2019

Community Health Needs Assessment

for Chicago youth, adolescents and families

luriechildrens.org/chna

Ann & Robert H. Lurie
Children's Hospital of Chicago®

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Executive Summary

Ann & Robert H. Lurie Children's Hospital of Chicago conducted a community health needs assessment (CHNA) in 2019 to better understand the health of children and adolescents in Chicago, and to guide Lurie Children's continuing efforts to improve the health and well-being of youth, consistent with our longstanding mission.

To minimize duplicative data requests and analyses, and to maximize the potential for hospitals in Chicago and Cook County conducting CHNAs to work together on shared priorities, Lurie Children's participated in the development of the Alliance for Health Equity's Collaborative CHNA. This effort, led by the Illinois Public Health Institute (IPHI), involved 37 hospitals, six local health departments, and nearly 100 community-based organizations. Lurie Children's extracted key findings from the Collaborative CHNA specifically related to children and adolescents age 0-19 in Chicago for our CHNA. Lurie Children's supplemented this by conducting, reviewing and analyzing additional primary and secondary data for Chicago youth to develop our CHNA.

Based on substantial data review and community input, Lurie Children's identified the following as priority areas for intervention: social determinants of health; access to care; chronic health conditions; mental and behavioral health; and unintentional injury and violence.

Key findings from Lurie Children's CHNA are:

- Significant health inequities persist in Chicago for youth and affect all priority health areas. The most pervasive health inequities in Chicago are related to race.
- Social determinants of health, including poverty, education, employment, housing/homelessness and food insecurity substantially contribute to the health status of youth in Chicago, and disproportionally affect youth in neighborhoods with low/very low opportunity.
- In Chicago, infant mortality rates per 1,000 births ranged from 3.4 for whites to 12.7 for blacks/African Americans.
- Because of state policy advances in the Medicaid program, only 4 percent of youth in Chicago are uninsured. This progress is significant, but challenges related to access to care, including proximity and quality remain.
- The prevalence and exacerbation of chronic health conditions, including asthma, complex chronic conditions and obesity, are highly affected by social determinants of health.
- Approximately 15-20 percent of youth have a serious mental or behavioral health condition and as many as 50 percent do not receive the mental health care they need. There has been progress in the recognition of the longstanding effects of trauma and childhood adversity on long-term health. Recent policy changes in Illinois are helping to move towards more integrated physical and behavioral health services. However, mental and behavioral health services are the top concern for many individuals in low/very low opportunity neighborhoods, driven largely by quality concerns, inadequate reimbursement, stigma and workforce shortages.
- Unintentional injuries are the leading cause of death and a major cause of emergency department visits among children and adolescents, and infants and adolescents are the age groups with the highest unintentional injury death rates.
- Although violence occurs in all communities, it disproportionately affects low-income communities of color and especially black/African American boys and young men. In 2017, young black males were 13.7 times more likely to die from a firearm-related homicide than non-black males in Chicago.
- Significant interconnectedness exists between all the above highlighted key findings. Implementation strategies that reach "upstream" to focus on prevention and underlying causes of health outcomes should be prioritized.

Introduction

LURIE CHILDREN'S OVERVIEW

Mission, Vision, and History

Ann & Robert H. Lurie Children's Hospital of Chicago (formerly Children's Memorial Hospital) is an Illinois not-for-profit corporation and a charitable organization within the meaning of Section 501(c)(3) of the Internal Revenue Code. As one of the top pediatric hospitals in the nation, Lurie Children's delivers the highest quality, family-centered care and high-impact research. Over half of the inpatient care Lurie Children's provides is for children insured by Medicaid. We are the largest pediatric specialty provider in the region, by volume, with 332 licensed inpatient beds. Figure 1 provides details regarding patient volumes and services. Inpatient expansion plans are underway, which will bring our total inpatient beds to 364 by the end of 2019.

Figure 1. *Fiscal year 2018 includes services at our partner locations provided by Lurie Children's physicians*

We are guided by the belief that all children need to grow up in a protective and nurturing environment where all children are given the opportunity to reach their full potential. Lurie Children's mission is to enhance the health and well-being of all children. We aim to achieve this through our core pillars:

- ***Healthcare*** delivery for infants, children, adolescents and young adults
- ***Research*** into the prevention, causes and treatment of diseases that affect children
- ***Education*** for physicians, nurses and allied health professionals
- ***Advocacy*** for the general well-being of all children

Founded in 1882 as the first hospital in Chicago focused solely on the care of children, Lurie Children's has grown from an 8-bed cottage home in Lincoln Park to a state-of-the-art pediatric medical center with facilities across Chicago and Illinois.

Facilities and Locations

Lurie Children's main hospital is located in Chicago, Illinois. In addition, we have 13 outpatient services locations, five primary care locations and 16 partner hospitals across Chicago and Illinois, providing greater access to the best pediatric care for all children (**Figure 2).** *Only locations and partner hospitals within the City of Chicago are shown.*

Main hospital (1)
225 E. Chicago Avenue (Streeterville)

Outpatient Centers

- Lincoln Park (2)
  3 locations: Outpatient Services and Convenient Care
- 1440 N. Dayton (3)
- Arlington Heights
- Geneva
- Grayslake
- Huntley
- Lake Forest
- Lincoln Square (4)
- New Lenox
- Northbrook
  includes Convenient Care and Surgery Center
- Rockford
- Uptown (5)
- Westchester

Primary Care Locations

- Glenview
- Lincoln Park (2)
  2 locations
- Uptown (5)
- Town and Country Pediatrics (6/7)

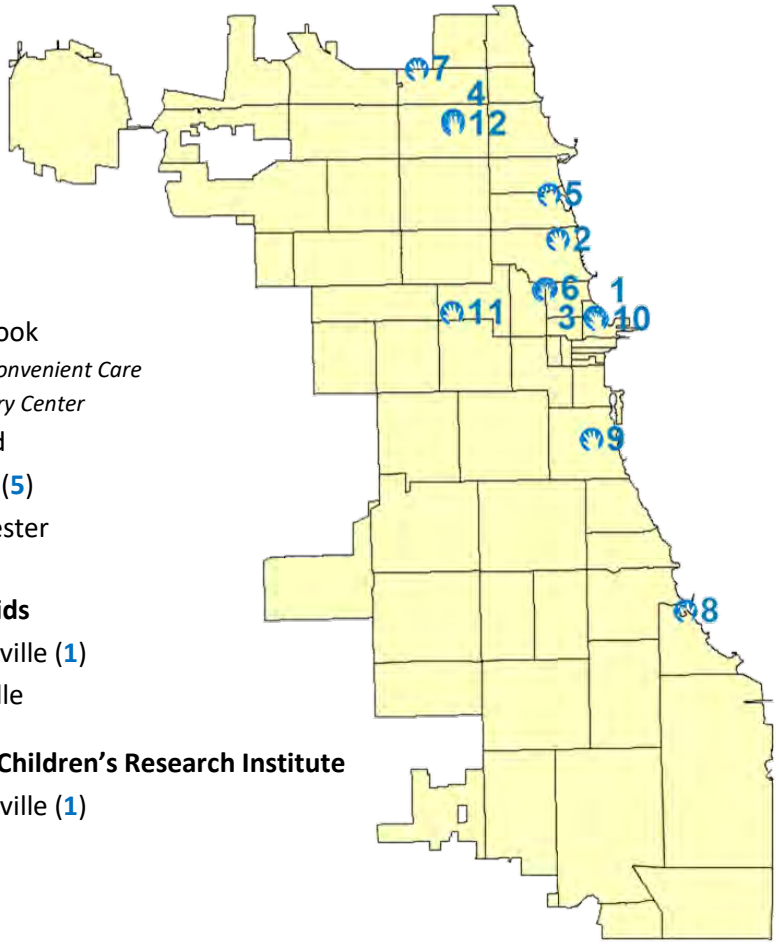
Almost Home Kids

- Streeterville (1)
- Naperville

Stanley Manne Children's Research Institute

- Streeterville (1)

Figure 2. *Map of locations in the City of Chicago*



Partner Hospitals

- AMITA Health Adventist Medical Center Hinsdale
- AMITA Health Mercy Medical Center Aurora
- La Rabida Children's Hospital (8)
- Lurie Children's at Northwestern Medicine Central DuPage Hospital
- Lurie Children's at Northwestern Medicine Delnor Hospital
- Mercy Hospital and Medical Center (9)
- Northwest Community Hospital
- Northwestern Medicine Hospital Huntley
- Northwestern Lake Forest Hospital
- Northwestern Medicine Prentice Women's Hospital (10)
- Norwegian American Hospital (11)
- Presence Mercy Medical Center
- Silver Cross Hospital
- Swedish Covenant Hospital (12)
- West Suburban Medical Center
- Westlake Hospital

Specialties and Services

HEALTHCARE – Lurie Children's provides patient care through the expertise of over 1,665 physicians and allied health professionals across 70 pediatric specialties. According to *U.S. News & World Report*, in 2019 Lurie Children's is the top ranked children's hospital in Illinois and the only children's hospital in the state to rank in all 10 featured specialties. In 2019, Lurie Children's ranked in the top 10 hospitals across the nation for cardiology and heart surgery (2nd), urology (5th), gastroenterology and gastrointestinal surgery (8th), and nephrology (10th).

Nationally Ranked by *U.S. News & World Report* in 2019 in 10 Specialties:

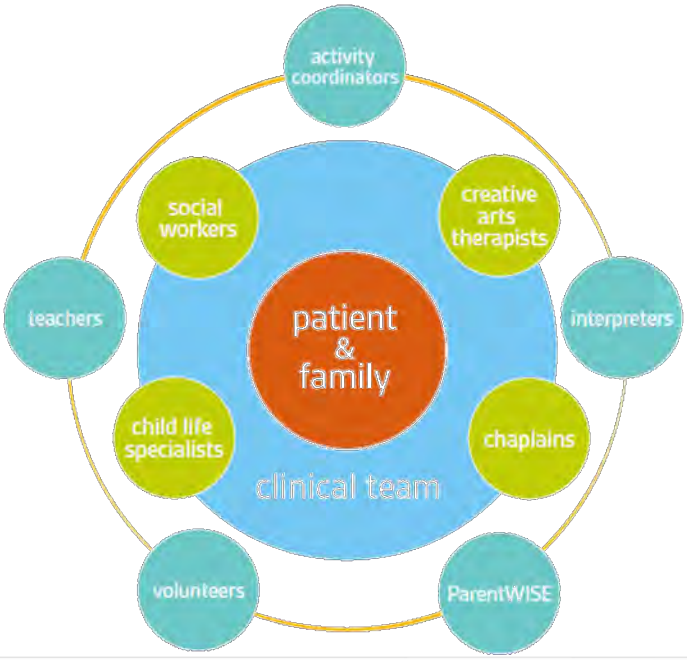
- Pediatric Cardiology & Heart Surgery
- Pediatric Urology
- Pediatric Gastroenterology& Gastrointestinal Surgery
- Pediatric Neurology & Neurosurgery
- Pediatric Orthopaedics
- Pediatric Cancer
- Pediatric Nephrology
- Neonatal Care
- Pediatric Pulmonary Care
- Pediatric Diabetes & Endocrine Disorder

Lurie Children's has been named a level I pediatric surgery center by the American College of Surgeons (ACS) three times, becoming the first children's hospital in Illinois to earn this status.

Lurie Children's provides comprehensive family-centered care. Family service support patients and their families emotionally, mentally and spiritually (**Figure 3**).

