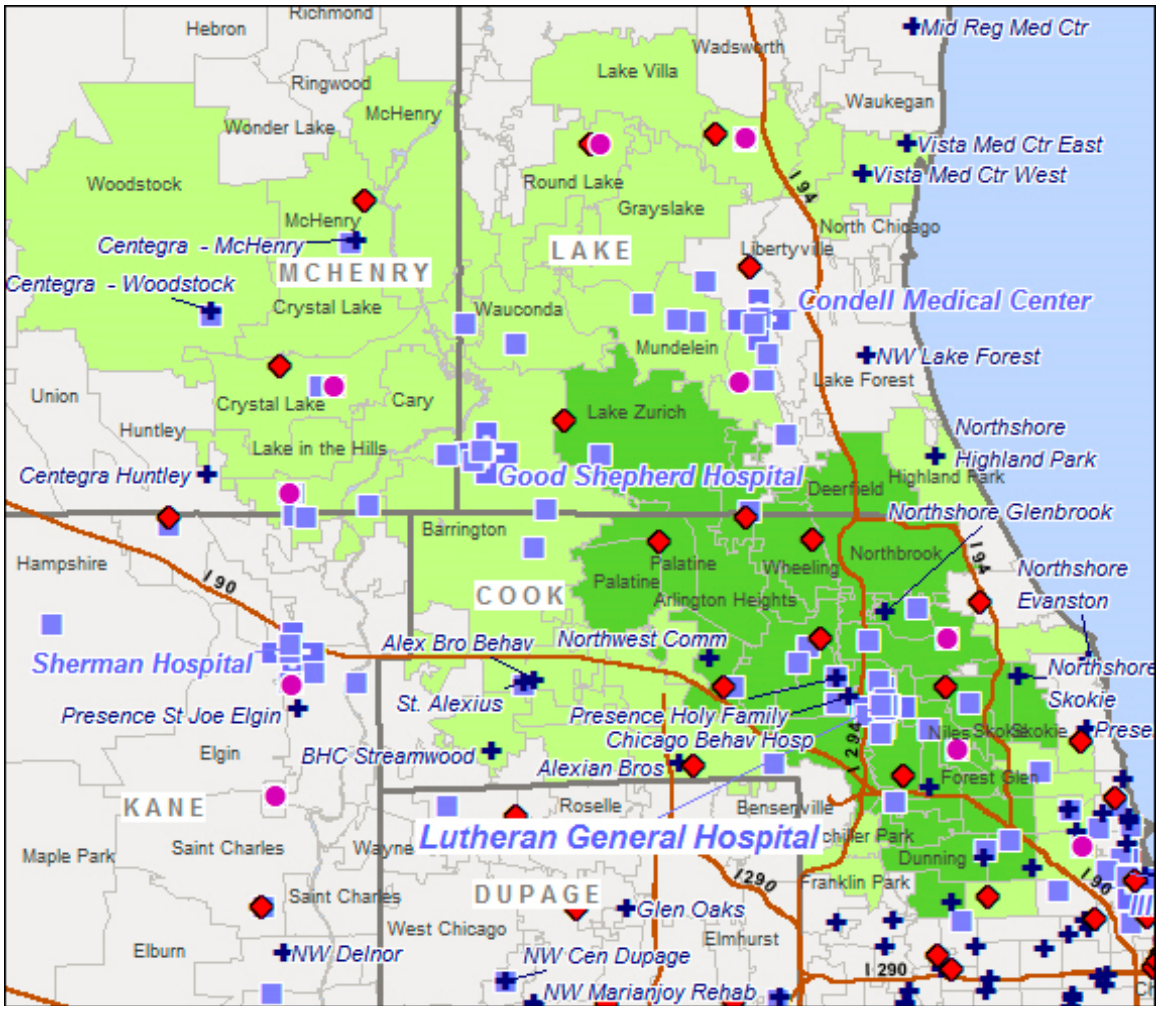
For the 2017-2019 Community Health Needs Assessment (CHNA) cycle, Advocate Lutheran General defined its community as the hospital's PSA. This area includes approximately 1,052,976 individuals, which is a slight population increase from the 2016 CHNA (Conduent Healthy Communities Institute, Claritas, 2018). There are 28 zip codes—25 in Cook County and three in Lake County—within the hospital's PSA.

Advocate Lutheran General's PSA includes the following communities, listed in order of greatest to lowest socioeconomic need, as defined by the HCI SocioNeeds Index: Irving Park/Portage (60641), Elmwood Park (60707), Des Plaines (60018), Dunning (60634), Jefferson Park (60630), Palatine (60074), Harwood Heights (60706), Mount Prospect (60656), Niles (60714), Wheeling (60090), Skokie (60077), Des Plaines (60016), Prospect Heights (60070), Morton Grove (60053), Skokie (60076), Harwood Heights (60056), Norwood Park (60631), Arlington Heights (60005), Forest Glen (60646), Arlington Heights (60004), Palatine (60067), Glenview (60025), Buffalo Grove (60089), Park Ridge (60068), Northbrook (60062), Lake Zurich (60047), Glenview (60026) and Deerfield (60015). When compared to the 2014-2016 CHNA community rankings, Jefferson Park (60630) and Harwood Heights (60706) improved from a level five to a level four ranking.

Population

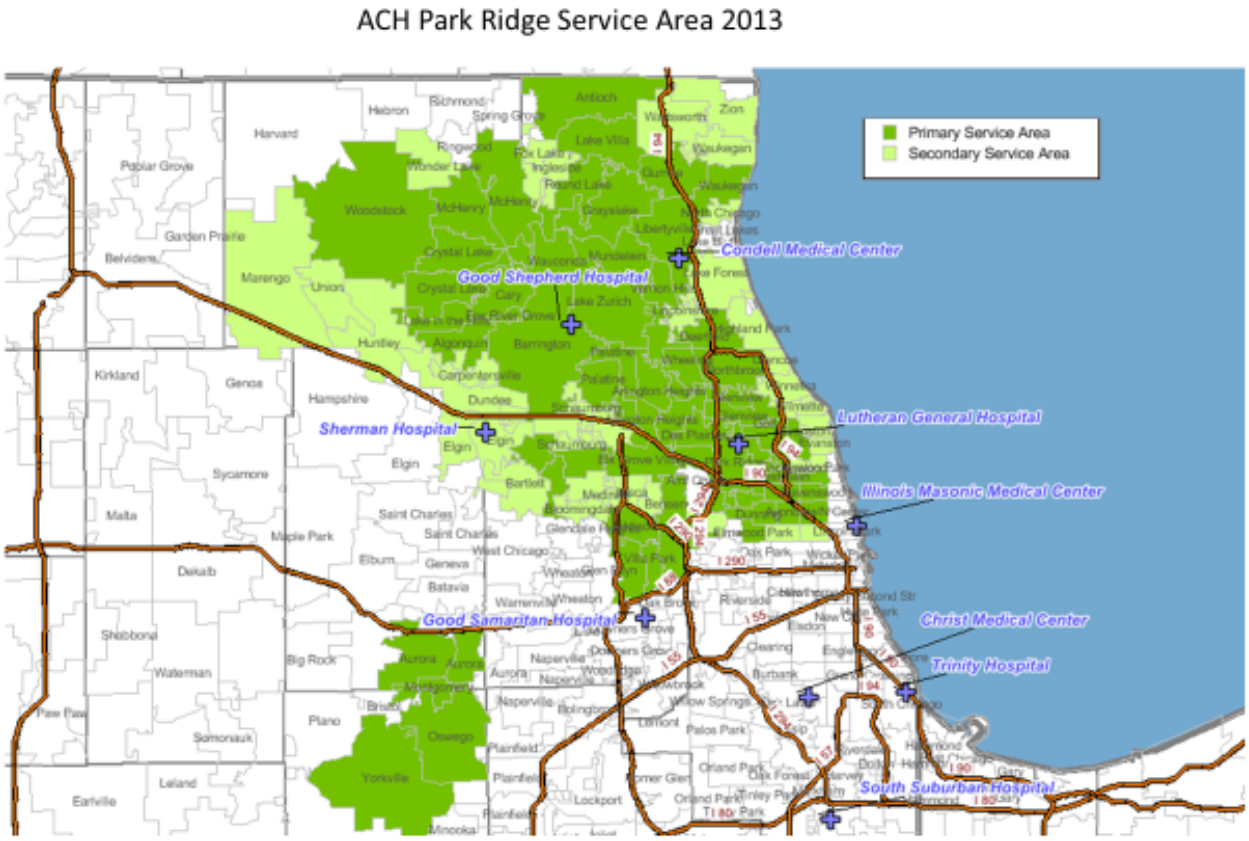
The total population for Advocate Lutheran General's PSA is 1,052,341 persons. From 2010 to 2019, there was a 0.31 percent decrease in the population. Exhibit 3.1 as follows displays a map of the hospital's PSA. Exhibit 3.2 displays a map of the total service area for Advocate Children's-Park Ridge, which covers overlapping geography with Advocate Lutheran General's PSA as well as additional communities beyond that geography.

Exhibit 3.1: Advocate Lutheran General PSA* 2018



*PSA is shaded in dark green; secondary service area is shaded in light green.
Source: Advocate Aurora Business Development Analytics, 2018

Exhibit 3.2: Advocate Children's Hospital-Park Ridge Total Service Area* 2018



*Total Service Area for Advocate Children's includes both Primary Service Area (dark green) and Secondary Service Area (light green).
Source: Advocate Aurora Business Development Analytics, 2018

SocioNeeds Index

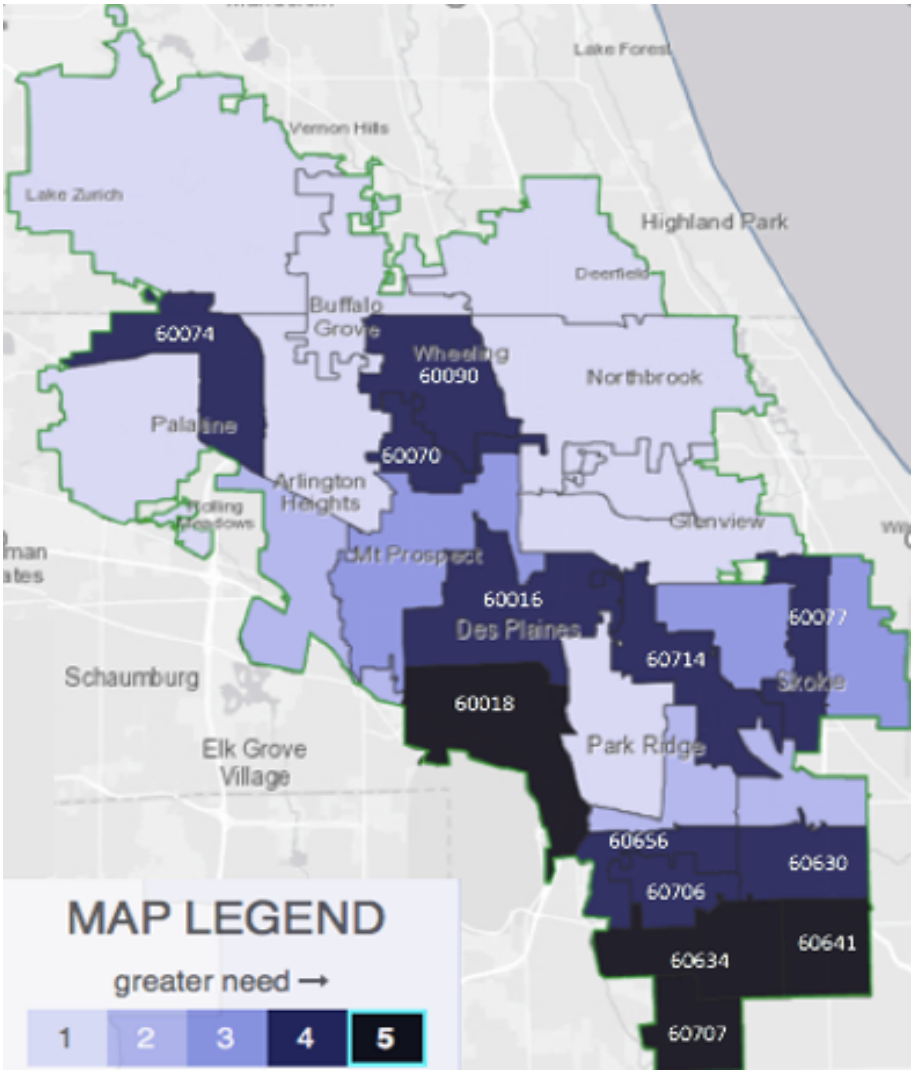
In order to better understand the social and economic factors that deeply impact health, Advocate Lutheran General utilized the HCI SocioNeeds Index. The SocioNeeds Index employs six indicators that are correlated with poor health outcomes, including income, unemployment, occupation, education, language and poverty. Indicators for the index are weighted to maximize the correlation of the index with premature death and preventable hospitalization rates. Index values range from zero to 100 and can be compared across geographic locations. The ranking of one to five is a comparison of the index value for each zip code to all others within the PSA; a five represents areas of higher socio-economic need relative to others in the defined geographic area. The hospital's highest risk socioneed communities are listed in Exhibit 4.

Exhibit 4: Advocate Lutheran General PSA SocioNeeds Index
Top at Risk Communities 2018

City/Town	Zip Code	Index	Rank
Irving Park/Portage	**60641**	**72.4**	**5**
Des Plaines	**60018**	**61.7**	**5**
Elmwood Park	**60707**	**59.6**	**5**
Dunning	**60634**	**58.4**	**5**

Source: Conduent Healthy Communities Institute, 2018

Exhibit 5: Advocate Lutheran General PSA SocioNeeds Index Map 2018



Source: Conduent Healthy Communities Institute, 2018

Demographics

Age and Gender

The median age for the population living in Advocate Lutheran General's PSA is 42.3 years. The median age for males is (40.6 years) lower than the median age for females (44.1 years) (Conduent Healthy Communities Institute, Claritas, 2018). The male population accounts for 48.74 percent of the PSA (512,884 males) while the female population is 51.26 percent (539,457 females) of the PSA. The largest age group in the hospital's PSA is the 65 and older age group (21.22 percent) followed by the 25-64 age group (14.4 percent). Exhibit 6 displays the hospital's PSA by age group.

