2022
Community Health Needs Assessment Report

Advocate Children's Hospital in Oak Lawn

4440 W. 95th Street

Oak Lawn, IL 60453

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December 2022

It's with great pleasure that we present the 2022 Community Health Needs Assessment (CHNA) for Advocate Children's Hospital Oak Lawn. This report provides a comprehensive picture of the health status of the communities served by our hospital and is one of the ways we understand the health and social needs of our communities. With the information discovered through this intensive assessment, we can provide safe, high-quality care with compassion and dignity.

To help us thoroughly understand these current health needs, we work with community partners and stakeholders every three years to complete an updated, comprehensive CHNA. The Community Outreach department works closely with the hospital's Community Health Council which is comprised of local leaders whose work is focused on children's needs. The Council ultimately selects the hospital's priority health needs after reviewing data from relevant local, state and national sources and hospital admissions, as well as input collected from community-based organizations, schools and hospital staff. And since partnership is crucial to assessing need, we're active members and supporters of many community-based organizations including the March of Dimes' Chicago Southside Maternal and Child Collective Impact Taskforce, the Healthy Schools Campaign serving Chicago students, Ronald McDonald House Charities and Urban Initiatives.

Based on comprehensive community data and feedback, our Community Health Council selected two health priorities for the 2022 CHNA. The priorities selected include the following: (1) Access to Care, and (2) Behavioral Health.

At Advocate Children's Hospital, we are committed to helping children live well by understanding their needs and implementing culturally appropriate interventions to address poor health outcomes. 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 our CHNA. A link at the end of the report will provide you with an opportunity to leave any comments or ideas. We also welcome recommendations regarding programs or strategies to address the hospital's priority health needs listed above. Advocate Children's Hospital considers it an honor to work with community partners and leaders to improve the health and wellness of diverse communities across our service area. With a comprehensive and thorough understanding of community health needs, we will be well positioned to help children live well and improve their quality of life for years to come.

Michael J. Farrell
President
Advocate Children's Hospital

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I. Executive Summary

Advocate Children's Hospital – Oak Lawn (ACH-OL) completed a comprehensive hospital community health needs assessment (CHNA) in 2022. For purposes of this report, the Advocate Children's Hospital – Oak Lawn "community" or primary service area (PSA) consists of 54 zip codes across Cook and Will Counties. We've collected and analyzed data accordingly. This report describes the assessment process and includes demographic, socioeconomic and health status data along with key findings regarding the health of residents in our PSA. The goal of this assessment is to provide a clear picture of the health status and social needs of the communities we serve and decide areas of focus for community outreach programming.

Data shows that the ACH-OL PSA population is 40.4 percent Non- Hispanic Black, 31.7 percent Non-Hispanic White, 24.4 percent Hispanic, 1.9 percent Asian or Pacific Islander, 1.5 percent are two or more races and 0.1 percent Native American. 52.2 percent are female and 47.8 percent are male. Children ages 0-17 comprise 24.3 percent of the total population. This number is similar to the total composition of all individual counties in the PSA and the State of Illinois. The median household income for the PSA is $63,329 annually.

As part of the CHNA process, ACH-OL established a Community Health Council (CHC) comprised of hospital and community stakeholders who provided insight and perspective on key issues affecting health in the PSA. CHC members reviewed data presented by the hospital's community outreach department. Under the leadership of the ACH-OL Director of Community Outreach and Population Health, the CHC worked through a prioritization process to determine the key health needs in the PSA. Data shared during the process included these issues:

- Access to Care
- Behavioral Health
- Food Insecurity
- Violence/Adverse Childhood Experiences
- Dental Care
- Asthma
- Injury Prevention
- Obesity

CHC members were guided through a voting exercise to select the top health issues, taking into consideration prevalence, incidence and mortality. The CHC also recognized the importance of addressing root causes of health and urged the ACH-OL community outreach team to integrate social drivers (SDOH) into strategies developed to address identified needs.

To ensure the hospital develops an effective 2022 CHNA Implementation strategy, the CHC and community outreach department will continue to collaborate to create programming to address the priority health needs. Healthy People 2030 goals will serve as a critical benchmark and guide for the development of goals, objectives and metrics to track our impact and effectiveness in addressing the identified health issues.

II. Description of Advocate Aurora Health and Advocate Children's Hospital in Oak Lawn

Advocate Aurora Health

Advocate Aurora Health is one of the 12 largest not-for-profit, integrated health systems in the United States and a leading employer in the Midwest with more than 75,000 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. To learn more about Advocate Aurora's contributions to the community and how we help people live well, visit Serving Our Community | Advocate Health Care.

Advocate Children's Hospital

Advocate Children's Hospital (ACH) is one of the largest network providers of pediatric services in Illinois and is part of Advocate Aurora Health, a top 12 not-for-profit health system. Our two main campuses are in Oak Lawn and Park Ridge on the grounds of Advocate Christ Medical Center and Advocate Lutheran General Hospital, respectively, with 690 pediatricians and specialists caring for patients at 289 total sites of care and specialty clinics across Chicago to Central Illinois. Advocate Children's Hospital-Oak Lawn has 45 pediatric beds, 24 pediatric intensive care beds, 16 cardiac critical care beds, and 61 neonatal intensive care beds. Advocate Children's-Oak Lawn annually provides 37,717 emergency department visits and over 62, 777 total pediatric office visits and is the first children's hospital in the country to receive congenital heart disease accreditation from the Accreditation for Cardiovascular Excellence (ACE) for setting the highest standards of quality care for children. The hospital is a designated Pediatric Critical Care Center by the Illinois Department of Public Health.

Advocate Children's Hospital's focus on providing quality outcomes and seamless patient experiences led to the formation of the Chicagoland Children's Health Alliance (CCHA,) a partnership with Pediatrics at NorthShore University Health System and University of Chicago Comer Children's Hospital. Through the Alliance, we have formed an integrated and comprehensive network of pediatric experts from primary to highly specialized care, as well as maternal fetal medicine. The CCHA currently shares expertise, best practices, and resources across five main areas: pediatric cancer and blood disease, pediatric cardiology and cardiac surgery, pediatric gastroenterology, pediatric neurology and neurosurgery and pediatric surgical care.

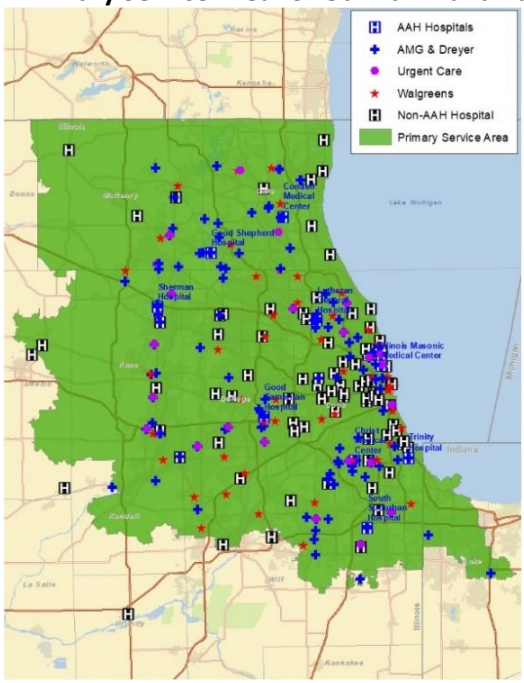
III. 2022 Community Health Needs Assessment

The following assessment defines our primary service area, who lives there, and their social hardships, economic challenges and health issues. The assessment is a roadmap to assist us in identifying areas of focus to help improve health outcomes. It's also important to note that while we would prefer to provide consistent data on every children's health issue for every region of the hospital's primary service area, unfortunately the same data is not always available. We will provide data for specific zip codes, counties, City of Chicago and State of Illinois where available.

Community Definition

For the purposes of this assessment, the Advocate Children's Hospital – Oak Lawn "community" is defined as the Primary Service Area (PSA) which consists of 54 zip codes across Cook and Will County. There is a total population of 1,698,764 in the Oak Lawn PSA. The map below, however, illustrates the entire service area for Advocate Children's Hospital including both the Park Ridge and Oak Lawn campuses illustrating the nine-county area from which our patients come.

Exhibit 1: Advocate Children's Hospital Primary Service Area for Oak Lawn and Park Ridge Campuses



Source: Advocate Aurora Business Development Analytics, 2022

1. Population

The total population for the PSA in 2020 was estimated at 1,698,764 residing in 54 zip codes. The largest zip codes in the PSA are Chicago Lawn (60629) with a population of 107,930, Brighton Park (60632) with a population of 86,715 and South Chicago (60617) with a population of 82,101. Exhibit 2 identifies the zip codes and corresponding communities and their populations in the hospital's Oak Lawn campus PSA.

EXHIBIT 2 : Advocate Children's Hospital-Oak Lawn Primary Service Area by Zip Code

City/Community	Zip Code	City/Community	Zip Code
Chicago Lawn	60629	Mokena	60448
Brighton Park	60632	Blue Island	60406
South Chicago	60617	Midlothian	60445
Auburn Gresham	60620	Alsip	60803
Roseland	60628	Dolton	60419
Chatham	60619	South Holland	60473
New City	60609	Matteson	60443
Clearing	60638	Park Forest	60466
Chicago Heights	60411	Homewood	60430
Oak Lawn	60453	Evergreen Park	60805
Beverly	60643	Palos Hills	60465
South Shore	60649	Country Club Hills	60478
Ashburn	60652	Bridgeview	60455
Orland Park	60462	Hazel Crest	60429
Tinley Park	60477	Justice	60458
Calumet City	60409	Palos Heights	60463
New Lenox	60451	Chicago Ridge	60415
Frankfort	60423	Hickory Hills	60457
West Englewood	60636	Markham	60428
Burbank	60459	Worth	60482
Riverdale	60827	Flossmoor	60422
Lansing	60438	Glenwood	60425
Harvey	60426	Posen	60469
Mount Greenwood	60655	Robbins	60472
Oak Forest	60452	Olympia Fields	60461
Tinley Park	60487	Hometown	60456
Orland Park	60467	Thorton	60476

Source: Metopio, American Community Survey, 2022

2. Social Drivers of Health

Social drivers of health (SDOH) are the conditions in the environment where people are born live, learn, work, play, worship and grow older that affect a wide range of health, functioning and quality of life outcomes and risks. SDOH can have a major impact on people's health, well-being and quality of life. They also contribute to wide health disparities and inequities, ex: people who don't have access to grocery stores with healthy foods are less likely to have good nutrition which raises their risk of health conditions like heart disease, diabetes and can even lower life expectancy, (Healthy People, 2022).

Hardship Index

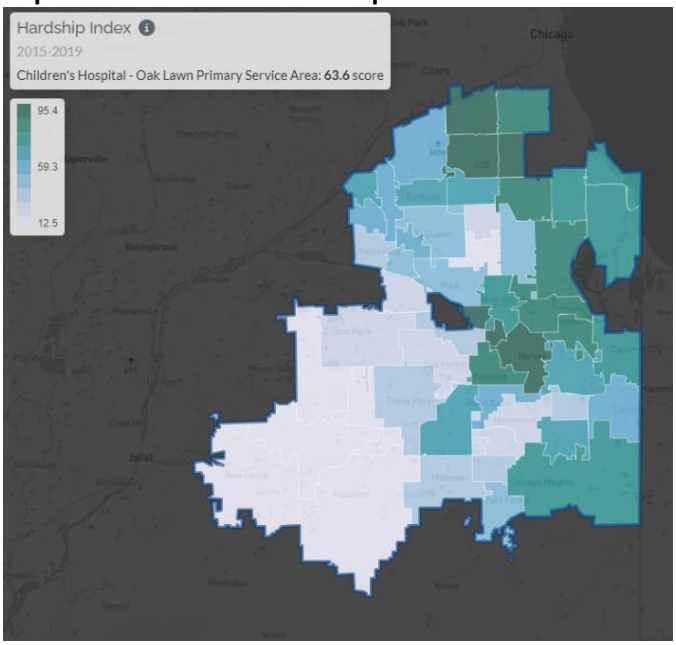
The Hardship Index was originally developed in 1976 to compare socioeconomic conditions between communities. It is highly correlated with other measures of economic hardship, such as labor force statistics and poor health outcomes. The index combines the following topics into a single composite value on a scale of 0-100:

- Crowded housing (more than one person per room)
- Poverty rate for households
- Unemployment rate
- Adults with a high school degree or equivalent
- Age dependency ratio (% of residents who are <18 or >65 years old, compared to those of working age)
- Per-capita income

Higher values indicate greater hardship and correlate with poor health outcomes. The index does not preserve the ratio between two communities, so if one location has twice the hardship index of another, we cannot say that it experiences "twice as much hardship." Instead, we compare different places using the constituent topics.

Advocate Children's Hospital-Oak Lawn PSA has an overall score of 63.6, compared to Cook County with a score of 50.4, Will County with a score of 32.7, and the state of Illinois with a score of 45.0. The top three zip codes in the PSA with the highest hardship score include West Englewood (60636) with a score of 95.4, Harvey (60426) with a score of 89.9 and Posen (60469) with a score of 89.5.

Exhibit 3: Advocate Children's Hospital-Oak Lawn PSA Hardship Index 2019



Source: Metopio, American Community Survey, 2022

Social Vulnerability Index

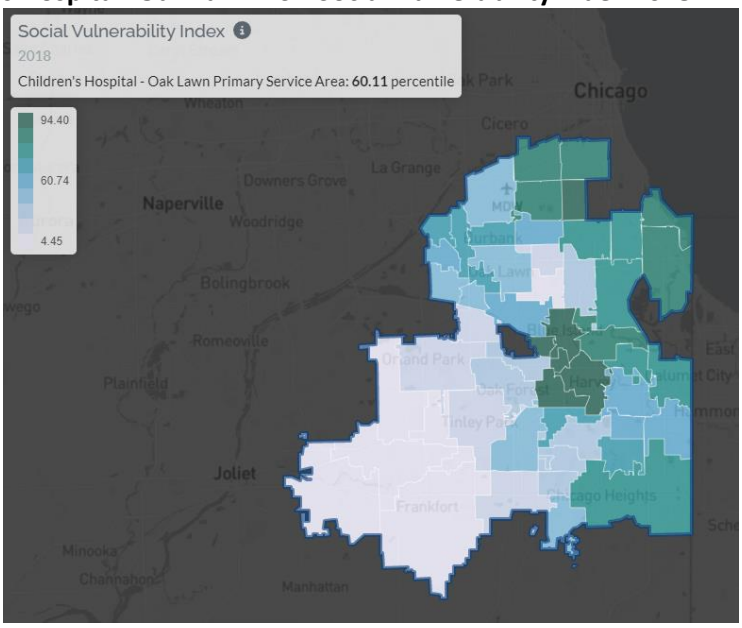
The Social Vulnerability Index (SVI) was developed by the Centers for Disease Control and Prevention (CDC) to help public health officials and emergency response planners identify and map the communities that will most likely need support before, during, and after a hazardous event, such as a natural disaster, disease outbreak, or chemical spill. SVI indicates relative vulnerability by ranking communities on 15 social factors that can be divided into 4 categories:

- Socioeconomic
- Household Composition & Disability
- Minority Status & Language
- Housing Type & Transportation

The original score is on a scale from 0-1, but it is multiplied by 100 for readability on Metopio. A higher score represents a community that is more vulnerable to hardship . Detailed documentation is available from the CDC here .

Advocate Children's Hospital's PSA has an overall social vulnerability index of 60.11, as compared to Cook County with an index of 67.55, Will County with an index of 20.22, and the State of Illinois with an index of 48.70. Within the PSA, the zip codes with the highest SVI index are Robbins (60472) at 94.40, Posen (60469) at 87.60 and Harvey (60426) at 87.43 as shown in Exhibit 3 below.

Exhibit 4: Advocate Children's Hospital- Oak Lawn PSA Social Vulnerability Index 2018



Source: Metopio, Centers for Disease Control and Prevention, 2022

Childhood Opportunity Index (COI)

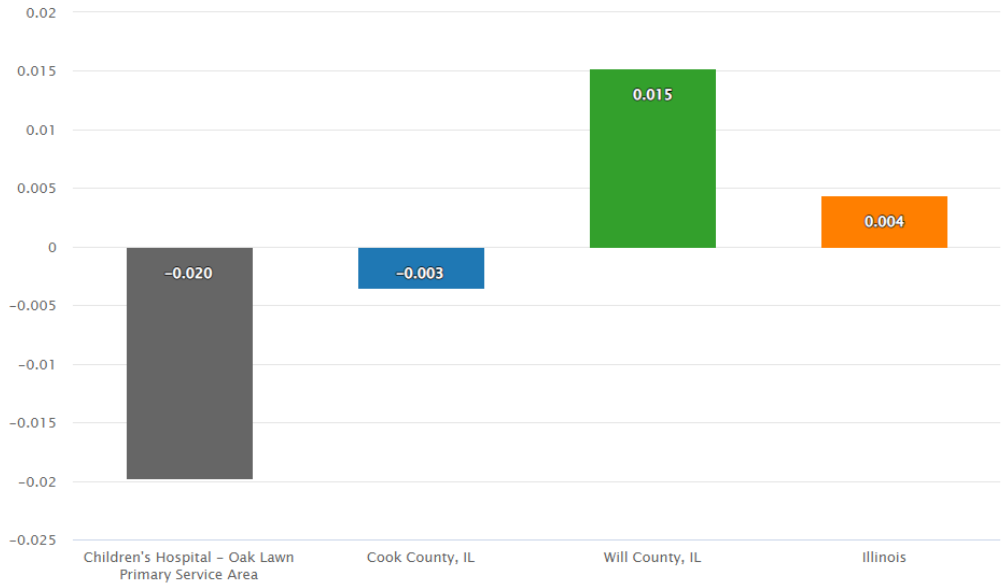
As a children's hospital, we're very interested in data that specifically helps us understand what children in our PSA are experiencing. The Childhood Opportunity Index is a composite index that captures overall neighborhood resources and conditions that matter for children's healthy development. Negative scores represent low child opportunity, and positive scores represent high opportunity, with 0 being the nationwide average. The index is composed of the following 29 indicators:

- Environmental indicators: Access to healthy food, access to green space, walkability, housing vacancy rate, hazardous waste dump sites, industrial pollutants in air, water or soil, airborne microparticles, Ozone concentration, extreme heat exposure, health insurance coverage

- Economic indicators: Employment rate, commute duration, poverty rate, public assistance rate, homeownership rate, high-skill employment, median household income, single-headed households
- Education indicators: Early Childhood Education (ECE) centers, high-quality ECE centers, ECE enrollment, third grade reading proficiency, third grade math proficiency, high school graduation rate, AP course enrollment, college enrollment in nearby institutions, school poverty, teacher experience, adult educational attainment.

Advocate Children's Hospital- Oak Lawn PSA has a COI of -0.020, while Cook County has an index of -0.003, Will County 0.015, and the state of Illinois 0.004. This shows a slight improvement over the last reporting period in 2015 when the PSA had an index of -0.019. Again, a higher score represents better opportunity and a negative score represents lower opportunity.

Exhibit 5: Advocate Children's Hospital- Oak Lawn PSA Childhood Opportunity Index 2015



Source: Metopio, 2022

3. Demographics

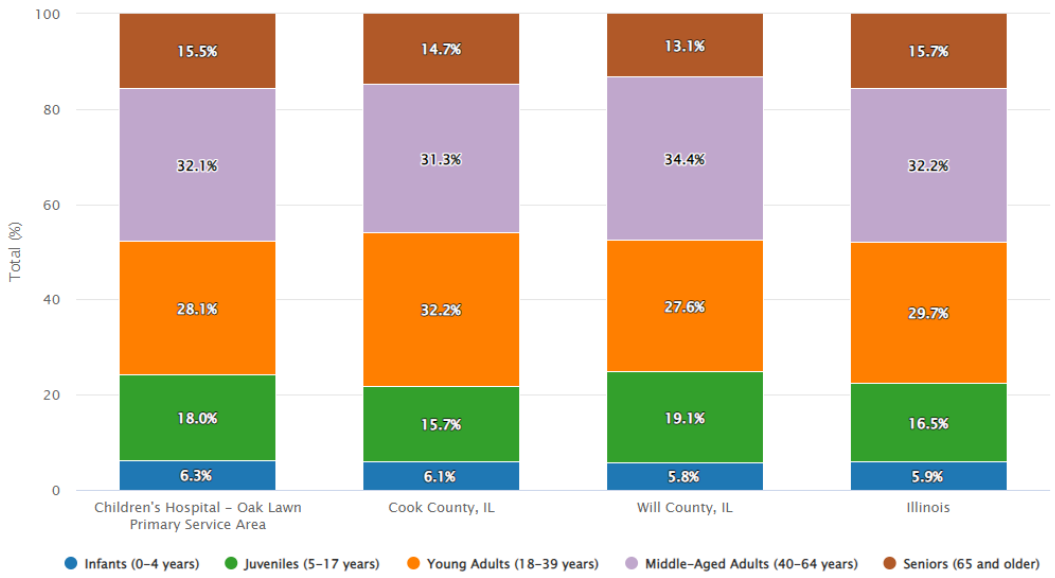
The most populated counties in Advocate Children's Hospital-Oak Lawn PSA include Cook County and Will County. Where possible and when like data sets are available, we will provide comparative data by county to highlight potential disparities within our PSA.

Age and Gender

Population by Age

In the Children's Hospital Oak Lawn PSA, middle-aged adults make up the majority of the population, with 32.1 percent of the total population belonging to this group. This is slightly higher compared to the middle-aged adult group for Cook County (31.35 percent). Will County's middle-aged adult group makes up 34.4 percent and the state of Illinois is 32.2 percent. ACH, however, is primarily focused on children under the age of 18. Data shows that within our service area, 6.3 percent of the population are infants (0-4 years) and 18.0 percent are juveniles (5-17 years) showing that children are 24.30 percent of the total population. These numbers are relatively similar compared to the total makeup of infants and juveniles in Cook County (21.80 percent), Will County (24.90 percent), and the State of Illinois (22.40 percent).

Exhibit 6: Advocate Children's Hospital- Oak Lawn PSA Population by Age 2016-2020

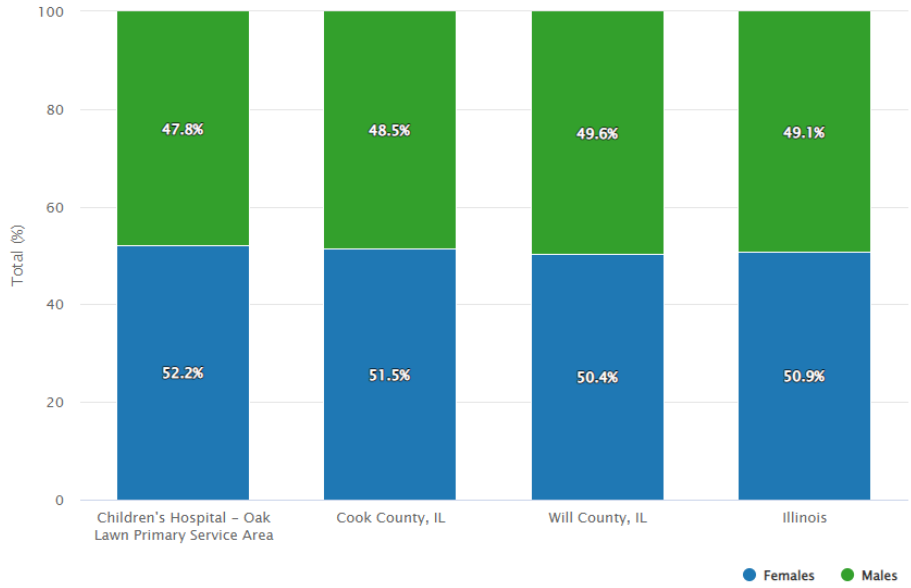


Source: Metopio, American Community Survey, 2022

Population By Sex

The population in the PSA is 52.2 percent female and 47.8 percent male. These numbers are relatively similar to Cook County, Will County, and the State of Illinois. Cook County is comprised of 51.5 percent females and 48.5 percent males, and Will County has 49.6 percent male and 50.4 percent female. The State of Illinois is comprised of 50.9 percent females and 49.1 percent males. Exhibit 7 depicts this breakdown graphically.

Exhibit 7: Advocate Children's Hospital- Oak Lawn PSA Population by Sex 2016-2020



Source: Metopio, American Community Survey, 2022

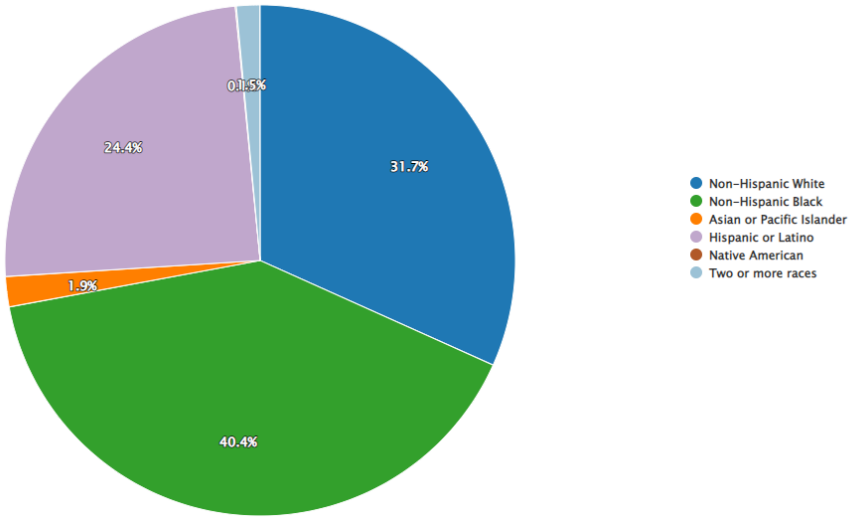
Race and Ethnicity

Population by race

The Advocate Children's Hospital-Oak Lawn service area is comprised of 40.4 percent Non-Hispanic Black residents. This is the largest demographic group observed in the PSA. Non-Hispanic White (31.7 percent), Asian or Pacific Islander (1.9

percent), Hispanic or Latino (24.4 percent), Native American (0.1 percent) and two or more races (1.5 percent) complete the population. Exhibit 9 illustrates the population by race/ethnicity in the PSA.