An interdisciplinary team of social workers, chaplains, child life specialists and creative arts therapists follows inpatients from diagnosis through discharge. Social workers and chaplains are available 24 hours/day, seven days a week. Activity coordinators and volunteers engage patients and families with fun and creative age-appropriate activities that promote child development. Teachers create individualized educational opportunities so that our patients continue to embrace learning and flourish intellectually. Interpreters ensure cultural-relevant communication with our families who have limited English language proficiency.

Figure 3. *Model of comprehensive services and supports for patients and families*



RESEARCH – Research at Lurie Children's is conducted through Stanley Manne Children's Research Institute and focuses on improving child health, transforming pediatric medicine and ensuring healthier futures through the understanding, prevention and investigation of pediatric illnesses and injuries.

Established in 1986, our pediatric research institute has more than 200 investigators, 500 staff members and 100 trainees who contribute to 10 growing programs in basic science, translational medicine, clinical research

and community health. We also have interdisciplinary centers of excellence that target specific child health issues and complement our core programs. Designated by Northwestern University Feinberg School of Medicine as a research center for our central role in the university's integrated research program, our scientists work in labs, in clinics, at the patient bedside and in the community to unravel the root causes of pediatric and adolescent disease, to understand childhood injury and to identify and address factors that precipitate health problems in childhood and over a lifetime.

The Manne Research Institute moved to the Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center in June 2019. This new location, just blocks away from Lurie Children's main hospital and on the campus of Northwestern University Feinberg School of Medicine, houses hundreds of investigators and staff. We continue a robust research enterprise to investigate and address the challenges of childhood diseases, including the clinical, genetic, developmental and public health aspects of child health.

EDUCATION – As the pediatric teaching facility of Northwestern University Feinberg School of Medicine, Lurie Children's is dedicated to training physicians through our pediatric and pharmacy resident programs and our clinical fellowships in pediatrics, surgery, anesthesia, psychiatry, pathology and medical imaging. In addition, Lurie Children's hosts various training programs for residents from other institutions, medical students, nurses and allied health professionals and cultivates relationships with local high schools and colleges to provide healthcare career internships for aspiring clinicians.

ADVOCACY – Lurie Children's is dedicated to protecting children by working with collaborators, community leaders and elected and appointed officials to:

- Ensure that children have coverage and access to needed healthcare, including mental healthcare, through the Medicaid program, the single largest health insurer for children in America
- Support the training of the next generation of pediatric healthcare workforce through policy and programmatic initiatives including applied internships and mentoring
- Extend clinical care in to the community through programs that include mental health supports, resiliency trainings, wellness care, safety trainings and health education
- Protect and strengthen child health and medical research as a priority

In early 2017, Lurie Children's Healthy Communities (Healthy Communities), a program at Lurie Children's, was created in part to support the Community Health Needs Assessment process and recommendations. Healthy Communities is designed to maximize the positive impact the medical center and its partners have on child health in the community. Healthy Communities leads the Community Health Needs Assessment process to understand the needs of the community, utilize evidence-based practices and create strong partnerships that deepen our reach and effectiveness in every community served. Healthy Communities builds on decades of Lurie Children's experts' successful public health outreach and leads the development, monitoring and evaluation of our Community Health Needs Assessment Implementation Plan with a focus on equity, impact, authentic collaborations and long-term commitment.

COLLABORATIVE CHNA OVERVIEW

Alliance for Health Equity

In addition to development of our own Community Health Needs Assessment, Lurie Children's participated in the development of the Collaborative CHNA (allhealthequity.org/projects/2019-chna-reports) spearheaded by the Alliance for Health Equity, a collaborative of hospitals/health systems working with health departments and regional and community-based organizations to improve health equity, wellness and quality of life across Chicago and Suburban Cook County. The purpose of the Alliance for Health Equity is to improve population and community health by:

- Promoting health equity
- Supporting capacity building, shared learning, and connecting local initiatives
- Addressing social and structural determinants of health
- Developing broad city and county wide initiatives and creating systems
- Engaging community partners and working collaboratively with community leaders
- Developing data systems for population health to support shared impact measurement and community assessment
- Collaborating on population health policy and advocacy

The Alliance for Health Equity was developed so that participating organizations can collaboratively assess community health needs, collectively develop shared implementation plans to address community health needs, more efficiently share resources, and have a greater impact on the large population residing in Cook County. Currently, 37 hospitals, six local health departments including Chicago Department of Public Health (CDPH) and Cook County Department of Public Health (CCDPH), and nearly 100 community-based organizations are participating (**Table 1**).

Table 1. *Alliance for Health Equity – Participating hospitals and health departments*

Nonprofit Hospital Members	
Advocate Aurora Children's Hospital	Loyola Medicine - Loyola University Medical Center
Advocate Aurora Christ Medical Center	Loyola Medicine - MacNeal Hospital
Advocate Aurora Illinois Masonic Medical Center	Mercy Hospital & Medical Center
Advocate Aurora Lutheran General Hospital	Northwestern Memorial Hospital
Advocate Aurora South Suburban Hospital	Norwegian American Hospital
Advocate Aurora Trinity Hospital	Palos Community Hospital
AMITA Adventist Medical Center La Grange	Roseland Community Hospital
AMITA Alexian Brothers Medical Center, Elk Grove Village	Rush Oak Park
AMITA Holy Family Medical Center	Rush University Medical Center
AMITA Resurrection Medical Center	Sinai Health System - Holy Cross Hospital
AMITA St. Alexius Medical Center and Alexian Brothers Behavioral Health Hospital	Sinai Health System - Mount Sinai Hospital
AMITA Saint Francis Hospital	Sinai Health System - Schwab Rehabilitation Hospital
AMITA Saint Joseph Hospital	South Shore Hospital
AMITA Saints Mary and Elizabeth Medical Center	Swedish Covenant Hospital
Ann & Robert H. Lurie Children's Hospital of Chicago	University of Chicago Medicine
The Loretto Hospital	University of Chicago Medicine - Ingalls Memorial Hospital
Loyola Medicine- Gottlieb Memorial Hospital	
Public Hospital Partners	
Cook County Health - Stroger Hospital	Cook County Health - Provident Hospital
University of Illinois Hospital and Health Sciences System	
Public Health Department Partners	
Chicago Department of Public Health	Evanston Health and Human Services Department
Cook County Department of Public Health	Village of Skokie Health Department

2018-2019 Collaborative CHNA Methodology

In order to minimize duplicative requests for data and maximize the potential for collaborative intervention opportunities, Lurie Children's participated in the development of the Alliance for Health Equity's Collaborative CHNA between March 2018 and March 2019. Primary and secondary data from a diverse range of sources were utilized for robust data analysis and to identify community health needs in Chicago and Suburban Cook County. Health inequities and their underlying root causes are highlighted and discussed throughout the assessment.

PRIMARY DATA COLLECTION – Primary data for the Collaborative CHNA was collected through four methods:

- Community input surveys
- Community resident focus groups and learning map sessions
- Healthcare and social service provider focus groups
- Two stakeholder assessments led by partner health departments—Forces of Change Assessment and Health Equity Capacity Assessment

IPHI and the CHNA committee took the following steps to develop the survey tool: (1) IPHI drafted a survey based on review of 13 example community input surveys, (2) CHNA committee members from hospitals and health departments provided input, (3) IPHI incorporated revisions from CHNA committee members and the University of Illinois at Chicago Survey Research Laboratory, (4) IPHI made edits based on a health literacy review, (5) IPHI and two member hospitals piloted the survey at three community-based events, and (6) IPHI made final edits to address minor challenges identified at the pilot events.

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

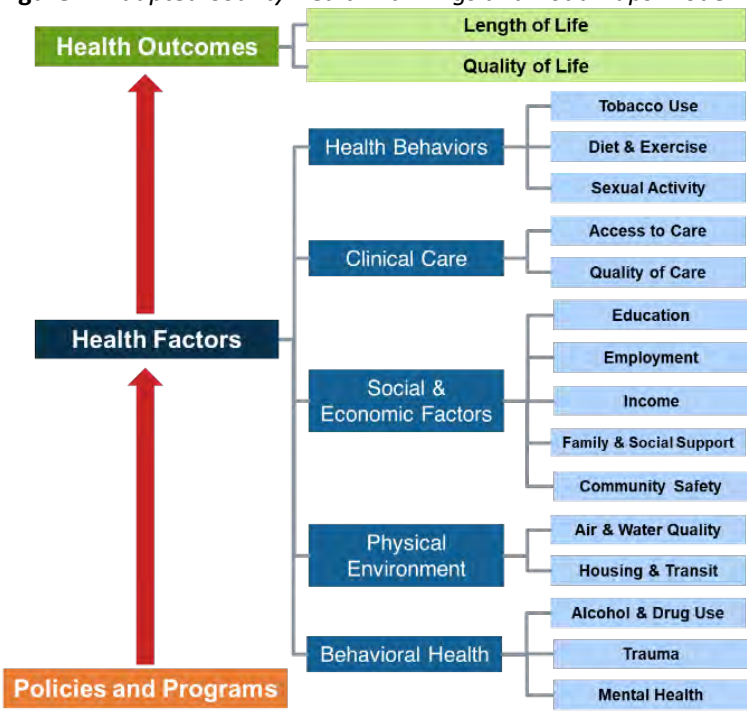
Between August 2018 and February 2019, IPHI worked with Alliance for Health Equity partners to hold a total of 52 community input sessions (focus groups and learning map sessions) with priority populations such as veterans, individuals living with mental illness, communities of color, older adults, caregivers, teens and young adults, LGBTQ+ community members, adults and teens experiencing homelessness, families with children, faith communities, adults with disabilities, and children and adults living with chronic conditions such as diabetes and asthma. The community input sessions included 31 focus groups conducted by IPHI and 21 learning map sessions led by West Side United (a collaborative of six hospitals, including Lurie Children's, who serve large numbers of patients from Chicago's West side, partnered with community-based organizations and individuals who live and work on the West side) with note-taking by IPHI. In addition to the 52 community input sessions, there were also three focus groups with healthcare and social service providers hosted by Swedish Covenant Hospital, MacNeal Hospital, and South Shore Hospital. Focus group facilitators asked participants about the underlying root causes of health issues that they see in their communities and specific strategies for addressing those health needs.

The Forces of Change Assessment collects information on the trends, factors, and events that are currently affecting and/or anticipated to affect the public health system in the near future (3-5 years). CDPH led this assessment in partnership with their Partnership for a Healthy Chicago, and CCDPH. Between November 2018 and January 2019, 122 individuals representing 86 organizations in Chicago and Suburban Cook County responded to an online survey.

The Health Equity Capacity Assessment was led by CDPH, the Partnership for a Healthy Chicago, CCDPH, and IPHI. CDPH, CCDPH, and the Partnership worked with faculty from DePaul and UIC Schools of Public Health to develop a tool to score the capacity of the public health system to advance health equity. The tool consists of five-six questions for each of the 10 Essential Public Health Services relating to five components of health equity: community engagement/involvement, organizational processes, power/influence, structural inequities, and funding. On March 5, 2019, 80 people from across Chicago and Suburban Cook County came together to score how well the system is functioning around health equity and to identify challenges, strengths, and opportunities to move forward.

SECONDARY DATA ANALYSIS – Epidemiologists from CCDPH and CDPH worked with IPHI and the steering committee to select a common set of indicators based on an adapted version of the County Health Rankings and Roadmaps Model (**Figure 4**).