Exhibit 6: Advocate Lutheran General PSA by Age 2018

Population by Age	Service Area: Lutheran General Hospital Primary	
	Persons	% of Population
Under 18	**218,608**	20.77%
18+	**833,733**	79.23%
25+	**749,667**	71.24%
65+	**194,246**	18.46%
85+	**29,050**	2.76%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Exhibit 7: Advocate Lutheran General PSA by Gender 2018

Population by Sex	Service Area: Lutheran General Hospital Primary	
	Persons	% of Population
Male	**512,884**	48.74%
Female	**539,457**	51.26%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Life Expectancy

Data from the Chicago Health Atlas identified Elmwood Park (60707) as the neighborhood with the lowest life expectancy in the hospital's PSA at 70 years of age. The zip code with the highest life expectancy in the PSA is Norwood (60631) at 83 years of age. Exhibit 8 displays the life expectancy by zip codes in the PSA.

Exhibit 8: Advocate Lutheran General PSA Life Expectancy

Zip Code	Community	Life Expectancy by Years
60641	Irving Park/Portage	79.8
60707	Elmwood Park	70.0
60018	Des Plaines	77.1
60634	Dunning	79.7
60630	Jefferson Park	80.0
60074	Palatine	80.0
60706	Harwood Heights	78.5
60656	Mount Prospect	80.0
60714	Niles	81.9
60090	Wheeling	79.8
60077	Skokie	77.8
60016	Des Plaines	80.0
60070	Prospect Heights	81.6
60053	Morton Grove	80.8
60076	Skokie	81.6
60056	Harwood Heights	85.1
60631	Norwood Park	83.0
60005	Arlington Heights	78.4
60646	Forest Glen	79.9
60004	Arlington Heights	84.7
60067	Palatine	82.7
60025	Glenview	83.5
60089	Buffalo Grove	83.4
60068	Park Ridge	80.2
60062	Northbrook	84.8
60047	Lake Zurich	78.0
60026	Glenview	86.4
60015	Deerfield	83.1

Source: Healthy Chicago 2.0, Chicago Health Atlas, 2019

Birth and Infant Mortality

Preterm labor is associated with preterm birth and babies born prematurely have a greater risk of health complications (American College of Obstetricians and Gynecologists, 2018). Given the significance of infant health issues associated with preterm birth, Advocate Lutheran General worked with Advocate Children's to collect county level data regarding infant mortality and preterm labor and birth.

In Cook County from 2015-2017, 4.8 percent of mothers were hospitalized for preterm labor and delivery, which is higher than most other counties in Illinois and higher than the overall state of Illinois rate at 4.4 percent. Those aged 15-17 (7.3 percent) and 45-64 (7.4 percent) had the highest rates of preterm labor and delivery. The African American population had the highest rate of preterm labor and delivery at 6.9 percent, which is substantially higher than the White and Asian populations at 3.9 and 3.8 percent, respectively.

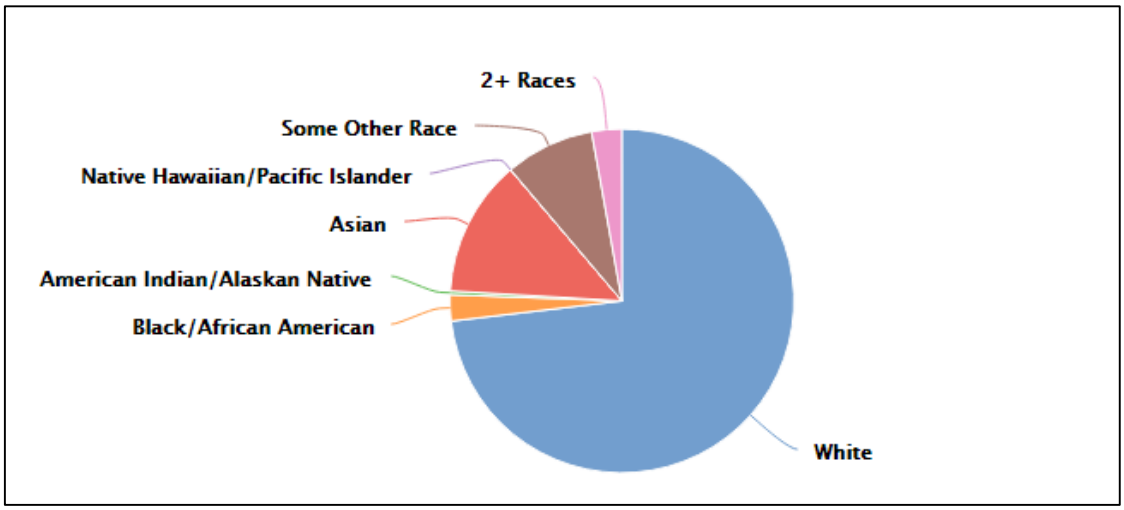
The preterm birth rates were highest in Avalon Park (13.0 percent), Jefferson Park (11.4 percent), Dunning (11.2 percent), Belmont Cragin (9.9 percent) and Irving Park (9.4 percent) (Chicago Health Atlas, 2018). These communities also have lower household incomes and are ranked fours or fives in the SocioNeeds Index Map, which indicates these are communities with many social and economic barriers to health.

The rate of infant mortality in Cook County is 6.9 deaths per 1,000 live births, which is higher than the U.S. rate at 5.9 deaths per 1,000 live births. The rate increased from 6.6 deaths per 1,000 live births in 2013-2015, to 6.9 deaths per 1,000 live births in 2014-2016.

Race and Ethnicity

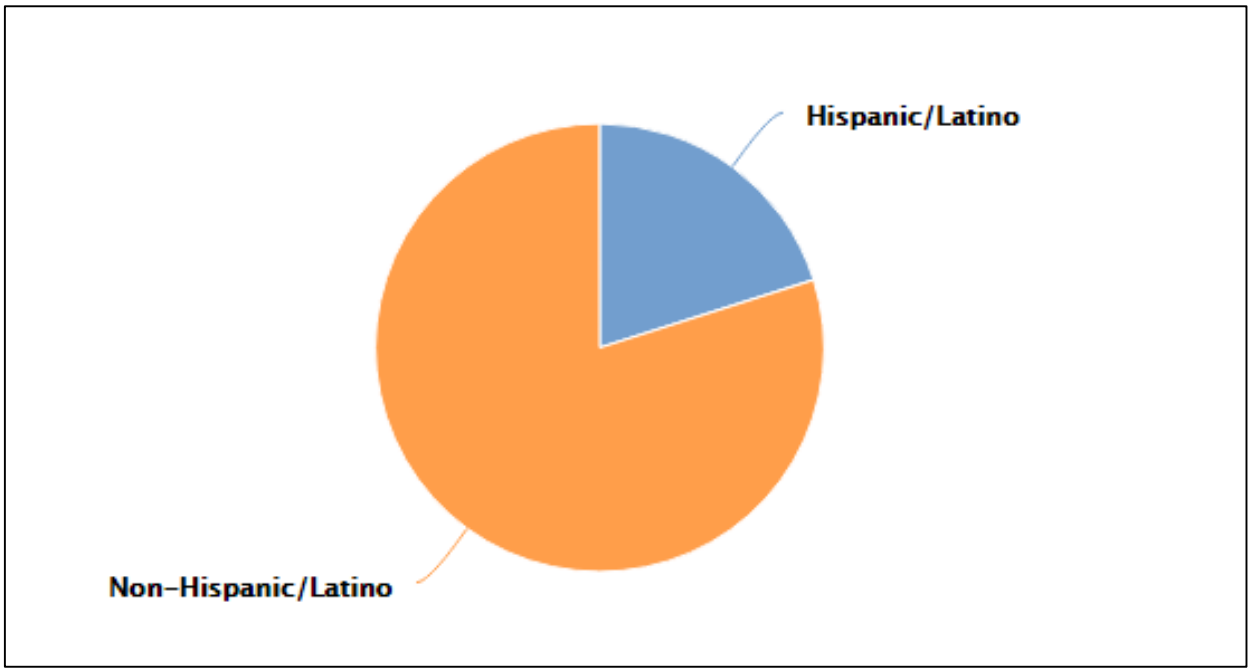
Demographic data shows the PSA is, 73.12 percent White, 12.8 percent Asian, 8.36 percent "Other", 2.45 percent Black/African American, 2.83 percent two or more races, 0.36 percent American Indian/Alaskan Native and 0.03 percent Native Hawaiian/Pacific Islander (Conduent Healthy Communities Institute, Claritas, 2018). The White and Asian populations are the largest racial groups in the hospital's PSA. The hospital's PSA is 20.12 percent Hispanic/Latino and 79.88 percent non-Hispanic/Latino making the majority of the PSA non-Hispanic/Latino (Conduent Healthy Communities Institute, Claritas, 2018).

Exhibit 9: Advocate Lutheran General PSA by Race 2018



Source: Conduent Healthy Communities Institute, Claritas, 2019

Exhibit 10: Advocate Lutheran General PSA by Ethnicity 2018

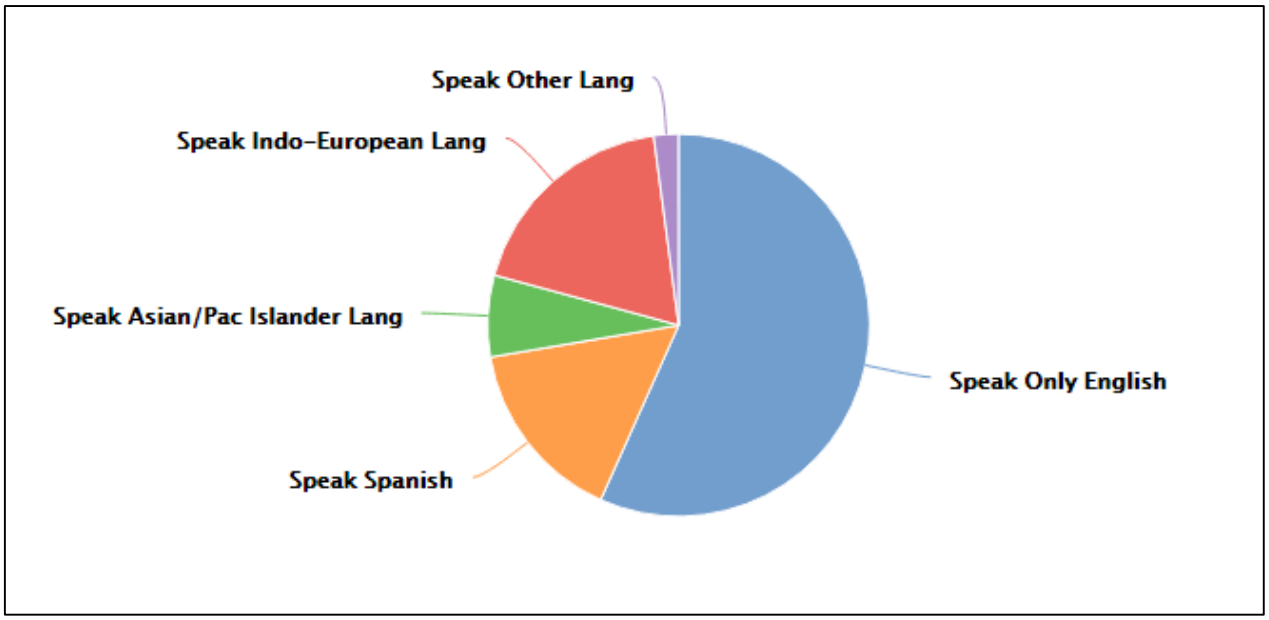


Source: Conduent Healthy Communities Institute, Claritas, 2019

Language(s)

Fifty-six percent of the population in the PSA speak English, which is lower compared to Cook County at 64.94 percent and Illinois at 77.20 percent. Advocate Lutheran General serves a significantly larger Indo-European speaking population (18.68 percent) when compared to Cook County (8.45 percent) and Illinois (5.49 percent). According to the U.S. Census Bureau, Indo-European languages include Polish, Russian, French, Italian, German, Greek, Yiddish, Portuguese, Hindi, Gujarati and more. The third most commonly spoken language within the PSA is Spanish at 15.63 percent.

Exhibit 11: Advocate Lutheran General PSA by Language Spoken at Home (Age 5+) 2018



Source: Conduent Healthy Communities Institute, Claritas, 2019

Household/Family

A total of 403,196 households and 276,893 families reside in the PSA. From 2010 to 2019, there was a slight increase (0.82 percent) in the number of families within the PSA. The average household size in the hospital's PSA is 2.59 persons (Conduent Healthy Communities Institute, Claritas, 2019).

Senior Isolation

Adults over 65 years of age that live alone are at risk for "social isolation, limited access to support, and inadequate assistance in emergency situations" (Conduent Healthy Communities, 2019). Over a quarter (27.4 percent) of Advocate Lutheran General's PSA adults aged 65 and older live alone, which is slightly higher than the U.S. at 26.2 percent. Norwood Park (39.0

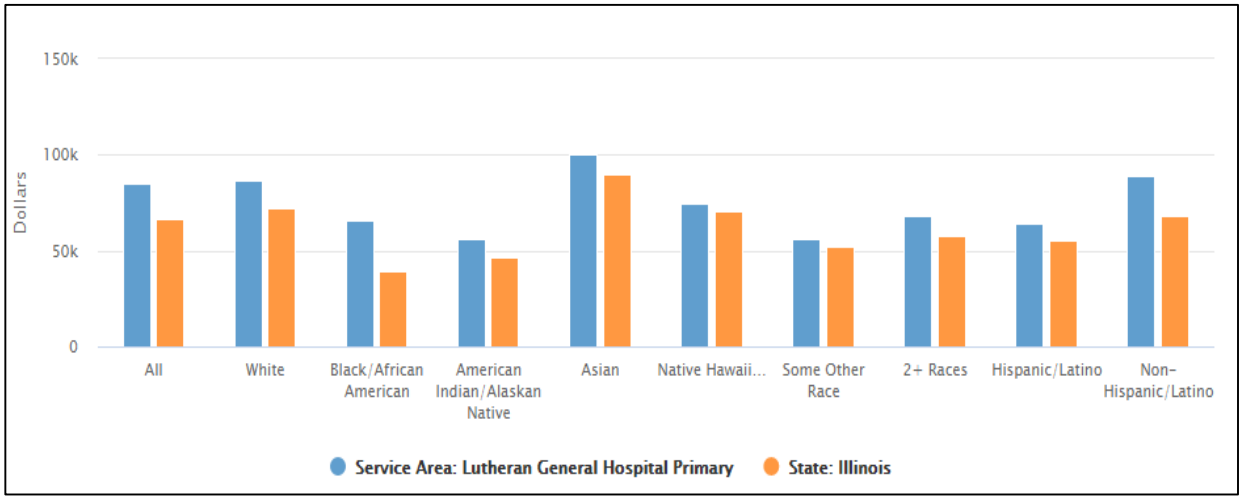
percent), Arlington Heights (60005) (34.5 percent), Forest Glen (33.5 percent) and Glenview (39.4 percent) are the PSA communities that have the largest populations of adults 65 and older living alone (American Community Survey, 2013-2017).