Exhibit 8: Advocate Children's Hospital- Oak Lawn PSA Population by Race/Ethnicity

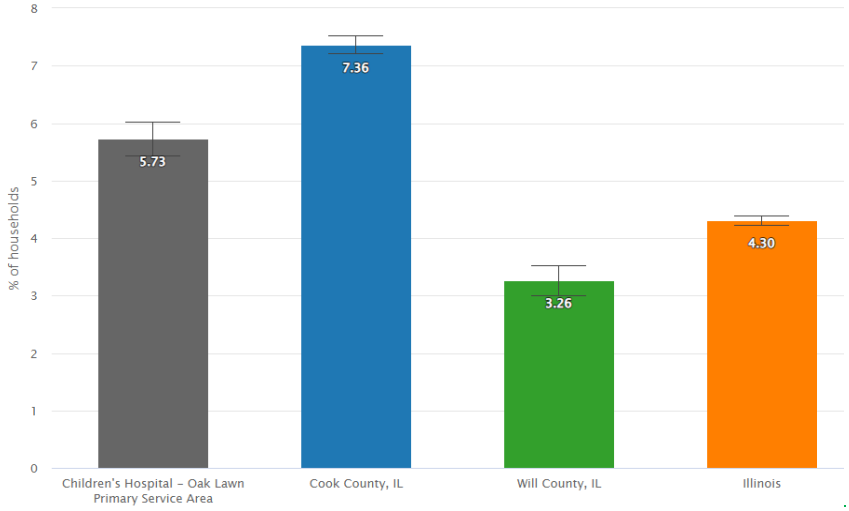


Source: Metopio, American Community Survey, 2022

Population age 5+ by language spoken at home

Limited English Proficiency households are represented in Metopio data as the percent of residents 5 years and older who do not speak English "very well." In the ACH-OL PSA, 5.73 percent of households have limited English proficiency. This is lower compared to that of Cook County, with 7.36 percent, but slightly higher than Will County with 3.26 percent and the State of Illinois with 4.30 percent.

Exhibit 9: Advocate Children's Hospital- Oak Lawn PSA Limited English Proficiency Households 2016-2020



Source: Metopio, American Community Survey, 2022

Household/Family

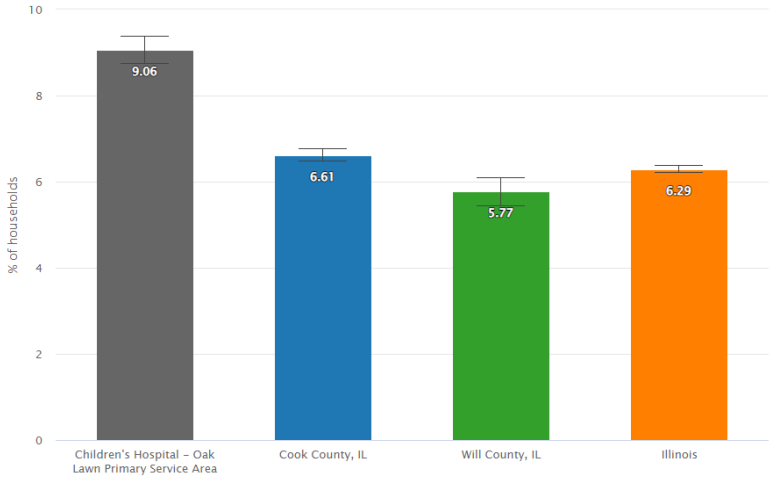
Single parent households

Single parent households are defined as households that have children present and are headed by a single parent (mother or father) with no partner present, (Metopio, 2022). The percentage of these households within the Children's Hospital PSA is higher compared to Cook County, Will County and the state of Illinois. Within the PSA, 9.06 percent of

households are headed by a single-parent while Cook County has 6.61 percent, Will County has 5.77 percent and the state of Illinois reports 6.29 percent of households.

Children who are raised in single-parent households are more likely to suffer from lower school achievement, discipline problems, psychiatric illnesses, alcohol abuse and poorer health status compared to children raised in dual parent households (CDC, 2022).

Exhibit 10: Advocate Children's Hospital-Oak Lawn PSA Single-Parent Households 2016-2020

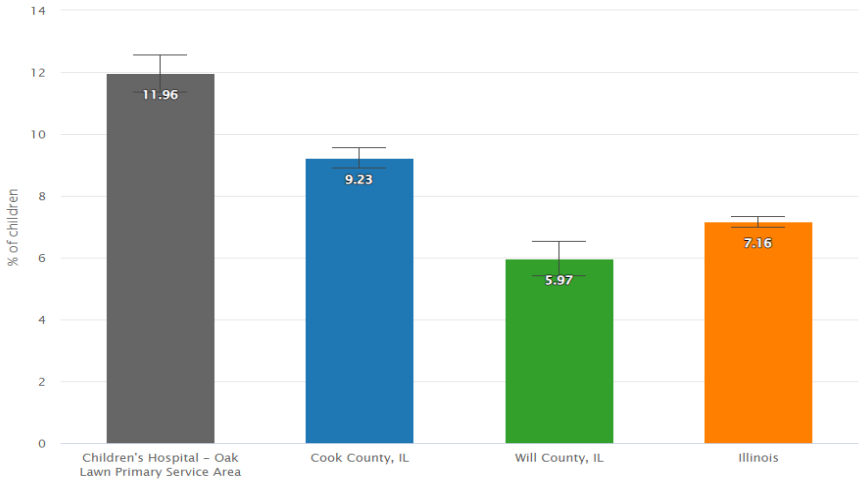


Source: Metopio, American Community Survey, 2022

Percent of children living with grandparents

The following data is defined as the percentage of children who live in the same household as at least one grandparent, or in a multi-generational household (Metopio, 2022). Advocate Children's Hospital-Oak Lawn PSA has 11.96 percent of children living with their grandparents, while Cook County reports 9.23 percent, and Will County reports 5.97 percent. The state of Illinois is lower compared to Cook County, but higher compared to Will County, with 7.16 percent of children living with their grandparents. The comparison is shown in the exhibit below.

Exhibit 11: Advocate Children's Hospital- Oak Lawn PSA Children Living with Grandparents 2016-2020



Source: Metopio, American Community Survey, 2022

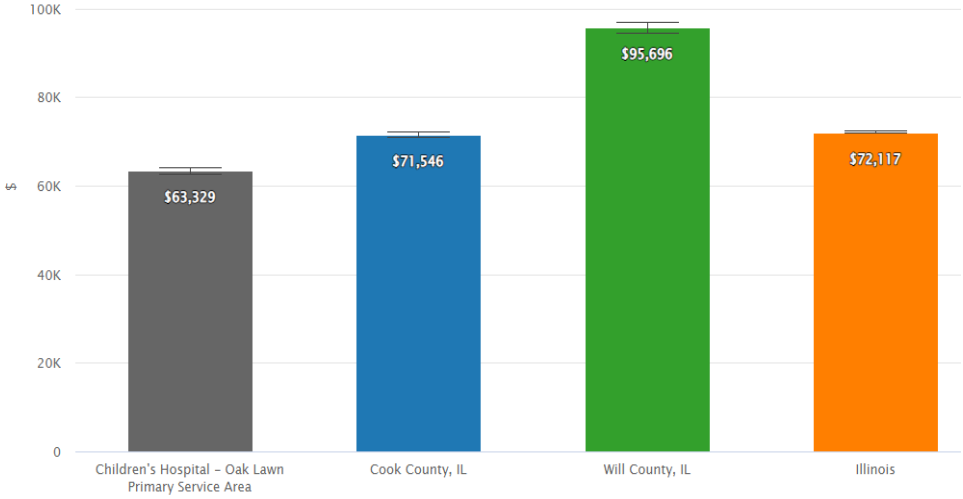
4. Economics

Income

Median household income

Household income is considered a social determinant of health and is therefore used as a health indicator. The median household income for the primary service area is $63,329 annually. This is lower when compared to Cook County's median income of $71,546 annually and the state of Illinois at $72,117 annually. Will County has the highest median income with $95,696 annually. Typically, families with higher income are more likely to have better access to care, transportation to receive care and access to healthier foods. The zip codes with the lowest median household income in the PSA are West Englewood (60636) at $28,032 annually, Harvey (60426) at $36,444 and Riverdale (60827) at $36,758.

Exhibit 12: Advocate Children's Hospital- Oak Lawn PSA Median Household Income 2016-2020



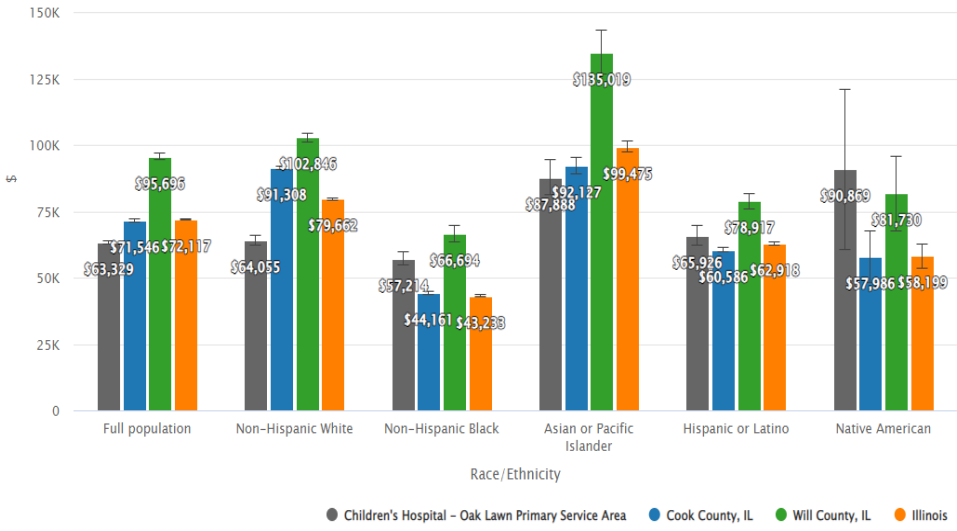
Source: Metopio, American Community Survey, 2022

Median household income by race and ethnicity

When comparing disparities among race and ethnicity within the PSA, the largest difference can be noted between Non-Hispanic Black and Native American median incomes. In the PSA, the median income for Non-Hispanic Blacks is $57,214 annually, compared to $90,869 annually for Native Americans.

Asian or Pacific Islander have the highest median household income, while Non-Hispanic Blacks have the lowest household income in the PSA. This represents a difference of $33,655 annually.

Exhibit 13: Advocate Children's Hospital- Oak Lawn PSA Median Household Income by Race/Ethnicity 2016-2020



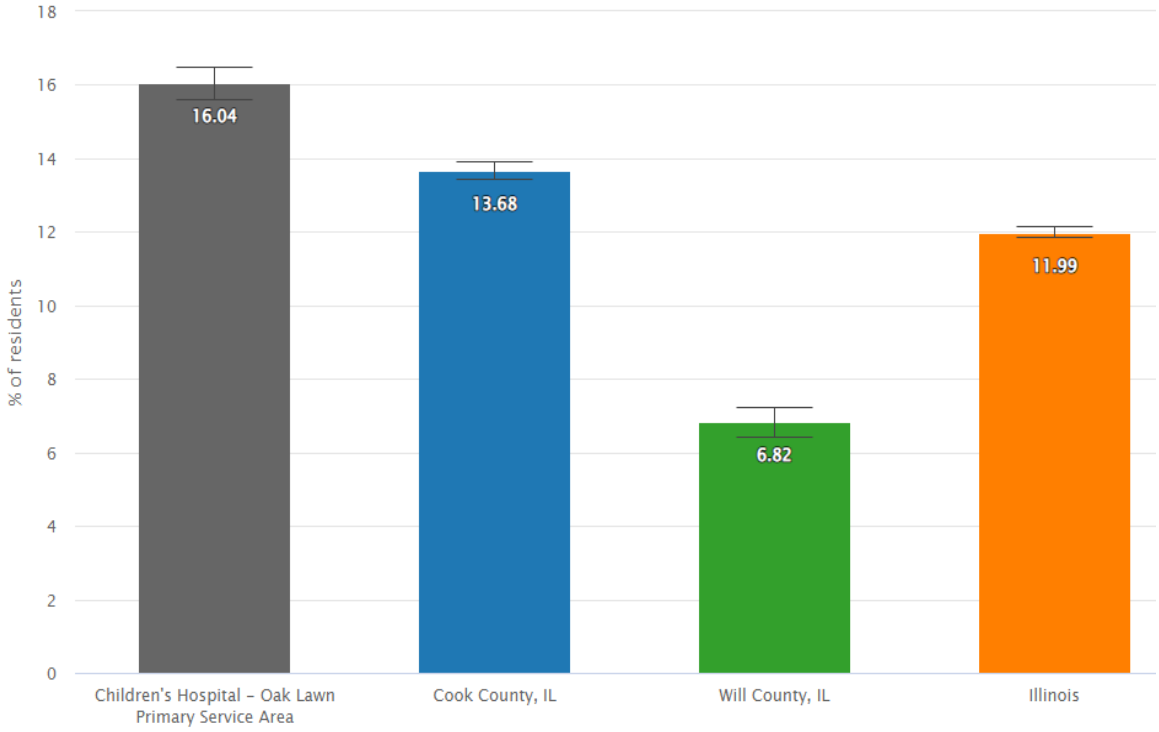
Source: Metopio, American Community Survey, 2022

People living below the poverty level

The poverty rate in a community as defined by Metopio is the percent of people in families that are below the Federal Poverty Level. The Federal Poverty level is an income threshold set by the United States Census Bureau. The threshold varies with the number of persons living within a household, but on average the Federal Poverty Level for a family of three in 2022 is an annual income of $23,030. In the hospital's primary service area, 16.04 percent of residents are living below the federal poverty level. This is higher than Cook County (13.68 percent), Will County (6.82 percent), and the state of Illinois at 11.99 percent.

The three communities with the largest population of residents living in poverty are Robbins (60472) with 31.78 percent of their residents living below the federal poverty level, West Englewood (60636) at 31.12 percent of residents and Riverdale (60827) at 30.66 percent of residents. Data shows these same communities also suffer from high rates of deep poverty which is defined as individuals in families whose income is less than half of the federal poverty level for the past 12 months.

Exhibit 14: Advocate Children's Hospital- Oak Lawn PSA Poverty Rate 2016-2020

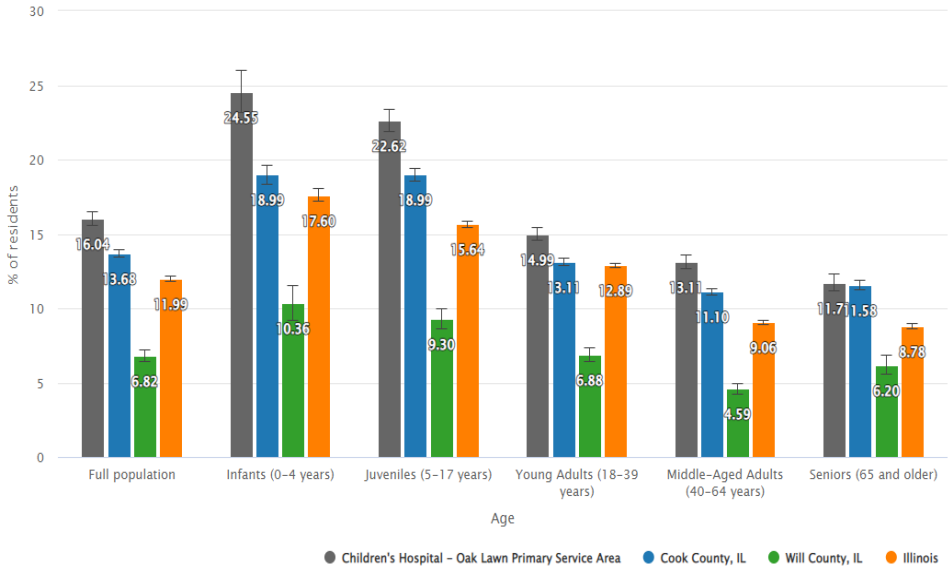


Source: Metopio, American Community Survey, 2022

Children living below the poverty level

As we focus on our pediatric population, we can stratify data from Exhibit 15 to show children (infants 0-4 years and juveniles 5-17 years) living below the poverty level. Again, the poverty rate defines a percent of residents whose annual income falls below the Federal Poverty Level. For the Children's Hospital PSA, 24.55 percent of infants are living below the federal poverty level as well as 22.62 percent of juveniles or a total of 47.17 percent for children ages 0-17. The PSA numbers are higher compared to Cook County with 18.99 percent of infants and 18.99 percent of juveniles living in poverty, Will County with 10.36 percent of infants and 9.30 percent of juveniles living in poverty, and the state of Illinois with 17.60 percent of infants and 15.64 percent of juveniles living in poverty.

Exhibit 15: Advocate Children's Hospital- Oak Lawn PSA Poverty Rate by Age 2016-2020



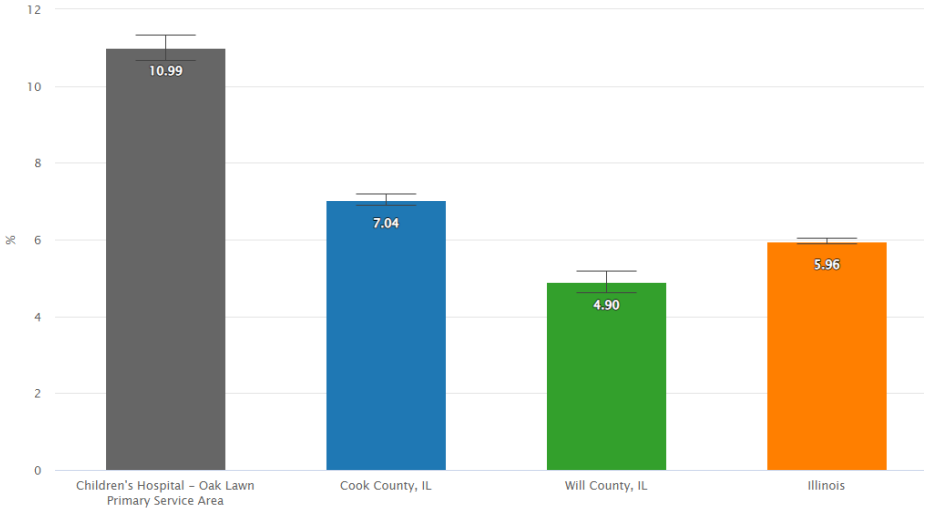
Source: Metopio, American Community Survey, 2022

Employment

Percent of population 16+ unemployed

The unemployment rate is the percentage of residents 16 and older in the civilian workforce who are actively seeking employment (Metopio, 2022). For the primary service area, 10.99 percent of residents are unemployed and actively seeking employment. This number is high compared to the unemployment rate of Cook County at 7.04 percent, Will County at 4.90 percent and the state of Illinois at 5.96 percent. When stratified to show unemployment rate by race/ethnicity in the PSA, the Non-Hispanic Black population has the highest rate of unemployment at 15.38 percent. The second highest rate of unemployment was within the Native American population at 12.05 percent unemployed. Comparatively, the labor force participation, which is the percent of residents 16 and older who are currently employed, enlisted in the armed forces, or actively seeking employment, shows 62.90 percent of residents in the PSA in the labor force. This number is slightly lower compared to Cook County at 66.14 percent and the state of Illinois at 65.24 percent. Will County reports the highest number with 68.88 percent of residents.

Exhibit 16: Advocate Children's Hospital- Oak Lawn PSA Unemployment Rate 2016-2020



Source: Metopio, American Community Survey, 2022

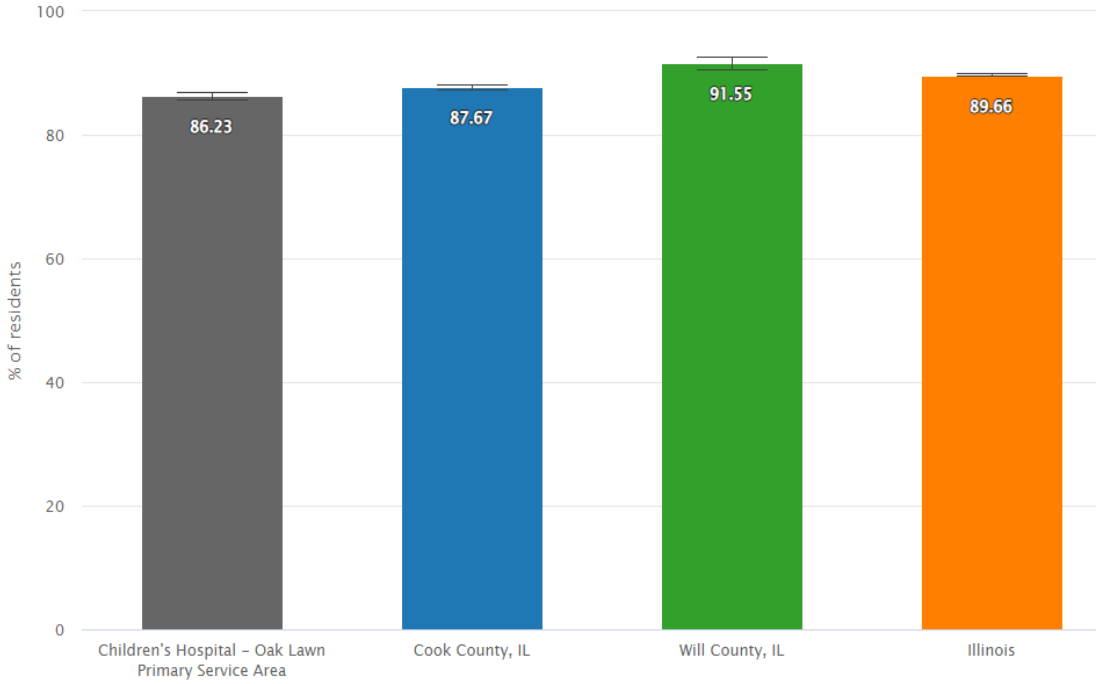
5. Education

Educational Level

Percent of population 25+ with < a high school degree

Educational attainment has been identified as an important social determinant of health over the course of a lifetime. Less education is linked to lower income, which in turn, may result in poorer health outcomes. In the exhibit below, we observe the high school graduation rate for the PSA, which is the percent of residents 25 and older with at least a high school degree, including GED and any higher education (Metopio, 2022). In the primary service area, 86.23 percent of residents obtained their high school degree. This number is slightly lower compared to Cook County with 87.67 percent of its residents with a high school degree. The state of Illinois is slightly higher than both the PSA and Cook County with 89.66 percent, while Will County reports 91.55 percent of residents. The three communities with the lowest percent of residents with their high school diploma are Brighton Park (60632) at 67.99 percent, Chicago Lawn (60629) at 73.05 percent and New City (60609) at 73.29 percent.

Exhibit 17: Advocate Children's Hospital Oak Lawn PSA High School Graduation Rate 2016-2020

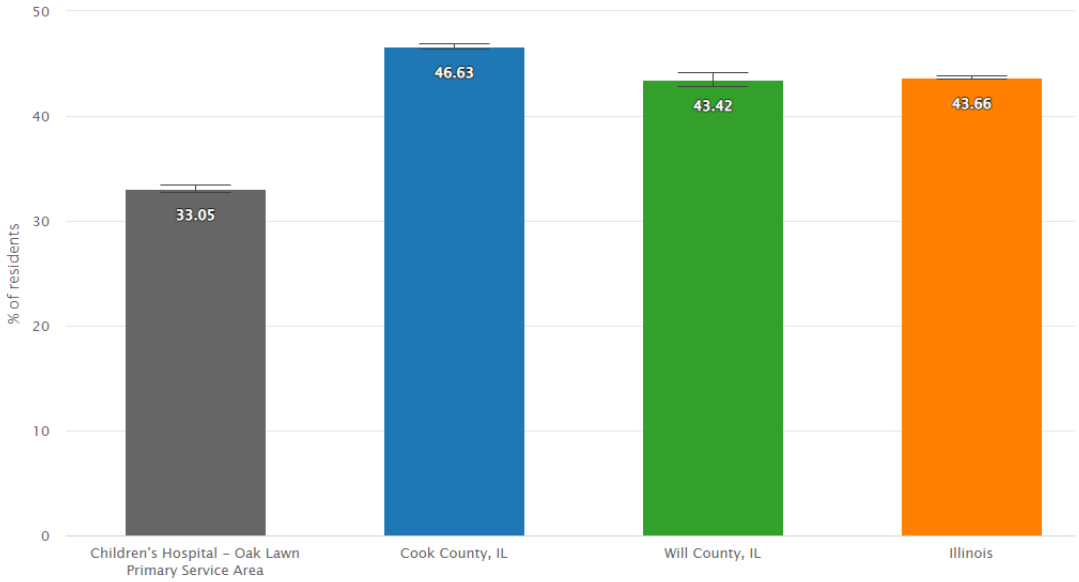


Source: Metopio, American Community Survey, 2022

Percent of the population 25+ with bachelor's degree or higher

In Advocate Children's Hospital-Oak Lawn PSA, the percent of residents with a higher degree is 33.05 percent. This data is defined as a resident 25 years or older with any post-secondary degree, such as Associates or bachelor's degree or higher (Metopio, 2022). The PSA comes in lower compared to Cook County, with 46.63 percent of its' residents with a higher degree, Will County with 43.42 percent of residents, and the state of Illinois with 43.66 percent of residents. There has been an upward trend since 2007, showing more residents obtaining higher education. In the primary service area, females make up 36.12 percent of the residents with a degree, while males make up 29.40 percent of the residents with a higher degree.