Figure 4. *Adapted County Health Rankings and Roadmaps Model*



The CHNA and steering committees also decided to delve further into four key community health issues that surfaced as priority needs in the last CHNA and health department assessments:

- Behavioral health
- Food security and food access
- Community and economic development
- Housing

Secondary data used in the Collaborative CHNA were compiled from a range of sources:

- Peer-reviewed literature and white papers
- Existing assessments and plans focused on key topic areas
- Localized data compiled by several agencies including Chicago Department of Planning and Development, Chicago Metropolitan Agency for Planning, Housing Authority of Cook County, and state and local police departments
- Localized data compiled by community-based organizations and academic institutions, including Greater Chicago Food Depository and Voices of Child Health in Chicago
- Hospitalization and emergency department encounter data provided by Illinois Health and Hospital Association and analyzed by the Conduent Healthy Communities Institute

- Data compiled by state agencies including Illinois Environmental Protection Agency, Illinois Department of Healthcare and Family Services, Illinois Department of Human Services, Illinois State Board of Education, and Illinois Department of Public Health
- Data from federal sources including U.S. Census Bureau American Community Survey data compiled by Chicago Department of Public Health and Cook County Department of Public Health; Centers for Disease Control and Prevention (CDC); Centers for Medicare and Medicaid Services data accessed through the Dartmouth Atlas of Health Care; Health Resources and Services Administration; and United States Department of Agriculture

Lurie Children's Role

Lurie Children's participated in an advisory role as a member of the Alliance for Health Equity Steering Committee. In addition, Lurie Children's participated in and contributed to the Collaborative Community Health Needs Assessment subcommittee, and also to ad hoc work groups focused on data visualizations and copy editing, providing feedback and guidance on various Collaborative CHNA activities (e.g., community engagement, survey development and dissemination, and recruiting and facilitating focus groups. Lurie Children's continues to be actively engaged in various workgroups (e.g., community safety, data, food access, housing, policy, trauma-informed care and social determinants of health), ensuring that the youth-focused perspective is well-represented.

LURIE CHILDREN'S CHNA COMMUNITY

Service Area Community

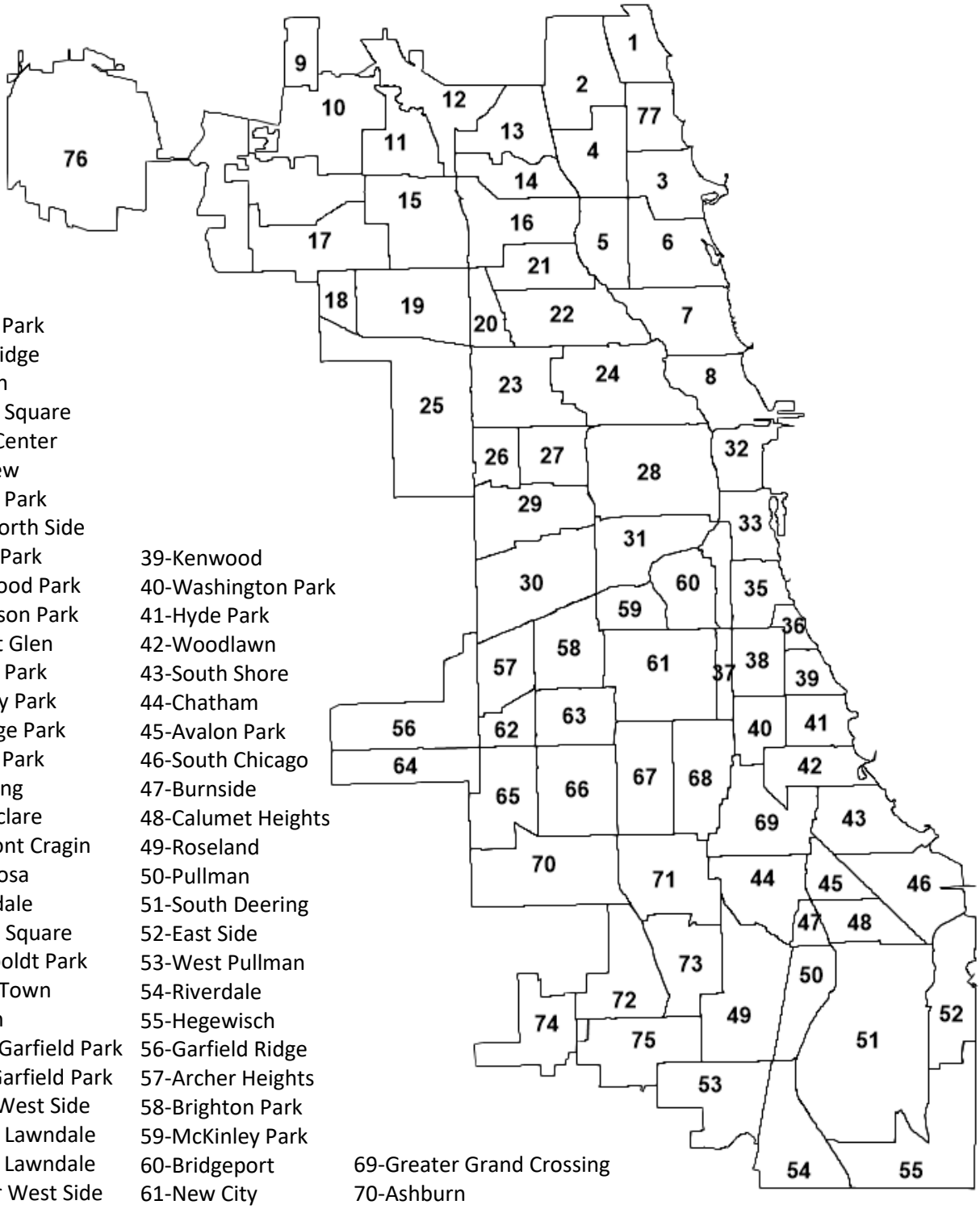
As a leading pediatric provider, Lurie Children's serves patients and families from every state in the United States and 58 countries across the world. As a pediatric leader in Chicago, the highest volume of patients come from our very own community. Nearly 44 percent of our patients live in the City of Chicago – annually, Lurie Children's provides healthcare services, from primary care to subspecialty care, to over 90,000 Chicagoans 0-19 years old. For this reason and the fact that Lurie Children's is located in the City of Chicago, we define our service area community for the purposes of the assessment as the city of Chicago (**Figure 5**). Over 97 percent of patients are 0-19 years old, and therefore our priority population for the CHNA is infants, children and adolescents 0-19 years old. Data are presented for this geography and population, where available, and noted when data fall outside of our service area and priority population. Data was included in some instances for adult populations, when pediatric data was not available and where family/community context impacts child health.

Methodology and Data Sources

In addition to Lurie Children's participation in the Alliance for Health Equity's Collaborative CHNA, Lurie Children's conducted a concurrent needs assessment between March 2018 and July 2019 with a focus on our service area and priority population. This assessment was conducted by Lurie Children's Healthy Communities, in partnership with Lurie Children's Department of Data Analytics and Reporting. Two advisory groups provided oversight and guidance on the CHNA: Lurie Children's Healthy Communities Internal Advisory Committee and Lurie Children's Healthy Communities External Advisory Committee (members listed in **Appendix A**). We also asked these committees to review and provide feedback on drafts of the Alliance for Health Equity's Collaborative CHNA and Lurie Children's CHNA. See **Appendix B** for a summary of key meeting dates and Lurie Children's participation in the Alliance for Health Equity Collaborative CHNA planning and implementation.

Relevant data and content from the Collaborative CHNA are integrated into Lurie Children's 2019 CHNA. Additional primary and secondary data were collected and analyzed.

Figure 5. *City of Chicago's* 77 *community areas*



1-Rogers Park
2-West Ridge
3-Uptown
4-Lincoln Square
5-North Center
6-Lakeview
7-Lincoln Park
8-Near North Side
9-Edison Park
10-Norwood Park
11-Jefferson Park
12-Forest Glen
13-North Park
14-Albany Park
15-Portage Park
16-Irving Park
17-Dunning
18-Montclare
19-Belmont Cragin
20-Hermosa
21-Avondale
22-Logan Square
23-Humboldt Park
24-West Town
25-Austin
26-West Garfield Park
27-East Garfield Park
28-Near West Side
29-North Lawndale
30-South Lawndale
31-Lower West Side
32-Loop
33-Near South Side
34-Armour Square
35-Douglas
36-Oakland
37-Fuller Park
38-Grand Boulevard
39-Kenwood
40-Washington Park
41-Hyde Park
42-Woodlawn
43-South Shore
44-Chatham
45-Avalon Park
46-South Chicago
47-Burnside
48-Calumet Heights
49-Roseland
50-Pullman
51-South Deering
52-East Side
53-West Pullman
54-Riverdale
55-Hegewisch
56-Garfield Ridge
57-Archer Heights
58-Brighton Park
59-McKinley Park
60-Bridgeport
61-New City
62-West Elsdon
63-Gage Park
64-Clearing
65-West Lawn
66-Chicago Lawn
67-West Englewood
68-Englewood
69-Greater Grand Crossing
70-Ashburn
71-Auburn Gresham
72-Beverly
73-Washington Heights
74-Mount Greenwood
75-Morgan Park
76-O'Hare
77-Edgewater

PRIMARY DATA COLLECTION – Primary data for Lurie Children's CHNA were collected through surveys, interviews and focus groups:

- Alliance for Health Equity's Collaborative CHNA primary data
- Additional community input surveys
    - Youth (25 years and under)
    - Employees living in and around Lurie Children's priority area of focus 60639 (*see* Neighborhood-specific Service Area section on *page 22 for details*), including 60618, 60623, 60624, 60634, 60639, 60641, 60644, 60647, 60651 and 60707
- Parenting support interviews in partnership with the various community organizations and schools: The Chicago Academy, Parent University at Steinmetz High School, New Moms, Austin Childcare Providers Network and the North Austin Branch of Chicago Public Library
- Focus Groups
    - Lurie Children's Kids Advisory Board
    - Parents/caregivers of Kids Advisory Board
    - Lurie Children's Family Advisory Board
    - Youth Group in partnership with Northwest Side Housing Center (NWSHC)
    - Parent Mentor Group in partnership with NWSHC

SECONDARY DATA ANALYSIS – Secondary data were compiled from a range of sources:

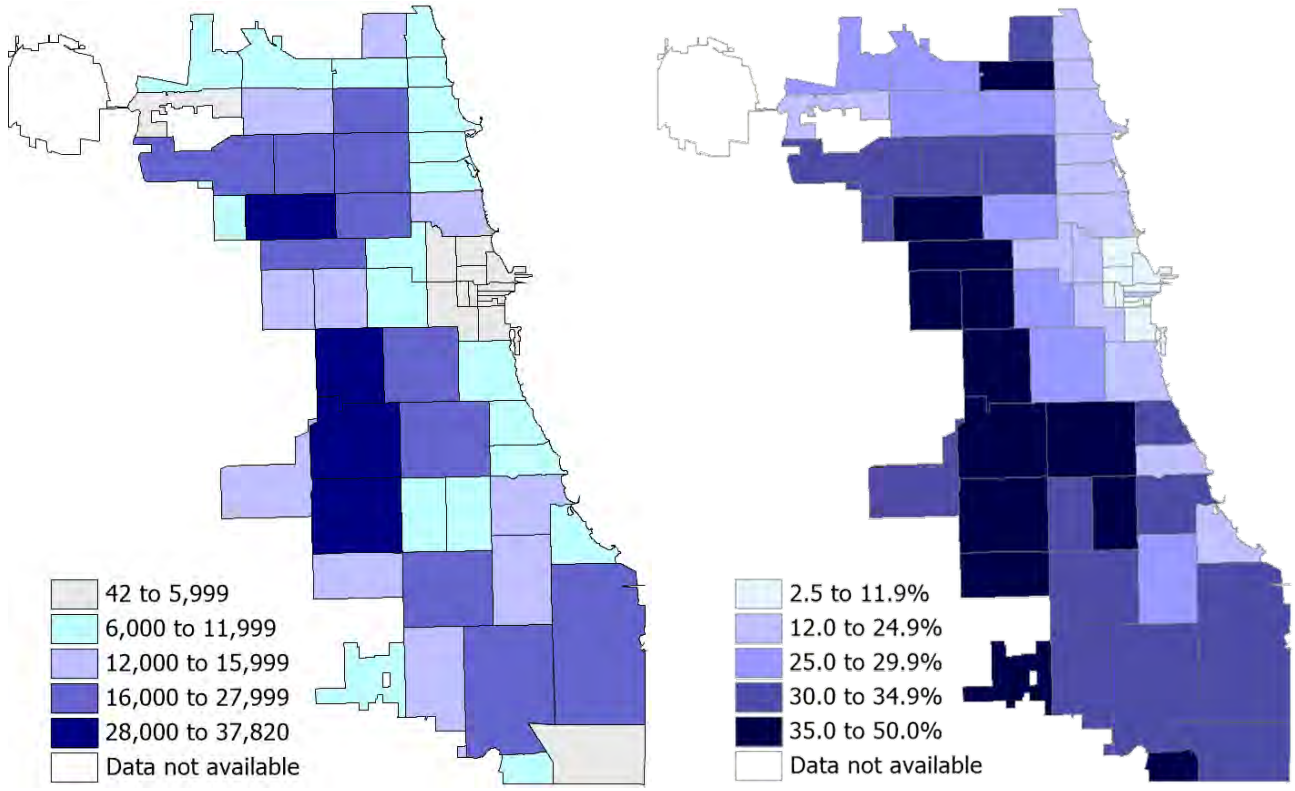
- Alliance for Healthy Equity's Collaborative CHNA
- Hospital-level data, including emergency department (ED) visits and inpatient admissions, were obtained from the Illinois hospital discharge database (COMPdata), which is maintained by the Illinois Hospital Association
- Lurie Children's electronic medical record
- U.S. Census American Community Survey 5-year estimates (2013-2017)
- Food insecurity data was obtained from the Greater Chicago Food Depository (GCFD), which uses as a standard data point in their assessment of food insecurity risk the proportion of the population living in households with incomes below 185 percent of the federal poverty level from the U.S. Census American Community Survey 5-year estimates (2013-2017)
- The Chicago Youth Risk Behavior Survey (YRBS), one component of the Youth Risk Behavior Surveillance System developed by the Centers for Disease Control and Prevention, was completed in randomly selected public high schools in Chicago during the spring of 2017 and focused on priority health-risk behaviors that result in the most significant mortality, disability, and social problems during both adolescence and adulthood
- The Illinois Youth Survey, funded by the Illinois Department of Human Services, captures data on attitudes and substance use patterns among Illinois youth through a self-report survey administered in school settings
- Healthy Chicago Survey Jr. (HCS-Jr) Reports, developed by Voices of Child Health in Chicago at Lurie Children's (luriechildrens.org/voices), in partnership with the Chicago Department of Public Health
- Data briefs from the Illinois Violent Death Reporting System (luriechildrens.org/ivdrs) based at Lurie Children's, part of Centers for Disease Control and Prevention's National Violent Death Reporting System, which is a state-based surveillance system that pools unique data elements from death certificates, medical examiner/coroner reports, and law enforcement reports.

Note: The ranges of all gradient maps included in this assessment were selected to highlight disparities and inequities among Chicago community areas.

Population Description and Child Opportunity Index

In the City of Chicago, 23 percent (n=631,569) of the population is 0-19 years old. The communities with the largest number of youth in this age bracket are on the West and Southwest sides of Chicago and include the ZIP codes of 60623, 60629, 60632, and 60639 (**Figure 6**). The greatest proportion of households with children under the age of 18 years are also found on the West and Southwest sides of the city (**Figure 6).**

Figure 6. *Pediatric population density, Chicago, 0-19 years old (left) and households with one or more people under 18 years by zip code (American Community Survey, 5-year estimates, 2017)*



RACE/ETHNICITY – Figure 7 shows estimates of the predominant racial and ethnic groups by community area across Chicago. In 2017, the U.S. Census Bureau estimated 32.7 percent of Chicagoans identify as Non-Hispanic white, 30.1 percent identify as Non-Hispanic black/African American, 29.0 percent as Hispanic/Latinx, and 6.2 percent as Asian. Racial and ethnic segregation in Chicago is well above national median levels (Metropolitan Planning Council, 2017). The consequences of this segregation are discussed further in The Role of Racism section starting on page 38.

The distribution of race and ethnicity for Chicago youth is notably different (**Figure 8**). The largest population of youth 0-19 years old are Hispanic/Latinx, followed by Non-Hispanic black/African American, Non-Hispanic white, and Non-Hispanic Asian.

Figure 7. *Predominant racial and ethnic groups in Chicago by community area (American Community Survey, 5-year estimates, 2016)*

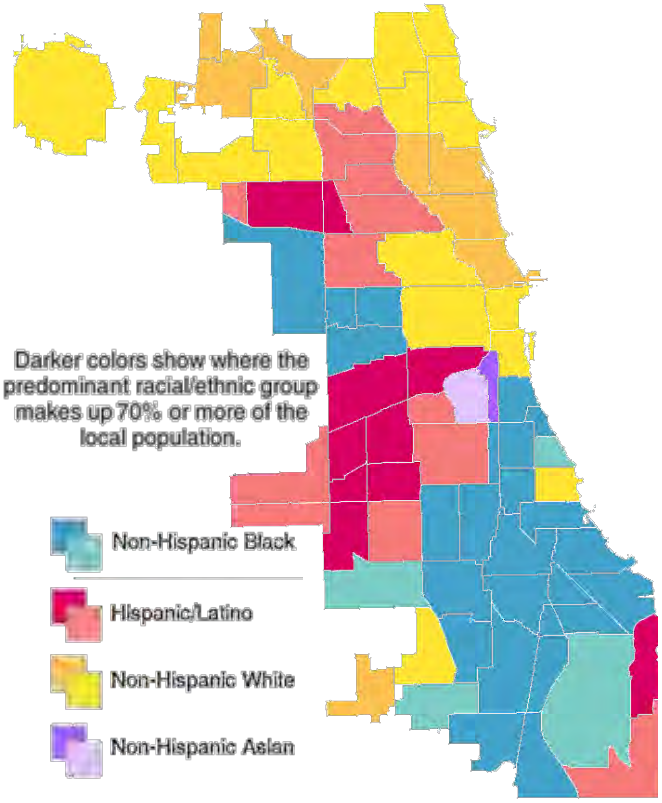
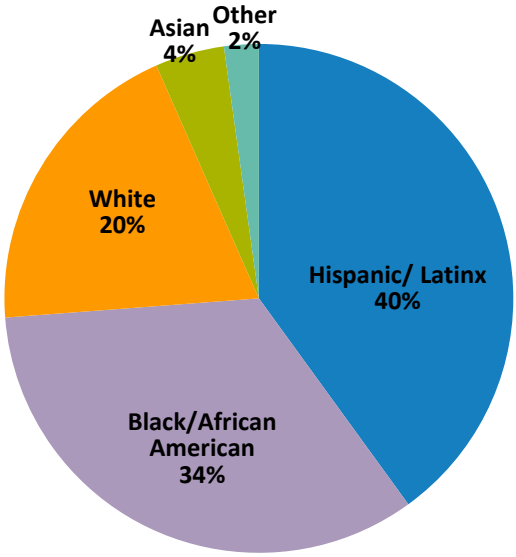
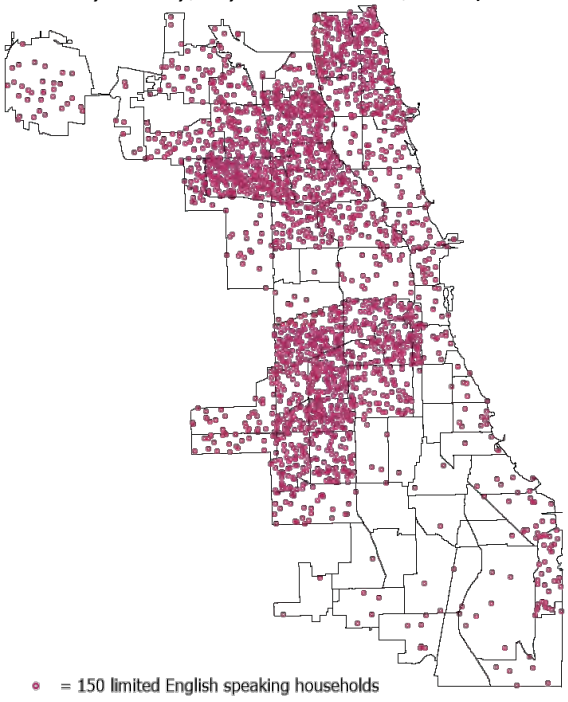


Figure 8. *Race and ethnicity among Chicagoans 0-19 years old (American Community Survey, 5-year estimates, 2017)*



IMMIGRATION – An estimated 21% of Chicago residents are foreign-born (U.S. Census Bureau, American Community Survey, 2016 5-year estimates). In 2016, 1.6 million Illinois residents were native-born Americans who had at least one immigrant parent (American Immigration Council, 2017). In 2015, the top countries of origin for foreign-born individuals living in Illinois were Mexico (38.2 percent of immigrants), India (8.1 percent), Poland (7 percent), the Philippines (5 percent), and China (4.3 percent) (American Immigration Council, 2017). Within Chicago, there are several communities with large concentrations of individuals that have limited English Proficiency (**Figure 9**). A 2012 study in California found that individuals who reported limited English proficiency had rates of low health literacy that were three times higher than English speakers (Sentell & Braun, 2012).