Economics

Income

The median household income for the PSA is $85,370, which is substantially higher than Illinois at $66,487. There is a significant racial disparity in median household income with the Asian, Native Hawaiian and White populations having significantly higher median household incomes compared to the Hispanic/Latino, Black and American Indian/Alaskan Native populations. Exhibit 12 displays the median household income by race for the hospital's PSA and Illinois.

Exhibit 12: Advocate Lutheran General PSA and Illinois Median Household Income by Race 2017



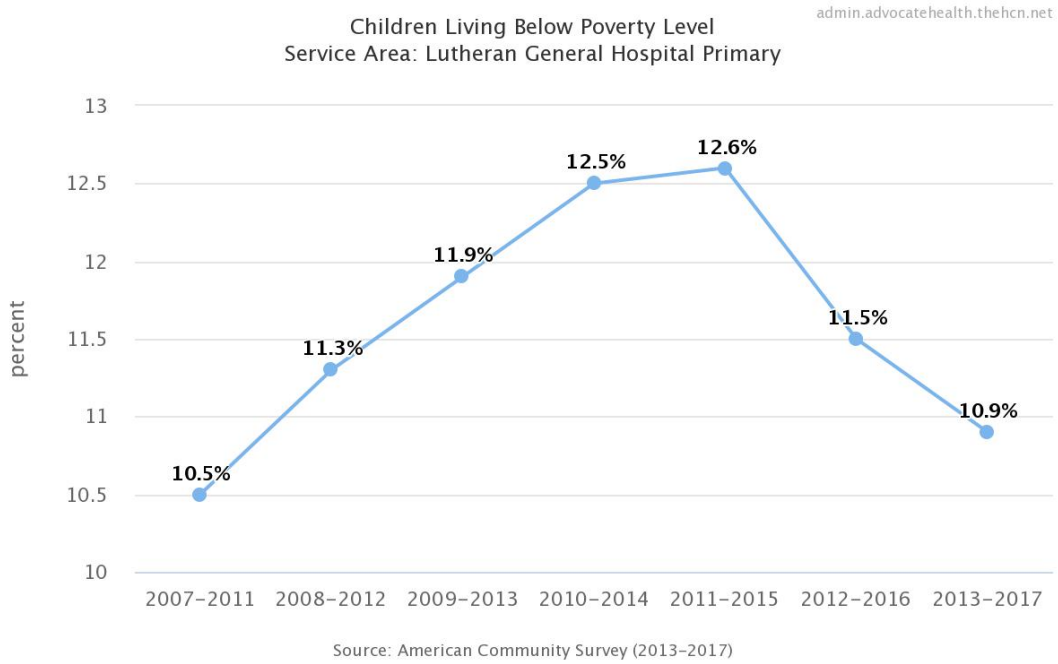
Source: Conduent Healthy Communities Institute, Claritas, 2019

The communities with the lowest median income include Elmwood Park (60707) at $55,566, Irving Park (60641) at $56,488 and Niles (60714) at $58,298. Conversely, Deerfield (60015) at $141,268, Lake Zurich (60047) at $132,803 and Buffalo Grove (60087) at $106,630 are the top three communities with the highest median income. The communities listed above with the lowest median household income experience higher incidence and prevalence rates of chronic diseases and have worse health outcomes compared to those communities with the highest household incomes. The correlation between income, social determinants of health and physical health is evident when analyzing the income and health disparities across the hospital's PSA.

Six percent of PSA families (16,627 families) live below poverty and four percent of families with children (10,839 families with children) live below poverty in the PSA. The percentage of PSA

families living below poverty is 6 percent while PSA families with children living in poverty is 3.91 percent, which is less than the state of Illinois with 9.8 percent of families living below poverty and 7.38 percent of families with children living below poverty. Furthermore, 8.2 percent of people 65 years of age and older are living below poverty level in the PSA.

Exhibit 13: Advocate Lutheran General PSA Children Living Below Poverty Level 2007-2017



Source: American Community Survey, 2018

Four percent of the PSA population, 16 and older, is unemployed, which is less than the unemployment rate for Cook County at 7.74 percent and Illinois at 6.7 percent. Health care/ social assistance is the largest industry of employment among those aged 16 and older residing in the PSA at 13.26 percent, followed by manufacturing at 10.85 percent and retail trade at 10.78 percent. These top three industries employ over 30 percent of individuals aged 16 years and older in the PSA.

Health Insurance Coverage

The majority of the PSA has commercial insurance (59.5 percent of the PSA) followed by Medicare at 25.1 percent of the PSA and Medicaid at 6.4 percent of the PSA. Exhibit 14 provides more information regarding health insurance coverage for the hospital's PSA.

Exhibit 14: Advocate Lutheran General PSA Health Insurance Coverage 2019

Insurance Type	PSA Population	Percentage of PSA
Commercial	268,813	59.5%
Medicaid	28,988	6.4%
Medicare	113,410	25.1%
Other	11,464	2.5%
Uninsured	15,646	3.5%
Veterans	13,277	2.9%

Source: Advocate Aurora Business Development Analytics, Sg2, 2019

Education

Educational Attainment

Approximately 90.1 percent of adults ages 25 and older in the PSA have completed at least a high school diploma, which is more than Illinois with 88.6 percent of the population having completed at least a high school diploma. Communities with the lowest high school educational attainment are Irving Park (60641) at 79.9 percent and Des Plaines (60018) at 80.6 percent. These two communities also have higher incidence and prevalence rates of health issues, including chronic disease, and are rated as high SocioNeed communities, which displays the correlation between education and poor health outcomes. Forty-four percent of people 25 and older in Advocate Lutheran General's PSA have a bachelor's degree or higher, which is more than Illinois at 33.4 percent.

Exhibit 15: Advocate Lutheran General PSA by Educational Attainment 2018

Population 25+ by Educational Attainment	Service Area: Lutheran General Hospital Primary		State: Illinois	
	Persons	% of Population Age 25+	Persons	% of Population Age 25+
Less than 9th Grade	38,694	5.16%	438,786	5.05%
Some High School, No Diploma	33,916	4.52%	543,417	6.26%
High School Grad	159,782	21.31%	2,276,585	26.22%
Some College, No Degree	135,338	18.05%	1,822,425	20.99%
Associate Degree	52,310	6.98%	685,245	7.89%
Bachelor's Degree	203,700	27.17%	1,796,658	20.69%
Master's Degree	94,461	12.60%	824,313	9.49%
Professional Degree	22,081	2.95%	186,693	2.15%
Doctorate Degree	9,385	1.25%	109,566	1.26%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Health Care Resources in the Defined Community

Advocate Lutheran General's community health staff mapped all health care resources within the hospital's PSA as indicated below.

Name of Facility	Type of Facility	Location
Access Genesis Center for Health and Empowerment	Federally Qualified Health Center	Des Plaines
Oak Street Health	Medicare Clinic	Chicago
Old Irving Park Clinic	Community Clinic	Chicago
Heartland Health Centers	Federally Qualified Health Center	Skokie
Cook County Department of Public Health	Community Clinic	Des Plaines
Amita Presence Holy Family Medical Center	Hospital	Des Plaines
Amita Health Resurrection Medical Center	Hospital	Des Plaines
Shiners Hospital for Children	Hospital	Chicago
Northshore University Health System	Hospital	Glenview
Community First Medical Center	Hospital	Chicago
Northshore University Health System- Glenbrook	Hospital	Glenview
Chicago Behavioral Hospital	Hospital	Des Plaines
Maryville Children's Healthcare Center	Hospital	Chicago

Key Roles in the 2017-2019 Community Health Needs Assessment

Advocate Aurora System and Advocate Lutheran General/Advocate Children's Leadership

In 2017, the health system and hospital began to organize resources in preparation for the 2017-2019 CHNA cycle. The system contracts with Xerox Health Solutions to provide an internet-based data resource-Conduent Healthy Communities Institute—for Advocate Aurora hospitals in Illinois. This database was an essential component of the 2017-2019 CHNA and played a key role in identifying the community's health needs. The data platform offered the hospitals with over 171 health and demographic indicators including hospitalization and emergency department utilization at the zip code and PSA levels. In addition, system leaders collaborated with Advocate Aurora's Business Development Analytics Department to create sets of demographic and geographic data for each hospital site, as well as data regarding inpatient and outpatient emergency department visits.

A master's prepared director of community health led the Advocate Lutheran General CHNA process. The director of community health is responsible for coordinating and promoting the hospital's policies, programs and services to improve the overall health status of the community. The CHNA process, the convening of the CHC and the co-administering of the hospital's community benefits are all accountabilities of the director of community health. There is a matrixed relationship between this position and the hospital's executive leadership team to ensure that the CHNA process and community benefits reporting aligns with the hospital's strategic plan and direction. A master's prepared coordinator of community health assists the director.

Governing Council

Advocate Lutheran General's Governing Council consists of several community members, each representing individual community organizations. The primary role of each Governing Council member is to support hospital leadership in achievement of the hospital's goals, represent the community's interest to the hospital and to serve as the hospital ambassador in the community. The Governing Council monitors clinical outcomes, patient satisfaction, associate satisfaction, physician credentialing and relations, financial performance, strategic direction and overall community health. Community representation includes non-profit and faith-based organizations, state legislature or government, local school districts, banking and legal sectors of the community.

There is Governing Council representation on the hospital's CHC to ensure alignment of community health needs with the hospital's resources, capacity and areas of expertise. Governing Council representation in the CHNA process is critical in understanding the overall

strategic plan of the hospital. The role of the Governing Council member on the CHC is also critical when developing the hospital's community health improvement strategies.

The Governing Council is the hospital body responsible for final approval and endorsement of the CHNA at the site level. The director of community health presented the process and findings of the 2017-2019 CHNA to the hospital's Governing Council. The presentation included details of the data analysis and priority setting process. Council members were able to ask questions and gain a thorough understanding of the CHNA process and community health needs. On October 2, 2019, the hospital's Governing Council approved the Advocate Lutheran General 2017-2019 CHNA and priority health needs.

Community Health Council

Advocate Lutheran General's CHC was created in 2011. The CHC serves as an advisory committee for Advocate Lutheran General's community health department. For the 2017-2019 CHNA cycle, the CHC was comprised of 19 members, including 11 community stakeholders and eight hospital representatives. CHC community stakeholders also represented various vulnerable populations such as the low-income, senior, uninsured, underinsured and immigrant populations. The vulnerable populations each CHC member represents is indicated in parentheses next to the respective CHC member.

The CHC convened for five two-hour meetings throughout 2018 and 2019 to conduct and complete the CHNA. At these meetings, the CHC met in-person to review data, listen to content experts and prioritize health needs. CHC members also participated in the Forces of Change Assessment (FOCA), a process that analyzes the strengths, opportunities and threats of the local community. In addition, CHC members also shared comments and recommendations regarding the data and health needs. The CHNA is a community-driven process, so having a robust group of community stakeholders that shares information regarding at risk/disparate communities and populations was critical to the overall fidelity of the CHNA process. To identify health need priorities, Council members used a prioritization grid that ranked the top health needs by assigning ratings and scores to each health issue. The CHC will continue to convene quarterly to approve and oversee the 2017-2019 CHNA Implementation Plan. The affiliations and titles of Advocate Lutheran General's CHC members, as well as the members representing low income, underserved and/or minority populations, are indicated below.

Advocate Lutheran General Community Health Council

Members from the Community

- City of Des Plaines, Fire Chief
- American Polish Association, Executive Director (representing low-income, uninsured, senior and immigrant populations)
- MaineStay Youth & Family Services, Director (representing low-income, uninsured and underinsured populations)

- ACCESS Community Health Network, Community Engagement Coordinator (representing low-income, uninsured, underinsured, immigrant and senior populations)
- Park Ridge Police Department, Police Social Worker
- American Heart Association, Communications Director
- Lutheran Social Services of Illinois, Associate Executive Director (representing low-income and immigrant populations)
- National Alliance on Mental Illness Cook County North Suburban, Program Director
- Northwest Side Housing Center, Director of Community Development (representing low-income and immigrant populations)
- Roundout School District 72, Superintendent
- Advocate Lutheran General, Governing Council member

Members from Advocate Aurora

- Advocate Children's—Park Ridge, Director of Community & Health Relations
- Advocate Lutheran General, Patient Navigator
- Advocate Lutheran General, Director of OPS ED, Critical Care and Behavioral Health
- Advocate Lutheran General, Executive Director of Heart Institute
- Advocate Lutheran General, Polish Patient Navigator (representing immigrant populations)
- Advocate Lutheran General, Director of Older Adult Services
- Advocate Lutheran General, Supervisor, Adult Day Behavioral Health and Adult Day Hospital
- Advocate Aurora Health, Mission and Spiritual Care

The Alliance for Health Equity

The Alliance for Health Equity is a coalition of Cook County non-profit and public hospitals, health departments and community-based organizations. The coalition is led by a steering committee of which Advocate Aurora is a member and receives backbone support from the Illinois Public Health Institute (IPHI). IPHI serves as the backbone organization for the collaborative and the hospitals provide funding for the shared assessment and the development of the community health improvement plan.

The Alliance aims to complete a tri-annual comprehensive collaborative CHNA and to develop aligned community health improvement plans. The Alliance is one of the largest CHNA and community health improvement coalitions in the nation. In addition to over 30 non-profit and public hospitals, seven local health departments and more than 100 community organizations participated in the 2019 assessment and health improvement action teams.
The Alliance created and distributed health surveys throughout Cook County, with a focus to survey at risk and ethnically diverse communities. Over 5,000 surveys were completed, providing a picture of community concerns, strengths and health needs through the lens of community members. Primary and secondary data gathering also included multiple focus groups and hospital utilization data, which was analyzed by IPHI staff. IPHI completed The

Alliance's CHNA in June 2019. As a result of the assessment work and a priority setting process, the coalition selected the following four focus areas for implementation:

1. Improving social, economic and structural determinants of health while reducing social and economic inequities;
2. Improving mental health and reducing substance use disorders;
3. Preventing and reducing chronic disease; and
4. Increasing access to care and community resources.