Exhibit 18: Advocate Children's Hospital- Oak Lawn PSA Higher Degree Graduation Rate 2016-2020



Source: Metopio, American Community Survey, 2022

6. Health Care Resources in the Defined Community

Name of Facility	Type of Facility	Location
Oak Street Health	Medicare Clinic	Chicago
Old Irving Park Clinic	Community Clinic	Chicago
Shriners Children's Chicago	Hospital	Chicago
Community First Medical Center	Hospital	Chicago
Maryville Children's Healthcare Center	Hospital	Chicago
Rush-Copley Medical Center	Hospital	Chicago
Ann & Robert Lurie Children's Hospital	Hospital	Chicago
UI Health System	Hospital	Central Chicagoland
Northwestern Medicine Central DuPage Hospital	Hospital	Chicago, Chicagoland Area
Edward-Elmhurst Health	Hospital	Chicagoland Area
Loyola Medicine	Hospital	Chicago
Northshore Swedish Hospital	Hospital	Central Chicagoland
Advocate Christ Medical Center	Hospital	Oak Lawn
Advocate Trinity Hospital	Hospital	Chicago
Little Company of Mary Hospital	Hospital	Evergreen Park
Palos Community Hospital	Hospital	Palos Heights
Holy Cross Hospital	Hospital	Chicago
Cook County Health Clinics	Clinic	Chicago
Chicago Department of Public Health	Clinic	Chicago
Christian Family Health Center	Federally Qualified	Harvey

How the CHNA was Conducted

1. Purpose and Process (Include Timeline)

The purpose of the Community Health Needs Assessment (CHNA) is to identify health disparities in the primary areas that Advocate Children's Hospital serves. The federal government requires not-for-profit hospitals to complete a CHNA every three years which serves as a comprehensive guide to the identified health needs on which the hospital, community stakeholders, organizations and individuals can focus their efforts during this period. As ACH inpatient services are located on the Advocate Christ Medical Center campus (Oak Lawn), the ACH CHNA is included and approved as part of that facility's published report.

In December 2021, Advocate Children's Hospital's Community Outreach Department convened a Community Health Council comprised of hospital and community members focused solely on children's issues. The Council's responsibility was to assess children's health care needs in our Primary Service Area using data and discussion to determine areas of focus. A *Forces of Change Assessment* was completed by the council which collects information on trends, factors, and events that are currently affecting and/or anticipated to affect the public health system in the near future. Over several council meetings held from February – May 2022, the Children's Hospital presented extensive data covering demographics, economics, education, employment, Social Drivers of Health, and other health indicators for the primary service area. The data presented was collected from secondary data sources and qualitative primary data. During the prioritizations meeting held in April 2022, the community health council members voted to select the highest priority needs to be addressed in the 2022 CHNA and the 2022-2024 implementation plan. The needs selected were Access to Care and Behavioral Health. Advocate Children's Hospital received approval for the CHNA through Advocate Christ Medical Center's Governing council at its November 2022 meeting. The Advocate Aurora Board of Directors approved the Advocate Children's Hospital CHNA report December 16, 2022.

2. Partnership

For Advocate Children's Hospital's 2022 CHNA, the hospital convened a Community Health Council (CHC). The council met often to discuss strengths and weaknesses in the hospital's PSA focusing on social, economic, and health issues. The CHC's responsibilities were to oversee the CHNA process, serve as subject-matter experts, suggest community collaborations for health initiatives, and select and recommend community health priorities for Advocate Children's Hospital CHNA. The affiliation and titles of the CHC are listed below. The CHC member affiliations representing at-risk populations are indicated with an asterisk.

2022 CHC Members

- Metropolitan Family Services, Social Worker *
- Oak Lawn- Hometown School District 123, Superintendent
- Rich Township High School District 227, Director of Student Support Services
- Oak Lawn Public Library, Youth Services Outreach Librarian*
- Chicago Public School, Youth Interventionalist*
- March of Dimes, Director, Maternal-Child Health Collective Impact*
- Advocate Children's Hospital, Project Coordinator Teach 2 Reach*
- Advocate Children's Hospital, Community Outreach and Community Site Specialist*
- Advocate Children's Hospital, Community Outreach and Injury Prevention Specialist*
- Advocate Children's Hospital, Director of Community and Health Relations*
- Advocate Children's Hospital Mobile Dental Program, Director*

Alliance for Health Equity
The Alliance for Health Equity is a partnership between the Illinois Public Health Institute, hospitals, health departments, and community organizations across Chicago and Cook County. This initiative is one of the largest collaborative hospital-community partnerships to exist in the county, and currently has over 30 nonprofit and public hospitals, seven health departments, and over 100 representatives from community organizations on the alliance.

Advocate Children's Hospital is a part of a coalition led by a steering committee through the Alliance for Health Equity and receives support from the Illinois Public Health Institute (IPHI). The Alliance creates and distributes health surveys throughout Chicago and Cook County and provides information on the overall concerns, strengths, and health needs of the community. Primary and secondary data gathering from the Alliance includes focus groups and hospital utilization data, which is analyzed by the IPHI.

3. Data Collection and Analysis

Advocate Children's Hospital's community outreach team presented extensive public health data to the Community Health Council over the course of four meetings from February 2022 to May 2022. While data specifically for children is more limited than for adults, the hospital collected all available published data at the county and local municipal level giving us a solid picture of the state of children's health in our service area. Hospital inpatient and Emergency Department discharge data was also provided to further demonstrate and clarify need through utilization of actual services.

4. Data Sources

In 2020, Advocate Aurora Health signed a contract with Metopio to provide a data source for its hospitals for the 2022 CHNA cycle. The data source provides information including health and demographic indicators specific to Advocate Children's Hospital's primary service area. Where available for children, Metopio also provided county, state and zip code level data, in order to address social drivers of health in all of the communities that the Children's Hospital serves.

Data was also collected from the Cook County Department of Public Health, Alliance for Health Equity, Centers for Disease Control and Prevention, U.S Census Bureau and other data platforms.

Summary of CHNA Findings

1. Overall Health Status

Mortality – leading causes of death

According to the Illinois Department of Public Health, the leading causes of death for children ages 1-17 include unintentional injuries, assault (homicide), malignant neoplasms (cancer), intentional self-harm (suicide) and congenital malformations. These causes can vary as ages are categorized. The CDC notes that for children aged 1-4 years old the leading causes of death are unintentional injuries, congenital malformations, and homicide. For children aged 5-9 years, the leading causes are unintentional injuries, cancer and congenital malformation. Finally, for children aged 10-14 years the leading causes are unintentional injuries, intentional self-harm and cancer, (CDC, 2020). The following exhibit shows the leading causes of death for the state of Illinois.

Exhibit 19: Illinois Department of Public Health: Childhood Leading Causes of Death 2021

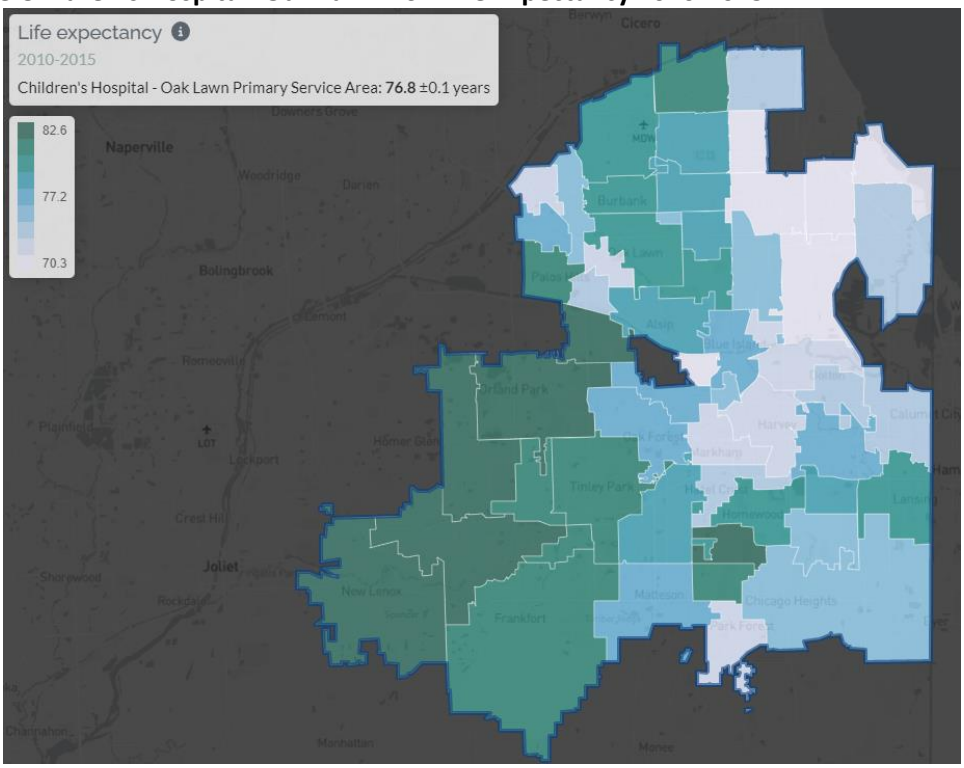
Rank	Underlying Cause of Death -- Ages 1-17	Deaths
	All causes	**596**
1	Accidents (unintentional injuries)	155
2	Assault (homicide)	115
3	Malignant neoplasms (cancer)	61
4	Intentional self-harm (suicide)	55
5	Congenital malformations, deformations and chromosomal abnormalities	38

Source: Illinois Department of Public Health, 2022

Life Expectancy

The life expectancy for residents in the primary service of Advocate Children's Hospital-Oak Lawn is 76.8 years. This is slightly lower compared to Cook County, at 78.5 years, and the state of Illinois at 78.7 years. Will County life expectancy is 79.0 years. Life expectancy reflects the overall mortality of a population and is often used to measure mortality across all age sectors. The zip codes in the primary service area with the lowest life expectancy are West Englewood (60636) at 70.3 years, Roseland (60628) at 71.4 years, and South Shore (60649) at 71.8 years. Exhibit 21 shows results for the entire primary service area.

Exhibit 20: Advocate Children's Hospital- Oak Lawn PSA Life Expectancy 2010-2015



Source: Metopio, Center for Urban Population Health, 2022

Top Health Concerns in PSA

After careful review of data illustrating the state of children's health in the ACH service area, the Community Health Council prioritized the following health concerns on which to focus with programming and services: Access to care and behavioral health. Below is data the Council reviewed when considering the top children's health concerns.

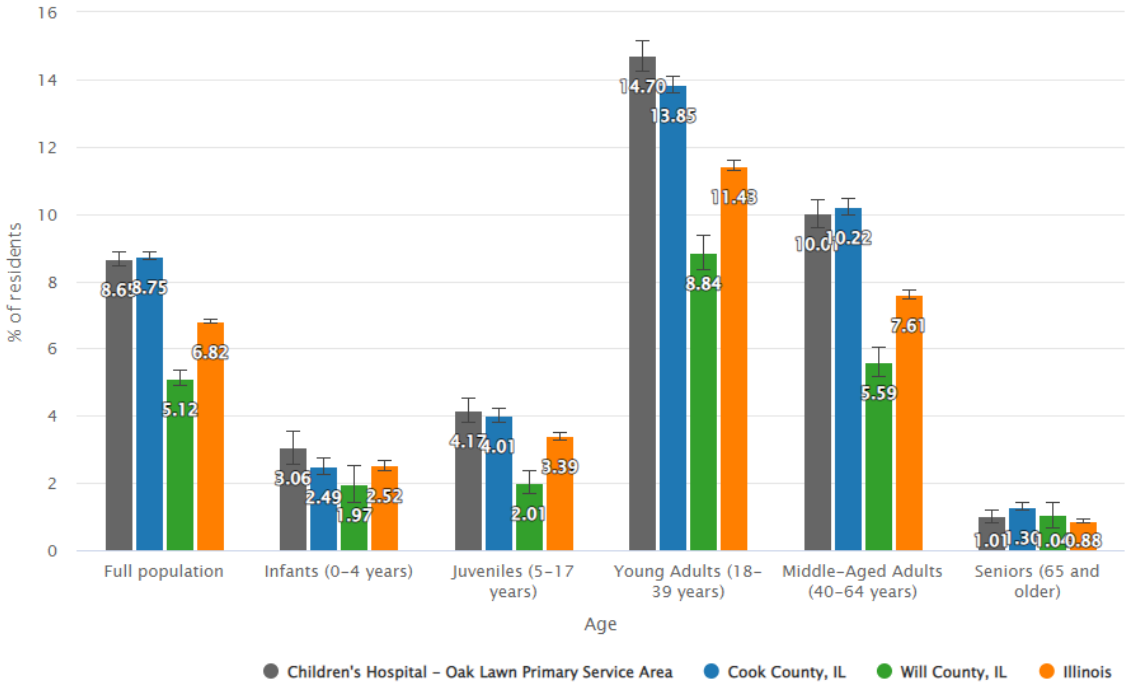
2. Access to Care and Health Care Coverage

Why is this important?
Unfortunately, basic health care in the U.S. is still beyond the reach of many families and is typically attributed to the lack of health insurance and access to providers. Access to both Medicaid and the Children's Health Insurance Program (CHIP) have significant benefits for children and their families alike. Research shows that in addition to receiving essential health services, children in low-income families with access to Medicaid experience long-term benefits, including better health status, greater academic achievement, and increased future earnings.

Health Care Coverage

In Advocate Children's Hospital-Oak Lawn PSA, children (0-17 years) account for 7.23 percent of the uninsured population. Cook County has 6.50 percent, Will County has 3.98 percent, and the State of Illinois has 5.91 percent. Despite state and federal options for free or low-cost children's health insurance, over 5 percent of children in Illinois are still without health insurance. When children are uninsured, they are more likely to have unmet health needs and lack a usual source of care, which can diminish their chances to grow into healthy adults.

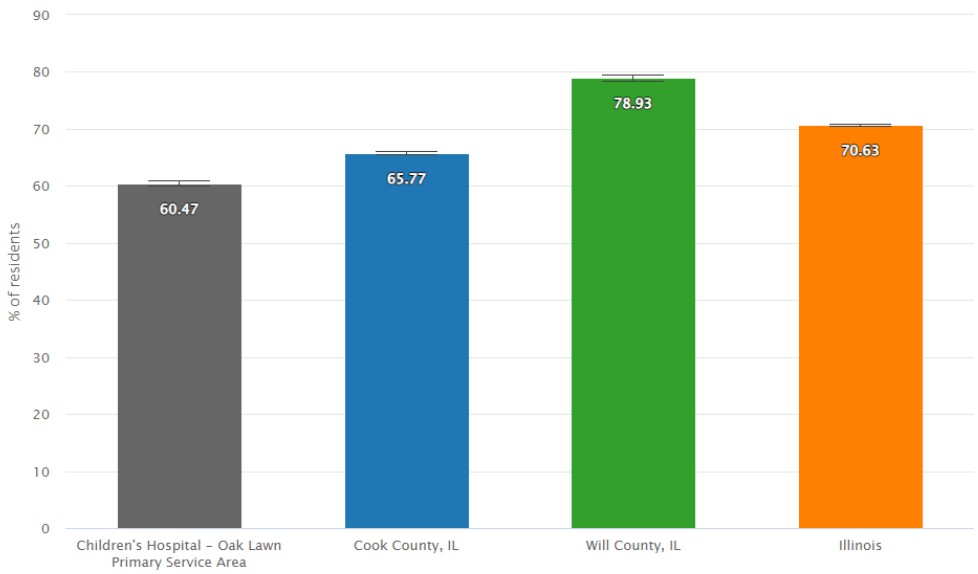
Exhibit 21: Advocate Children's Hospital-Oak Lawn Uninsured Rate by Age 2016-2020



Source: Metopio, U.S. Census Bureau, 2022

Persons with Private Health Insurance Only
In Advocate Children's Hospital- Oak Lawn PSA, 60.47 percent of residents are covered by private health insurance, such as employer-provided health insurance, direct-purchase (ACA exchanges), or Tricare. This is lower than Cook County, where 65.77 percent of residents are covered by private health insurance. Will County has 78.93 percent of residents covered by private insurance, and the state of Illinois has 70.63 percent.

Exhibit 22: Advocate Children's Hospital-Oak Lawn PSA Private Health Insurance 2016-2020

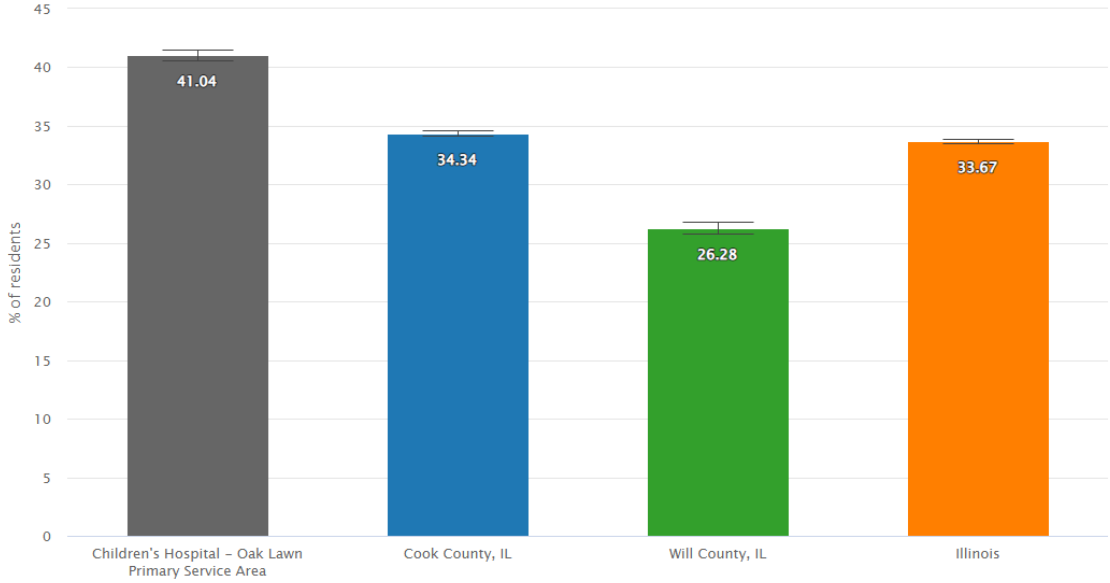


Source: Metopio, U.S. Census Bureau, 2022

Public Health Insurance Only

In the PSA, 41.04 percent of residents are covered by public health insurance, such as Medicare, Medicaid, VA Health Care, or other means-tested public health insurance. This percentage is higher than Cook County, with 34.34 percent, Will County with 26.28 percent, and the state of Illinois with 33.67 percent. While these numbers include both children and adults, this data illustrates the scope of families in our service area whose economic status qualifies them for public assistance, which can limit their access to quality health care and impact health outcomes.

Exhibit 23: Advocate Children's Hospital-Oak Lawn PSA Residents with Public Health Insurance 2016-2020



Source: Metopio, U.S. Census Bureau, 2022

The insurance/payors for Advocate Children's Hospital patients are comprised of Medicaid, Private Insurance, and Self-Pay. Medicaid is the majority payor within the hospital at 60 percent of all patient insurance while private insurance is at 38 percent. Only two percent of patients use self-pay/other means for payment.

Exhibit 24: Advocate Children's Hospital Oak Lawn-PSA Payer Makeup 2021

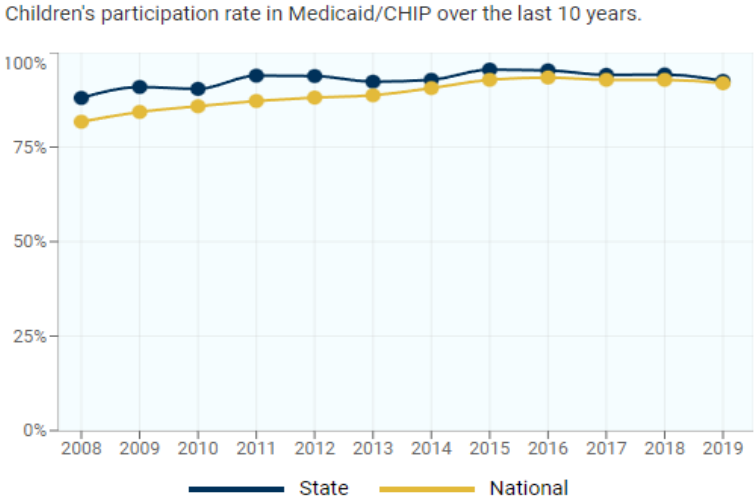
Patient Insurance Coverage	
Medicaid	60%
Private Insurance	38%
Self-pay/other	2%

Source: Advocate Aurora Business Development Analytics, 2022

Participation in Medicaid/CHIP

The Children's Health Insurance Program (CHIP) is administered by the United States Department of Health and Human Services and is an insurance program that provides low-cost health coverage to children in families. In Illinois, many children who are eligible for Medicaid/CHIP may not actually be enrolled, this can be due to lack of public outreach or administrative barriers. 92.5 percent of all eligible children participate in Medicaid/CHIP. The child participation rate shows the percentage of eligible children who are enrolled in Medicaid/CHIP, (Georgetown University, 2020).

Exhibit 25: Illinois Children Participation in Medicaid/CHIP 2019

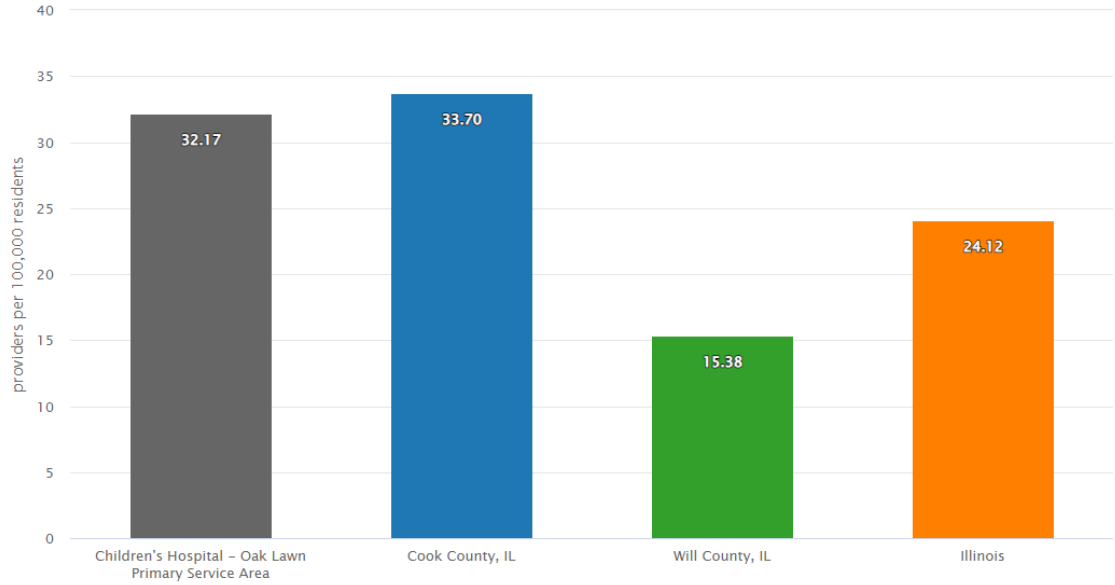


Source: Georgetown University Health Policy Institute, 2022

Children's Oral Health

Per the CDC, cavities are one of the most common, chronic diseases of childhood in the U.S with substantial prevalence in the low-income population. Minority and low-income children disproportionately experience decay in their primary teeth and often seek care on an episodic and emergency not routine basis. Untreated cavities can cause pain and infections that may lead to problems with eating, speaking, playing and learning. The Illinois Department of Public Health notes that dental caries are a periodontal disease, which are bacterially mediated processes that infect mainly children, (IDPH Healthy Smiles, 2019). Dental caries are preventable and treatable with correct interventions, however, in Illinois there is a wide disparity in the dental caries of Non-Hispanic Black and Non-Hispanic Asian Children, noting that Non-Hispanic Asian children account for 28.8 percent of untreated dental caries, followed by Non-Hispanic Black children account for 26.7 percent, (IDPH Health Smiles, 2019). Dentists that are enrolled in Medicaid in Advocate Children's Hospital-Oak Lawn PSA are represented per 100,000 residents. In the PSA there is 32.17 Medicaid Dentists per 100,000 residents, where Cook County experiences the highest number with 33.70. Followed by Will County with 15.38, and the State of Illinois with 24.12 Medicaid dentists per 100,000 residents.