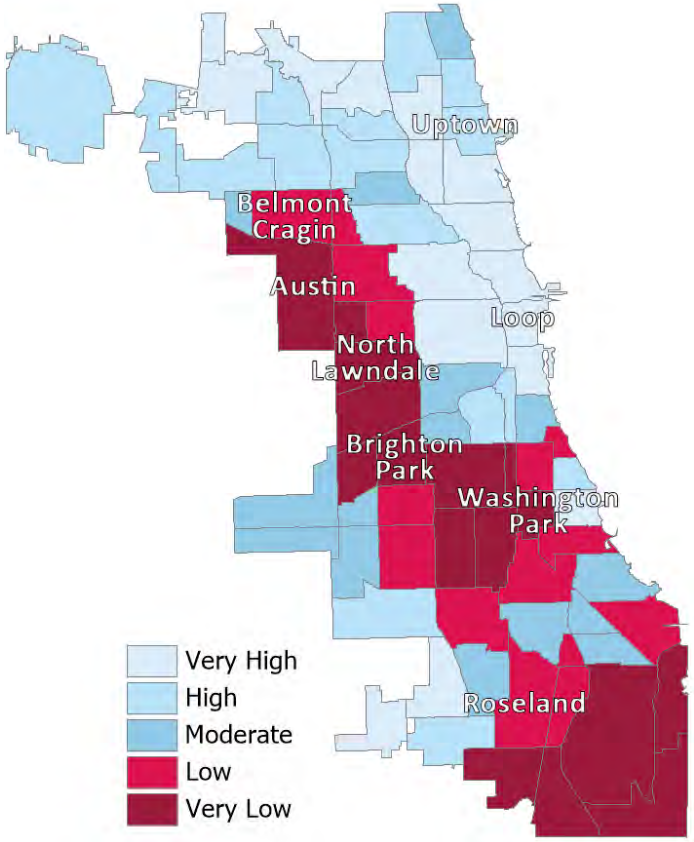
Figure 9. *Limited English proficiency – number of foreign-born individuals over age 5 who speak English less than "very well" in Chicago (American Community Survey, 5-year estimates, 2016)*



CHILD OPPORTUNITY INDEX – The Child Opportunity Index (COI) is a composite measure of relative opportunity across neighborhoods and provides a means of exploring social determinants of health for children. The index includes 19 metrics across three domains: Educational, Health/Environmental, and Social/Economic (**Table 2)**. **Figure 10** shows that neighborhoods with Low and Very Low COI are predominantly found on Chicago's South and West sides.

Table 2. *Components of Child Opportunity Index Score (diversitydatakids.org)*	
Educational Opportunity Index	Adult educational attainment
	Student (school) poverty rate
	Reading proficiency rate
	Math proficiency rate
	Early childhood education neighborhood participation patterns
	High school graduation rate
	Proximity to high-quality early childhood education centers
	Proximity to early childhood education centers of any type
Health and Environmental Opportunity Index	Retail health food index
	Proximity to toxic waste release sites
	Volume of nearby toxic release
	Proximity to parks and open spaces
	Housing vacancy rates
	Proximity to healthcare facilities
Economic Opportunity Index	Neighborhood foreclosure rate
	Poverty rate
	Unemployment rate
	Public assistance rate
	Proximity to employment

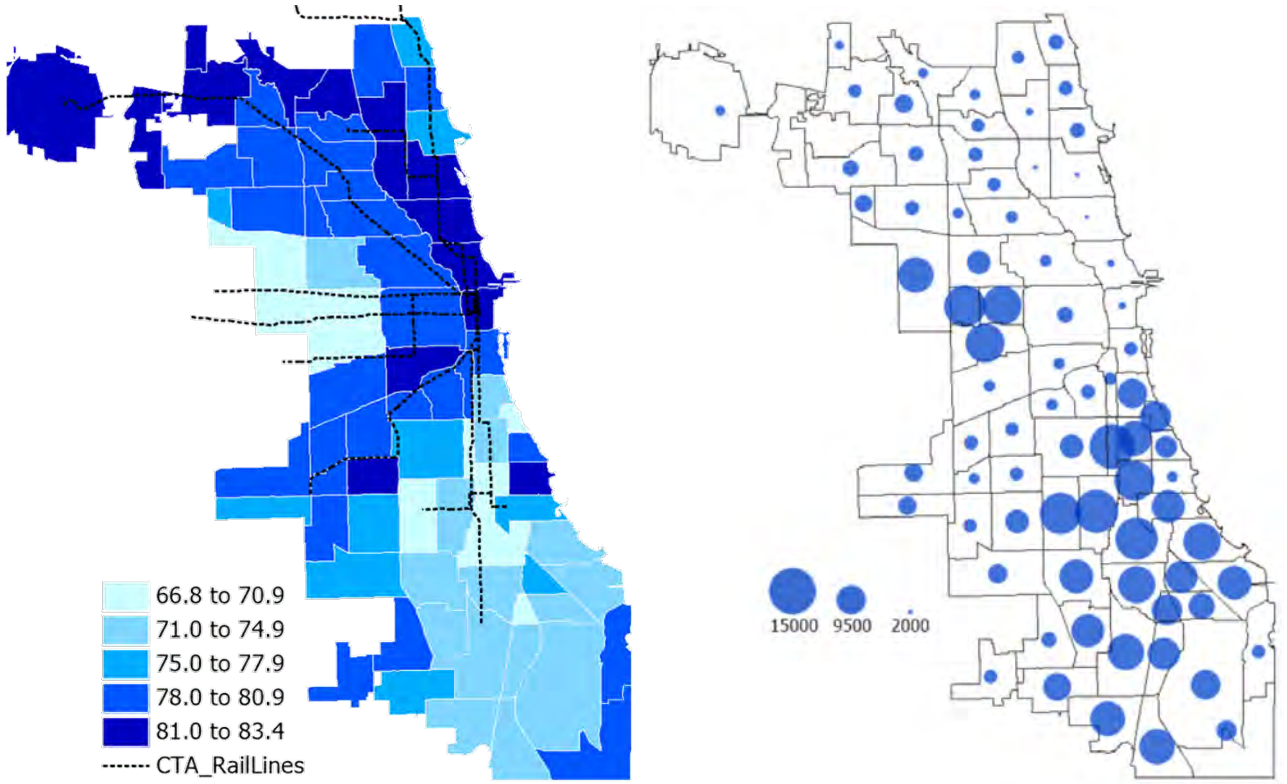
Figure 10. *Child Opportunity Index (COI) by Chicago community area*



Life Expectancy and Years of Potential Life Lost

Two additional measures that reflect the health of a community and population are life expectancy and years of potential life lost (**Figure 11**). There are profound differences in both among different communities in Chicago. Children born on the South and West sides of Chicago can expect to live up to 16.5 fewer years than children born in the Loop or on the North side. Years of Potential Life Lost (YPLL) is a measure of premature death. Like life expectancy, YPLL varies greatly between communities in Chicago, with communities on the South and West sides having the greatest burden of premature mortality.

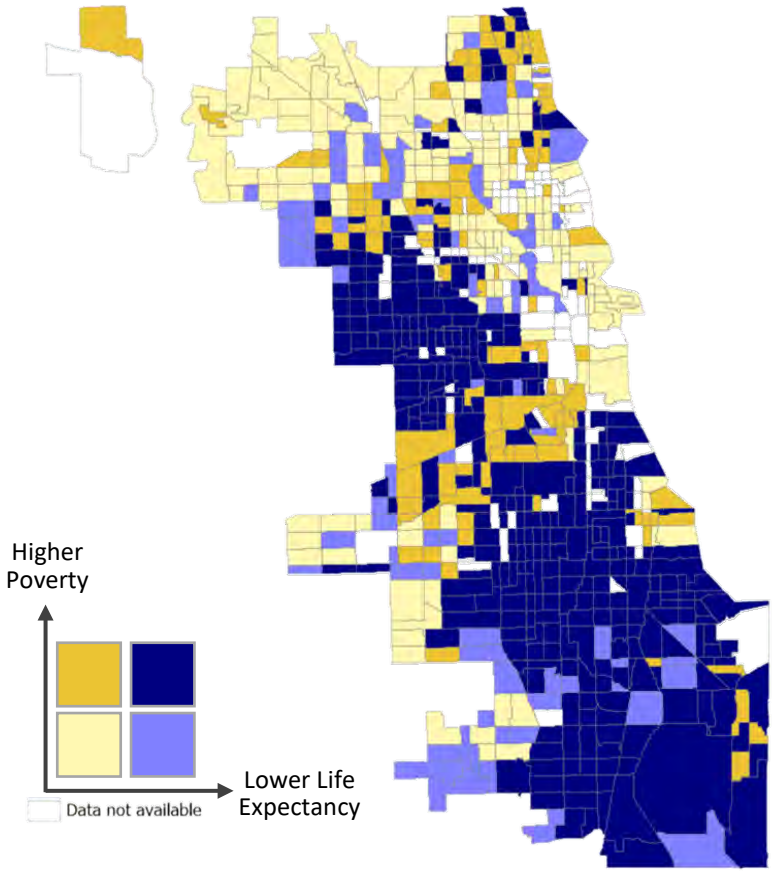
Figure 11. *Life expectancy (left) and years of potential life lost (right) by Chicago community area (Chicago Health Atlas)*



National life expectancy at birth was highest among Asians (86.3 years), followed by Hispanic/Latinx (81.8 years), whites (78.5 years) and black/African Americans (74.8 years) (Acciai, Noah, & Firebaugh, 2015; National Center for Health Statistics, 2017). In Chicago, life expectancy at birth was highest among Asians (83.0 years), followed by Hispanic/Latinx (80.7 years), whites (80.2 years), and black/African Americans (71.9 years) (Chicago Health Atlas).

Life expectancy (2016 estimates) across Chicago community areas ranges from 60 to 90 years. **Figure 12** shows the relationship between life expectancy and neighborhood level poverty. Here, life expectancy has been categorized as lower or higher than the average life expected in the U.S for 2016 (78.6 years). Poverty has been categorized as less than or more than 15 percent of households in a neighborhood being at or below the federal poverty line. Communities with lower life expectancies are concentrated in the West and South sides of the city, within areas of high poverty.

Figure 12. *Life expectancy at birth vs. neighborhood poverty rate (American Community Survey, 5-year estimates, 2016)*



Maternal Health and Infant Mortality

Maternal health is defined as the health of women during pregnancy, childbirth, and in the postpartum period (Illinois Department of Public Health, 2018). This period is a critical time for women's health since they typically have more interaction with and access to healthcare services (Illinois Department of Public Health, 2018).

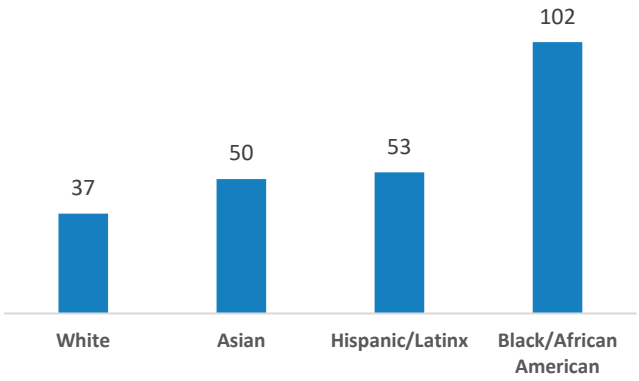
Severe pregnancy complications (maternal morbidity) and mortality rates are used on an international level to assess the overall health status of a country, state, or community (Illinois Department of Public Health, 2018). Since the year 2000, maternal mortality rates in the United States have been increasing even though the global trend has been the opposite (MacDorman, Declercq, Cabral, & Morton, 2016). In addition, maternal health disparities exist between racial and ethnic groups (Illinois Department of Public Health, 2018). The persistent nature of racial and ethnic disparities in maternal health indicate that inequities are due to more than just access to healthcare but include factors such as poverty, quality of education, health literacy, employment, housing, childcare availability, and community safety (Illinois Department of Public Health, 2018). Racism is a driving force of these social determinants (American Public Health Association, 2019). In addition, both systematic racism and provider bias affect the quality of healthcare that certain populations receive (Hoffman, Trawalter, Axt, & Oliver, 2016).

Severe maternal morbidity is a potentially life-threatening condition or complication that occurs during labor and delivery (Illinois Department of Public Health, 2018). Black/African American women have rates of severe maternal morbidity that are nearly three times higher than the rate for white women **(Figure 13)**. Women on

Medicaid have a higher rate of severe maternal morbidity (57.1 per 10,000 deliveries) than women with private insurance (48.6 per 10,000 deliveries) (Illinois Department of Public Health, 2018).