Advocate Lutheran General is an active member of The Alliance and contributes to the collection and analysis of Cook County data for the collaborative CHNA. The hospital also utilized components of The Alliance's CHNA to inform the hospital's CHNA. Advocate Lutheran General utilized the community input surveys and focus group data, collected by The Alliance, to gain a deeper understanding of the community's concerns and perception of health needs. Advocate Lutheran General will continue working to align the hospital's PSA community health improvement strategies when possible with that of The Alliance in the pursuit of achieving collective impact.

Exhibit 16: The Alliance for Health Equity Members 2018-2019

Nonprofit Hospital Members	
Advocate Children's	Loyola Medicine-Gottlieb Memorial Hospital
Advocate Christ	Loyola Medicine-Loyola University Medical Center
Advocate Illinois Masonic	Loyola Medicine-MacNeal Hospital
Advocate Lutheran General	Mercy Hospital & Medical Center
Advocate South Suburban	Northwestern Memorial Hospital
Advocate Trinity	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
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-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

Collaborations with Other Key Stakeholders

In order to complete a comprehensive CHNA, Advocate Lutheran General worked with various community organizations to complete a Forces of Change Assessment (FOCA). Many community organizations within the hospital's PSA attended the FOCA meeting and provided valuable primary qualitative data on community strengths, threats and opportunities. Community organizations represented ethnically and economically diverse populations from various sectors. Some of the organizations that participated in the FOCA include: Irving Park Food Pantry, American Heart Association, Access Genesis--federally qualified health center (FQHC), Lutheran Social Services and JumpStart--an employment and training program for high-risk youth.

Methodology

Timeline

In April 2018, Advocate Lutheran General's community health department invited The Alliance (IPHI staff) to present to the hospital's CHC regarding The Alliance's 2019 collaborative CHNA process. As indicated above, The Alliance is led by a steering committee and backbone support is provided by IPHI. The Alliance includes over 30 hospitals, six local health departments, and over 100 community-based organizations. Following the presentation, the hospital's CHC reconvened in August 2018 to conduct a FOCA, which launched the official beginning of the hospital's 2019 CHNA. The FOCA included all CHC members, additional community leaders, organizations representing at risk populations, as well as hospital service line leaders. The FOCA is a method of collecting qualitative feedback regarding the strengths, weaknesses, opportunities and threats of the local environment. Questions that are addressed in the FOCA include: "what is occurring or might occur that affects the well-being of our residents or the local system" and "what specific threats and opportunities are generated by these occurrences." Appendix 2 includes summary data from the hospital's FOCA.

On November 1, 2018, the community health department presented the top seven health needs to the CHC using qualitative and quantitative data to provide justification for each health issue as a community need. After thorough review and analysis of each health need, the Council used a prioritization grid (Appendix 3) to narrow down the health needs from seven to four.

In February 2019, the community health department invited community content experts to provide the CHC with information regarding root causes and the current programs and resources being utilized to address the health issues. Expert presenters represented local organizations and included the American Heart Association, Lutheran Social Services of Illinois, Action for Healthy Kids, Access Genesis FQHC and The Alliance. CHC members had the opportunity to ask the expert guest presenters questions and discuss the information shared.

In February 2019, CHC members also had the opportunity to deliberate and further discuss the information presented from expert organizations. After extensive discussion, CHC members voted to select the hospital's top two health need priorities using the tabulation method.
As indicated above, multiple data collection strategies were employed to collect data for the 2019 CHNA. Advocate Lutheran General collaborated with multiple partners to collect primary, secondary ad county level data at the PSA level, when available, and at the county level. Details regarding the hospital's 2019 CHNA primary and secondary data sources are listed below.

Secondary Data

Conduent Healthy Communities Institute (Conduent HCI)

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 its eleven hospitals during the 2017-2019 CHNA cycle. This robust platform offers the hospitals 198 health and demographic indicators, including 38 hospitalization and emergency department (ED) visit indicators at the both the service area and zip code levels. Utilizing 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 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.

Conduent HCI provided secondary data which was crucial in analyzing the hospital's PSA health needs as the data base was the only source that provided such an extensive amount of data specific to the 2019 CHNA 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 regarding the health status of the hospital's PSA in comparison to other counties and communities in Illinois.

Conduent Healthy Communities Institute 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 this CHNA, indicators may be referred to as being in the green, yellow or red zone, in reference to the value ratings explained above from the Conduent Healthy Communities Institute.

Primary Data

The Alliance for Health Equity Community Input Surveys

Between October 2018 and February 2019, The Alliance partners, including Advocate Lutheran General, collected 5,934 community input surveys from individuals 18 years and older living in Chicago and Suburban Cook County. There were 1,043 survey responses collected from Advocate Lutheran General's PSA. 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, community-based organizations and health departments distributed the surveys with the intention of gaining insight from populations that are typically underrepresented in assessment processes. Some of the underrepresented populations were communities of color, immigrants, LGBTQA+ community members, individuals with disabilities and low-income communities.

The intention of the community input survey was to complement existing community health surveys distributed throughout Chicago and suburban Cook County by local health departments. IPHI and The Alliance 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 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.

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. Specific results from the community input surveys collected from the hospital's PSA can be found in Appendix 4.

The Alliance for Health Equity Community Sessions and Focus Groups

Between August 2018 and February 2019, IPHI worked with The Alliance partners, including Advocate Lutheran General, to hold a total of 52 community input sessions (focus groups and learning map sessions) with populations including 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. 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, in consultation with The Alliance CHNA committee and colleagues at partner health departments, using resources from existing CHNA toolkits and peer-reviewed studies. 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. Data collected from the community input sessions and focus groups was analyzed and used to identify and prioritize Advocate Lutheran General's PSA health needs.

Forces of Change Assessment (FOCA)

In August of 2018, Advocate Lutheran General held a FOCA with representation from local municipal sectors, CHC members, hospital leadership and multiple community-based organizations. The FOCA is a component of the Mobilizing for Action through Planning and Partnership (MAPP) process and supports qualitative data collection through soliciting community input around the strengths, weaknesses, opportunities and threats of the local community and environment. Participants in Advocate Lutheran General's FOCA provided critical feedback on community health needs and social barriers to living well. The hospital's community health department staff took detailed notes during the FOCA and analyzed the qualitative data to identify any patterns or alignment with quantitative data. FOCA data was utilized to identify PSA health needs including root causes and social determinants of health. Results from the FOCA can be found in Appendix 2.

Advocate Children's-Park Ridge

Advocate Lutheran General also partnered with Advocate Children's-Park Ridge in completing this CHNA. Both hospital locations share the same campus and FEIN number for tax purposes. This CHNA also considers data regarding the health needs within the Advocate Children's-Park Ridge service area and patient population. Demographic data regarding patients and their families was additionally analyzed to identify Advocate Children's at-risk communities. The Advocate Children's director of community and health relations serves as a member of Advocate Lutheran General's CHC and provides feedback regarding the health and social needs of children across the service area. In addition, Advocate Lutheran General's community health director worked with Advocate Children's to collect primary and secondary data around the health and socioeconomic need of children within the PSA.

Summary of Results

The collection and analysis of raw data was completed by the hospital's community health department. As indicated on page 13, the community for the 2017-2019 CHNA was defined as the hospital's PSA. As a general practice, Advocate Aurora defines the PSA as the communities where 75 percent of the hospital's patients reside. In an effort to provide a clear picture of the PSA health needs to the hospital's CHC, the hospital's director and coordinator of community health used the following set of criteria to determine the top seven health needs for the hospital's PSA:

- High prevalence/incidence rates compared to other counties
- Number of cases/people affected drastically increased over time
- Large number of/percentage of people were affected by the health issue
- The community expressed concern via the community surveys and/or FOCAs

Using the set of criteria outlined above, the director and the coordinator of community health created a presentation of the top seven health needs including quantitative and qualitative data for the CHC. The hospital's CHC was able to review the health needs and get a clear picture of the extent of each health need, including root causes. In addition, Advocate Lutheran General's CHC worked with Advocate Children's to ensure children's data was collected and the health needs of children within the PSA were thoroughly analyzed. The CHC analyzed the health needs for all age groups in the hospital's PSA, including children, adolescents and adults. The sections below outline the top seven health needs for the PSA and integrate children's, adolescent and adult data to show the significance of each identified health need.

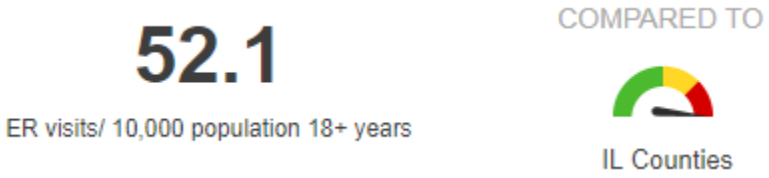
Behavioral Health

Substance Abuse

Both substance use and alcohol use are increasing health issues in the hospital's PSA. Overall, PSA ER visit and hospitalization rates due to alcohol and substance use are high compared to other counties in Illinois—and are continuing to increase over time. The PSA age-adjusted emergency room (ER) rate due to alcohol use for adults 18 years and older is 52.1 ER visits per 10,000 population, with the highest ER rates in the 18 through 24-year-old age group (57.7 ER visits per 10,000 population), followed by those aged 25 through 34 years (56.7 ER visits per 10,000 population). The PSA ER rate due to alcohol use is high when compared to other counties in Illinois (Exhibit 17). Furthermore, the PSA age-adjusted hospitalization rate due to alcohol use for adults aged 18 years and older is 24.5 hospitalizations per 10,000 population, which is substantially higher than other counties in Illinois and the state of Illinois at 18.1 per 10,000 population. The PSA age-adjusted ER rate due to adolescent alcohol use is 16.3 ER visits per 10,000 population, which is also high compared to the state of Illinois at 10.9 per 10,000 population. The PSA also has the highest rate of ER visits due to adolescent alcohol use compared to all other Advocate Aurora service area's in Illinois (Exhibit 17). The communities with the highest hospitalization rates due to alcohol include: 60018 Des Plaines (44.8 hospitalizations per 10,000 population), 60016 Des Plaines (36.7 per 10,000 population) and Elmwood Park (31.5 hospitalizations per 10,000 population). Overall, the African American, Hispanic Latino and American Indian/Alaskan Native populations had the highest rates of ED visits and hospitalizations due to alcohol abuse.

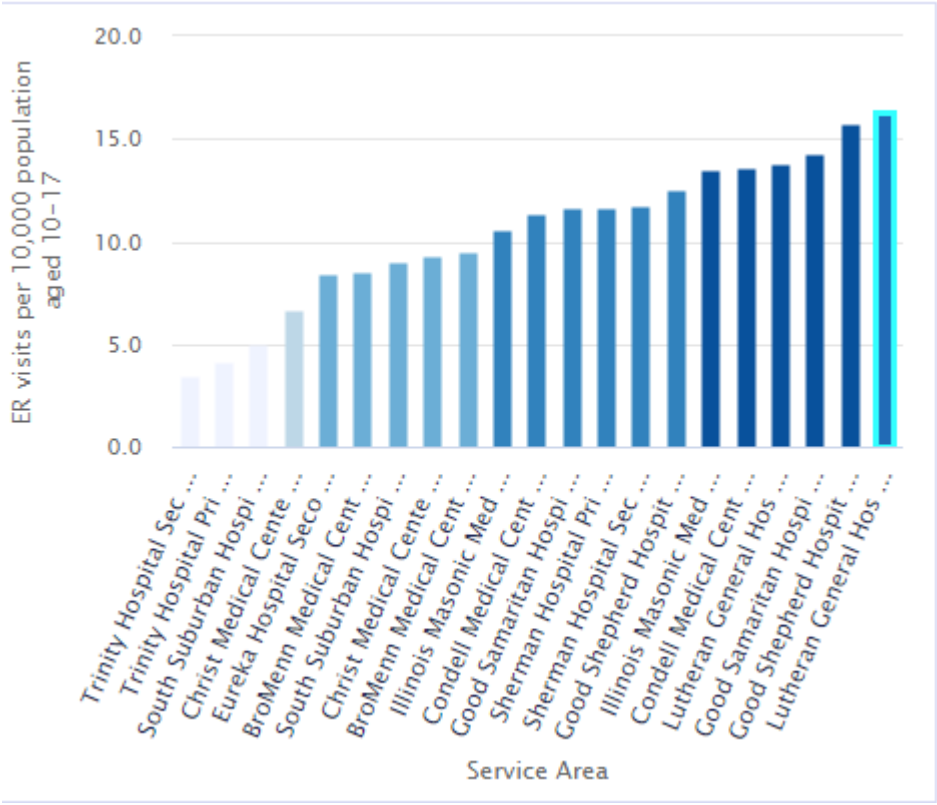
The PSA age-adjusted ER rate due to substance use is 16.4 ER visits per 10,000 population. ER rates are highest amongst adults aged 18 through 24 years (33.0 ER visits per 10,000 population) and those aged 25-34 years (32.5 ER visits per 10,000 population). The PSA age-adjusted ER rate due to opioid use is 10.8 per 10,000 population, which is less than the state of Illinois rate at 15.7 per 10,000 population. Although the PSA ER visit rates due to opioid use is less than the state, there are two PSA communities with substantially higher rates when compared to the state of Illinois. The two communities include Dunning (60634) at 19.4 and Elmwood Park (60707) at 18.6 per 10,000 population. These two communities are also high socioneed communities (rated five) and experience some of the worst health outcomes compared to other PSA communities, illustrating the correlation between social determinants of health and health outcomes. Substance use was also identified as a significant health need in the FOCA by both community and hospital representatives.