Exhibit 26: Advocate Children's Hospital Oak Lawn-PSA Medicaid Dentists per Capita 2021



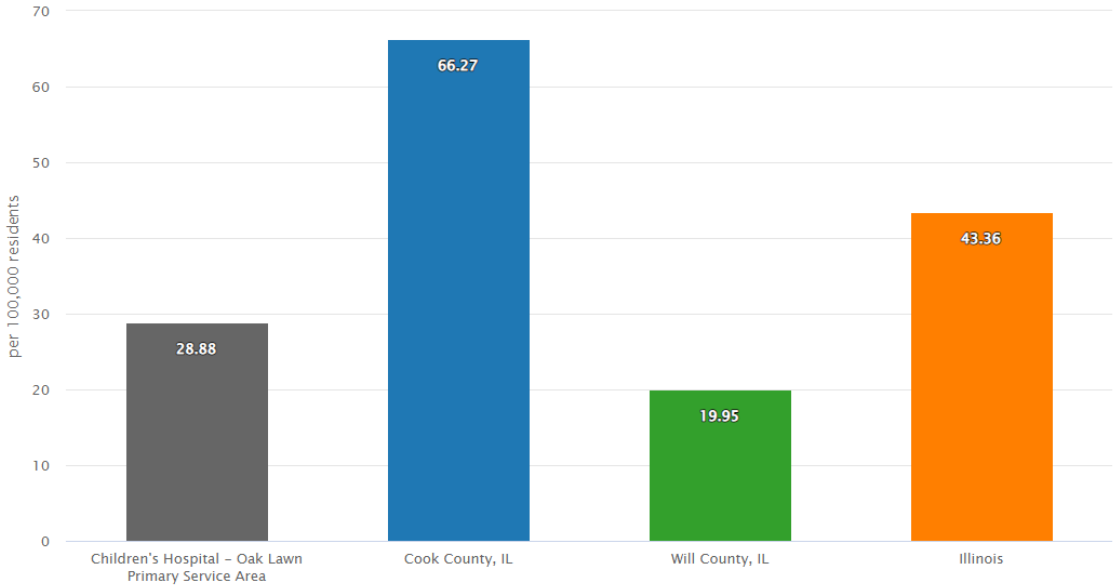
Source: Metopio, Illinois Department of Healthcare and Family Services, 2022

Primary Care Provider Rate (Pediatrician Providers)

A pediatrician focuses on the physical, emotional and social health of children from birth until adulthood. Regular visits to the pediatrician can help maintain health and prevent acute and chronic diseases and symptoms. Access to care is measured by proximity to a provider and the number of providers available. In the primary service area, there are 28.88 pediatricians per 100,000 residents. This is drastically low compared to Cook County, with 66.27 pediatricians per 100,000 residents.

Cook County has the highest number of pediatricians per capita compared to the other highly populated counties that Advocate Children's Hospital serves, with Cook County at 66.27 pediatricians, and the State of Illinois at 43.36 pediatricians per 100,000 residents. Will County, despite their relatively high household income, has the lowest number.

Exhibit 27: Advocate Children's Hospital-Oak Lawn PSA Pediatric Physicians per Capita 2022



Source: Metopio, Centers for Medicare and Medicaid Services, 2022

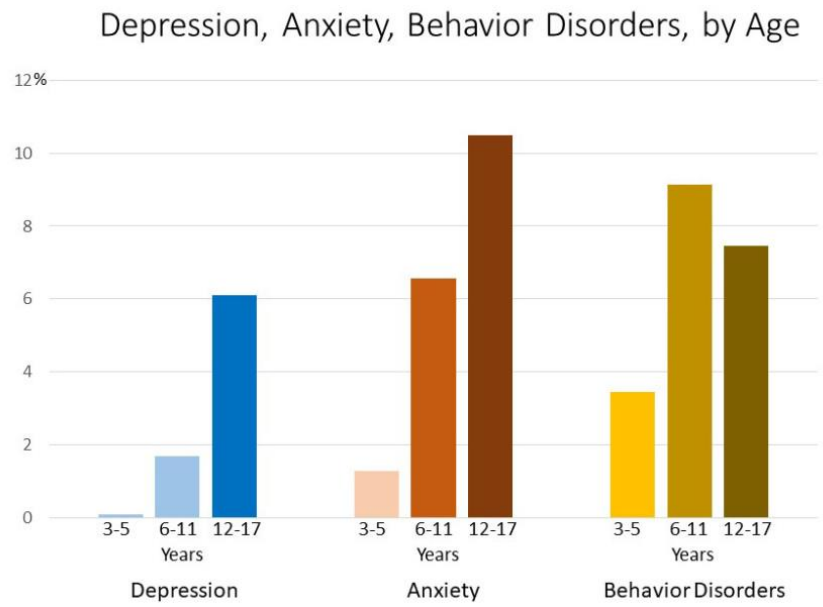
Mental Health Provider Rate

Mental Health plays a vital role in the health and well-being of children and their development. It's how children think, feel and act and determines how they handle stressful situations and their relationships with others. Data shows the top four mental health disorders diagnosed in children are ADHD, Anxiety, Behavior Problems and Depression (CDC, 2022). In the United States, 1 in 6 children aged 2-8 years have been diagnosed with a mental, behavioral, or developmental disorder (CDC, 2022).

Two of the most commonly known mental health providers are psychiatrists and psychologists. A psychiatrist specializes in the prevention, diagnosis and treatment of mental disorders, emotional disorders, mood disorders, and others. They are able to prescribe medications as treatment.

County level data from the CDC shows that in Cook County there are 6.2 psychiatrists per 10,000 children, while Will County has 1.6 psychiatrists per 10,000 children. Psychologists focus on treating emotional and mental distress with patients and provide behavioral intervention. According to the CDC, in Cook County there are 21.4 psychologists per 10,000 children, while Will County has 5.5 psychologists per 10,000 children.

Exhibit 28: CDC National Depression, Anxiety and Behavior Disorder Prevalence 2019



Source: Centers for Disease Control and Prevention, 2022

Advocate Children's Hospital Inpatient Discharges

The top two inpatient diagnoses from Advocate Children's Hospital-Oak Lawn are respiratory issues and depressive disorders which support both CHNA prioritized health issues – Access to care and behavioral health.

Exhibit 29: Advocate Children's Hospital- Oak Lawn PSA Top 20 Inpatient Diagnoses 2021

Diagnosis	Sum of Cases
Acute bronchiolitis due to respiratory syncytial virus	182
Acute bronchiolitis unspecified	127
COVID-19	92
Acute bronchiolitis due to other specified organisms	82

Encounter for antineoplastic chemotherapy	81
Viral intestinal infection unspecified	65
Type 1 diabetes mellitus with ketoacidosis without coma	62
Unspecified convulsions	59
Sepsis unspecified organism	56
Acute respiratory failure with hypoxia	52
Dehydration	47
Moderate persistent asthma with status asthmaticus	45
Mild persistent asthma with status asthmaticus	44
Unspecified acute appendicitis	40
Acute upper respiratory infection unspecified	39

Source: Advocate Aurora Business Development Analytics, 2022

3. Health Risk Behaviors

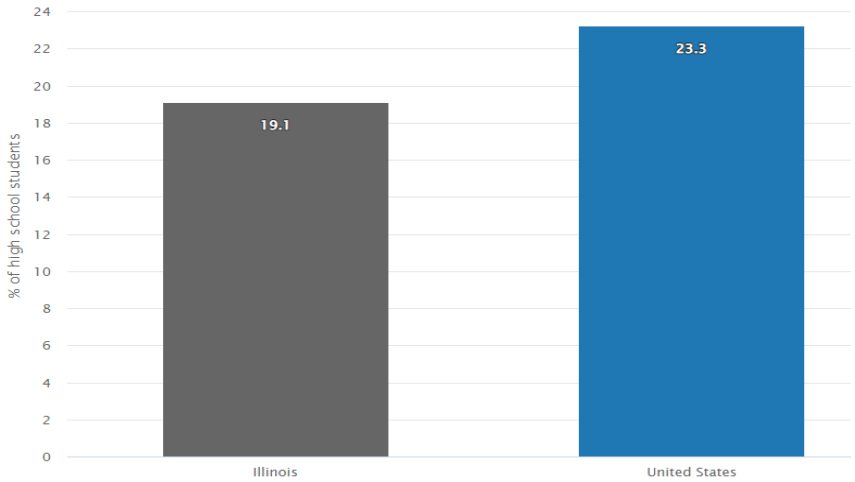
Why is this important?
Identifying health risk behaviors in children can help prevent serious health outcomes. Health risk behaviors are behaviors that increase a child's risk of disease and injury. Such behaviors include substance use, alcohol use, unhealthy eating patterns, physical activity and inactivity, and weight status, among others. Creating interventions for these health risk behaviors prevents children from adverse health problems in their future.

Substance use and abuse

Tobacco Use
Young people who use multiple tobacco products are at a higher risk to develop nicotine dependence and are more likely to continue using tobacco products throughout adulthood which is linked to various health issues including cancer, heart disease, stroke, lung disease and chronic obstructive pulmonary disease (COPD). According to the CDC, national data shows that roughly 1 out of every 100 students in middle school and 4 out of every 100 students in high school have used two or more tobacco products in the past 30 days (CDC, 2021). The number is even higher for those who may not use tobacco frequently but have still tried two or more tobacco products: roughly 4 out of every 100 middle school students and 15 out of every 100 high school students have tried two or more products (CDC, 2022).

Teens who smoke
State level data for cigarette smoking is reported in the Youth Risk Behavior Surveillance System (YRBSS). The YRBSS is a premier system of health-related telephone surveys completed by the CDC which reports on six types of health-risk behaviors, all of which contribute to a leading cause of death among youth. These include behaviors that contribute to unintentional injury, sexual behavior, alcohol and drug use, tobacco use, unhealthy diet behaviors and physical activity (CDC, 2019). For the State of Illinois, data for cigarette smoking among high school students includes the percent of high school students who have reported ever trying cigarette smoking even if it was one or two puffs. The state of Illinois comes in at 19.1% of high school students reporting this type of behavior. This percentage is lower compared to the nation, with 23.3 percent of students in the United States reporting smoking a cigarette for even just one or two puffs.

Exhibit 30: Illinois Cigarette Smoking Among High School Students 2019



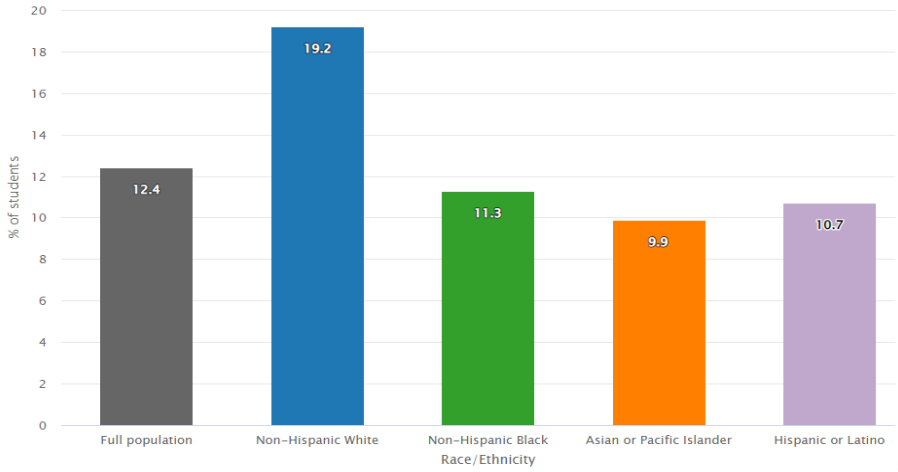
Source: Metopio, Youth Risk Behavior Surveillance System (YRBSS), 2022

The increase in popularity of e-cigarette use in youth and teens brings increasing health issues. Most e-cigarettes contain nicotine, a dangerous and highly addictive stimulant. It causes an increase in blood pressure, heart rate and can lead to the narrowing of arteries and hardening of the arterial walls.

This increases an individual's risk of heart attack. E-cigarettes are typically electronic devices that produce an aerosol by heating a liquid that contains the nicotine, and users will inhale the aerosol produced into their lungs. The rate of teens using e-cigarettes is on an upward trend, as obtaining e-cigarettes has become easier and they are easily concealable. They often do not leave behind a strong odor, as traditional cigarettes do, which leads many users to smoke more often indoors. The Chicago Department of Public Health has partnered with The University of Illinois Chicago School of Public Health's Population Health Analytics, Metrics and Evaluation Center (PHAME) to create the Chicago Health Atlas, a public database that reviews and compares health-related data for Chicago.

This database reports that e-cigarette use by Chicago youth has doubled since 2017 when the rate was 6.6 percent to 12.4 percent in 2019. The following exhibit breaks down this percentage by race and ethnicity. Noting the leading demographic to be that of Non-Hispanic Whites, with 19.2 percent of students who have reported using an electronic vapor product at least once during the past 30 days. This is followed by Non-Hispanic Black students, with 11.3 percent reporting using an e-cigarette.

Exhibit 31: Chicago Youth E-Cigarette Use Rate by Race/Ethnicity 2019



Source: Chicago Health Atlas, Centers for Disease Control and Prevention, 2022

The Illinois Youth Survey (2022) provides county-level data on drug and alcohol use by 8th, 10th and 12th graders at public and private schools in Cook and Will County.

2022 Substance Use Rates by Grade – Cook-Non Chicago

Substance Used	8th Grade	10th Grade	12th Grade
Used Past Year			
Alcohol	19%	34%	48%
Cigarettes	1%	2%	4%
E-cigarettes or other vaping products	6%	13%	20%
Marijuana	4%	13%	25%
Prescription drugs not prescribed to you	3%	32%	2%
# of Respondents	8384	8455	6506

Source: Illinois Youth Survey 2022 County Report: Cook-Non Chicago

2022 Substance Use Rates by Grade- Will County

Substance Used	8th Grade	10th Grade	12th Grade
Used Past Year			
Alcohol	21%	32%	46%
Cigarettes	1%	1%	3%
E-Cigarettes or other vaping products	8%	13%	22%
Marijuana	5%	12%	2%
Prescription drugs not prescribed to you	4%	2%	3%
# of Respondents	2663	1676	334

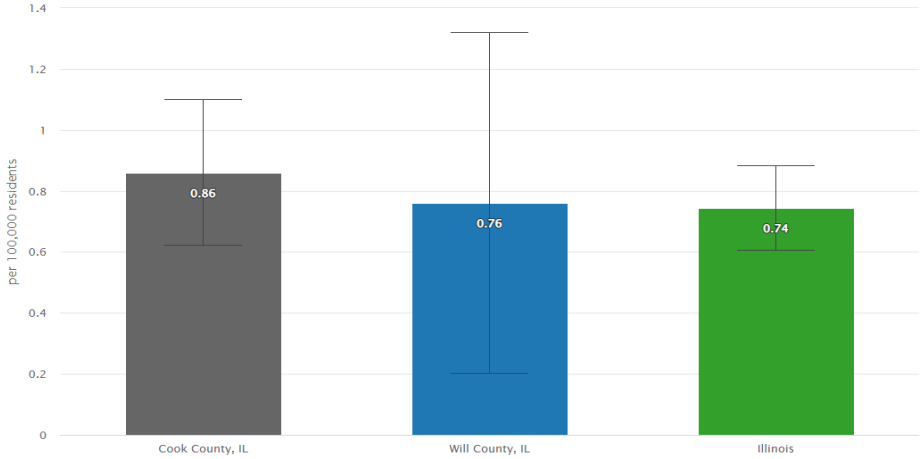
Source: Illinois Youth Survey 2022 County Report: Will County

Alcohol Use

Age-adjusted hospitalization rate due to alcohol abuse

Alcohol Use Hospitalization Rate is the annual hospital admissions for alcohol use per 100,000 residents. The data has been stratified to show juveniles only (5-17 years), as infant (0-4 years) data was not statistically significant. The data presented is at the county level, with the highest prevalence in Cook County, showing 0.86 hospital admissions for alcohol use per 100,000 residents annually. Will County follows behind with 0.76 per 100,000 residents, and the State of Illinois with 0.74 per 100,000 residents.

Exhibit 32: County Level Data for Alcohol Use Hospitalization Rate in Juveniles 5-17 years 2017-2021

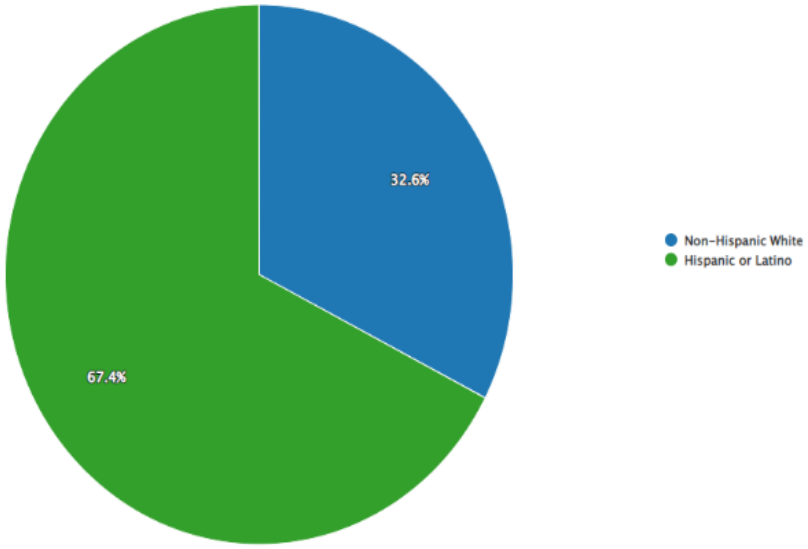


Source: Metopio, IHA COMPdata Informatics, 2022

Teens who use alcohol

Binge drinking is defined as having 4 or more drinks of alcohol in a row for females, or 5 or more drinks of alcohol in a row for males on one or more of the past 30 days. (Chicago Health Atlas, 2022) The data has been stratified by race/ethnicity, with 67.4 percent of students who reported binge drinking to be Hispanic or Latino. Non-Hispanic whites make up 32.6 percent of students. Students who binge drink are putting themselves at risk of alcohol poisoning, and an increased risk of being involved in an accident and being involved in physical, verbal or sexual violence.

Exhibit 33: Chicago Youth Binge Drinking by Race/Ethnicity 2019



Source: Chicago Health Atlas, 2022

The Illinois Youth Survey (2020) provides county-level data on drug and alcohol use by 8th, 10th and 12th graders at public and private schools in Cook and Will County.

2022 Substance Use Rates by Grade- Cook Non-Chicago

Substance Used	8th Grade	10th Grade	12th Grade
Used Past 2 Weeks			
Binge Drinking	2%	5%	14%
# of Respondents	8384	8455	6506

Source: Illinois Youth Survey 2020 County Report: Cook-Non Chicago, 2022

2022 Substance Use Rates by Grade- Will County

Substance Used	8th Grade	10th Grade	12th Grade
Used Past 2 Weeks			
Binge Drinking	2%	6%	14%
# of Respondents	2663	1676	334

Source: Illinois Youth Survey 2020 County Report: Will County, 2022

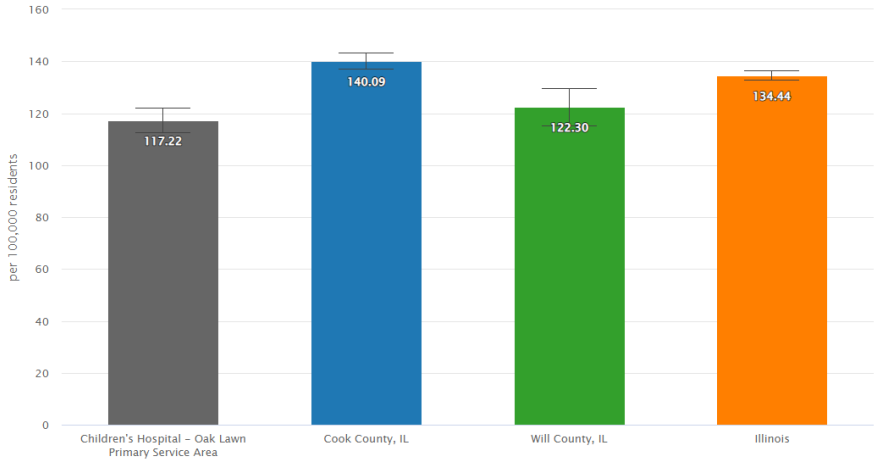
Age-adjusted ER rate due to substance abuse

Substance use in teens can lead to health issues and impact their overall well-being. Substance use has been shown to affect the development and growth of teens, including brain development, and contribute to adult health problems including heart disease, high blood pressure and sleep disorders, (CDC, 2022).

The substance use emergency department visit rate, observed in juveniles (5-17 years) is reported as the annual emergency department visits for substance use per 100,000 residents. In this case, substance use is defined as the use of controlled substances including alcohol, heroin, methadone, cocaine, hallucinogens, and other substances. Data for the infant population (0-4 years) was not statistically significant.

Advocate Children's Hospital- Oak Lawn PSA experienced 117.22 visits per 100,000 residents annually. This number is lower compared to Cook County, which reported 140.09 visits per 100,000 residents, while Will County reported 122.30 visits per 100,000 residents, and the State of Illinois reported 134.44 visits per 100,000 residents.

Exhibit 34: Advocate Children's Hospital- Oak Lawn PSA Substance Use ED Visit Rate for Juveniles 2017-2021

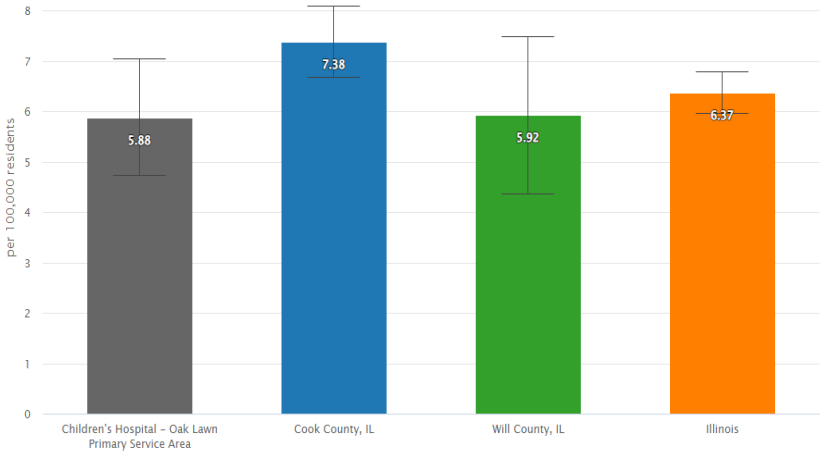


Source: Metopio, IHA COMPdata Informatics, 2022

Age-adjusted hospitalization rate due to substance abuse

The substance use hospitalization rate for juveniles (5-17years) is reported as the annual hospital admissions for substance use per 100,000 residents. In this data we will see again that the use of controlled substances including alcohol, heroin, methadone, cocaine, hallucinogens and other substances is what is included. Advocate Children's Hospital-Oak Lawn PSA has a rate of 5.88 hospitalizations per 100,000 residents. Cook County was higher, with 7.38 hospitalizations per 100,000 residents, while Will County has 5.92 hospitalizations per 100,000 residents. The State of Illinois reported 6.37 hospitalizations per 100,000 residents. The data for the infant population (0-4 years) was not statistically significant.

Exhibit 35: Advocate Children's Hospital-Oak Lawn PSA Substance Use Hospitalization for Juveniles (5-17 years) 2017-2021

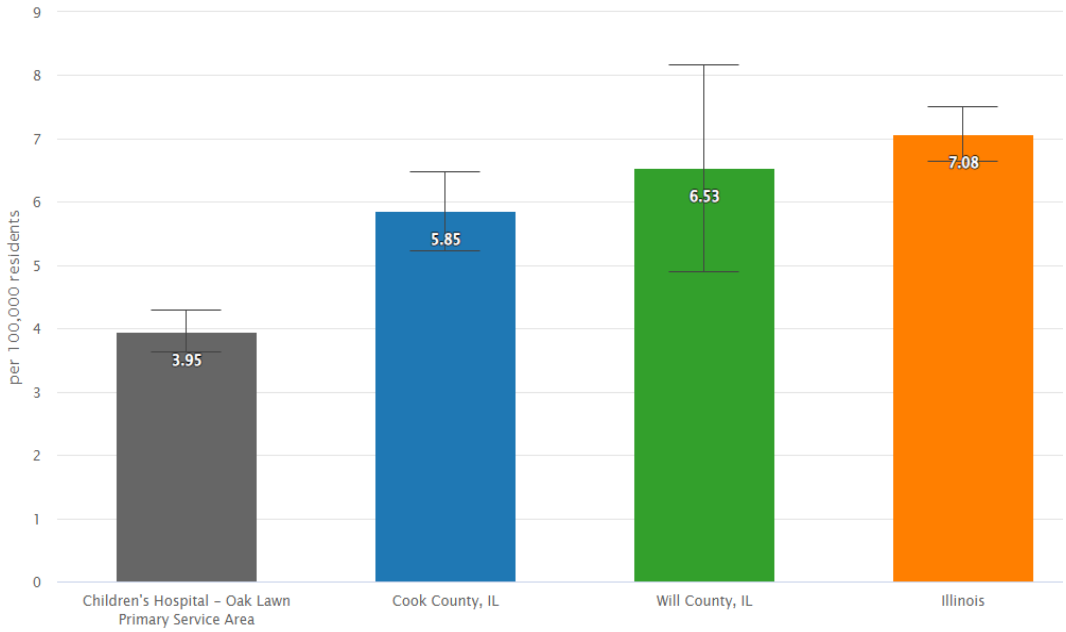


Source: Metopio, IHA COMPdata Informatics, 2022

Age-adjusted emergency department rate for opioid use

The opioid epidemic has shown a significant increase in the misuse of opioid prescriptions. In 2017 the opioid crisis was declared a public health emergency due to overdose deaths and an increase of newborns with withdrawal syndrome due to mothers using opioids while pregnant. The opioid epidemic has reached all age levels, and below we see the opioid-related emergency department visit rate for Advocate Children's Hospital-Oak Lawn. The data represents annual emergency department visits for opioids per 100,000 residents, and has been stratified to show the juvenile population, aged 5-17 years. The highest rate was State of Illinois with 7.08 visits per 100,000 residents. The ACH-OL PSA reported 3.95 visits per 100,000 residents, while Cook County reported 5.85 visits per 100,000 residents, and Will County reported 6.53 visits per 100,000 residents.