Between 2005 and 2015, the national infant mortality rate decreased by 14 percent from 6.86 to 5.90 deaths per 1,000 live births (National Center for Health Statistics, 2017). However, infant mortality rates in Illinois and in Chicago fell above the national average. Moreover, marked disparities in infant mortality rates are evident across Chicago community areas (**Figure 14**) and, as with maternal health, racial and ethnic disparities persist.

Figure 13. *Severe maternal morbidity rate per 10,000 deliveries in Illinois by race and ethnicity (Illinois Department of Public Health, 2016-2017)*



- In Illinois, the infant mortality rate per 1,000 live births (2012-2016) was 4.4 for whites, 5.5 for Hispanic/Latinx and 12.6 for black/African American
- In Chicago, infant mortality rates per 1,000 live births (2012-2016) was 3.4 for whites, 6.3 for Hispanic/Latinx and 12.7 for black/African American **(Figure 15)**

Figure 14. *Infant mortality rates per 1,000 live births by Chicago community area (Chicago Health Atlas)*

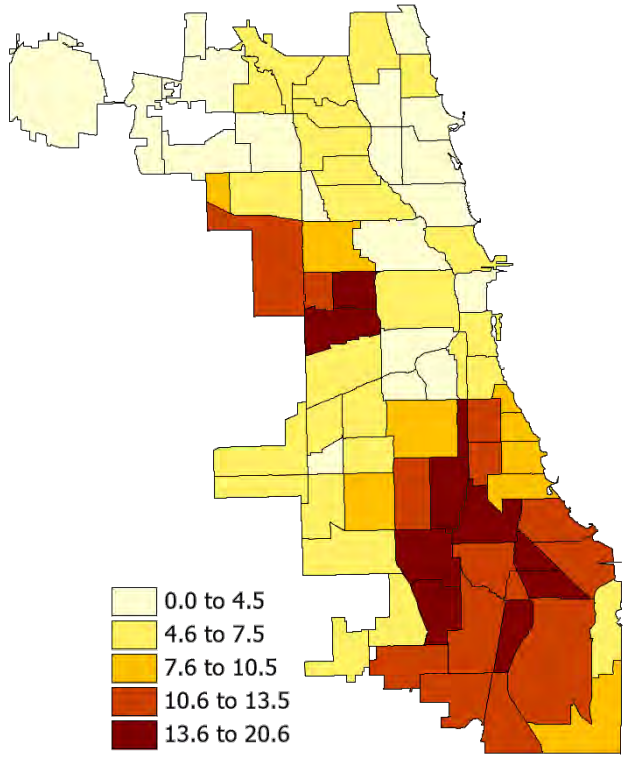
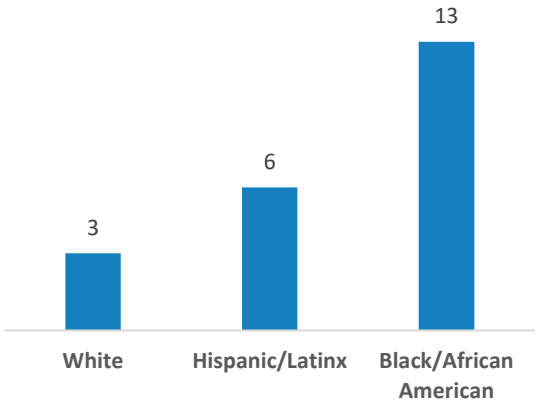


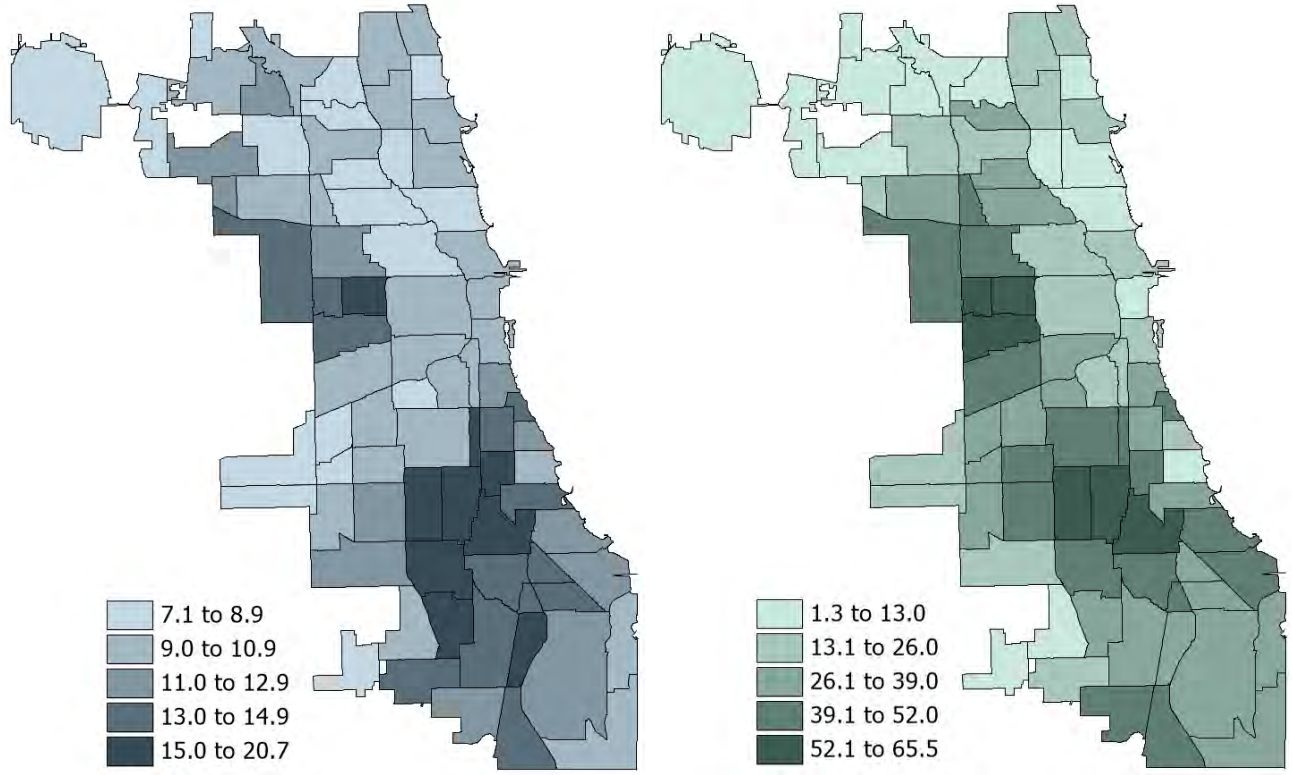
Figure 15. *Infant mortality rates per 1,000 live births in Chicago by race and ethnicity (Illinois Department of Public Health, 2012-2016)**



**The infant mortality rate for Asians is suppressed in Chicago due to insufficient population size*

Nationally, 8.3 percent of infants are born low birthweight (less than 5.5 lbs.) and 9.9 percent are born preterm. In Chicago these indicators are higher with 9.6 percent of infants born low birthweight and 10.7 percent born preterm. Chicago's teen birth rate of 24.6 live births per 1,000 women, 15-19 years old, is also higher than the national average of 18.8 (National Center for Health Statistics, 2017). Similar to infant mortality, there are disparities in low birthweight*, preterm births, and teen birth rates across Chicago community areas (**Figure 16**) and among races/ethnicities **(Table 3)**.

Figure 16. *Percent of pre-term births (left) and teen birth rate per 1,000 females 15-19 years old (right) by Chicago community area (Chicago Health Atlas)*



**Low birthweight map found on Page 57*

Table 3. *Select maternal and child health indicators for Chicago by race and ethnicity (Illinois Department of Public Health, 2012-2016)*

	Percent of infants born low birthweight	Percent of infants born preterm	Teen birth rate per 1,000 women 15-19 years old
Black/African American	15%	15%	32
Asian	8%	9%	3
Hispanic/Latinx	8%	9%	28
White	6%	9%	5

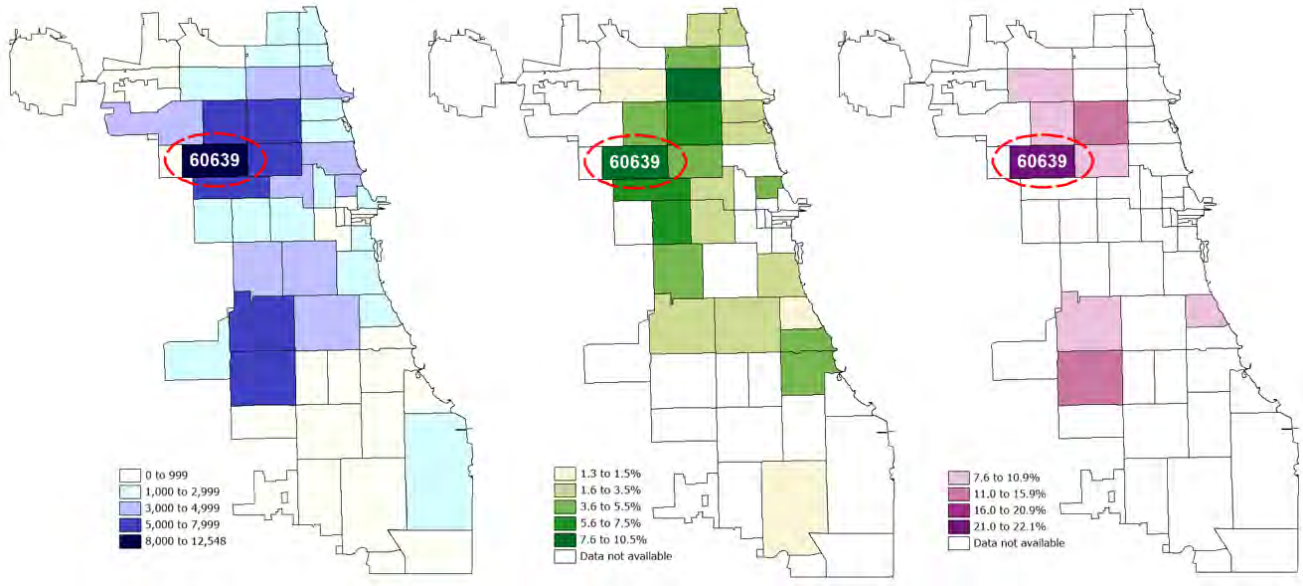
Differences in maternal and child health outcomes can be linked to multiple social determinants of health (Kay Johnson et al., 2006; C. P. Larson, 2007; Robert Wood Johnson Foundation, 2009):

- Children born to mothers without a high school education are twice as likely to die before their first birthday as children born to mothers who are college graduates
- Access to quality preconception, prenatal, and postnatal healthcare can greatly improve maternal and child health outcomes
- Maternal poverty has been linked to greater risks for preterm birth, intrauterine growth restriction, neonatal death, and infant death
- Maternal poverty has consistently been found to be a significant determinant of delayed cognitive development and poor school performance in children

Neighborhood-specific Service Area

Within Chicago, Lurie Children's has identified the 60639 ZIP code as a priority area of focus. Using Lurie Children's data (including emergency room visits, potential child maltreatment referrals and mental health care waitlists), we identified 60639 (**Figure 17**), which includes the Chicago community areas of Belmont Cragin and Austin, as the neighborhoods that account for our largest patient volumes in each of these areas.