Exhibit 17: Advocate Lutheran General PSA Age-Adjusted ER Rate due to Adult Alcohol Use 2015-2017



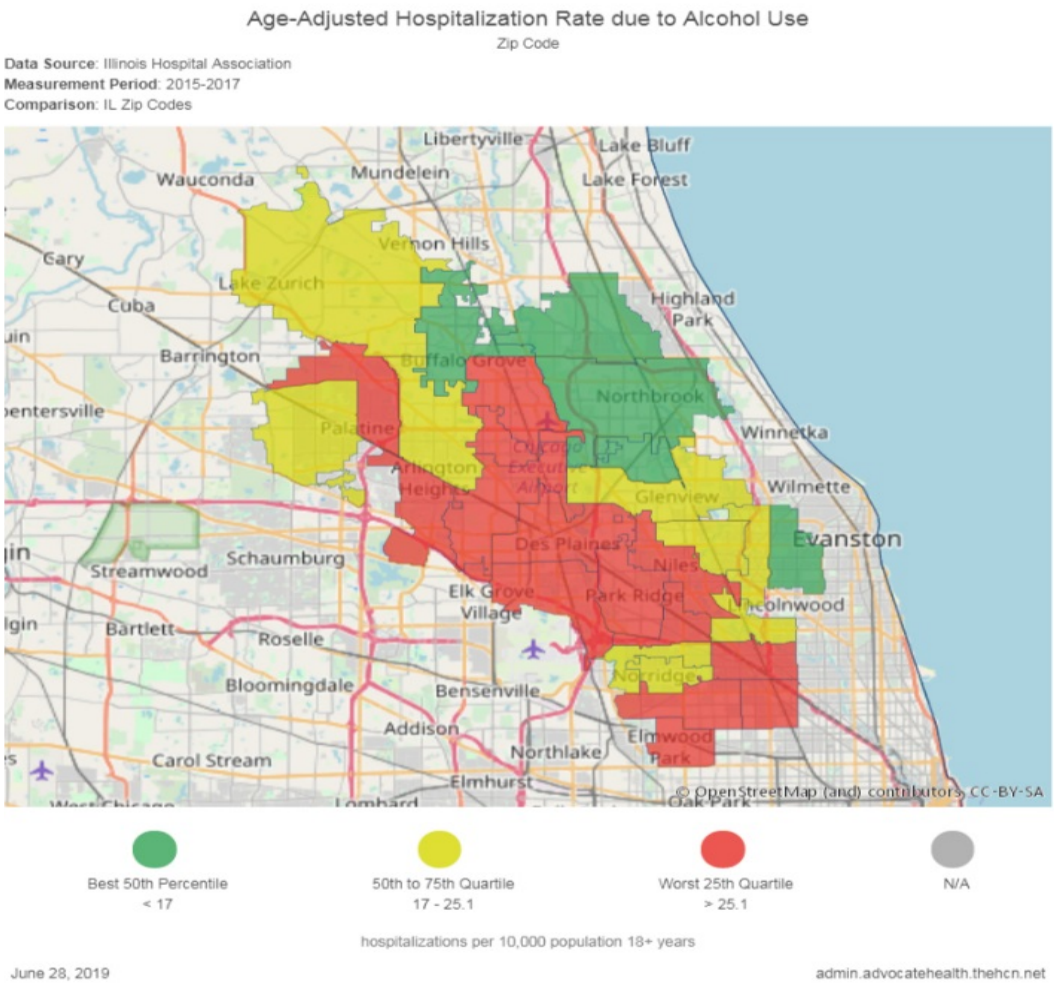
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 18: Age-Adjusted ER Rate due to Adolescent Alcohol Use Service Area Comparison 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 19: Age-Adjusted Hospitalization Rate due to Alcohol Use 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Mental Health

Approximately 18 percent of adults (43 million) in the U.S. have a mental health condition and only 56 percent receive treatment (National Alliance on Mental Illness, 2018). The PSA age-adjusted ER rate due to adult mental health is 68.6 per 10,000 population, which is lower than the state of Illinois at 95.3 per 10,000 population. ER rates due to adult mental health are substantially higher among those aged 18-24 years old at 117.3 and those aged 25-34 years old at 97.1 per 10,000 population. In addition, there is a racial disparity in the ER rates due to mental health with the African American (155.2 per 10,000 population) and American Indian/Alaskan Native (180.5 per 10,000 population) populations having substantially higher rates compared to all other races/ethnicities, which is similar to state and national trends.

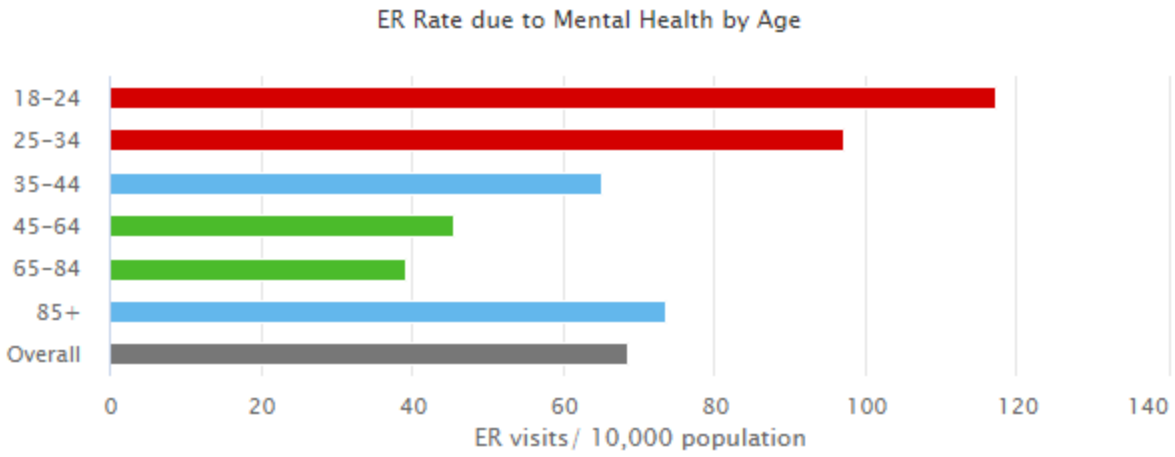
The PSA age-adjusted ER rate due to pediatric mental health is 53.6 per 10,000 population, which is lower than the state of Illinois at 64.5 per 10,000 population. Similar to the adult

population, the ER rate due to pediatric mental health is highest amongst the African American and American Indian/Alaskan Native populations. The community of Palatine (60074) has the highest rate of ER visits due to pediatric mental health at 96.1 ER visits per 10,000 population, which is higher than the overall PSA (53.6 per 10,000 population) and Illinois (64.5 per 10,000 population) rates.

For adults, the age-adjusted ER rate due to suicide and intentional self-inflicted injury is 24.1 ER visits per 10,000 population aged 18 years and older. Adults between the ages of 18-24 (55.4 ER visits per 10,000 population) and 25-34 years of age (33.1 ER visits per 10,000 population) have higher rates compared to adults over the age of 35. Racial and ethnic disparities are also present with the American Indian/Alaska Native (54.1 ER visits per 10,000 population) and the Black or African American (51.1 ER visits per 10,000 population) populations having substantially higher rates of ER visits due to suicide and intentional self-inflicted injury.

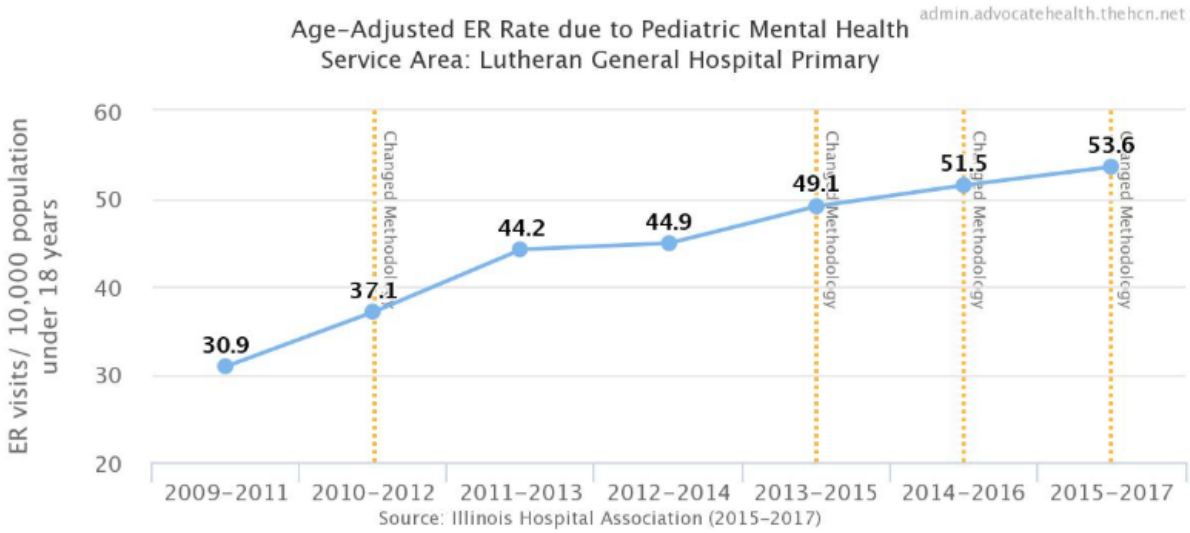
Participants in the FOCA also reported mental health and mental illness as a significant health need in the community along with access to mental health services, specifically for youth. In addition, 33.7 percent of The Alliance Community Input Survey respondents indicated that mental health was one of the most important health problems in the PSA, while 47.7 percent reported access to health care and mental health services as one of the three most important health needs necessary for a healthy community.

Exhibit 20: Advocate Lutheran General PSA Age-Adjusted ER rate due to Mental Health by Age 2015-2017



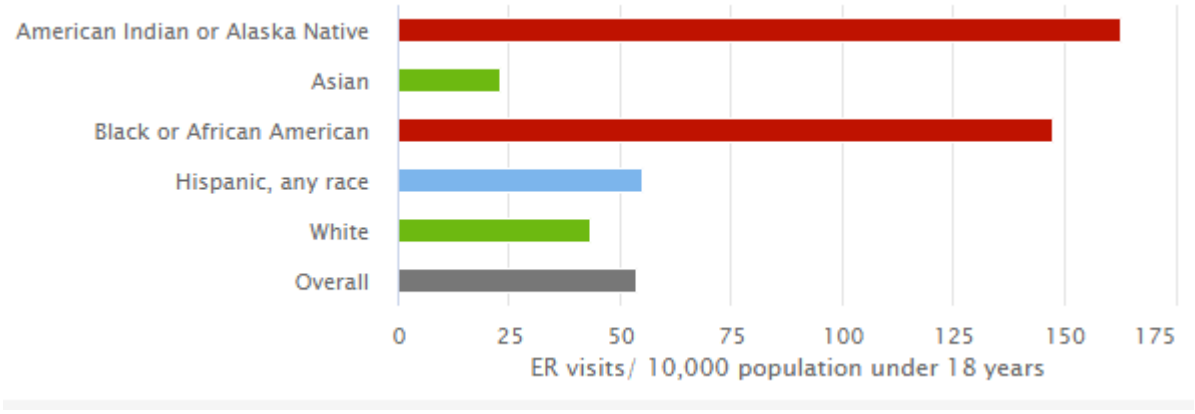
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 21: Advocate Lutheran General PSA Age-Adjusted ER Rate due to Pediatric Mental Health 2009-2017



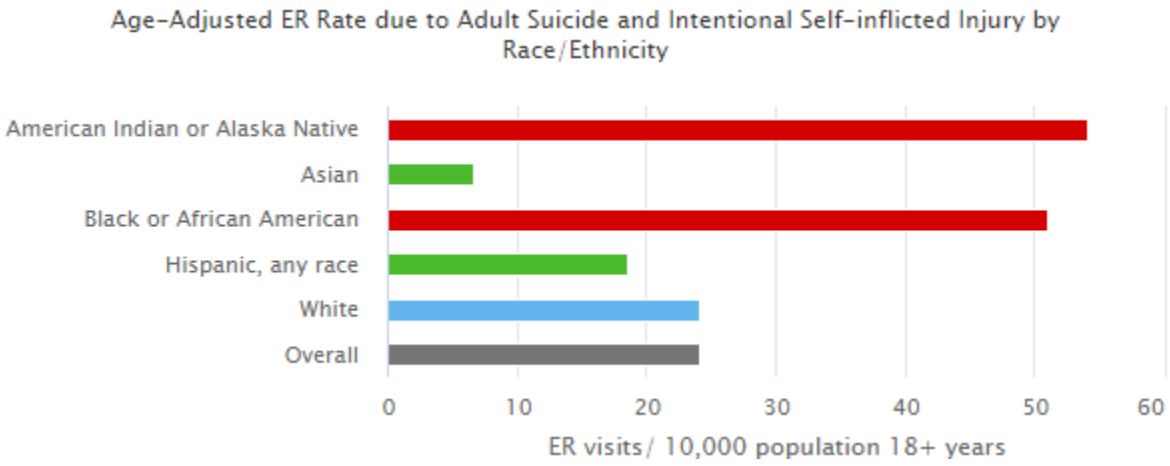
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 22: Advocate Lutheran General PSA Age-Adjusted ER rate due to Pediatric Mental Health by Race 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 23: Advocate Lutheran General PSA Age-Adjusted ER rate due to Adult Suicide and Intentional Self-Inflicted Injury Ages 18+ 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

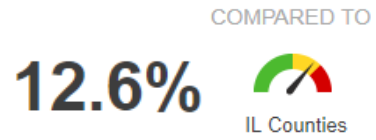
Obesity/Healthy Lifestyles

Obesity, nutrition and physical activity are leading causes of many preventable diseases such as diabetes, stroke, heart disease and some cancers. Access and consumption of healthy foods impact one's ability to maintain a healthy weight and prevent chronic disease (Center for Disease Control and Prevention, 2019). According to *The State of Obesity*, 31.1 percent of adults in Illinois are obese ranking Illinois the 27th highest out of 51 U.S. states. Due to the lack of nutrition, physical activity and obesity data at the PSA level, the hospital's community health department and CHC analyzed county level data to determine the significance of the health need. From 2010-2014, 27.4 percent of adults in Cook County were obese, which was less than the state of Illinois at 31.1 percent but an increase from the previous measurement period (15.7 percent in 2007-2009).

Food insecurity is an additional indicator that relates to obesity and nutrition. The Cook County food insecurity rate is 12.6 percent, which is higher than most other counties in Illinois and the state of Illinois at 10.9 percent. The rate of child food insecurity in Cook County is 15.8 percent, which is slightly higher than the state of Illinois at 15.7 percent. In addition, the percentage of children in Cook County who are food insecure but likely ineligible for assistance is 31 percent, which is high compared to the majority of counties in Illinois and the U.S. at 21 percent.

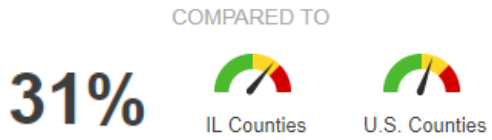
In addition, 22.4 percent of The Alliance community input survey respondents from the hospital's PSA indicated that obesity was one of the top three most important health concerns in the community. Furthermore, 26.4 percent of respondents indicated access to healthy food was essential to creating a healthy community.