Exhibit 36: Advocate Children's Hospital-Oak Lawn PSA Opioid-Related Emergency Department Visit Rate for Juveniles (5-17years) 2017-2021



Source: Metopio, IHA COMPdata Informatics, 2022

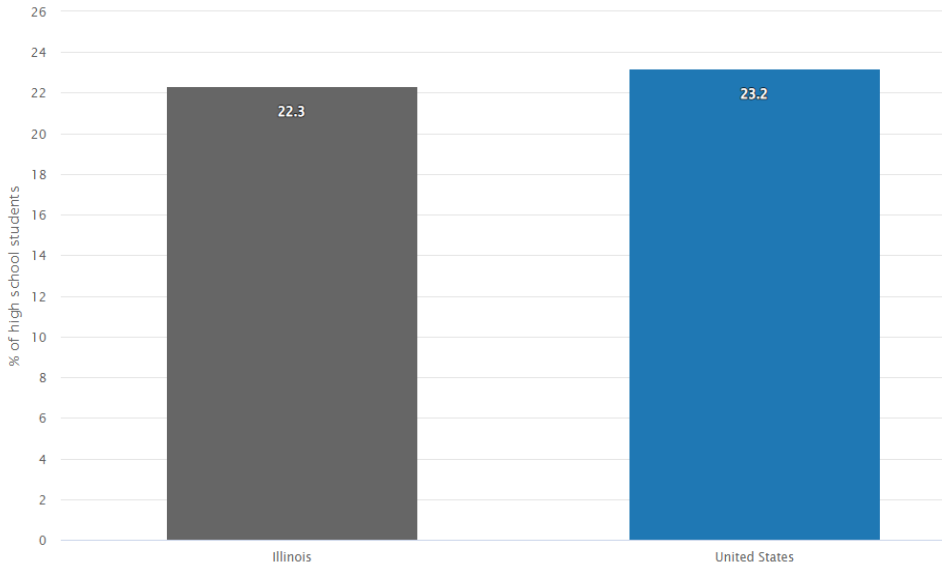
Nutrition

Fruit and vegetable consumption

Eating fruits and vegetables has shown to lower blood pressure, reduce the risk of heart disease and stroke, lower eye and digestive problems, keep blood sugar stable and prevent some types of cancers and strengthen a child's immune system. It is important for children to eat fruits and vegetables, so they receive necessary vitamins and minerals through diet, and to promote healthy eating habits. State level data provides us the percent of high school students who have had at least 4 servings of fruits or vegetables per day during the last 7 days.

There is a downward trend, showing that children are eating less fruit and vegetables today than they were back in 2015. In 2019, data shows the 22.3 percent of Illinois High School students had consumed vegetables and fruit during the past week. This number is slightly lower than the national number, with 23.2 percent of high school students consuming their fruits and vegetables in the past week.

Exhibit 37: State of Illinois Fruit and Vegetable Consumption Among High School Students 2019



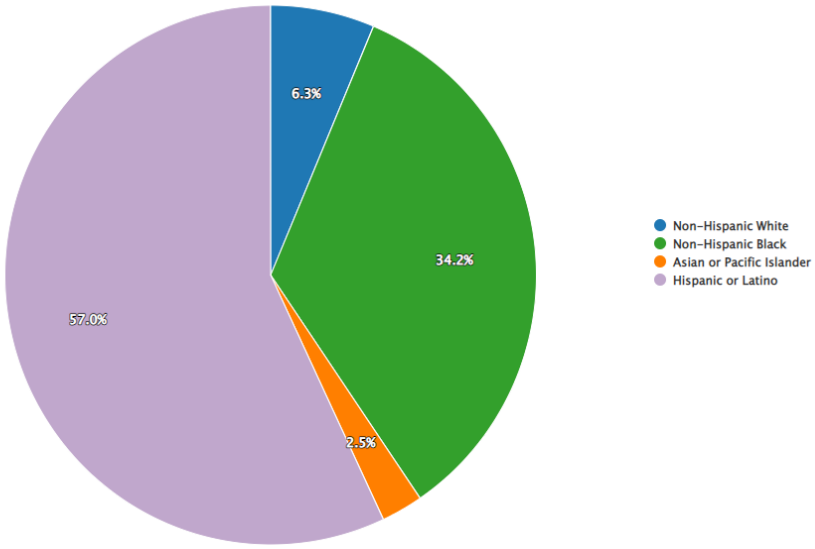
Source: Metopio, Youth Risk Behavior Surveillance System, 2022

Youth Soda Consumption

When children drink a substantial amount of sugary drinks, like soda, they are more likely to experience tooth decay, weight gain and an increased risk of diabetes. Drinking soft drinks may make children feel full and thus affects their appetite as well. Youth soda consumption has been observed by the city of Chicago and shows the number of students who report consuming one or more servings of soda or pop daily for the past 7 days.

The data has been broken down by race/ethnicity. The largest group of soda drinkers is Hispanic or Latino children, with 57.0 percent reporting they had a soda in the past week. This is followed by Non-Hispanic Black children, making up 34.2 percent. 6.3 percent of Non-Hispanic White children reported drinking soda in the past week, and 2.5 percent of Asian or Pacific Islander children.

Exhibit 38: Chicago Youth Soda Consumption by Race/Ethnicity 2019

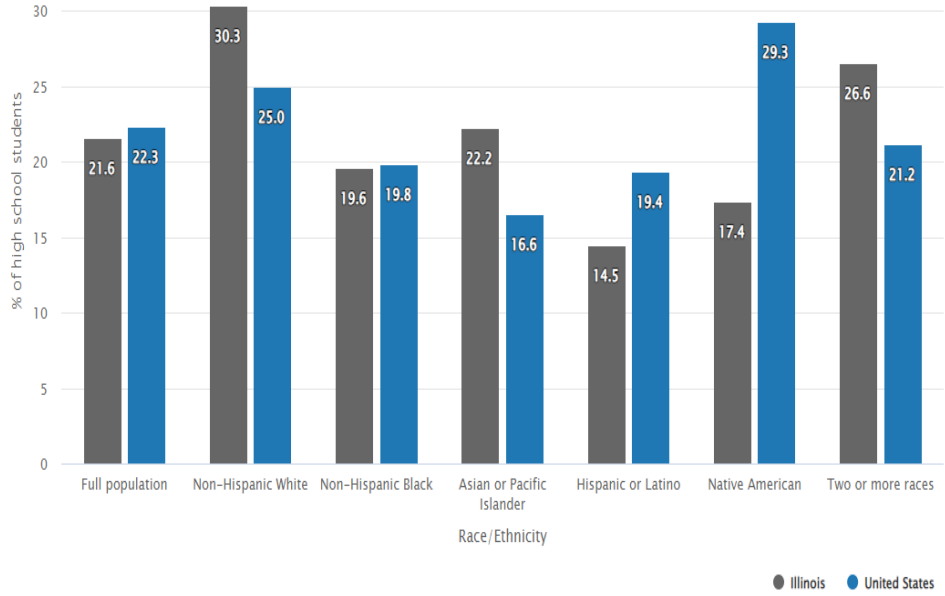


Source: Chicago Health Atlas, Centers for Disease Control and Prevention, 2022

Physical Activity and Inactivity

Physical activity in children is vital to their health and development, regular physical activity improves cardiovascular strength and wellness, is shown to improve bone health and muscles, control weight and reduces symptoms of anxiety and depression. In young children, physical activity promotes the development of their motor, cognitive and social skills. The physical activity among high school students in the State of Illinois shows the percent of high school students who report that in the past 7 days they were physically active at least 60 minutes per day on all 7 days. In the State of Illinois, the highest reporting group of students was Non-Hispanic White students, making up 30.3 percent of high school students being physically active. This is followed by students of two or more races at 26.6 percent, Asian or Pacific Islander at 22.2 percent, and Non-Hispanic Black students at 19.6 percent. Hispanic or Latino and Native American students reporting the lower percentages, at 14.5 percent and 17.4 percent respectively.

Exhibit 39: Physical Activity Among High School Students by Race/Ethnicity 2019



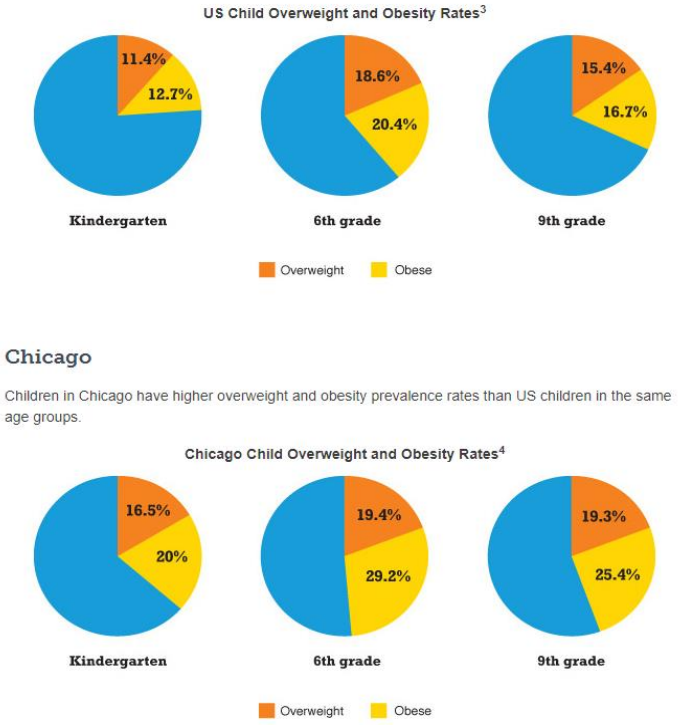
Source: Metopio, Youth Risk Behavior Surveillance System, 2022

Weight Status

The weight of children has become an increasing concern as we see obesity on the rise. Overweight and obese children face increased risk of developing diabetes, high blood pressure, and high cholesterol. These are all physical side effects of a sedentary lifestyle in children, but these children also face the increased risk of poor self-esteem and depression and are more likely to deal with bullying. Recent data from the Consortium to Lower Obesity in Chicago Children (CLOCC) shows that Chicago school-aged children have higher overweight and obesity prevalence rates than United States Children.

In Chicago, there is a 20 percent obesity rate in Kindergarteners and a 16.5 percent overweight rate. These numbers are significantly higher compared to the US rates, showing 11.4 percent of Kindergarteners overweight and 12.7 percent obese. The prevalence rates only increase as the children get older. It is reported that in the US, there are 16.7 percent obese 9th graders, and 15.4 percent are overweight, compared to Chicago 9th graders at 25.4 percent obese and 19.3 percent overweight.

Exhibit 40: US and Chicago Children Overweight and Obesity Rates, 2015

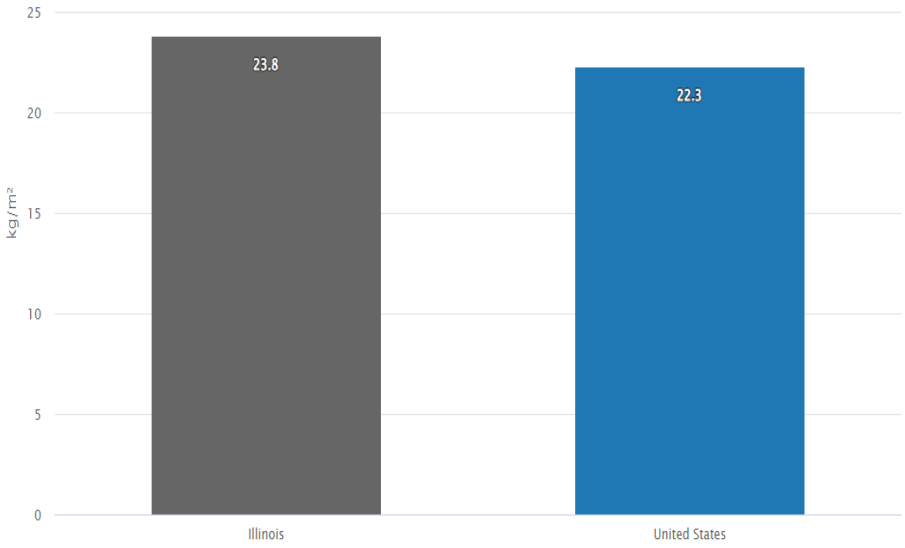


Source: CLOCC, 2022

Body Mass Index for 8th, 10th and 12th graders

Body Mass Index (BMI) is an indicator used to show the level of body fat in a person's body. It is calculated by taking a person's weight and dividing by the square of height. BMI is often used to show any potential health risks a person might face, based on their ranking. There are 5 BMI classifications: normal, overweight, obese, severely obese, and morbidly obese categories. The data below represents the average BMI of high school students in the State of Illinois, compared to students in the United States as a whole. This shows that the average BMI in the State of Illinois is 23.8, while the average in the US is 22.3. While a slight improvement, this does represent a downward trend since the 2017 average BMI in Illinois was 24.1.

Exhibit 41: BMI of Illinois High School Students 2019



Source: Metopio, Youth Risk Behavior Surveillance System, 2022

The Illinois Youth Survey (2020) provides county-level data on Mental, Social and Physical Health of 8th, 10th and 12th graders at public and private schools in Cook and Will County.

Exhibit 42: Illinois Youth Surveys for Cook and Will County
2022 Illinois Youth Survey BMI Rates by County – Will County

BMI (Body Mass Index) Categories based on CDC guidelines:

	8th		10th		12th	
	%	N	%	N	%	N
Underweight	2%	36	1%	17	2%	6
Healthy weight	68%	1242	74%	930	69%	182
Overweight	17%	301	13%	163	16%	42
Obese	13%	242	11%	144	12%	32
Total	100%	1821	100%	1254	100%	262

Body Mass Index categories as calculated by self-reported height and weight

2022 Illinois Youth Survey BMI Rates by County – Cook County

BMI (Body Mass Index) Categories based on CDC guidelines:

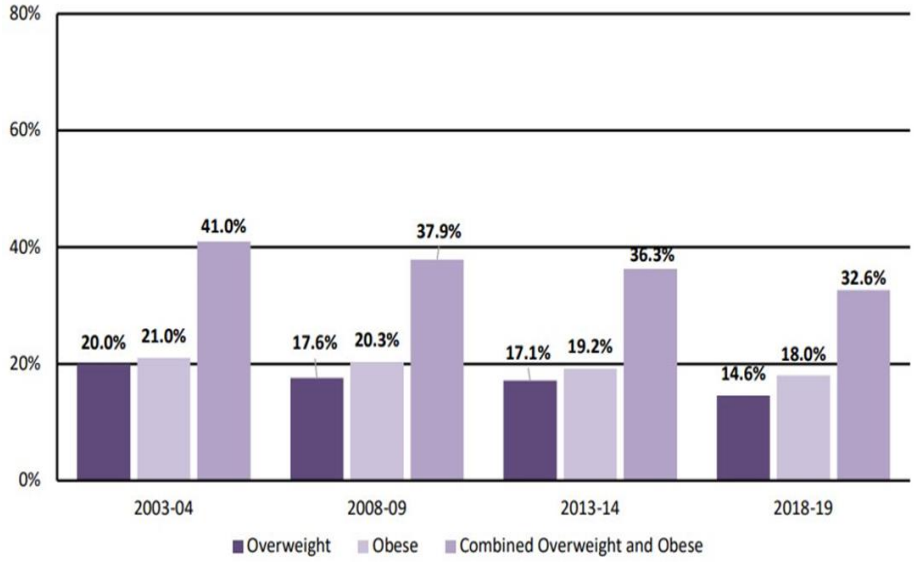
	8th		10th		12th	
	%	N	%	N	%	N
Underweight	3%	166	3%	173	3%	169
Healthy weight	72%	4183	76%	4918	76%	3853
Overweight	14%	827	13%	825	13%	651
Obese	10%	595	9%	586	8%	425
Total	100%	5771	100%	6502	100%	5098

Body Mass Index categories as calculated by self-reported height and weight

The Illinois Department of Public Health has found that while the percentage of overweight and obese children is on a downward trend, one out of three children still lives with excessive weight. 32.6 percent of surveyed Illinois children were found to be a combination of overweight and obese.

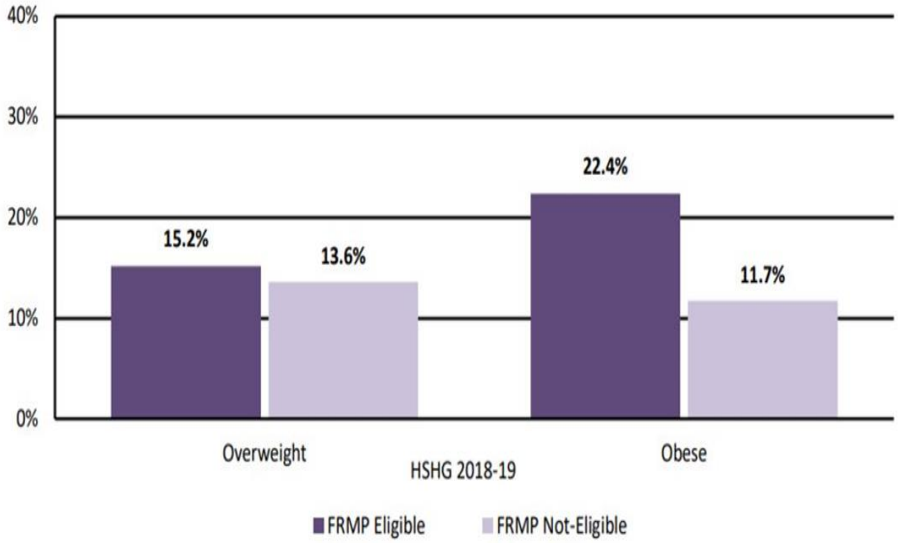
This combination makes up for more than double the children that are either overweight or obese. The prevalence affects children of low income more, showing that children receive the Free and Reduced Meal Program at school have a higher percentage of being overweight and obese.

Exhibit 43: Illinois Children Overweight and Obese 2020



Source: Illinois Department of Public Health, Healthy Smile Healthy Growth Report, 2022

Exhibit 44: Illinois Children Overweight and Obese on Free and Reduced Meal Program 2020



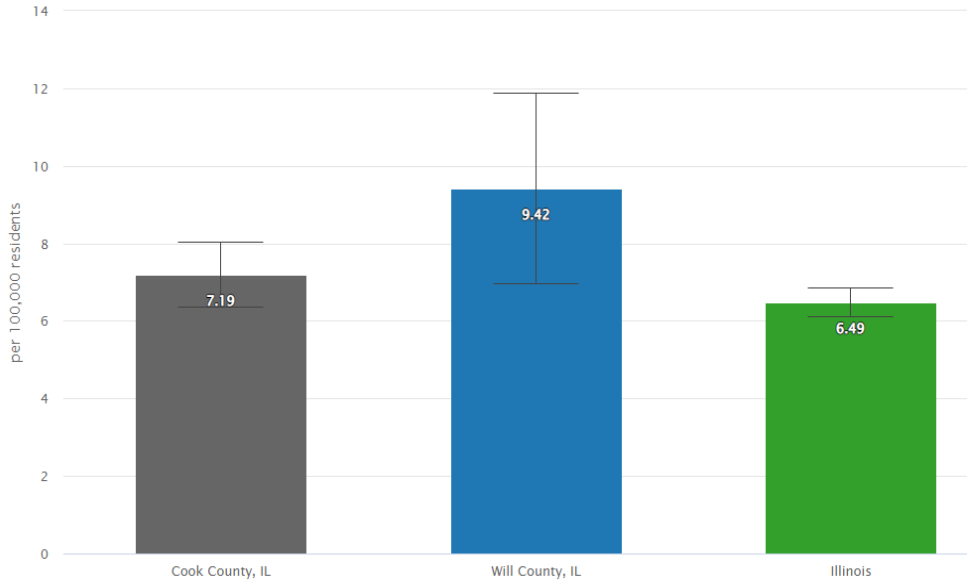
Source: Illinois Department of Public Health, Health Smile Healthy Growth Report, 2022

4. Disease, Chronic Conditions & Hospital Discharge Diagnosis

Cancer

Among children age 0-14, the most common type of cancer diagnosed is Leukemia and Lymphomas. Leukemia is the cancer of the body's blood-forming tissues, mainly the bone marrow. Lymphoma is a cancer that mainly attacks the lymphatic system and lymph nodes. The Leukemia and Lymphoma diagnosis rate in children (0-17 years) reflects the annual diagnosis rate including Hodgkin's and non-Hodgkin's Lymphomas. The county with the highest rate is Will, with 9.42 diagnosis per 100,000 residents annually. This is followed by Cook County at 7.19 per 100,000 residents and the State of Illinois with 6.49 per 100,000 residents.

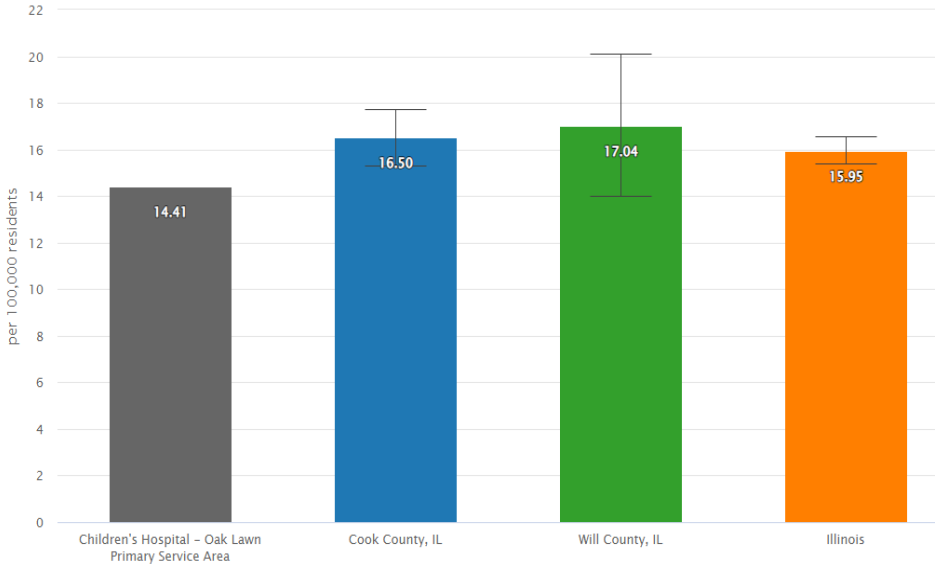
Exhibit 45: Leukemia and Lymphoma Diagnosis Rate for Children (0-17 years) 2013



Source: Metopio, Illinois Department of Public Health, 2022

The cancer diagnosis rate for Advocate Children's Hospital-Oak Lawn PSA includes the annual diagnosis rate for all invasive cancers and does not include pre-cancerous diagnoses such as breast cancer in situ or urinary cancer in situ. The PSA presents the rate of 14.41 diagnoses per 100,000 residents.

Exhibit 46: Advocate Children's Hospital-Oak Lawn PSA Cancer Diagnosis Rate in Children (0-17 years) 2013



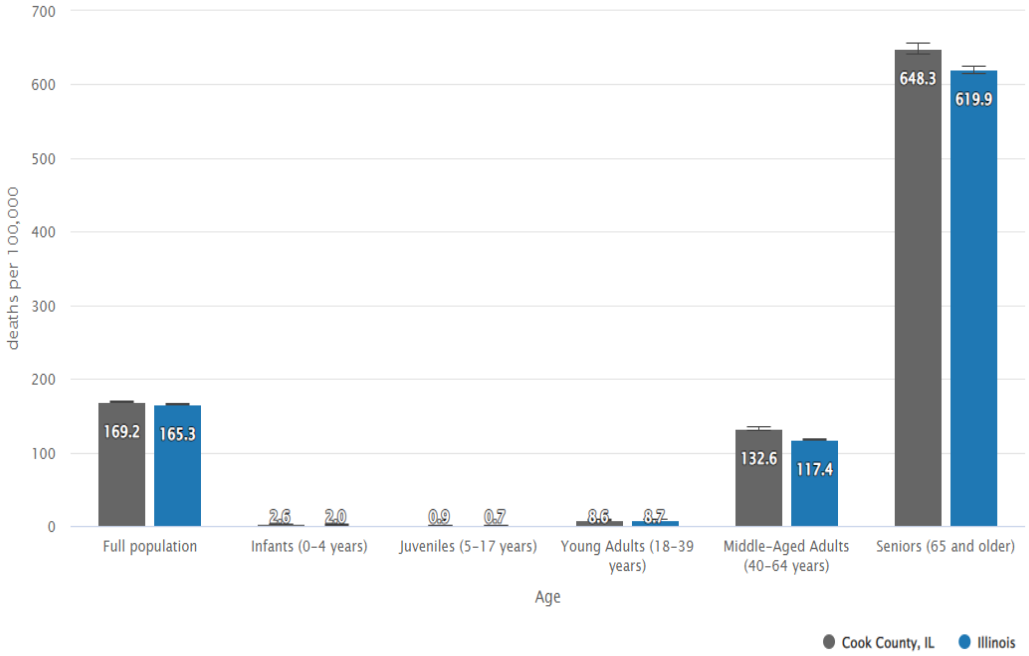
Source: Metopio, Illinois Department of Public Health, 2022

Cardiovascular Disease

Heart disease and problems that present in children are most often congenital. Data presented for heart disease mortality by age represents some of these cases. The data accounts for deaths per 100,000 residents with an underlying cause of heart disease. There was no relevant data for the infant (0-4 years) and juveniles (5-17 years) age groups in Will County. For Cook County, infants aged 0-4 years represented 2.6 deaths per 100,000 residents, and juveniles aged 5-17 years represented 0.9 deaths per 100,000 residents. In both age groups, the numbers are higher in Cook County

compared to the State of Illinois, which reports 2.0 deaths per 100,000 residents for infants and 0.7 deaths per 100,000 residents for juveniles.