Figure 17. *Number of* emergency room *visits 2016-2018 (left), percent of referrals to the Illinois Department of Children & Family Services for potential child maltreatment 2016 (middle), and percent of psychiatry waitlists 2016 (right) by ZIP code*



Among 12th-grade students surveyed as part of the Illinois Youth Survey in 2018, 62 percent of students in Belmont Cragin reported using alcohol and 39 percent reported that they had experienced depression in the past year. Nearly half of 8th-grade students in Belmont Cragin reported that they had experienced bullying due to a disability or their appearance in the past year. For 12th-grade students in Austin, nearly half (49 percent) indicated that they had used marijuana and 38 percent experienced depression in the past year – higher than the overall totals in Illinois as seen in **Table 4**.

Table 4. *Bullying, substance use, and mental and behavioral health (Illinois Youth Survey, 2018)*

	Austin	Belmont Cragin	Illinois
Bias-based bullying victimization*	31%	49%	39%
Substance use			
Alcohol use	40%	62%	58%
Marijuana	49%	41%	36%
Mental and behavioral health			
Experienced depression	38%	39%	31%
Considered suicide	14%	16%	14%

**8th-grade students, otherwise 12th-grade students*

COMMUNITY INPUT

Community Input Survey – Collaborative CHNA

The intention of the community input survey was to complement existing community health surveys distributed throughout Chicago by the Chicago Department of Public Health. The final survey tool included 16 questions—three questions related to ZIP code/community of residence, nine demographic questions, two multi-select questions about health problems and what is needed for a healthy community, and two open-ended questions about community strengths and improvements needed. The Survey Tool is included in Appendix C.

A map showing the distribution of survey respondents across the city and county is presented in **Figure 18.** Nearly 4,000 Chicagoans completed the survey – **Table 5** summarizes survey respondents' demographics.

Figure 18. *Geographic distribution of Collaborative CHNA community input survey respondents in Chicago*

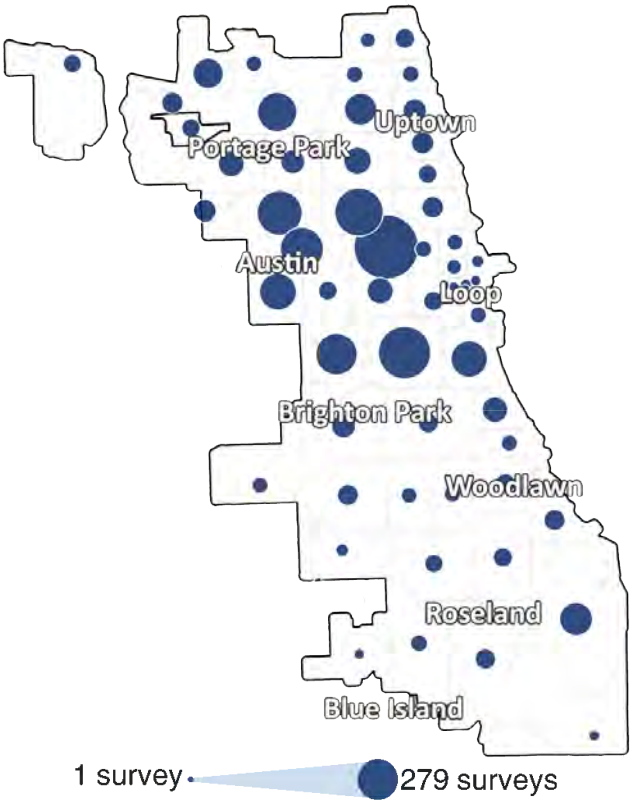


Table 5. *Demographics of 3,923 Community Input Survey Respondents**

Race/Ethnicity (n = 3,672)	
Asian	8.2
South Asian	0.7
East Asian	0.3
Pacific Islander	0.3
Black/African American	25.5
Hispanic/Latinx	31.9
Middle Eastern/Arab American	0.5
Native American	0.2
White	22.0
Multiracial	5.2
Gender Identity (n = 3,781)	
Female	67.7
Male	27.5
Non-Binary or Genderqueer	0.4
Gender Neutral	0.3
Transwoman	0.1
Transman	0.1
Other	0.3
Educational Attainment (n = 3,710)	
Some or no high school	14.0
High school graduate or GED	21.2
Vocational or technical school	4.8
Some college	19.8
College graduate or higher	35.1
Household Size (n = 3,514)	
1	22.1
2	23.4
3	13.5
4	13.3
5	8.6
6+	8.8
Languages (n = 3,923)	
English	82.3
Spanish	13.0
Chinese	4.0
Polish	0.7

Age (n = 3,768)	
18-24	11.8
25-34	14.1
35-44	13.2
45-54	14.8
55-64	17.8
65-74	14.2
75-84	7.7
85 or older	2.5
Sexual Orientation (n = 3,670)	
Straight	80.8
Gay or Lesbian	4.3
Bisexual	2.7
Prefer not to answer	4.5
Other	1.3
Annual Household Income (n = 3,835)	
Less than $10,000	20.6
$10,000 to $19,999	14.2
$20,000 to $39,999	16.6
$40,000 to $59,999	12.8
$60,000 to $79,999	7.3
$80,000 to $99,999	4.7
Over $100,000	9.0
Prefer not to answer	12.6
Children in the Household (n = 4,108)	
No children in my household	60.0
Age 0-4	15.2
Age 5-12	21.1
Age 13-17	17.8
Someone in Household with a Disability (n = 3,687)	
Yes	26.2
No	67.8

**Some questions were multi-select in which respondents could choose more than one answer, therefore, not all percentages total 100 percent*

Respondents were asked to choose options from two multi-select questions: “What do you think are the three most important health problems in your community?” and “What do you think are the three most important things necessary for a ‘Healthy Community’?” In terms of health problems, the top five prioritized by community members were diabetes (43 percent), mental health (40 percent) (e.g., depression, anxiety, PTSD, suicide), age-related illness (32 percent) (e.g., arthritis, hearing/vision loss, Alzheimer’s/dementia, etc.), substance-use (32 percent) (e.g., alcohol, prescription misuse, and other drugs) and violence (29 percent) (**Figure 19**). In terms of

things needed for a 'Healthy Community,' respondents identified access to healthcare and mental health services (48 percent), safety and low crime (39 percent), access to community services (31 percent), access to healthy food (30 percent) and affordable housing (28 percent) as the top five (**Figure 20**).

Figure 19. *Community Input Survey: "What do you think are the three most important health problems in your community"? (n = 3820)*

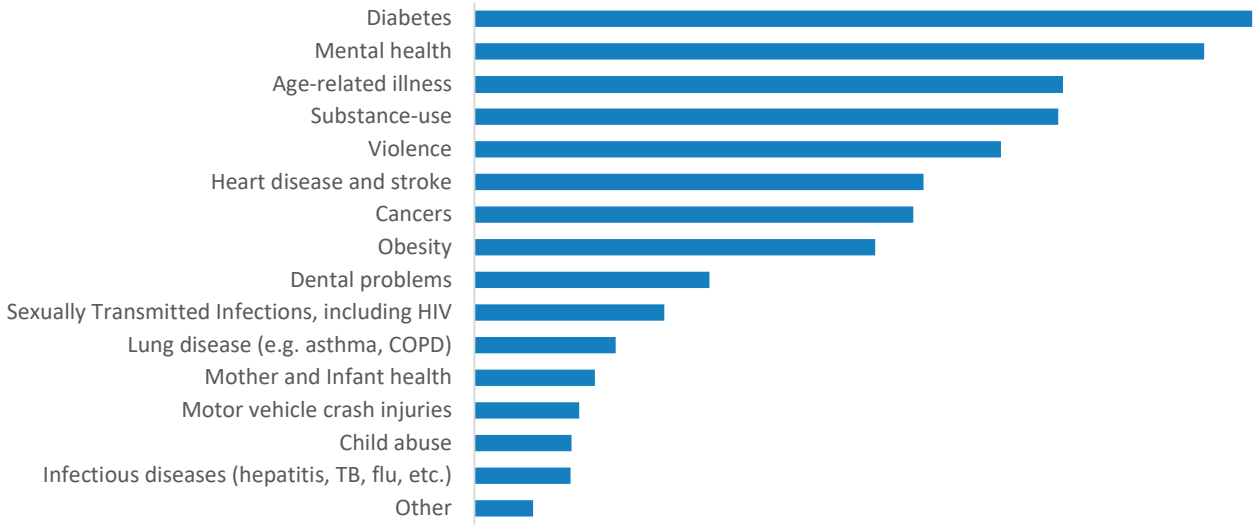
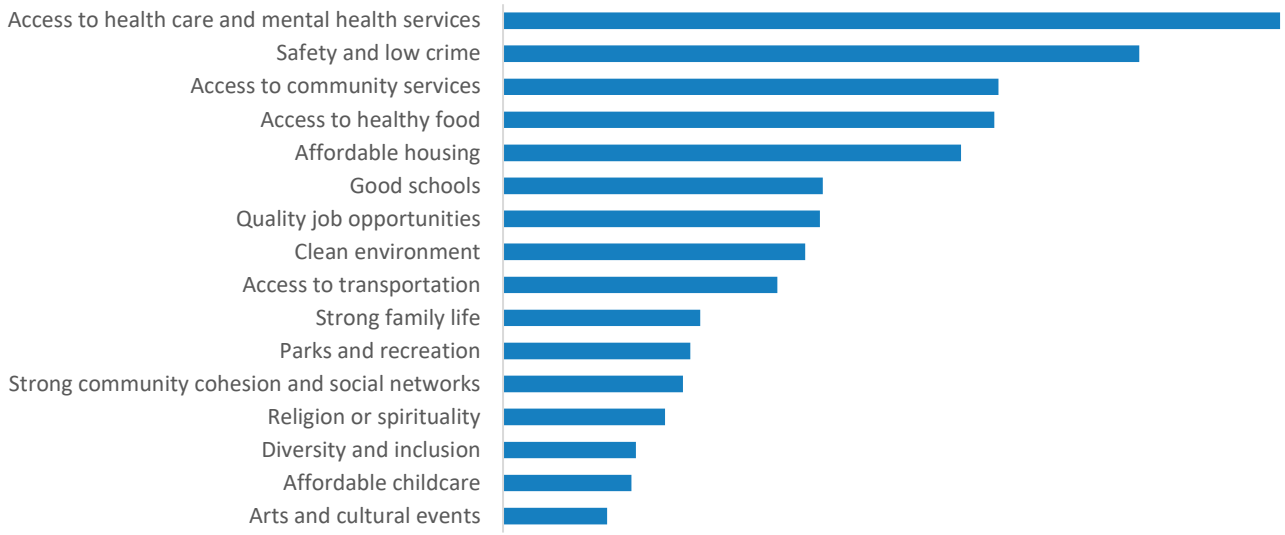


Figure 20. *Community Input Survey: "What do you think are the three most important things necessary for a 'Healthy Community'"? (n = 3769)*



Respondents were asked two open-ended questions: "What are the greatest strengths or best things in the community where you live? (list up to 3)" and "What is one thing that you would like to see improved in your community?" Nearly 40 themes were identified across community residents' responses to both questions. The top five themes for greatest community strengths included community cohesion (47 percent), transportation (27 percent), safety and low crime (20 percent), parks and recreation (18 percent), and accessibility (16 percent) (**Figure 21**). In terms of community improvements, safety and low crime (30 percent), economic development (7.5 percent), healthcare (6.3 percent), infrastructure (6.3 percent) and community cohesion (5.8 percent) were the top five (**Figure 22**). Themes with less than 100 responses were excluded from both charts.