Exhibit 24: Cook County Food Insecurity Rate 2016



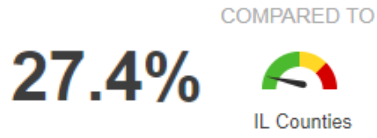
Source: Conduent Healthy Communities Institute, Feeding America, 2018

Exhibit 25: Cook County Food Insecure Children Likely Ineligible for Assistance 2016



Source: Conduent Healthy Communities Institute, Feeding America, 2018

Exhibit 26: Cook County Adults Who are Obese 2016



Source: Conduent Healthy Communities Institute, Illinois Behavioral Risk Factor Surveillance System Survey, 2018

Heart/Cardiovascular Disease

According to the Centers for Disease Control and Prevention (CDC), heart disease is the number one cause of death in the U.S. and Illinois (Centers for Disease Control and Prevention, 2018). Lack of nutrition and physical activity is strongly correlated with increased prevalence and incidence of heart disease and stroke. For Advocate Lutheran General's PSA, the age-adjusted hospitalization rate due to heart failure is 26 per 10,000 population aged 18 years and older, which is lower than the state of Illinois at 36.3 per 10,000 population. Similar to the state and national trends, there is a racial disparity in the PSA hospitalization and ER visit rates due to heart disease with the African American population having the highest rates compared to the White, Asian and Hispanic/Latino populations. The PSA age-adjusted hospitalization rate due to hypertension is 3.3 per 10,000 population, which is lower than the state of Illinois at 5 per 10,000 population. The African American population also experiences the highest rates of

hospitalizations due to hypertension at 15.4 per 10,000 population when compared to all other races/ethnicities and the overall PSA rate of 3 per 10,000 population.

Due to the lack of heart disease data at the PSA level, the hospital's community health department also analyzed county level data regarding cholesterol and death due to heart disease. In Cook County, 37.8 percent of adults have high cholesterol, which is higher than the state of Illinois at 31.8 percent and the U.S. at 33 percent. In addition, the age-adjusted death rate due to coronary heart disease is 88.9 per 100,000 population, which is higher than the state of Illinois at 87 per 100,000 population. There is a racial disparity in the death rate due to coronary heart disease with the African American population having a substantially higher rate compared to all other races/ethnicities. Exhibits 27 through 30 display hospitalization and ER rates due to cardiovascular health issues.

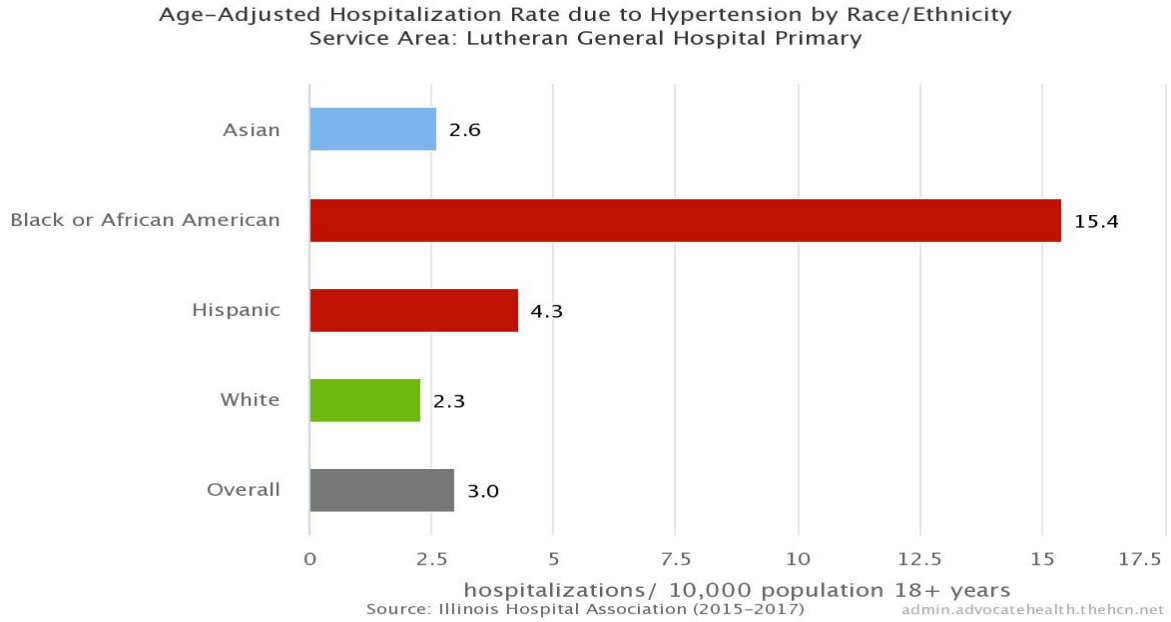
Exhibit 27: Advocate Lutheran General PSA Age-Adjusted ER Rate due to Heart Failure Ages 18+ 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 28: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Hypertension Ages 18+ 2015-2017

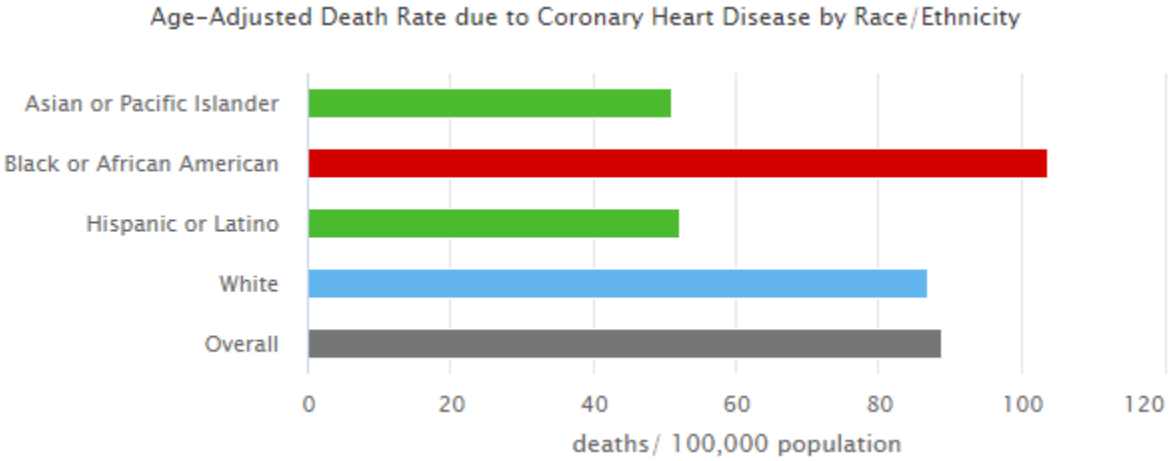
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 29: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Hypertension by Race/Ethnicity Ages 18+ 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 30: Cook County Age-Adjusted Death Rate due to Coronary Heart Disease by Race/Ethnicity 2015-2017



Source: Conduent Healthy Communities Institute, Centers for Disease Control and Prevention, 2019

Diabetes

Diabetes is a long-lasting health condition that affects how your body turns food into energy. In the U.S., 84.1 million adults have prediabetes and 30.3 million adults have diabetes (CDC, 2019). Diabetes is the seventh leading cause of death in the U.S. and continues to be an increasingly serious health issue (CDC, 2019). In the hospital's PSA, the age-adjusted hospitalization rate due to diabetes among those aged 18 years and older is 11.3 per 10,000 population, which is lower than the state of Illinois rate at 17.6 per 10,000 population. The age-adjusted rate of hospitalization due to diabetes is significantly higher among the Hispanic/Latino (20.4 per 10,000 population), African American (33.1 per 10,000 population) and American Indian/Alaskan Native (78.1 per 10,000 population) populations compared to the state and the overall PSA rate.

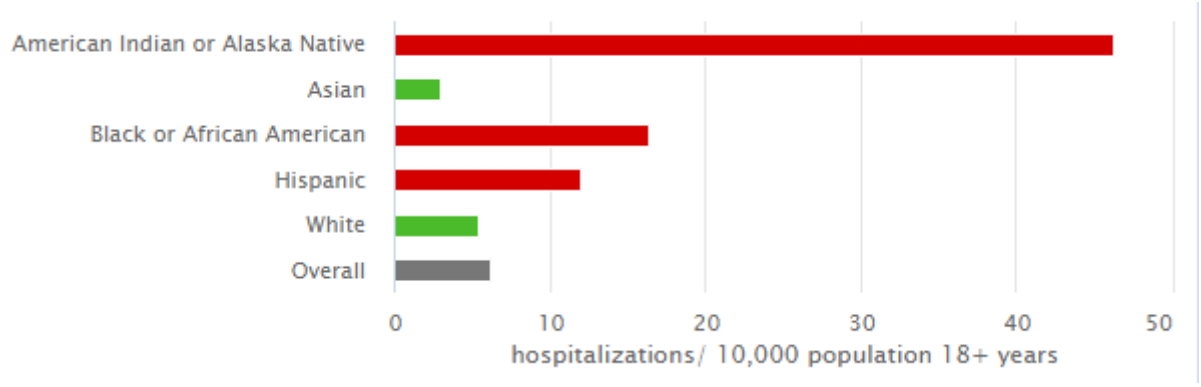
The age-adjusted hospitalization rate due to long-term complications of diabetes is 6.2 hospitalizations per 10,000 population, which is lower than the state of Illinois at 8.6 per 10,000 population but substantially higher among the Hispanic/Latino (12.0 hospitalizations per 10,000 population), African American (16.4 hospitalizations per 10,000 population) and American Indian/Alaska Native (46.3 hospitalizations per 10,000 population) populations. The PSA age-adjusted ER rate due to diabetes is 12.1 per 10,000 population among those aged 18 years and older, which is low compared to other counties in Illinois and the state of Illinois at 30.4 per 10,000 population. Similar to the diabetes indicators and rates discussed above, there is a racial disparity in the PSA ER rate due to diabetes with Hispanic/Latino (21.9 per 10,000 population), African American (46.6 per 10,000 population) and American Indian/Alaskan Natives (51.7 per 10,000 population) having substantially higher rates compared to the overall PSA and state rates. In addition, 40.7 percent of The Alliance Community Input Survey respondents reported diabetes as one of the top three most important health issues in the hospital's PSA.

County level data further reinforces the significance of this health issue with Cook County having substantially higher rates in hospitalization (22.8 per 10,000 population aged 18 years and older) and ER visits (37.2 per 10,000 population aged 18 years and older) due to diabetes compared to the state of Illinois at 19.1 hospitalizations and 30.4 ER visits per 10,000 population due to diabetes. Furthermore, a racial disparity is also persistent in hospitalization and ER visits due to diabetes at the county level, with the American Indian/Alaskan Native, African American and Hispanic/Latino populations having substantially higher rates compared to the White and Asian populations. Exhibits 31 through 33 display the PSA racial disparities and hospitalization rates due to diabetes.

Exhibit 31: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Diabetes Ages 18+ 2015-2017

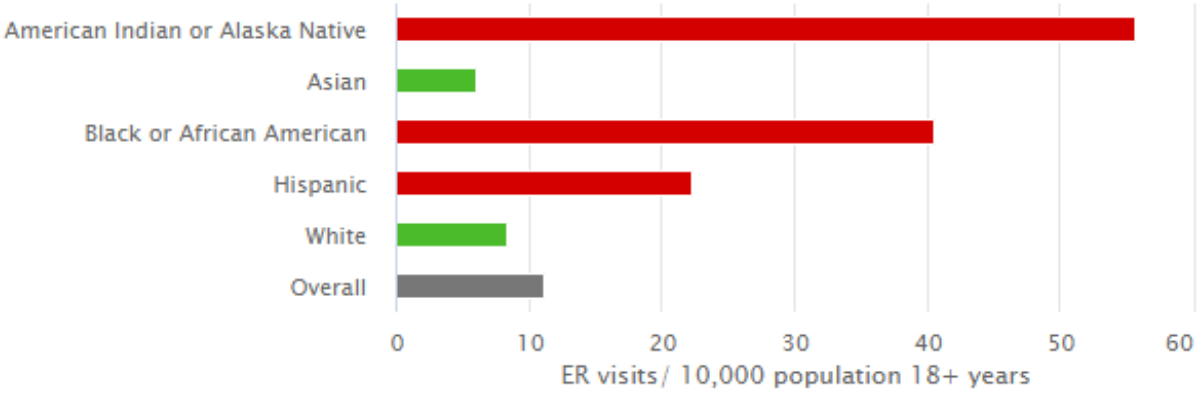
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 32: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Long-Term Complications of Diabetes by Race/Ethnicity Ages 18+ 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 33: Advocate Lutheran General PSA Age-Adjusted ER Rate due to Diabetes Ages 18+ 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Immunizations and Infectious Diseases

The PSA age-adjusted hospitalization rate due to immunization-preventable pneumonia and influenza is 2.1 hospitalizations per 10,000 population, which is high compared to most other counties in Illinois and almost equal to the state of Illinois' overall rate of 2.2 per 10,000 population. The PSA ER visit rate for immunization-preventable pneumonia and influenza is 6.9 per 10,000 population aged 18 years and older, which is less than the state of Illinois at 12.9 visits per 10,000. ER visits and hospitalization rates due to immunization-preventable pneumonia and influenza are substantially higher among those aged 65 and older in the PSA.

Due to the limited PSA data around immunization-preventable diseases, the hospital's community health department and CHC reviewed county data to determine the significance of immunization-preventable diseases as a health issue. In Cook County, 30.1 percent of adults received a pneumonia vaccination, which is lower than the state of Illinois at 38.1 percent. Furthermore, the age-adjusted hospitalization rate due to immunization-preventable pneumonia and influenza is 3.5 per 10,000 aged 18 years and older, which is higher than most counties in Illinois and the overall state of Illinois rate at 3.3 per 10,000 population. PSA and Cook County populations most affected by immunization-preventable pneumonia and influenza are those aged 65 years and older.