Exhibit 47: Cook County Heart Disease Mortality by Age 2016-2020



Source: Metopio, Chicago Department of Public Health, 2022

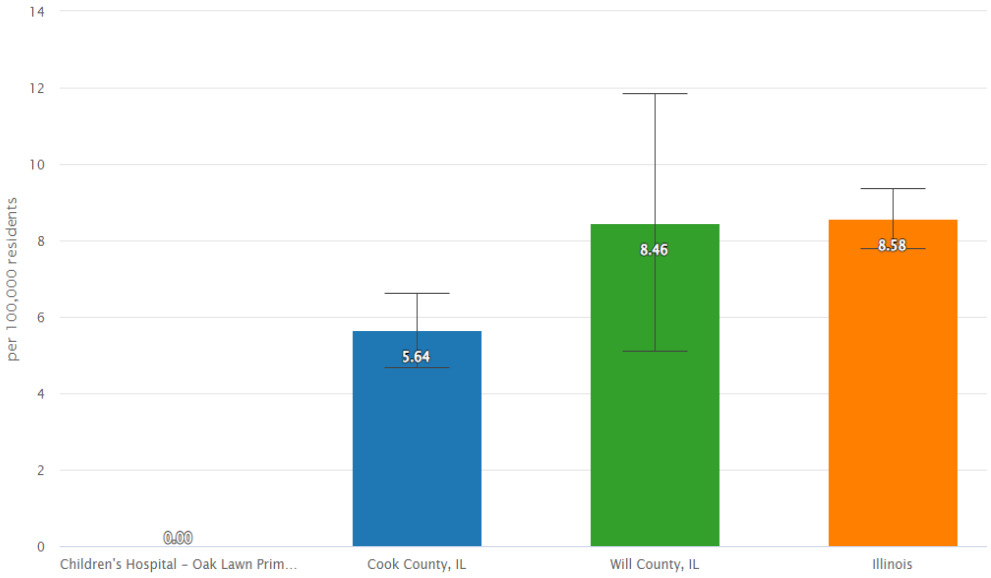
Diabetes

Diabetes is a chronic disease that affects how a person's body turns food into energy and can result in too much sugar in the blood. Type I diabetes is presented in children, teens and young adults and occurs when the pancreas does not make insulin at all or makes very little. Type II diabetes differs as it is mainly lifestyle-related and often occurs over time. The diabetes emergency department visit rate by age shows the annual emergency department visits for diabetes per 100,000 residents and includes types I and II.

For infants, the highest rate observed was for Will County, representing 8.46 annual ED visits per 100,000 residents. Following is the State of Illinois, with 8.58 visits per 100,000 residents, Cook County with 5.64 visits per 100,000 residents. Advocate Children's Hospital PSA did not have significant reportable data for the infant age group. The data is displayed in Exhibit 47.

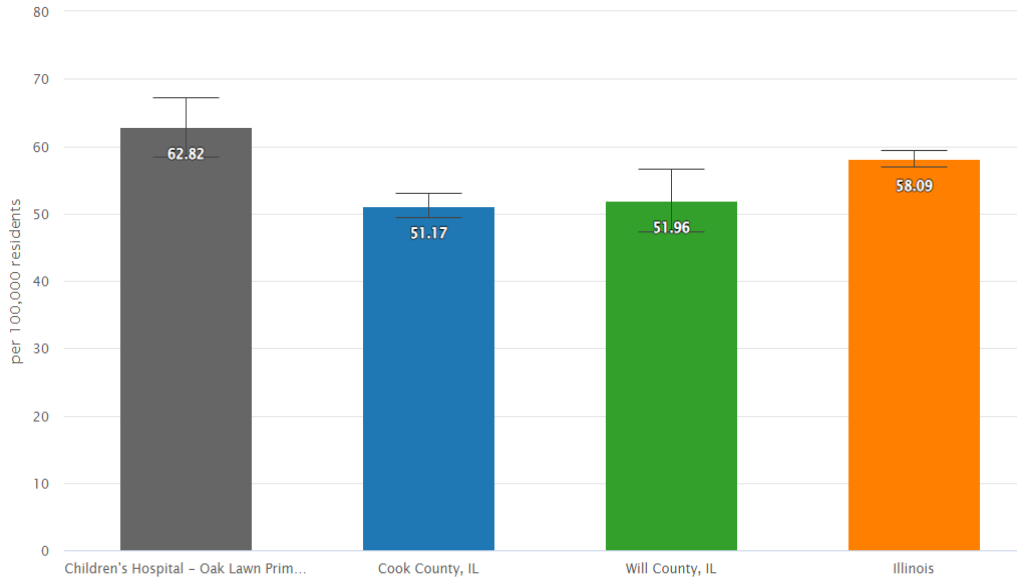
For juveniles (5-17 years) the rates are much higher. Advocate Children's Hospital-Oak Lawn PSA had 62.82 visits per 100,000 residents. Cook County had 51.17 visits per 100,000 residents, Will County had 51.96 visits per 100,000 residents and the State of Illinois had 58.09 visits per 100,000 residents.

Exhibit 48: Advocate Children's Hospital- Oak Lawn PSA Diabetes Emergency Department Visit Rate for Infants (0-4 years) 2017-2021



Source: Metopio, IHA COMPdata Informatics, 2022

Exhibit 49: Advocate Children's Hospital-Oak Lawn PSA Diabetes Emergency Department Visit Rate for Juveniles (5-17 years) 2017-2021

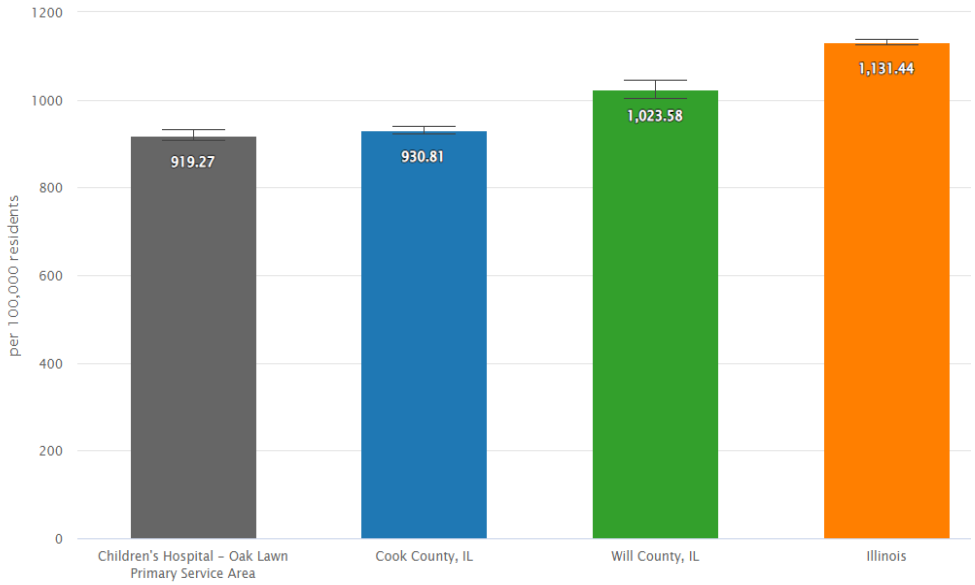


Source: Metopio, IHA COMPdata Informatics, 2022

Mental Health

The mental health emergency department visit rate for juveniles (5-17 years) includes annual ED visits for mental health per 100,000 residents. Mental health includes illnesses such as depression, anxiety, schizophrenia, bipolar disorder, attention deficit, and eating disorders. This does not include alcohol or substance abuse disorders. Advocate Children's Hospital- Oak Lawn had 919.27 visits per 100,000 residents, Cook County had 930.81 visits per 100,000 residents and Will County had 1,023.58 visits per 100,000 residents. The state of Illinois saw the highest rate with 1,131.44 visits per 100,000 residents. The data for the infant population was not statistically significant.

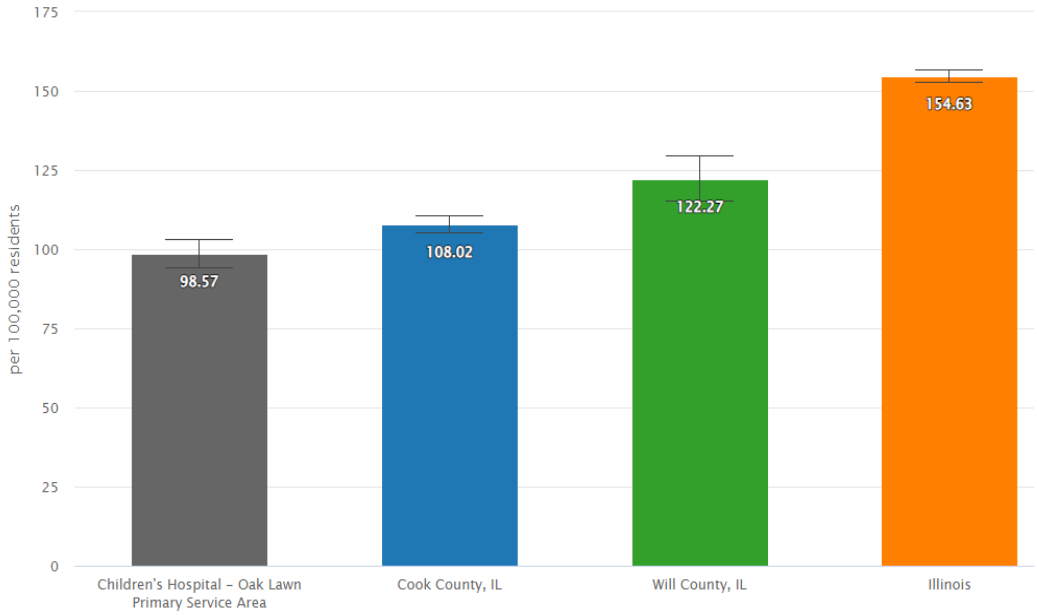
Exhibit 50: Advocate Children's Hospital- Oak Lawn PSA Mental Health Emergency Department Rate for Juveniles (5-17 years) 2017-2021



Source: Metopio, IHA COMPdata Informatics, 2022

In Advocate Children's Hospital-Oak Lawn PSA, the suicide and self-injury emergency department visit rate for juveniles was 98.57 per 100,000 residents. This data is defined as the annual emergency department visits for suicide and self-injury per 100,000 residents. The highest rate was the State of Illinois with 154.63 per 100,000 residents, followed by Will County with 122.27 per 100,000 residents. Cook County reported 108.02 per 100,000 residents. Data on infants was not statistically significant in the PSA and surrounding counties.

Exhibit 51: Advocate Children's Hospital Oak Lawn-PSA Suicide and Self-Injury Emergency Department Rate for Juveniles (5-17 years) 20107-2021

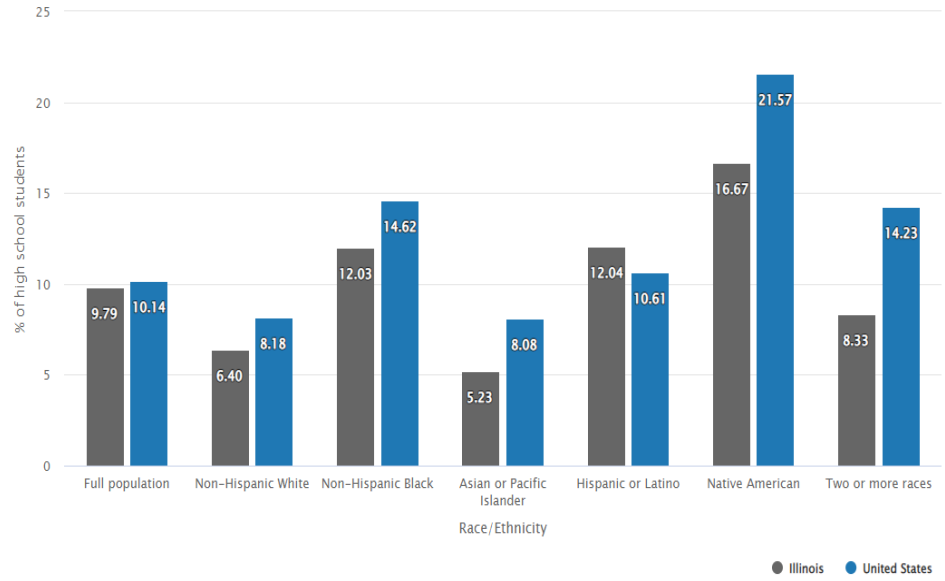


Source Metopio, IHA COMPdata Informatics, 2022

Suicide and intentional self-inflicted injury

Suicide attempts among high school students was observed at a state level and has been stratified by race/ethnicity. This data is defined as the percent of high school students who report having attempted suicide at least once in the past 12 months. In the State of Illinois, the highest percentage was found among Native American students with 21.57 percent reporting they have attempted suicide. This is followed by Non-Hispanic black students with 14.62 percent, Hispanic or Latino students with 10.61 percent, Non-Hispanic White students with 8.18 percent and Asian or Pacific Islander students with 8.08 percent.

Exhibit 52: State of Illinois Suicide Attempts Among High School Student by Race/Ethnicity 2019



Source: Metopio, Youth Risk Behavior Surveillance System, 2022

The Illinois Youth Survey (2020) provides county-level data on Mental, Social and Physical Health of 8th, 10th and 12th graders at public and private schools in Cook and Will County.

Exhibit 53: Mental Health Rates for Cook and Will County

2022 Mental Health Rates by Grade in the past 12 months – Will County

During the past 12 months did you ever:

	8th		10th		12th	
	%	N	%	N	%	N
Seriously consider attempting suicide	N/A	N/A	14%	212	13%	41
Feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities	39%	990	37%	621	40%	133

Source: Illinois Youth Survey 2022 County Report: Will County

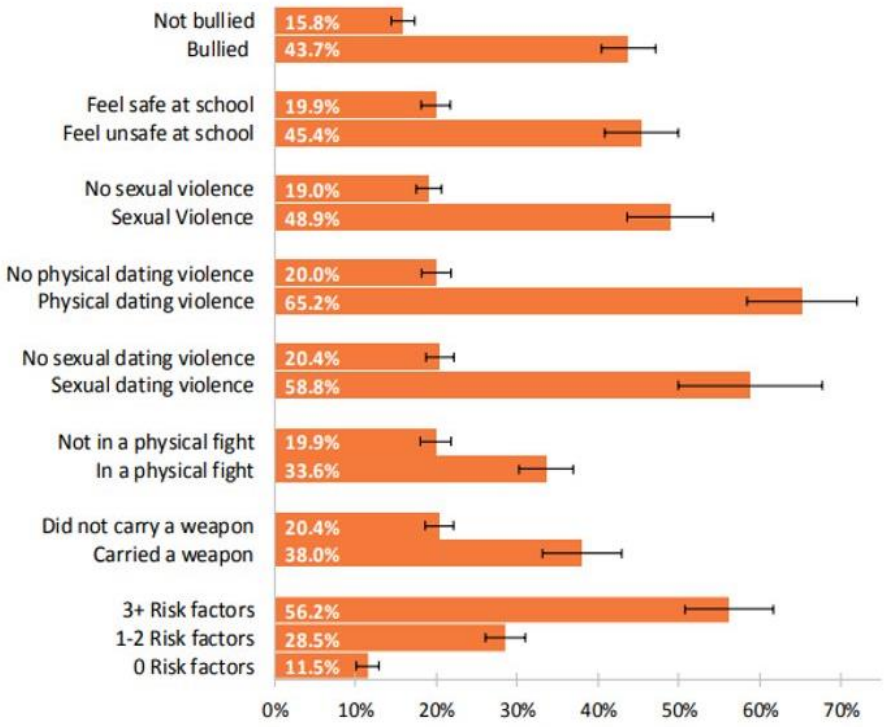
2022 Mental Health Rates by Grade in the past 12 months – Cook County

	8th		10th		12th	
	%	N	%	N	%	N
Seriously consider attempting suicide	N/A	N/A	14%	1079	12%	729
Feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities	36%	2852	35%	2918	36%	2350

Source: Illinois Youth Survey 2022 County Report: Cook County

Reports by the Illinois Department of Public Health note that suicide rates in Illinois youth has been on an upward climb since 2018 for children aged 10-19 years old. High School students who reported suicidal behaviors have also been shown to experience violence victimization and risk factors. Of the students who reported suicidal behaviors, there was a higher percentage who experienced bullying, feeling unsafe at school, sexual violence, physical dating violence, sexual dating violence, have been in a physical fight, and carried a weapon than compared to the students who experience suicidal behaviors and did not have the risk factors.

Exhibit 54: Percent of Illinois High School Students Reporting Suicidal Behaviors by Experience of Violence Victimization Risk Factors 2017-2019



Example Chart Interpretation: Of students who were not bullied, 15.8% reported suicidal behaviors. Of students who were bullied, 43.7% reported suicidal behaviors.

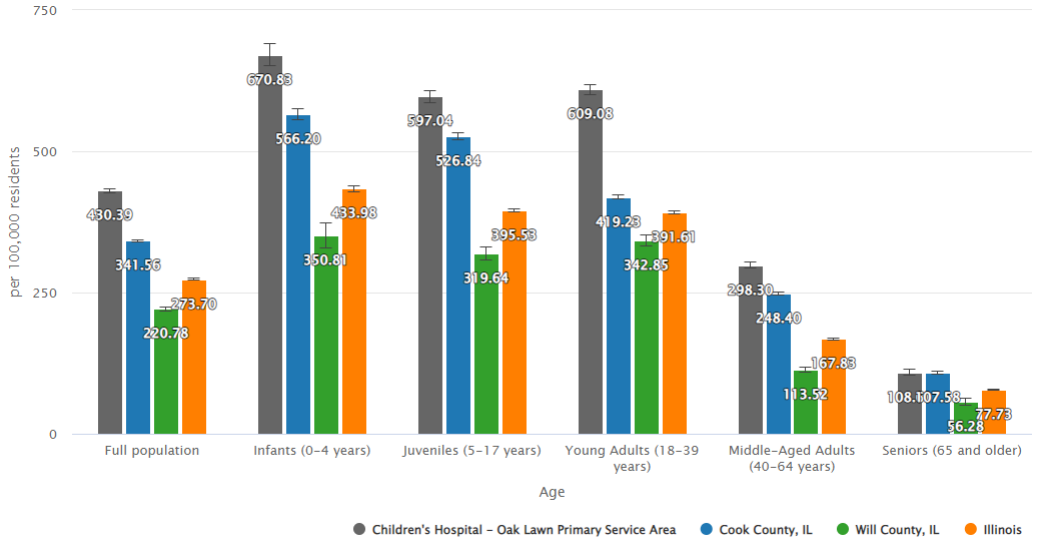
Source: Illinois Department Public Health, Youth Risk Behavior Surveillance System, 2019

Respiratory Disease

Age-adjusted ER and hospitalization rates due to Asthma

Asthma emergency department visits are defined as the annual ED visits for asthma per 100,000 residents. Asthma is a condition where the airways narrow and swell causing reversible obstruction. This is a metric for tracking potentially avoidable hospitalizations – a condition that can be effectively managed under a doctor's supervision, providing access to care is available. In the hospital's PSA, the rate for infants was 670.83 per 100,000 residents, while juveniles saw 597.07 per 100,000 residents. In Cook County, the rate for infants was 566.20 per 100,000 residents, and the juvenile rate was also high at 526.84 per 100,000 residents. Will County saw an infant rate of 350.81 per 100,000 residents, and juvenile rate of 319.64 per 100,000 residents.

Exhibit 55: Advocate Children's Hospital- Oak Lawn Asthma Emergency Department Visit Rate by Age 2017-2021



Source: Metopio, IHA COMPdata Informatics, 2022

Other Related Chronic Diseases or Conditions

5. Maternal, Child and Reproductive Health

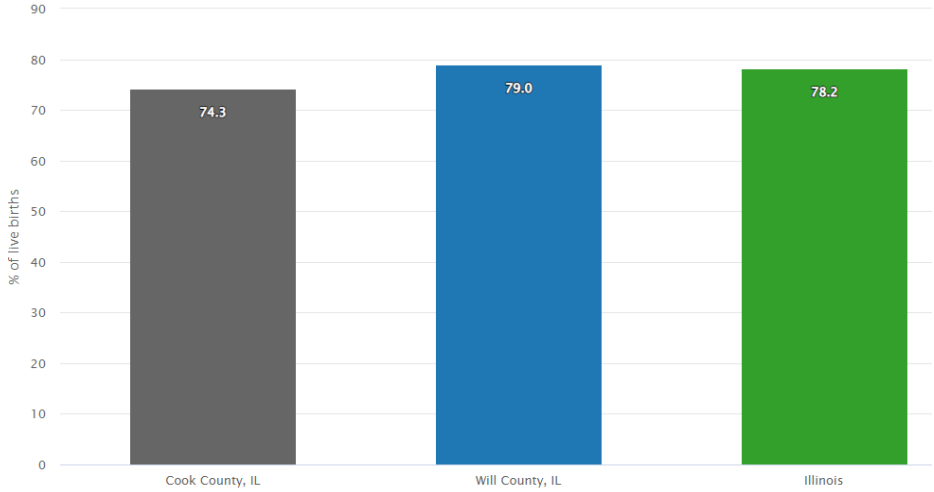
Prenatal Care

Women who accessed first trimester care

Prenatal care is a type of preventative health care for pregnant mothers and includes checkups and prenatal testing. Prenatal care helps keep mothers and their baby healthy and allows health care providers to spot any health problems early.

County level data shows the percentage of live births where the mother began prenatal care during the first trimester. Cook County reported 74.3 percent of live births had prenatal care, while Will County saw 79.0 percent, and the State of Illinois saw 78.2 percent.

Exhibit 56: County Level Prenatal Care in First Trimester 2016-2018

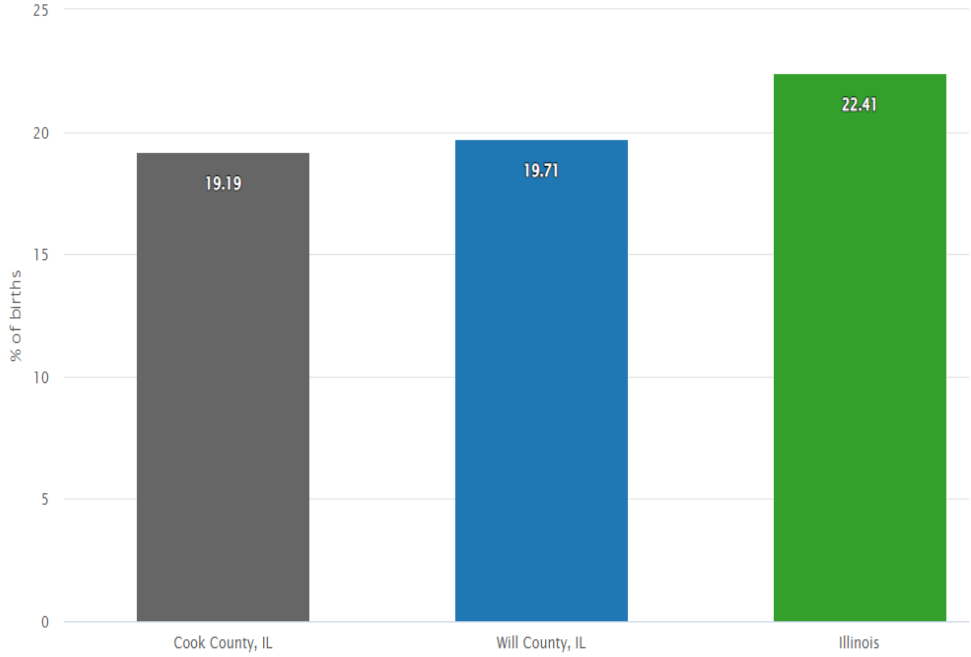


Source: Metopio, Illinois Department of Public Health, 2022

Births with Maternal Risk

There are several maternal risks that a mother may face while pregnant. Smoking while pregnant can lead to health risks for the mother and the baby. Smoking doubles the risk of abnormal bleeding during pregnancy and delivery. There is also an increased risk in birth defects for the baby including cleft palate and cleft lip when smoking while pregnant. Other risks include chronic hypertension, eclampsia, and diabetes. The percent of births with at least one maternal risk factor are reported at the county and state level. The highest percentage is the State of Illinois with 22.41 percent of births, followed by Cook County with 19.19 percent of births, and Will County with 19.71 percent of births.

Exhibit 57: County Level Births With at Least One Maternal Risk Factor 2016-2020



Source: Metopio, National Vital Statistics System-Natality, 2022

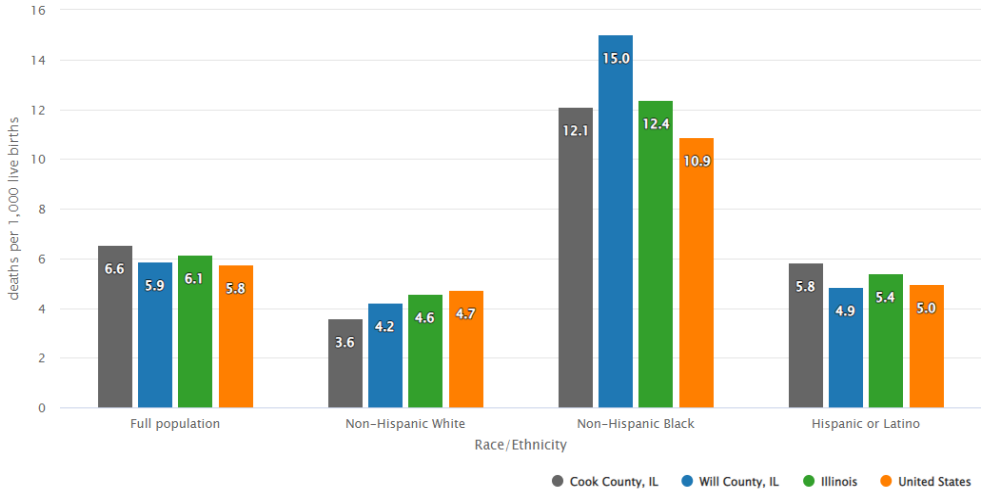
Birth Outcomes

Infant Mortality

Infant Mortality occurs when an infant dies within the first year of life. Infant mortality is frequently used as a marker of the overall health of a society as it reflects the social, political, health care delivery and medical outcomes in an area. The most common causes of infant death are birth defects, preterm birth, sudden infant death syndrome, injuries, and maternal pregnancy complications, (CDC, 2022). Data is available at the county level for infant mortality, showing the rate of post neonatal deaths (in the first year of life), and have been stratified by race/ethnicity to highlight the disparities.