Exhibit 34: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Immunization-Preventable Pneumonia and Influenza Ages 18+ 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 35: Cook County Age-Adjusted Hospitalization Rate due to Immunization-Preventable Pneumonia and Influenza Ages 18+ 2015-2017

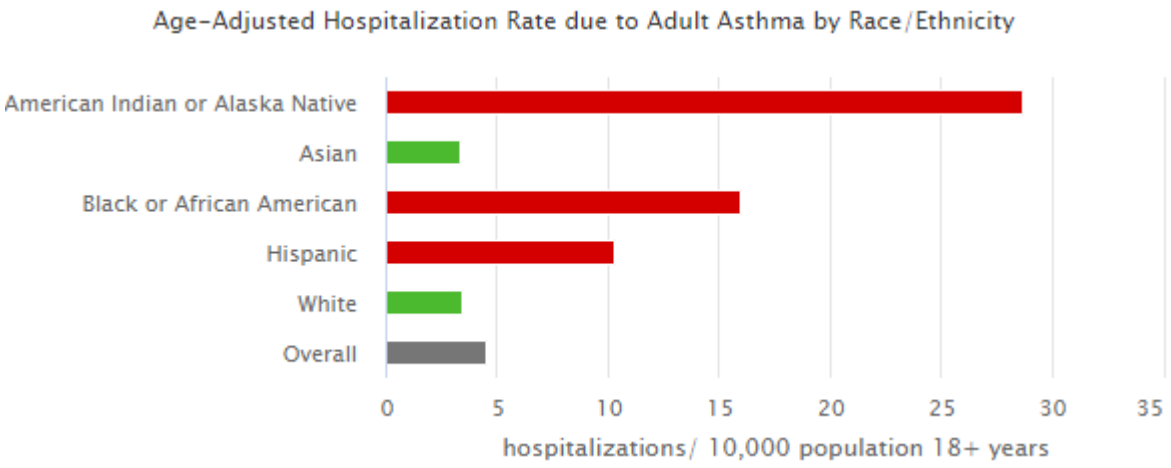
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Asthma

Asthma is the leading chronic disease among children and is defined as “a condition in which a person’s air passages become inflamed, and the narrowing of the respiratory passages makes it difficult to breathe” (CDC, 2019). The PSA age-adjusted hospitalization rate due to adult asthma is 4.5 per 10,000 population, which is lower than the state of Illinois at 6.5 per 10,000 population and highest amongst the African American, Hispanic/Latino and American Indian/Alaskan Native populations (Exhibit 36). The PSA age-adjusted hospitalization rate due to pediatric asthma is 8.0 per 10,000 population, which is nearly equal to the state of Illinois at 8.1 per 10,000 population. Rates of hospitalization due to pediatric asthma is highest in the Hispanic/Latino, African American and American Indian/Alaskan Native populations. Furthermore, the age-adjusted hospitalization rate due to pediatric asthma is 9.0 per 10,000 population under the age of 18, which is more than the state of Illinois at 8.5 per 10,000.

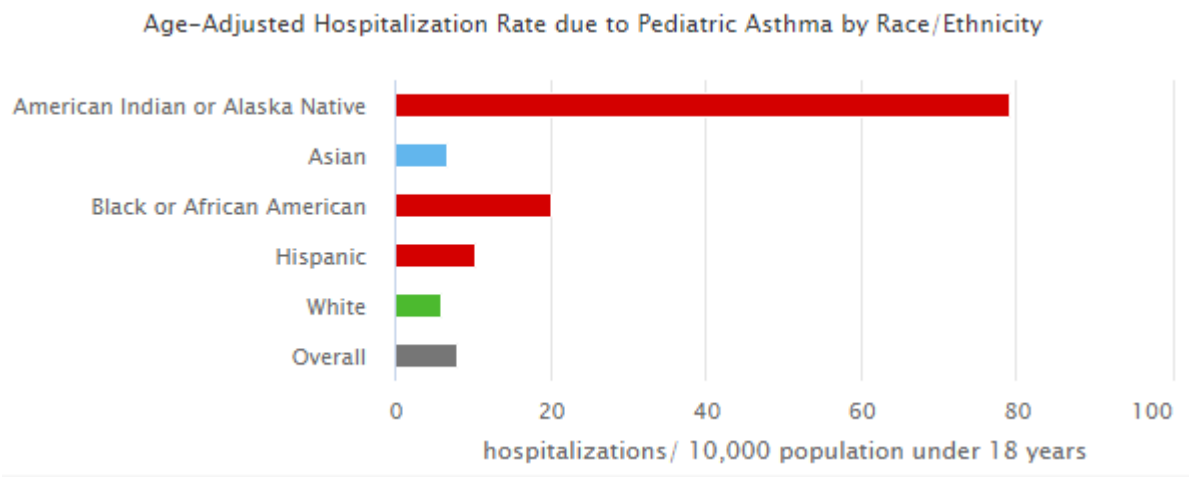
To further examine asthma in the PSA, the hospital’s community health department and CHC reviewed Cook County data to get an idea of the hospitalization and ER rates at the county level. In Cook County, the age-adjusted hospitalization rate due to asthma is 9.9 per 10,000 population, which is higher than the state of Illinois at 7.0 per 10,000 population. The Cook County age-adjusted ER rate due to asthma is 47.6 per 10,000 population, which is higher than the state of Illinois at 36.3 per 10,000 population. Similar to the PSA, hospitalization and ER visit rates due to asthma are highest amongst the African American and American Indian/Alaskan Native populations.

Exhibit 36: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Adult Asthma by Race Ages 18+ 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 37: Advocate Lutheran General PSA Age-Adjusted Hospitalization Rate due to Pediatric Asthma by Race Ages 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Key Findings: PSA Health Needs

- Substance use was identified as a PSA health need primarily due to the rates of ER visits and hospitalizations increasing substantially over time.

- Mental health was an identified health need of the PSA for both children and adults due to the increasing rates and racial disparity with substantially high rates among African American and American Indian/Alaskan Native populations.

- Obesity/healthy lifestyles was selected as a significant health need due to high rates of food insecurity partially impacted by lack of access to affordable healthy foods. Obesity prevention was also identified as a health need by The Alliance Community Input Survey respondents and has the ability to decrease the prevalence and incidence of other chronic diseases such as heart disease, stroke and diabetes.

- Heart disease was identified as a significant PSA health issue due to high rates of ER visits and hospitalizations related to heart disease. The health issue was also of significance because of the racial disparities that are present with African Americans having exceptionally high rates of ER visits and hospitalizations due to heart conditions.

- Diabetes was identified as a significant health need due to high rates of the disease, especially among the African American, American Indian/Alaskan Native and Hispanic/Latino populations.

- Immunizations and infectious disease were identified as significant health needs due to the high rates of ER visits and hospitalizations related to immunization preventable diseases and low rates of vaccinations for pneumonia and influenza.

- Asthma was a significant health need of the PSA due to high rates of ER visits and hospitalizations due to asthma. The rates of ER visits and hospitalizations due to asthma were especially high in the pediatric population when compared to the state of Illinois.

Social Determinants of Health

The PSA health needs discussed above are strongly influenced by various social factors, this concept is known as social determinants of health. The World Health Organization (WHO) defines the conditions of social determinants of health as the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. PSA and Cook County data show a relationship between income, race/ethnicity and health outcomes. PSA communities with lower median household incomes had higher rates of obesity, ED visits and hospitalizations due to chronic diseases and mental health issues. This data is consistent with state and national trends, which indicate poor health outcomes and the risk of chronic disease are greater among those who are low-income with less educational attainment (Healthy People 2020, 2019).

The hospital's community health department reviewed multiple social determinant of health indicators and socioeconomic data including the SocioNeeds map to identify the most significant social determinant of health needs within the PSA communities. After reviewing socioeconomic data, The Alliance survey responses and The Alliance focus group feedback, the hospital's community health department identified employment and training as the most significant social determinant of health need for the PSA. The CHC will work with community partners to identify employment and training programs targeted toward individuals and families residing in high socioneed communities within the PSA.

V. Prioritization of Health-Related Issues

Priority Setting Process

The hospital's community health department presented data to the CHC for the top seven health needs in the medical center's PSA. The data was reviewed and discussed by the CHC, including representatives from various sectors in the community, to ensure the social determinants of health and root causes were being discussed with each health need.

The top health needs that were presented to the CHC are listed below.

- Mental Health
- Substance Use
- Obesity/Healthy Lifestyles
- Heart Disease
- Respiratory Disease/Asthma
- Diabetes
- Immunizations and Infectious Disease

CHC members were able to ask questions and engaged in a robust discussion around the top seven health needs, which lead to the first round of prioritization. CHC members were asked to complete a prioritization grid (Appendix 3), which required each council member to rate the seven health needs based on the following criteria:

- Size of the health need-determined through ED, hospitalization, prevalence and incidence data
- Seriousness of the health issue-consideration guided by questions including:
    1. What is the importance of health issue to the community?
    2. Does health issue impact the quality of life?
    3. What are the hospitalization and mortality rates caused by the health issue?
- Effectiveness of Intervention available interventions-guided by the following questions:
    1. Are prevention programs effective in preventing the health issue?
    2. Do interventions for this issue have the ability to improve/impact other health issues?
    3. Do treatment programs effectively address the health issue?
- Resources available to address the health issue
- Existing community partners working on the problem
- Meets a defined community need as identified through data
- Potential for health issue to impact other health issues
- Ability to impact the health issue through demonstrable outcomes and collaboration

The hospital's community health department collected the prioritization grids to conduct analysis and to aggregate the health need scores (listed in Exhibit 38). The aggregated scores for each health need were presented to the CHC and the four health needs with the highest scores were selected for expert presentations to assist the CHC in selecting the final two health need priorities.

Exhibit 38: Top Eight Health Needs Aggregated Ratings

Advocate Lutheran General Hospital Prioritization Grid								
Health Need	Size/Seriousness of the Problem	Effectiveness of available interventions	Several Resources to Address the Problem	Existing Community Partners working on the Problem	Meets a defined community need as identified through data	Strong potential issue to impact other issues for collective impact	Ability to make an impact and demonstrate measureable outcomes through collaboration	Total
Heart Disease/Stroke	49	42	45	40	48	45	52	321
Obesity	52	33	36	36	52	53	50	312
Mental Health	58	29	40	29	54	48	54	312
Diabetes	47	40	39	37	47	51	48	309
Respiratory Disease	43	43	40	39	40	44	45	294
Substance Abuse	50	28	29	30	45	51	45	278
Immunizations/ Infectious Disease	37	35	40	35	39	39	38	263

After careful review of data and extensive discussion regarding the top four health needs (heart disease/stroke, mental health, obesity/healthy lifestyles and diabetes), the community health department facilitated experts from the community presenting on each of the top four health issues. Community experts/organizations that presented included Lutheran Social Services, Action for Healthy Kids and The Alliance. Each presentation included health disparities, root causes, community resources, gaps in resources, and most affected communities. Following presentations, the Council engaged in an in-depth discussion and the hospital's community health department called for a second vote to narrow the health needs to the final two 2019 CHNA health priorities. The Council proceeded to select the final two health priorities which were: 1) Healthy Lifestyles/Obesity; and 2) Behavioral Health, including mental health and substance use.

Health Needs Selected

Obesity/Healthy Lifestyles

Healthy lifestyles/obesity was chosen as one of the two health need priorities due to the many chronic diseases and health issues that are related to poor nutrition and physical inactivity. Moreover, the Council also identified healthy lifestyles and obesity due to the large impact this issue has on quality of life and overall health outcomes in the PSA.

Behavioral Health

The behavioral health priority includes mental health and substance/alcohol use. After initially prioritizing mental health, the hospital's CHC considered the strong correlation between substance use and mental health, making it essential for the hospital to address both health issues in tandem. The rate of mental health issues and substance use are continuing to increase in the PSA over time. Data and hospitalization rates indicate that there is a great need

for expansion of behavioral health services such as mental health services, substance use disorder treatment, housing and preventative programming.

Social Determinants of Health

Social determinants of health affect a wide range of health conditions and may contribute to adverse health outcomes. Social determinants of health are commonly the root cause of poor health outcomes, therefore Advocate Children's and Advocate Lutheran General selected social determinants of health as a priority health need for the PSA. Advocate Children's and Advocate Lutheran General will partner with The Alliance to address social determinants of health, including access to care and employment and training.

Health Needs Not Selected

Heart Disease

Although heart disease was not selected as a priority, the hospital is committed to decreasing the rate of heart disease through addressing and prioritizing healthy lifestyles and obesity prevention. National data maps from the CDC indicate that higher heart disease and stroke death rates occur in states that also have higher obesity rates. The CHC decided it was more beneficial to prioritize obesity because of its impact on reducing the risk for heart disease, including hospitalizations and ER visits due to heart disease. Advocate Lutheran General also addresses heart disease through the hospital's many Advocate Heart Institute programs.

Diabetes

While the CHC acknowledges diabetes is a health issue, the CHC decided to address diabetes prevention and management through the obesity prevention/healthy lifestyles priority, which will include interventions and partnerships to address nutrition and physical activity—key elements of diabetes prevention and management.

Immunizations and Infectious Diseases

The CHC recommended that immunizations not be selected as a priority health need due to the current efforts being implemented to address this health need. Throughout the PSA vaccinations/immunizations are being addressed by the retail and non-profit sectors. Advocate Aurora has several Walgreens clinics in which vaccinations are offered at a low-cost to the community. In addition, there are several community clinics that offer vaccinations at a low or no cost to PSA residents, including those with no insurance. Due to the availability of vaccinations across the PSA, the CHC did not select immunizations/Infectious disease as the priority health need.

Asthma/Respiratory Disease

Asthma was identified as a health need but not selected as the recommended health priority by the CHC due to the lack of community partners and the ineffectiveness/availability of asthma prevention programs. Advocate Children's has two Ronald McDonald Care Mobiles (RMCM) which provide care to low income children who experience barriers to receiving primary health care. The staff of the mobile units also provide asthma education to pediatric patients served by the RMCM. Advocate Children's will also explore the implementation of Kickin' Asthma, a program created by the American Lung Association that aims to improve asthma self-management.

VI. Approval of Community Health Needs Assessment

The director of community health provided a copy of the CHNA to each hospital Governing Council member in advance of the October 2019 Council meeting. Governing Council members were able to review the CHNA document in its entirety before the meeting. The hospital's director and coordinator of community health presented the CHNA document including the assessment process and selected health need priorities to the Council. Following the presentation, Council members were able to discuss findings, ask questions and comment. On October 2, 2019, the Advocate Lutheran General Governing Council fully approved the 2017-2019 Advocate Lutheran General Hospital CHNA Report. The Advocate Health Care Network Board approved the Advocate Lutheran General 2017-2019 CHNA Report at the system level on December 16, 2019.

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

National Alliance on Mental Illness—Cook County North Suburban (NAMI)

Advocate Lutheran General will work with NAMI-Cook County North Suburban, a non-profit community organization that addresses mental health and mental illness in the north suburban region of Cook County, to explore ways in which the hospital can support the organization's current efforts around destigmatizing mental illness in the adolescent populations. Programs such as Ending the Silence, a program that aims to destigmatize mental illness among adolescent populations and Bridges of Hope, a program that aims to create awareness around

mental health in faith-based communities, will be discussed as possible interventions to address mental health in the hospital's PSA.

Gateway Foundation

Advocate Lutheran General will work with the Gateway Foundation to implement the State Targeted Response program, which aims to address opioid use disorder in the hospital's Emergency Department. The hospital will employ an Engagement Specialist selected by the Gateway Foundation to identify ED patients with opioid use disorder and connect them to a treatment center to address substance use and mental health issues. The Engagement Specialist will also ensure the patient has transportation to treatment in efforts to decrease/eliminate barriers to receiving treatment. Program outcomes and impact will be measured and tracked via established goals, objectives and metrics.

Action for Healthy Kids

Both Advocate Lutheran General and Advocate Children's Hospital will discuss a potential partnership with Action for Healthy Kids to provide support to local schools around nutrition and physical activity. Specifically, the hospital would like to explore a partnership to provide technical support and guidance around the "healthy school" standards for Illinois with the hospital's community health department and PSA schools. The main goal of this partnership would be to increase the education and awareness of "healthy school" standards in efforts to support PSA schools in fulfilling the "healthy school" requirements.

JumpStart Program

Advocate Lutheran General will explore the opportunity to continue a partnership with JumpStart, a program that aims to increase employment and training opportunities for at-risk adolescents. The hospital will discuss potential hospital-based internship opportunities, soft skills training and mentorship opportunities.

Advocate Children's Hospital

Advocate Lutheran General's director of community health will meet with the Advocate Children's director of community and health relations to identify partnership opportunities to addressing mental health and healthy lifestyles in the community.

Behavioral Health

Advocate Children's operates the Maine Township school-based health center (SBHC) located on the campus of Maine East High School which serves students at Maine Township High School District 207. The goal of the SBHC is to improve the physical and emotional health of

students in the district, which includes all of Park Ridge and most of Des Plaines as well as portions of Glenview, Harwood Heights, Morton Grove, Niles, Norridge and Norwood Park Township. Nearly 50 percent of the students at two of the district's schools are low income. Services provided include health assessments and screenings, physicals, dental services, immunizations, assessment of stress/emotional state, assessment of alcohol and drug use and abuse, individual and family counseling, counseling for emotional, behavioral and adjustment-related issues. In partnership with Advocate Lutheran General, Advocate Children's will also work with community schools to increase awareness about mental health through implementation of the Ending the Silence program.

Advocate Children's will also complete a five- year PATH 2 Purpose research study to provide two depression early intervention/prevention treatment models in adolescents 13-18 years. Study compares 'gold standard' cognitive behavioral health prevention group treatment (8-weeklty sessions) vs self-directed online prevention program. Over 500 adolescents who have elevated symptoms of depression and anxiety will receive services through the research study.

Healthy Lifestyles

Advocate Children's will implement the Healthy Active Living Program (HAL), which aims to decrease obesity and improve nutrition and physical activity among children. The program includes nutrition education, eight weeks of physical activity and access to a physician. HAL also accepts Medicaid, which provides access to the program for low-income children and families.

Access to Health Care

In addition to the collaborative priorities (behavioral health and healthy lifestyles), Advocate Children's will continue to offer free school-based health services to high risk, low income children who are uninsured or receive Medicaid through the Ronald McDonald Care Mobile (RMCM). Services provided by the two RMCMs will include physicals, immunizations, completion of HPV vaccine series, assistance with securing a medical home, health and wellness education, community-based social service referrals and food insecurity screening and resourcing.

Infant Mortality/Preterm Deliveries/Low Birth Weight

Advocate Children's Hospital also has plans to provide a Centering Pregnancy program, a group prenatal care model where potentially at-risk 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.

VIII. Vehicle for Community Feedback

Community Feedback

Advocate Lutheran General welcomes all feedback regarding the 2019 Community Health Needs Assessment. 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 Community Health Needs Assessment Report webpage via the following link:
http://www.advocatehealth.com/chnareports

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

Sharing Results

Advocate Lutheran General's director of community health will present the 2019 CHNA to the hospital service lines, community partners and hospital leadership. Feedback from the presentations will be recorded and collected at the conclusion of each presentation. Additional presentations will be given upon request.

IX. Appendices

(All data was verified and website links were fully functional in 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, 2018 and 2019
- Advocate Aurora Business Development Analytics, Sg2, 2019
- The Alliance for Health Equity, Community Health Needs Assessment for Chicago and Suburban Cook, 2019; The Alliance for Health Equity, Focus Groups, 2018; and
- The Alliance for Health Equity, Community Input Survey, 2018. All three documents accessible at https://allhealthequity.org/projects/2019-chna-reports/

The following data sources were accessed through Conduent Healthy Communities Institute:

- Conduent Healthy Communities Institute, Claritas, 2019
- Conduent Healthy Communities Institute, Illinois Hospital Association, 2015-2017
- Conduent Healthy Communities Institute, County Health Rankings, 2014-2016
- Conduent Healthy Communities Institute, 2019. County Health Rankings, 2013-2017
- Conduent Healthy Communities Institute, 2015, Illinois Department of Children and Family Services, 2016
- Conduent Healthy Communities Institute, County Health Rankings, 2019
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2014.
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2015
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2015
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2015
- Conduent Healthy Communities Institute, US Census-County Business Patterns, 2016.
- Conduent Healthy Communities Institute, County Health Rankings, 2019.
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2014
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2016
- Conduent Healthy Communities Institute, Feeding America, 2017
- Conduent Healthy Communities Institute, US Department of Agriculture-Food Environment Atlas, 2016

- Conduent Healthy Communities Institute, Feeding America, 2017
- Conduent Healthy Communities Institute, Feeding America, 2017
- Conduent Healthy Communities Institute, County Health Rankings, 2019
- Conduent Healthy Communities Institute, U.S. Department of Agriculture Food Environment Atlas, 2014
- Conduent Healthy Communities Institute, American Lung Association, 2015-2017
- Conduent Healthy Communities Institute, U.S. Environmental Protection Agency, 2017
- Conduent Healthy Communities, American Community Survey, 2013-2017
- Conduent Healthy Communities Institute, County Health Rankings, 2011-2015
- Conduent Health Communities Institute, American Community Survey, 2013-2017
- Conduent Healthy Communities Institute, American Community Survey, 2013-2017
- Conduent Health Communities Institute, County Health Rankings, 2019
- Conduent Healthy Communities Institute, Illinois Department of Public Health, 2017
- Conduent Healthy Communities Institute, Illinois Department of Public Health, 2017
- Conduent Health Communities, 2012. Illinois Department of Public Health, 2008
- Conduent Healthy Communities Institute, 2018. Illinois Department of Public Health, 2014-2016
- Conduent Healthy Communities Institute, County Health Rankings, 2015
- Illinois Department of Healthcare and Family Services, 2018
- Illinois Department of Healthcare and Family Services, 2018
- Conduent Healthy Communities Institute, County Health Rankings, 2016
- Conduent Healthy Communities Institute, County Health Rankings, 2018
- Conduent Healthy Communities Institute, County Health Rankings, 2018
- Conduent Healthy Communities Institute, County Health Rankings, 2018
- Conduent Healthy Communities Institute, the Dartmouth Atlas of Health Care, 2015
- Conduent Health Communities Institute, County Health Rankings, 2016
- Conduent Health Communities Institute, Center for Prevention Research and Development, Illinois Youth Survey, 2018
- Conduent Health Communities Institute, Center for Prevention Research and Development, Illinois Youth Survey, 2018
- Conduent Healthy Communities Institute, County Health Rankings, 2015-2017
- Conduent Health Communities Institute, Center for Prevention Research and Development, Illinois Youth Survey, 2018
- Conduent Healthy Communities Institute, Illinois Behavioral Risk Factor Surveillance System, 2007-2009
- Conduent Healthy Communities Institute, County Health Rankings, 2015
- Conduent Health Communities Institute, County Health Rankings, 2015
- Conduent Healthy Communities Institute, Illinois Behavioral Risk Factor Surveillance System 2010-2014
- Conduent Healthy Communities Institute, Centers for Disease Control and Prevention, 2015-2017
- Conduent Healthy Communities Institute, National Cancer Institute, 2011-2015

- Conduent Healthy Communities Institute, 2018, the Dartmouth Atlas of Health Care, 2015
- Conduent Healthy Communities Institute, National Cancer Institute, 2011-2015.
- Conduent Healthy Communities Institute, Illinois Behavioral Risk Factor Surveillance System, 2010-2014
- Conduent Healthy Communities Institute, National Cancer Institute, 2011-2015

Cardiovascular Disease:

- American Heart Association (2016). What is Atrial Fibrillation (AFib or AF)? Retrieved from www.heart.org

- American Heart Association (2017). Monitoring Your Blood Pressure at Home. Retrieved from www.heart.org

- Centers for Disease Control and Prevention (2017). Atrial Fibrillation Fact Sheet|Data & Statistics|DHDSP|CDC. Retrieved from www.cdc.gov

- Centers for Disease Control and Prevention (2019). High Cholesterol Facts. Retrieved from www.cdc.gov

- Mayo Clinic (2018). Low Blood Pressure (hypotension). Retrieved from www.mayoclinic.org

Obesity:

- Center for Disease Control and Prevention (2017). National Health and Nutrition Examination Survey, 2015-2016. Retrieved from www.cdc.gov

- Center for Prevention Research and Development. Illinois Youth Survey (2018). Lake County Report. Retrieved from iys.cprd.illinois.edu

- Food Research and Action Center (2015). Understanding the Connections: Food Insecurity and Obesity. Retrieved from frac.org

- Robert Wood Johnson Foundation (2019). State of Obesity. Retrieved from www.stateofobesity.org

Diabetes:

- American Diabetes Association (2018). Statistics About Diabetes. Retrieved from www.diabetes.org

- Centers for Disease Control and Prevention. National Diabetes Statistics Report (2017). Atlanta, GA: Centers for Disease Control and Prevention, U.S. Dept. of Health and Human Services; 2017. Retrieved from www.cdc.gov

Mental Health:

- Centers for Disease Control and Prevention (2019). Youth and Tobacco Use|CDC. Retrieved from www.cdc.gov

- Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health (2018). 500 Cities Project Data. Retrieved from https://www.cdc.gov/500cities.

- Mental Health America (2018). State of Mental Health in America Past Reports: Mental Health America. Retrieved from mhanational.org

- MentalHelp, American Addiction Centers (2019). Mental Health in the LGBT Community. Retrieved from www.mentalhelp.net

- National Alliance on Mental Illness (NAMI) (n.d.). Mental Health by the Numbers. Retrieved from www.nami.org

- The National Institute on Drug Abuse (2018). Monitoring the Future: National Survey Results on Drug Use, 1975-2018. www.monitoringthefuture.org

Substance Abuse:

- Centers for Disease Control and Prevention (2019). Youth and Tobacco Use | CDC. Retrieved from www.cdc.gov

- Lake County Health Department (2017). Tobacco Use in Lake County, 2010-2014. Retrieved from www.lakecountyil.gov

- MentalHelp, American Addiction Centers (2019). Mental Health in the LGBT Community. Retrieved from www.mentalhelp.net

- National Institute on Alcohol Abuse and Alcoholism (2019). Alcohol Facts and Statistics. Retrieved from www.niaaa.nih.gov

- National Institute on Alcohol Abuse and Alcoholism (2018). NIH study shows steep increase in rate of alcohol-related ER visits. Retrieved from www.niaaa.nih.gov

- The National Institute on Drug Abuse (2018). Monitoring the Future: National Survey Results on Drug Use, 1975-2018. www.monitoringthefuture.org

Immunizations and Infectious Diseases:

- Centers for Disease Control and Prevention (2019). HIV in the United States and Dependent Areas. Retrieved from www.cdc.gov

- Centers for Disease Control and Prevention (2018). Stats of the State of Illinois. Retrieved from www.cdc.gov

Adults and Aging:

- Alzheimer's Association (2019). Alzheimer's Disease Facts and Figures Report. Retrieved from www.alz.org

Dental:

- Illinois State Board of Education (2015). Dental Examination Compliance Status of Kindergarten, Second and Sixth Grade Children in Illinois for School Year 2013-2014. Retrieved from www.isbe.net

Appendix 2: Forces of Change Assessment Results

SWOT: Strengths, Weaknesses, Opportunities & Threats

8 Core – Categories: How is the well-being of local residents and the community being affected?

Social	Economic	Political	Technological	Environmental	Scientific	Legal	Ethical
• Education inequities • Systemic racism • Housing • Language • Racial inequities • Religion • Gender equality	• Employment • Economic inequities • Poverty • Housing • Wages • Cost of living • Insurance	• Systemic racism • Community separation • Safety and Violence • Political climate in the U.S • Policies • Taxes • Legislation	• Social media • Access to technology (cell phones, computers, etc.) • Telemedicine • Sharing Health Records/Data	• Built Environment • Safety and Violence • Access to care • Transportation • Walkability • Gun violence	• Artificial Intelligence (AI) • Health analytics and data collection • DNA testing	• Immigration • Workforce development for ex-offenders • Marijuana legalization • Tobacco	• Over-prescribing medication • Referral to community resources • Community linkages • Access to care for uninsured

Appendix 3: Prioritization Grid

Advocate Lutheran General Hospital Prioritization Grid								
Health Need	Size/Seriousness of the Problem	Effectiveness of available interventions	Several Resources to Address the Problem	Existing Community Partners working on the Problem	Meets a defined community need as identified through data	Strong potential issue to impact other issues for collective impact	Ability to make an impact and demonstrate measureable outcomes through collaboration	Total
Heart Disease/Stroke	49	42	45	40	48	45	52	321
Obesity	52	33	36	36	52	53	50	312
Mental Health	58	29	40	29	54	48	54	312
Diabetes	47	40	39	37	47	51	48	309
Respiratory Disease	43	43	40	39	40	44	45	294
Substance Abuse	50	28	29	30	45	51	45	278
Immunizations/ Infectious Disease	37	35	40	35	39	39	38	263