Cook County, Will County, the state of Illinois and the US all show that Non-Hispanic Black mothers are disproportionately affected by infant mortality, with double the number of deaths per 1,000 live births. Studies have shown that Non-Hispanic Black mothers who access prenatal care are more likely to experience lower quality prenatal care and experience more complications.

Exhibit 58: County Level Infant Mortality by Race/Ethnicity 2015-2019



Source: Metopio, National Vital Statistics System-Natality, 2022

Pre-term Births (Less than 37 Weeks Gestation)

A pre-term birth is defined as a birth that occurs before the 37th week of pregnancy. Complications that may arise from preterm birth in the infant include immature lungs, difficulty regulating body temperature, poor feedings, developmental delay, vision problems, hearing problems, and slow weight gain. In some cases, surgery and medical intervention are required. Preterm births are a risk factor for infant mortality as mentioned above.

March of Dimes is a nonprofit organization that focuses to improve the health of mothers and babies. March of Dimes has convened a local collective impact initiative where local organizations and community members come together to address underlying challenges impacting moms and babies, and work to deploy strategies to improve the rates of preterm birth and maternal mortality.

Advocate Children's Hospital is a member of March of Dimes collective impact group. In their Report Card from 2021, March of Dimes compiled data finding the preterm birth rates for Illinois counties. In their report, each county was given an Alphabetical Score ranging from A (best rating) to F (worst rating). Based on their findings, the PSA counties had the following ratings: Cook County D+ , Will County D+. The preterm birth rates for the PSA counties came to: Cook County at 10.7 percent, Will County at 10.5 percent, and the City of Chicago at 11.0 percent. While Cook County had no change since the 2020 report, Will County and the City of Chicago had improved.

Exhibit 59: March of Dimes Preterm Birth Rates by Counties and City 2021

COUNTY	GRADE	PRETERM BIRTH RATE	CHANGE IN RATE FROM LAST YEAR
Cook	D+	10.7%	No change
DuPage	B-	9.1%	No change
Kane	D-	11.2%	Worsened
Lake	C	9.8%	Worsened
Will	D+	10.5%	Improved
Winnebago	D-	11.4%	Improved

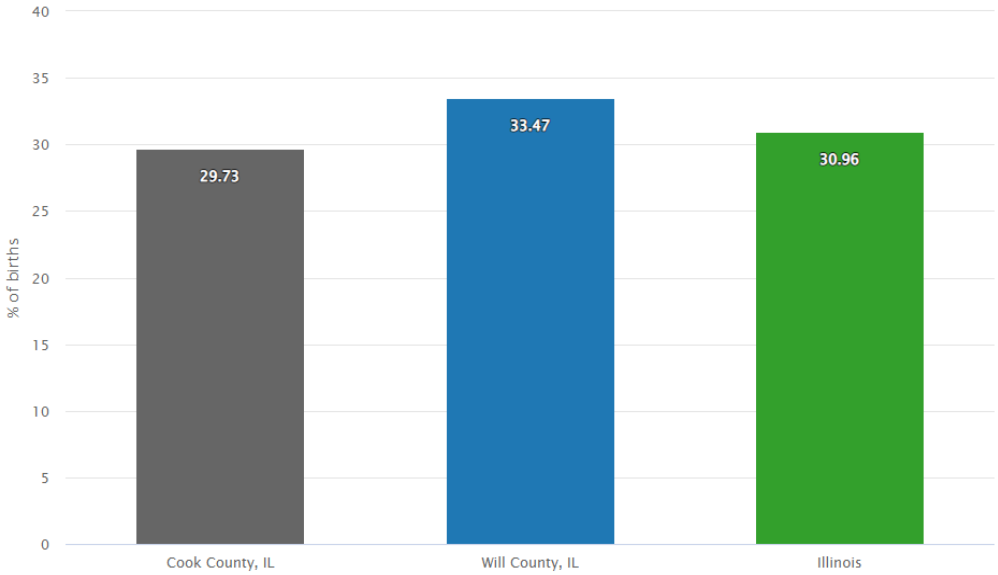
Click on the underlined counties to view more data in PeriStats.

CITY	GRADE	PRETERM BIRTH RATE	CHANGE IN RATE FROM LAST YEAR
Chicago	D	11.0%	Improved

Source: March Of Dimes, 2022

Births by C-section are reported as the percentage of births at the county level. Cook County reported 29.73 percent of all births were by cesarean section, while Will County had 33.47 percent, and the State of Illinois reported 30.96 percent.

Exhibit 60: County Level Births by C-Section 2016-2020

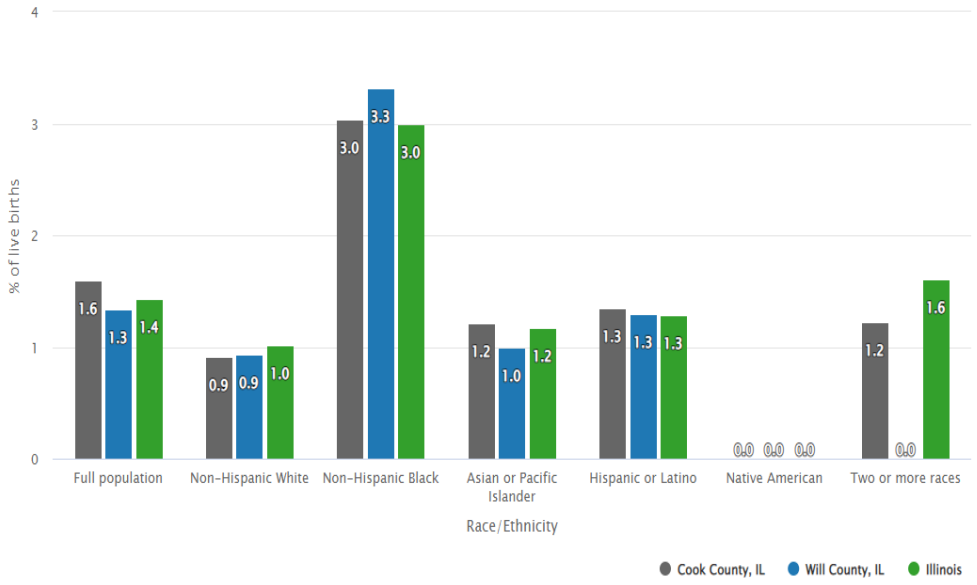


Source: Metopio, National Vital Statistics System-Natality, 2022

Babies with Very Low Birth Weight

Babies who are born at a weight of less than 1,500 grams (3 lbs., 4oz) are considered very low birthweight. For those born with very low birth weight, there is an increased risk for low oxygen levels at birth, trouble feeding and gaining weight, infection, and other health risks. Across Cook County, Will County and the State of Illinois, Non-Hispanic Black mothers have the highest rates of babies with very low birth weights. Cook County reported Non-Hispanic Black mothers make up 3.0 percent of births with very low birthweight, while Will County reported 3.3 percent, and the State of Illinois with 3.0 percent.

Exhibit 61: County Level Very Low Birth Weight by Race/Ethnicity 2016-2020

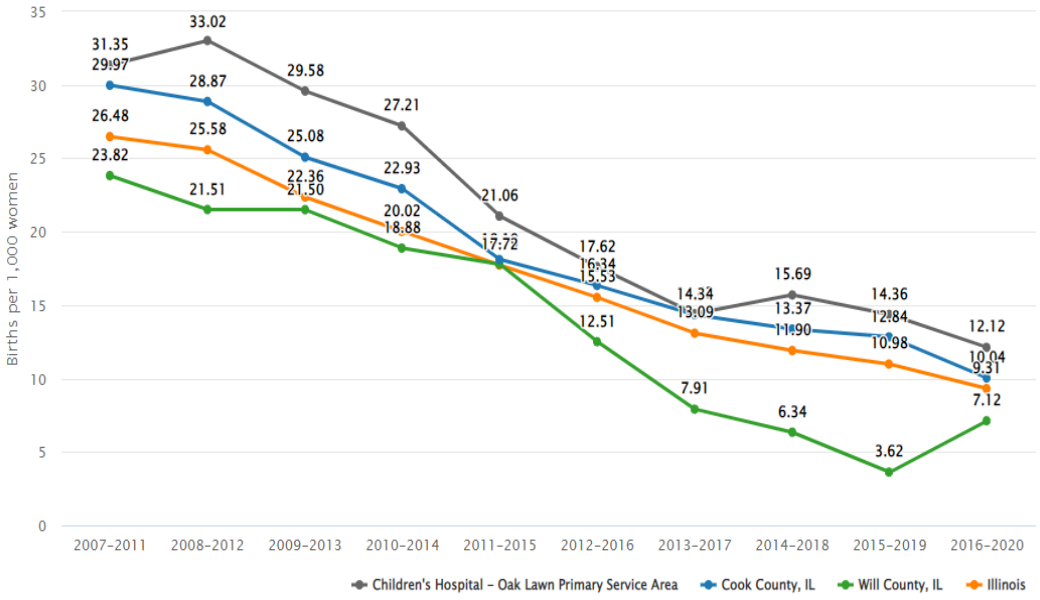


Source: Metopio, National Vital Statistics System-Natality, 2022

Birth rate for women under 18

The birth rate for teenagers has seen a decline since 2007. The teen birth rate represents women age 15-19 with a birth in the past year, per 1,000 women. This data does not reflect births to women below the age of 15. In the Advocate Children's Hospital- Oak Lawn PSA for 2020 the birth rate was 12.12 births per 1,000 women. This ranks above our PSA counties. Cook County saw 10.04 births per 1,000 women, 7.12 births per 1,000 women for Will County. The state of Illinois saw 9.31 births per 1,000 women.

Exhibit 62: Advocate Children's Hospital Oak Lawn- PSA Teen Birth Rate 2020



Source: Metopio, U.S. Census Bureau, 2022

6. Environment

Why is this important?

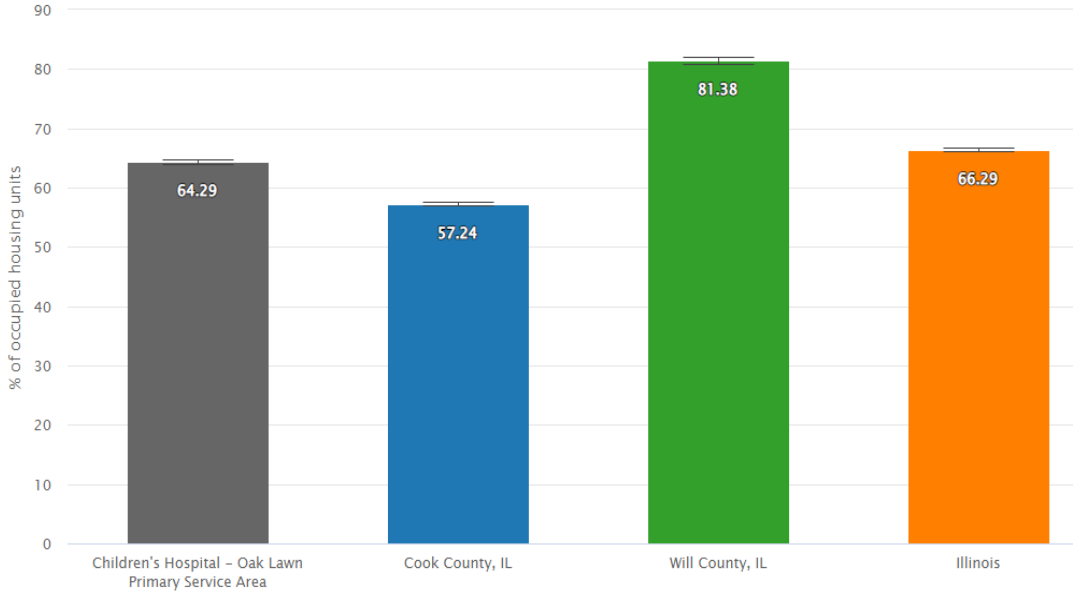
Many people face challenges and dangers they can't control, like unsafe neighborhoods, discrimination, or trouble affording the things they need. This can have a negative impact on health and safety throughout life.

Housing

Homeownership

Homeownership can represent financial stability in an area and can offer a sense of community for the residents. Owner occupied housing reflects the percentage of occupied housing. ACH- Oak Lawn PSA has 64.29 percent, while Cook County has 57.24 percent, and Will County sees the highest percentage of owner-occupied housing with 81.38 percent. The state of Illinois has 66.29 percent.

Exhibit 63: Advocate Children's Hospital-Oak Lawn Owner Occupied Housing PSA 2020

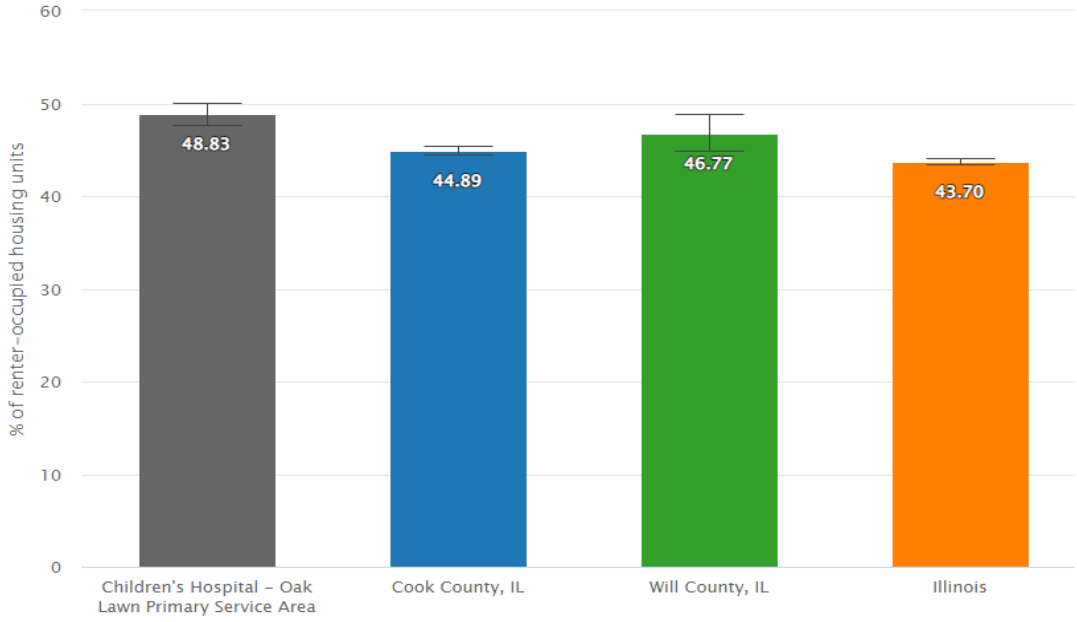


Source: Metopio, U.S. Census Bureau, 2022

Renters spending 30% or more of household income on rent

For some families, rent can be an exhausting part of their monthly expenditures. This data reflects the percent of renter-occupied housing units that are spending more than 30 percent of their income on rent. These rent costs do not include utilities, insurance, or building fees. ACH-Oak Lawn PSA has 48.83 percent of the rent occupied units whose family is considered rent burdened. Cook County has 44.89 percent, while Will County has 46.77 percent, and the state of Illinois has 43.70 percent.

Exhibit 64: Advocate Children's Hospital- Oak Lawn PSA Rent-Burdened Residents 2020



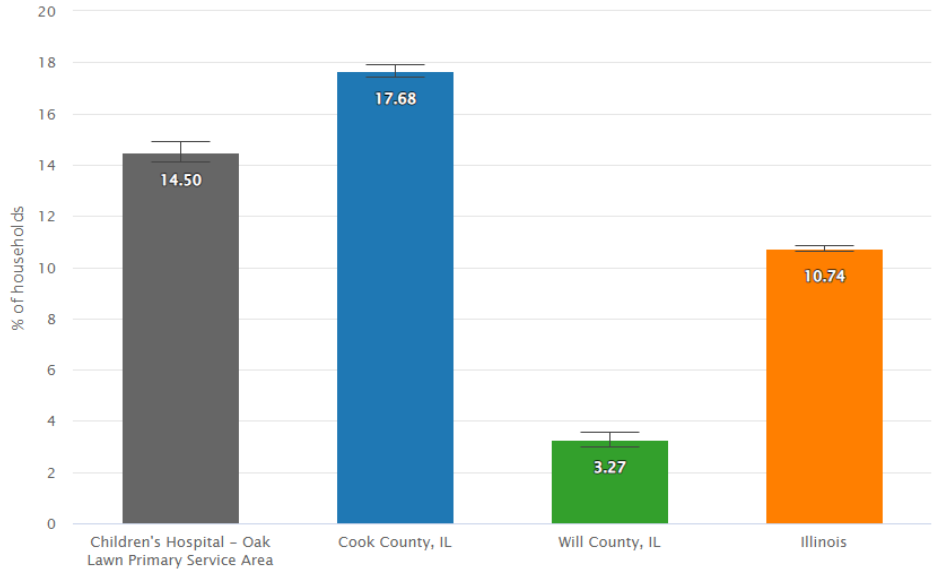
Source: Metopio, U.S. Census Bureau, 2022

<u>Transportation</u>

Households without a vehicle

The percent of households without a vehicle in ACH- Oak Lawn PSA is 14.50 percent. For Cook County the number is highest, with 17.68 percent of households without a vehicle. In Will County there is 3.27 percent, and the State of Illinois there is 10.74 percent.

Exhibit 65: Advocate Children's Hospital- Oak Lawn PSA with No Vehicle Available 2020



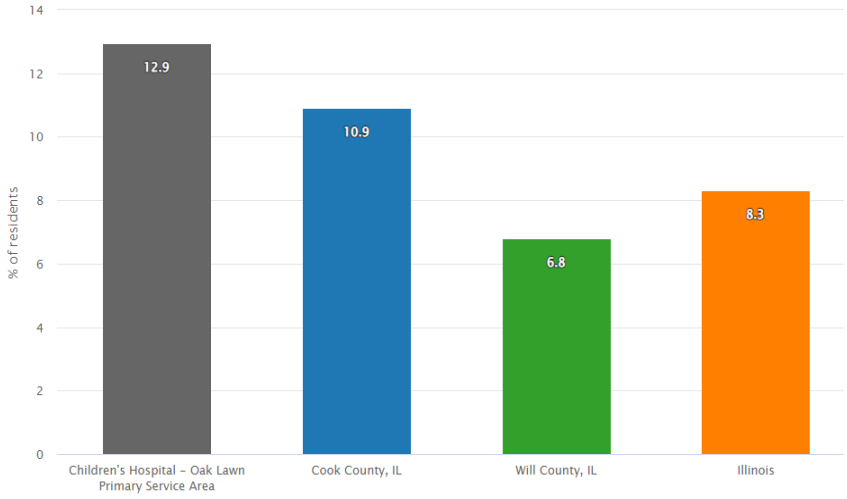
Source: Metopio, U.S. Census Bureau, 2022

Food security and access to healthy foods

Food insecurity rate

Food insecurity is the household-level economic and social condition of limited or uncertain access to adequate food, as represented in USDA food-security reports. The food insecurity rate for Advocate Children's Hospital-Oak Lawn PSA is 12.9 percent, the highest among the compared counties. This data is the percentage of the population experiencing food insecurity. This data includes the adult population but is representative of the environment that our pediatric population resides. In Cook County 10.9 percent of residents are food insecure, in Will County 10.9 percent, and in the State of Illinois 8.3 percent of residents are food insecure.

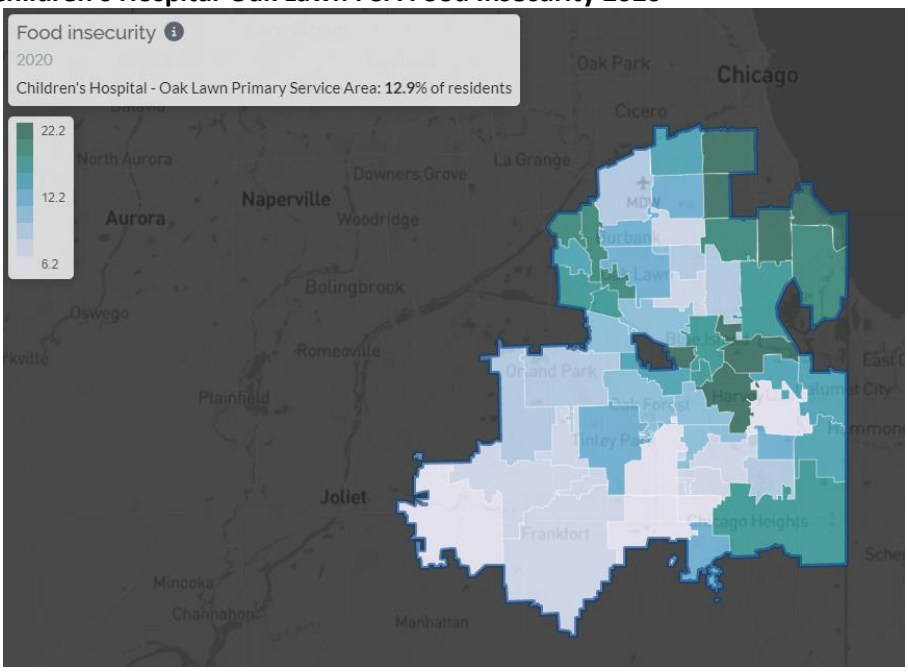
Exhibit 66: Advocate Children's Hospital-Oak Lawn PSA Food Insecurity Rate 2020



Source: Metopio, Feeding America, 2022

The three zip codes with the highest food insecurity rates in the Advocate Children's Hospital- Oak Lawn PSA were Robbins (60472) with 22.2 percent of residents experiencing food Insecurity, South Shore (60649) with 20.4 percent, and West Englewood (60636) with 18.7 percent.

Exhibit 66: Advocate Children's Hospital-Oak Lawn PSA Food Insecurity 2020

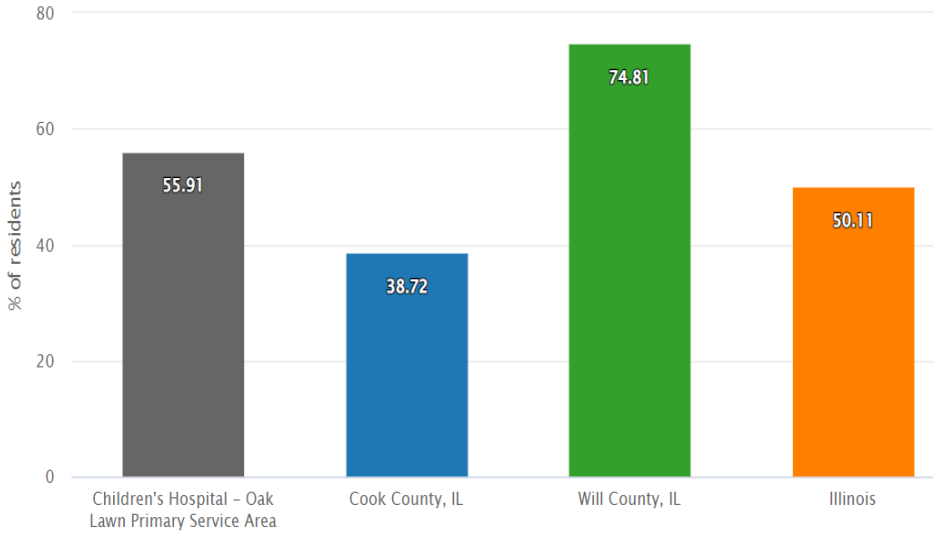


Source: Metopio, Feeding America, 2022

Children with low access to a grocery store

The data for low food access shows the percent of residents who have low access to food, defined solely by distance, specifically living farther than 1/2 mile from the nearest supermarket in an urban area, or farther than 10 miles in a rural area. Will County and Advocate Children's PSA reported the highest percent of residents experiencing low food access, with Will County at 74.81 percent and Advocate Children's PSA at 55.91 percent. While Cook County has 38.72 percent and the state of Illinois has 50.11 percent.

Exhibit 68: Advocate Children's Hospital- Oak Lawn PSA Low Food Access for Children (0-17 years) 2019

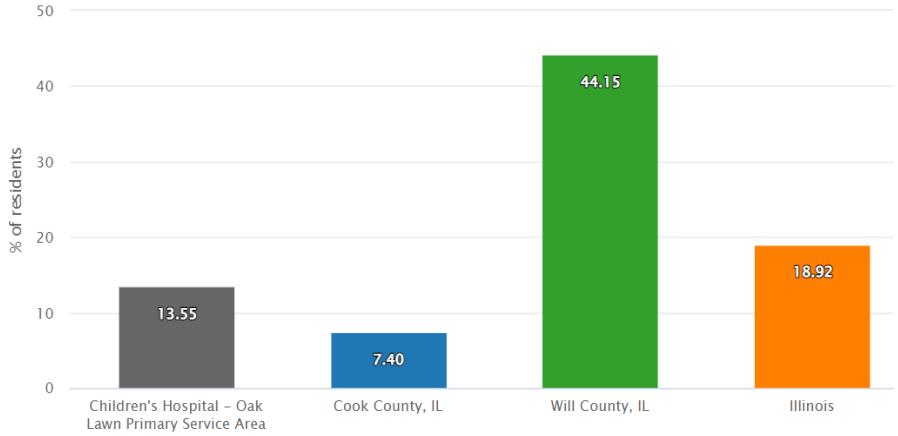


Source: Metopio, USDA, 2022

Children with very low access to a grocery store

Very low food access data shows us the percent of residents who have very low access to food, defined solely by distance specifically living farther than 1 mile from the nearest supermarket in an urban area, or farther than 20 miles in a rural area. Advocate Children's-Oak Lawn PSA has 13.55 percent of children with very low access to food. While Cook County reports 7.40 percent, the lowest amongst the compared counties. The highest percentage is Will County, where 44.15 percent of the children have very low access, followed by the state of Illinois at 18.92 percent.

Exhibit 69: Advocate Children's Hospital- Oak Lawn PSA Very Low Food Access for Children (0-17 years) 2019



Source: Metopio, USDA, 2022

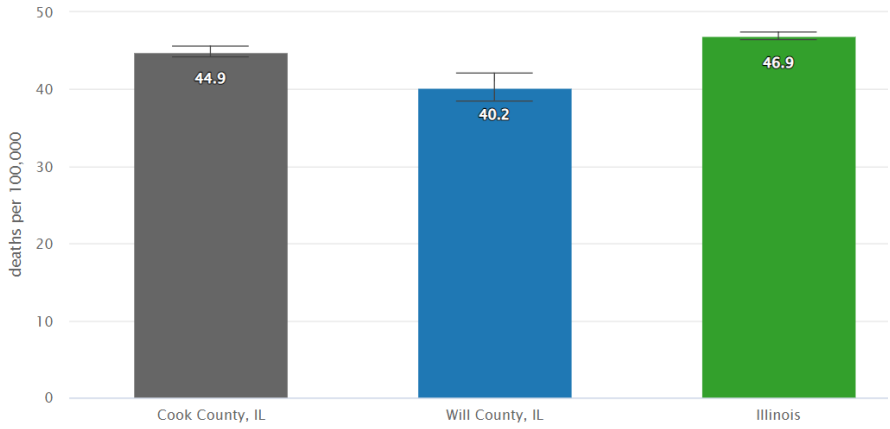
<u>Social Environment and Community Safety – mostly narrative only</u>

According to the Illinois Department of Public Health, unintentional injury is the leading cause of death in children up to five years old in Illinois. Unintentional injuries can be the result of drowning, assault/abuse, motor vehicles, suffocation, fires, poisoning, environmental bites and stings, cuts and pedestrian accidents. In 2014, 841 Illinois children from birth to five years old died from injuries and over 111,000 injuries were treated at hospital and emergency departments.

Unintentional Injury

Unintentional Injury is a leading cause of death for the pediatric population in the United States. The data is reported by deaths per 100,000 residents with an underlying cause of unintentional injury, excluding vehicle injuries. In Cook County for 2020 there was 44.9 deaths per 100,000 residents. Will County saw 40.2 deaths per 100,000 residents, while the State of Illinois has the highest number, at 46.9 deaths per 100,000 residents.

Exhibit 70: County Level Unintentional Injury Mortality 2020



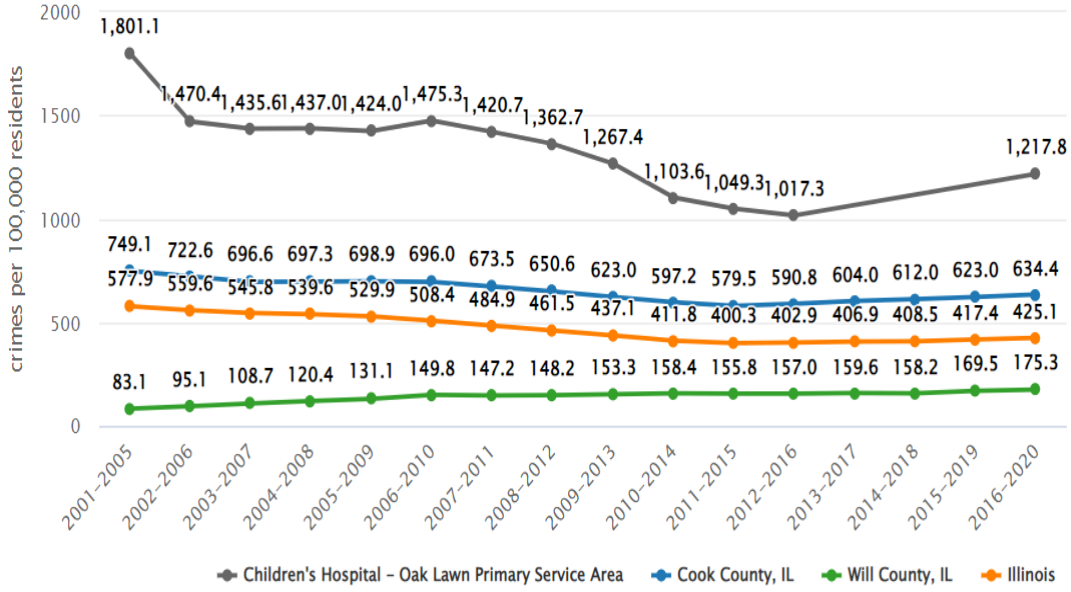
Source: Metopio, National Vital Statistics System-Mortality, 2022

Violence

Children may experience violence in many settings, including at home, in school, online or in neighborhoods, and in many forms, such as bullying or harassment by peers, domestic violence, child maltreatment and community violence. Exposure to violence can harm a child's emotional, psychological and even physical development. Children exposed to violence are more likely to have difficulty in school, abuse drugs or alcohol, act aggressively, suffer from depression or other mental health problems and engage in criminal behavior as adults.

Crime has been seen an increase over the past ten years. In the ACH-Oak Lawn PSA, there was the highest observance 1,217.8 crimes per 100,000 residents. In Cook County there was 634.4 crimes per 100,000 residents. In Will County there was 175.3 crimes per 100,000 residents, and the State of Illinois saw 425.1 crimes per 100,000 residents.

Exhibit 72: Advocate Children's Hospital- Oak Lawn PSA Violent Crime 2020



Source: Metopio, Chicago Police Department, Chicago Crime Data Portal, 2022

The Illinois Youth Survey (2020) which provides county-level data on Mental, Social and Physical Health of 8th, 10th and 12th graders at public and private schools in Cook and Will County.

Exhibit 73: Bulling Experience by Grade for Cook and Will County
2022 Bullying Experience Rates by Grade – Cook County
During the last 12 months, has another student at school:

	8th	10th	12th
Bullied you by calling you names	25%	15%	12%
Threatened to hurt you	13%	9%	7%
Bullied you by hitting, punching, kicking, or pushing you	10%	5%	4%
Bullied, harassed, or spread rumors about you on the Internet, social media, or through text messages	18%	13%	12%
Ever bullied (reported at least 1 type of bullying)	34%	22%	18%
Intensely bullied (reported all types of bullying)	4%	3%	3%

Source: Illinois Youth Survey, County Report: Cook County, 2022

2022 Bullying Experience Rates by Grade – Will County
During the last 12 months, has another student at school:

BULLYING EXPERIENCES: During the past 12 months, has another student at school:

	8th	10th	12th
Bullied you by calling you names	28%	15%	20%
Threatened to hurt you	14%	11%	9%
Bullied you by hitting, punching, kicking, or pushing you	10%	6%	4%
Bullied, harassed, or spread rumors about you on the Internet, social media, or through text messages	20%	15%	15%
Ever bullied (reported at least 1 type of bullying)	37%	23%	26%
Intensely bullied (reported all types of bullying)	4%	4%	2%

Source: Illinois Youth Survey, County Report: Will County, 2022

Exhibit 74: Delinquency Rates for Cook and Will County 2022
2022 Interpersonal Conflict, Violence and Delinquency Rates by Grade – Cook County

DELINQUENCY: How many times in the past year (12 months) have you:

		Never	1-2 times	3-5 times	6+ times	Total
8th	Been in a physical fight	77%	18%	3%	2%	100%
	Carried a weapon such as a handgun, knife, or club	92%	5%	1%	2%	100%
	Sold illegal drugs	99%	0%	0%	0%	100%
	Been drunk or high at school	97%	2%	0%	1%	100%
10th	Been in a physical fight	87%	11%	2%	1%	100%
	Carried a weapon such as a handgun, knife, or club	94%	3%	1%	2%	100%
	Sold illegal drugs	99%	1%	0%	0%	100%
	Been drunk or high at school	95%	2%	1%	1%	100%
12th	Been in a physical fight	90%	8%	1%	1%	100%
	Carried a weapon such as a handgun, knife, or club	94%	3%	1%	2%	100%
	Sold illegal drugs	98%	1%	0%	1%	100%
	Been drunk or high at school	93%	3%	1%	3%	100%

Source: Illinois Youth Survey, County Report: Cook County, 2022

2022 Interpersonal Conflict, Violence and Delinquency Rates by Grade – Will County

DELINQUENCY: How many times in the past year (12 months) have you:

		Never	1-2 times	3-5 times	6+ times	Total
8th	Been in a physical fight	77%	17%	3%	3%	100%
	Carried a weapon such as a handgun, knife, or club	90%	5%	2%	3%	100%
	Sold illegal drugs	99%	1%	0%	0%	100%
	Been drunk or high at school	97%	2%	1%	1%	100%
10th	Been in a physical fight	87%	11%	2%	1%	100%
	Carried a weapon such as a handgun, knife, or club	91%	4%	1%	4%	100%
	Sold illegal drugs	99%	1%	0%	0%	100%
	Been drunk or high at school	95%	2%	1%	2%	100%
12th	Been in a physical fight	87%	10%	2%	1%	100%
	Carried a weapon such as a handgun, knife, or club	90%	4%	0%	6%	100%
	Sold illegal drugs	98%	1%	1%	0%	100%
	Been drunk or high at school	93%	3%	1%	3%	100%

Source: Illinois Youth Survey, County Report: Will County, 2022

Homicide/gun violence
Assault by firearm data captured by the Emergency Department Visit rate has been stratified by age to reflect the pediatric population. Data for the infant population was not statistically significant. While data for the juvenile population (5-17 years) in the ACH-Oak Lawn PSA there was 60.44 assaults per 100,000 residents, which is the highest rate amongst the compared counties. Cook County saw 33.66 percent per 100,000 residents. In Will County there was 15.20 per 100,000, and the State of Illinois saw 23.08 assaults per 100,000 residents, (Metopio, 2022).

Firearm- related mortality data reflected for the juvenile population (5-17 years) includes county level data. Cook County saw 20.6 deaths per 100,000 residents in 2020 related to firearms, the highest amongst the compared counties. In Will County there was 12.7 deaths per 100,000 residents, and in the State of Illinois there was 7.7 deaths per 100,000 residents.

ACES: Adverse Childhood Experiences
Adverse childhood experiences, or ACEs, are potentially traumatic events that occur in childhood (0-17 years). For example:

- experiencing violence, abuse, or neglect
- witnessing violence in the home or community
- having a family member attempt or die by suicide

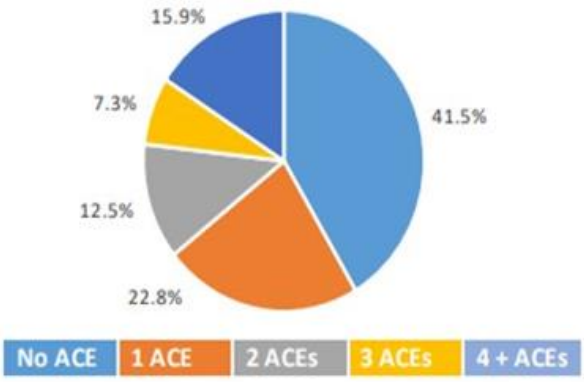
Also included are aspects of the child's environment that can undermine their sense of safety, stability, and bonding, such as growing up in a household with:

- substance use problems
- mental health problems
- instability due to parental separation or household members being in jail or prison

ACEs are linked to chronic health problems, mental illness, and substance use problems in adolescence and adulthood. ACEs can also negatively impact education, job opportunities, and earning potential. However, ACEs can be prevented, (CDC, 2020).

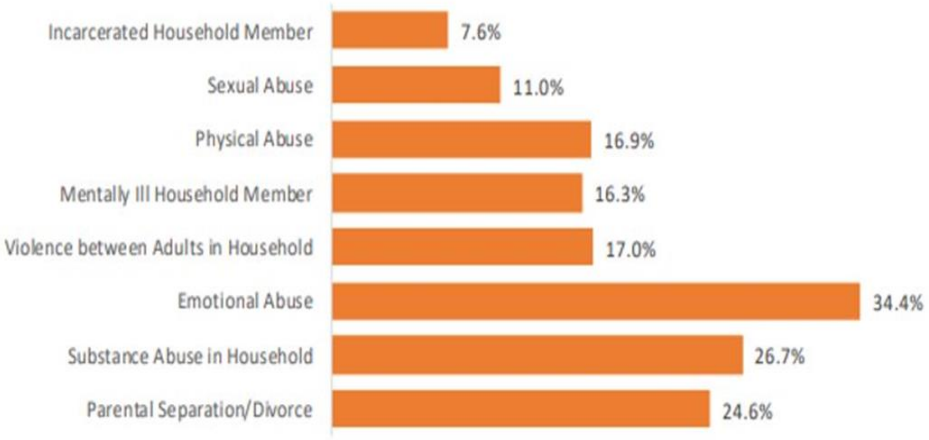
Adverse childhood events (ACEs) are associated with children's physical and mental health. In 2016-2019 among children aged 6-17 years. Children who were discriminated against based on race or ethnicity had higher percentages of one or more physical health conditions (37.8 percent versus 27.1 percent), and one or more mental health conditions (28.9 percent versus 17.8 percent).Racial/ethnic discrimination was almost seven times as common among children with three other ACEs compared to those with no other ACEs, (CDC, 2022).

Exhibit 75: Prevalence of Adverse Childhood Experiences (ACES) Score Among Respondents Reporting Zero or more ACEs, 2017



Source: Illinois Department of Public Health, 2022

Exhibit 76: Prevalence of Adverse Childhood Experiences (ACEs) by Category 2019



Source: Illinois Department of Public Health, 2022

IV. Prioritization of Health-Related Issues

Priority Setting Process

Advocate Children's Hospital's Community Outreach Department presented extensive data to the Community Health Council on the PSA's demographics, economic condition, education and employment status, social drivers of health and top health conditions. In the final meeting, the Community Health Council members voted and selected the top two health priorities to focus on for the 2022-2024 Advocate Children's Hospital CHNA and Implementation. The eight most significant health issues presented are listed below.

- Access to Care
- Behavioral Health
- Food Insecurity
- Violence
- Dental Care
- Asthma
- Injury Prevention
- Obesity

Council members participated in robust discussions around the impact of these health issues and the potential community assets already available to address them. This discussion led to the first prioritization phase of the CHNA. The CHC members were asked to select and rate the top health issues for the hospital to focus on. The top two issues were selected based on which received the most votes. The following health needs were selected.

Health Need Selected

Access to Care

Access to Care was chosen as one of the health need priorities due to the strong connection between the lack of pediatric providers available for public health insurance families and the rate of families using the emergency department for services that are typically preventable through a pediatrician's office. The CHC determined that the data

demonstrating a limited number of providers accepting Medicaid and CHIP showed a definite need in the community. The council also recognized that obstacles such as transportation needs, problems with Medicaid enrollment, and limited education about appropriate care sites also reduces access to necessary care for children. Potential projects to address this need include the primary care services of our Ronald McDonald Care Mobiles, dental services offered on our new ACH dental mobile and expansion of our Children's Health Resource Center to provide referrals to community based social services.

Behavioral Health
A new U.S. Department of Health and Human Services (HHS) study published in the American Medical Association's journal reports significant increases in the number of children diagnosed with mental health conditions. Local data collected for the CHNA confirms this and the significant shortage of mental health resources only adds to the problem, (Lebrun-Harris et al., 2020). Potential programming includes offering additional mental health resources to patients on our Ronald McDonald Care Mobiles and in our school-based health centers, as well as education for school partners in recognition and basic mental health first aid for school staff.

Health Need Not Selected

Food Insecurity
Food insecurity was not selected as an area of focus, however, ACH does have emergency food processes already in place through our Ronald McDonald Care Mobiles, and inpatient and outpatient clinics to address this need.

Violence
ACH is already developing a trauma informed care model to assist in addressing violence in the community. We're also very active participants in the Advocate Aurora Health System's violence prevention project and Senator Dick Durbin's Chicago HEAL (Hospital Engagement, Action ad Leadership) Initiative to reduce gun violence.

Dental Care
ACH is committed to providing dental care to at-risk children and just recently launched a mobile dental clinic which provides free dental care to uninsured children and those with Medicaid.

Asthma
Outreach resources are currently limited to provide asthma education and intervention, however, there are a large amount of community-based programs/assets already serving the area.

Injury Prevention
ACH has a very robust injury prevention program that focuses its community outreach on education to decrease unintentional injuries, including safe travel using properly installed car seats.

Obesity
Limited resources are available to provide community-based programming, however, ACH is researching potential partner activities in this area.

V. Approval of Community Health Needs Assessment

The Director of Community Health for Advocate Children's Hospital and the Director Community Health for Advocate Christ Medical Center provided a copy of the CHNA to all members of the Governing Council prior to the November 2022 meeting. The Governing Council was able to review the CHNA document in its entirety before the meeting. Advocate Children's Director presented the CHNA document including the assessment process and selected health need priorities

to the Council. On October 17,2022, the Advocate Christ Medical Center Governing Council fully approved the 2022 Advocate Children's Hospital CHNA Report. The Advocate Health Care Network Board approved the Advocate Children's Hospital 2022 CHNA Report at the system level on December 16,2022.

VI. Vehicle for Community Feedback

Community Feedback

SCAN ME

Advocate Children's Hospital in Oak Lawn welcomes all feedback regarding the 2022 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. Feedback Link: Advocate Aurora Health CHNA Feedback

If you experience any issues with the link to our feedback form or have any other questions, please email Elvis Munoz at Elvis.munoz@aah.org

This report can be viewed online at Advocate Health Care's Community Health Needs Assessment Report webpage via the following link: Hospital CHNA Reports Implementation Plans Progress Reports | Advocate Health Care

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

VII. Evaluation of Impact from Previous CHNA

2021 Community Health Improvement Plan Progress Report
For the 2017-2019 CHNA, Advocate Christ and Advocate Children's worked with the Community Health Council (CHC) to review the significant health issues impacting the primary service area (PSA). In addition, the hospitals worked in alignment with the Cook County Department of Public Health and the Alliance For Health Equity, a public health collaboration of over 30 health and public health entities, to collectively address the health concerns affecting the community. Advocate Christ Medical and Advocate Children's Hospital is an active member of the Alliance for Health Equity's collaboration meetings. In 2021, due to the ongoing COVID-19, the Community Health Department across Advocate Aurora Health (AAH) shifted its priorities to meet the immediate needs of the community. Advocate Aurora Health enhanced preventive services to combat the COVID-19 pandemic by increasing access to health education, Personal Protective Equipment (PPE), COVID-19 community testing and several other immediate services.

Access to Care–Program Outcomes for 2021
Advocate Children's continues to partner with Ronald McDonald House Charities of Chicagoland and Northwest Indiana to provide access to free school physicals and immunizations for at-risk children through the Ronald McDonald Care Mobile (Care Mobile). Advocate Children's provides immunizations, routine checkups and screenings to the most vulnerable students in the Advocate Children's-Oak Lawn primary service area (PSA). The Care Mobile is staffed by an Advocate Children's care team that includes a nurse practitioner, medical assistant, health educator and a driver.

- The Ronald McDonald Care Mobile saw limited operations during 2021 due to school cancellations, hybrid learning and online learning models, which limited student and school access necessitated by the COVID-19 pandemic.
- In 2021, these mobile units saw 2,419 patients and provided nearly 5,000 immunizations and over 1,000 physicals. About 58% of those seen were Medicaid patients and 36% were without insurance.

Mental Health–Program Outcomes for 2021
Advocate Children Hospital in Oak Lawn (ACH-OL) organized a plan to implement a program to embed a Licensed Clinical Professional Counselor (LCPC) in partnering Chicago Public Schools. The program is designed to provide behavioral health services and education to students, faculty and parents.

- For the 2020-2021 school year, the program was put on pause due to COVID-19. The LCPC was redeployed to assist in the pediatric outpatient clinic in Oak Lawn and the adolescent medicine clinic in Evergreen Park.
- Discussions have resumed with Chicago Public Schools to provide services in the Auburn-Gresham neighborhood of Chicago beginning in the 2021-22 school year.

Infant and Maternal Health–Program Outcomes for 2021
Advocate Children's worked on implementing the Centering Pregnancy program at our identified clinics. The Centering materials covered in the discussion and interactive activities focus on topics ranging from nutrition, labor, breastfeeding, infant care and stress management. Our goal for implementing the Centering Pregnancy program is to yield better health outcomes and work to eliminate health disparities. Reactivation of this program will occur when COVID-19 restrictions state it is safe for small gatherings.

VIII. Appendices

Appendix 1: 2022 Community Health Needs Assessment Data Sources

Center for Disease Control and Prevention, Mortality Statistics. Retrieved from National Vital Statistics System – Mortality data (2020) via CDC WONDER. Retrieved from https://www.cdc.gov/nchs/nvss/deaths.htm

Center on Budget and Policy Priorities, "Medicaid Works for Children." 2022. Retrieved from https://www.cbpp.org/research/health/medicaid-works-for-children

Centers for Disease Control and Prevention, Behavioral Health Services in Illinois, 2022. Retrieved from https://www.cdc.gov/childrensmentalhealth/stateprofiles-providers/illinois/index.html

Centers for Disease Control and Prevention, Children's Mental Health Statistics, 2022. Retrieved from https://www.cdc.gov/childrensmentalhealth/data.html#:~:text=1%20in%206%20U.S.%20children,%2C%20behavioral%2C%20or%20developmental%20disorder

Illinois Department of Public Health, Opioid Data Dashboard, 2022. Retrieved from https://idph.illinois.gov/OpioidDataDashboard/

Consortium, to Lower Obesity in Chicago Children, 2022. Retrieved from http://www.clocc.net/about-childhood-obesity/prevalence/

Centers for Disease Control and Prevention, Infant Mortality, 2022. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

Office of the Assistant Secretary for Planning and Evaluation, HHS Poverty Guidelines, 2022. Retrieved from https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines

Healthy People 2030, Social Determinants of Health, 2022. Retrieved from https://health.gov/healthypeople/priority-areas/social-determinants-health

Georgetown University Health Policy Institute, Children's Health Care Report Card, 2022. Retrieved from https://kidshealthcarereport.ccf.georgetown.edu/states/illinois/#:~:text=Rank%20among%20states%202019&text=In%20Illinois%2C%204.0%25%20of%20children%20do%20not%20have%20health%20insurance

Department of Health and Human Services, Guide to Children's Dental Care in Medicaid, 2020. Retrieved from https://www2.illinois.gov/hfs/SiteCollectionDocuments/mch_dentalguide.pdf#search=dental%20guide

Centers for Disease Control and Prevention Youth Data, 2022. Retrieved from https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm#:~:text=Many%20young%20people%20use%20two,in%20the%20past%2030%20days

Illinois Youth Survey, 2022 Will County Report, 2022. Retrieved from https://iys.cprd.illinois.edu/UserFiles/Servers/Server_178052/File/2022/Cnty22_Will.pdf

Illinois Youth Survey, 2022 Cook County Report, 2022. Retrieved from https://iys.cprd.illinois.edu/UserFiles/Servers/Server_178052/File/2022/Cnty22_Cook-Non_Chicago.pdf

Illinois Department Public Health, ACES Data, 2020. Retrieved from https://dph.illinois.gov/content/dam/soi/en/web/idph/publications/idph/topics-and-services/prevention-wellness/injury-violence-prevention/ohpmivp-databooknav3docx-08302021v2-1-final.pdf

Lebrun-Harris LA, Ghandour RM, Kogan MD, Warren MD. Five-Year Trends in US Children's Health and Well-being, 2016-2020. *JAMA Pediatr.* 2022;176(7):e220056. doi:10.1001/jamapediatrics.2022.0056

Metopio. Accessed via a contract with Advocate Aurora Health. Website is unavailable to the public. The following data sources were accessed through the portal:

American Community Survey, 2015-2019, 2016-2020
Behavioral Risk Factor Surveillance System, 2019
Centers for Disease Control and Prevention, 2018
Centers for Disease Control and Prevention WONDER, 2015-2019, 2016-2020
Centers for Medicare and Medicaid Services, National Provider Identifier, 2021
Chicago Department of Public Health, 2016-2020
Diabetes Atlas, 2019
Feeding America, 2020
FBI Crime Data Explorer, 2016-2020
Health Resources and Services Administration, 2018
Illinois Department of Public Health, 2014-2018, 2021
IHA COMPdata Informatics, 2016-2020
Illinois State Cancer Registry, 2014-2018
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018
National Vital Statistics System-Mortality, 2016-2020
PLACES, 2015-2019

UIC School of Public Health, 2020, 2021
United Way ALICE Data, 2018
USDA, 2019