Figure 21. *Community Input Survey: "What are the greatest strengths or best things in the community where you live? (List up to 3)"? (n = 2538)*

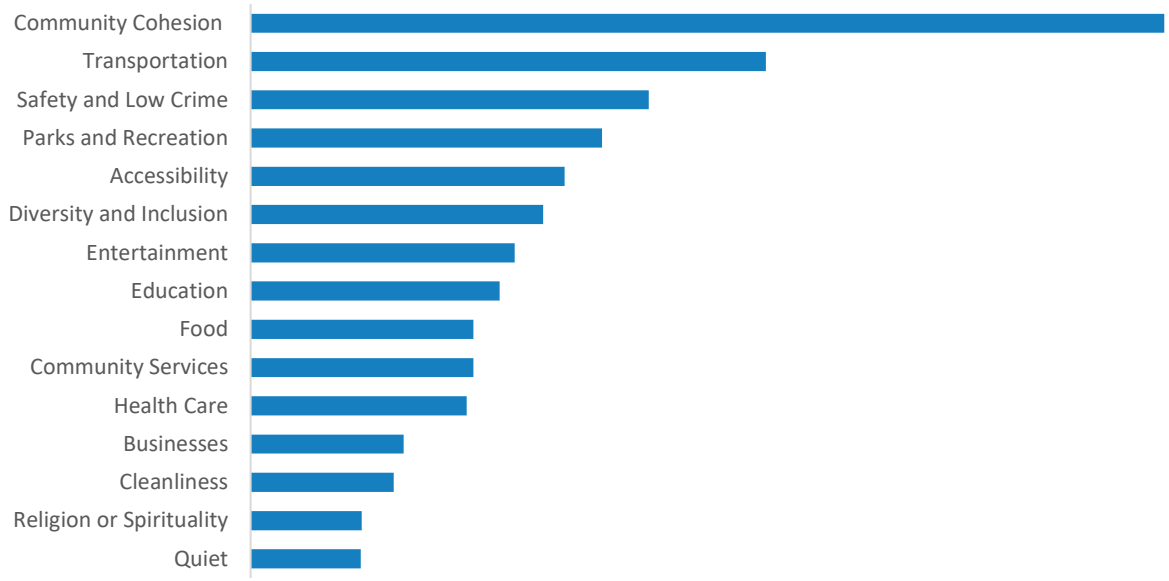
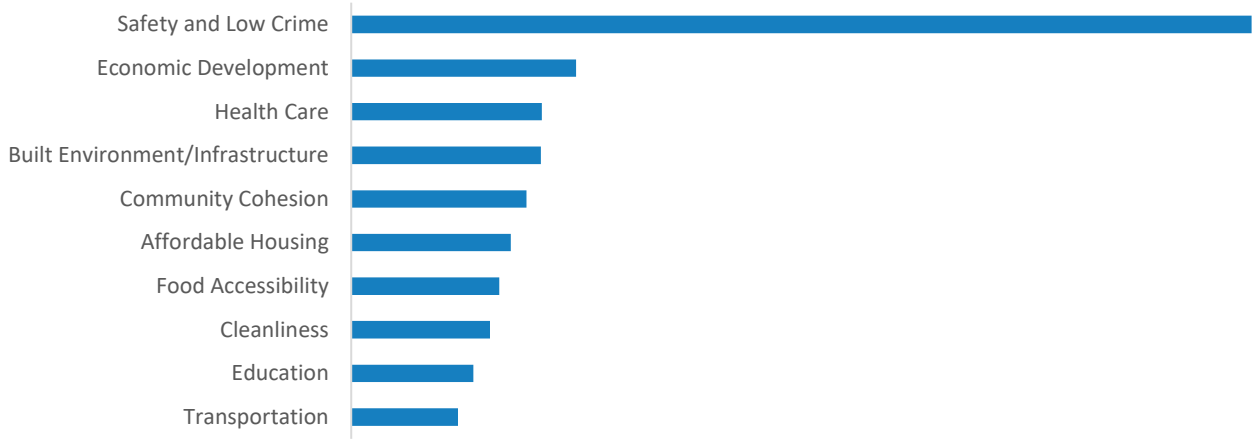


Figure 22. *Community Input Survey: "What is one thing that you would like to see improved in your community?"? (n = 2900)*



Community Input Survey – Youth Voice & Lurie Children's Employees

Using the Community Input Survey developed by IPHI as a basis, Lurie Children's created two modified versions – one survey for youth targeting adolescents and young adults to include and elevate youth voice and one survey for Lurie Children's employees who live in and around the target ZIP code 60639. Lurie Children's promoted the Youth Survey through community-based partners, Lurie Children's Healthy Communities Internal Advisory Board, and other internal stakeholders. We received 118 total responses – four were excluded as incomplete and 11 additional were excluded as over the age of 25 years, leaving 103 youth respondents.

Using Human Resource employee data, we identified 518 employees living in and around 60639, which included 60618, 60623, 60624, 60634, 60639, 60641, 60644, 60647, 60651 and 60707. These employees were emailed a link to the survey and 74 respondents (14.2 percent) completed the survey. Demographics for both surveys are listed in **Table 6** and **Figure 23** depicts the distribution of survey respondents.

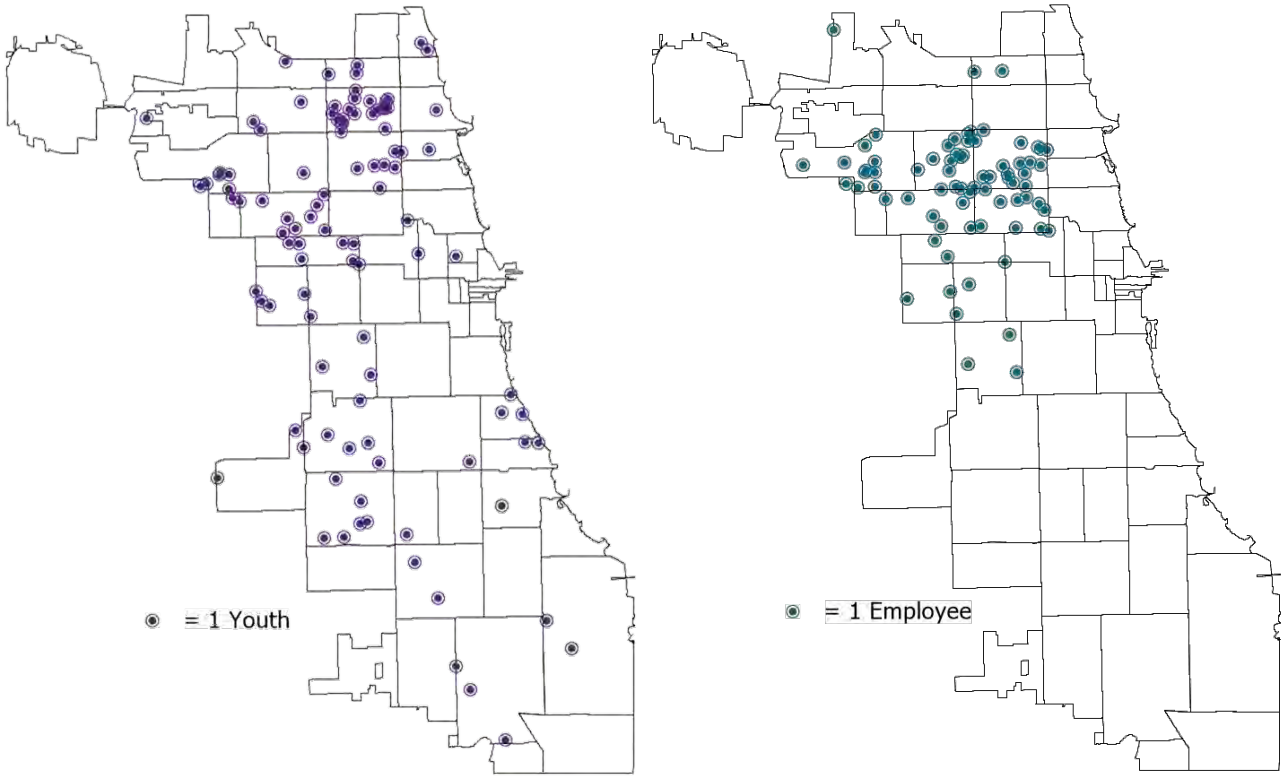
Table 6. *Demographics of 103 Youth (left column) and 74 Employee (right column) Survey Respondents**

Race/Ethnicity	Youth	Employees
Asian	4.9	2.7
South Asian	1.0	0.0
East Asian	0.0	1.4
Pacific Islander	1.0	0.0
Black/African American	29.1	8.1
Hispanic/Latinx	54.4	47.3
Middle Eastern/Arab American	1.9	0.0
Native American	3.9	1.4
White	12.6	44.6
Prefer not to answer	3.9	N/A
Gender Identity	Youth	Employees
Female	71.8	81.1
Male	23.3	18.9
Non-Binary or Genderqueer	1.9	0.0
Gender Neutral	1.0	0.0
Transwoman	0.0	0.0
Transman	1.0	0.0
Other	1.0	0.0
Educational Attainment	Youth	Employees
Some or no high school	57.3	0.0
High school graduate or GED	23.3	6.8
Vocational or technical school	0.0	0.0
Some college	1.9	23.0
College graduate or higher	2.9	70.3
Prefer not to answer	14.6	0.0
Household Size	Youth	Employees
1	1.9	9.5
2	8.7	31.1
3	14.6	24.3
4	26.2	24.3
5	23.3	6.8
6+	24.3	4.1
Prefer not to answer	1.0	N/A
Someone in Household with Disability	Youth	Employees
Yes	11.7	6.8
No	84.5	91.9
Prefer not to answer	3.9	1.4

Age	Youth	Employees
Under 13	1.0	N/A
13-17	80.6	N/A
18-24	17.5	4.1
25-34	1.0	28.4
35-44	N/A	37.8
45-54	N/A	17.6
55-64	N/A	10.8
65-74	N/A	0.0
75-84	N/A	0.0
85 or older	N/A	0.0
Prefer not to answer	N/A	1.4
Sexual Orientation	Youth	Employees
Straight	78.6	N/A
Gay or Lesbian	4.9	N/A
Bisexual	9.7	N/A
Prefer not to answer	6.8	N/A
Annual Household Income	Youth	Employees
Less than $10,000	9.7	0.0
$10,000 to $19,999	9.7	1.4
$20,000 to $39,999	13.6	6.8
$40,000 to $59,999	14.6	13.5
$60,000 to $79,999	3.9	12.2
$80,000 to $99,999	4.9	14.9
Over $100,000	5.8	36.5
Don't know	28.2	N/A
Prefer not to answer	9.7	14.7
Children in the Household	Youth	Employees
No children in my household	23.3	48.7
Age 0-4	14.6	25.7
Age 5-12	39.8	21.6
Age 13-17	44.7	12.2
Prefer not to answer	2.9	2.7
Prefer not to answer	2.9	2.7

**Some questions were multi-select in which respondents could choose more than one answer, therefore, not all percentages total 100 percent*

Figure 23. *Geographic distribution of community input survey respondents, youth (left) and employees (right)*



Youth and Lurie Children's employees in and around 60639 were asked the same questions as the broader Chicago community. Youth and employee respondents agreed on the top five health problems, which aligned with the broader Chicago community, with one exception. Youth and employees did not identify age-related illnesses, but rather obesity as a top health problem. Additional health problem ranking shown in **Figure 24.**

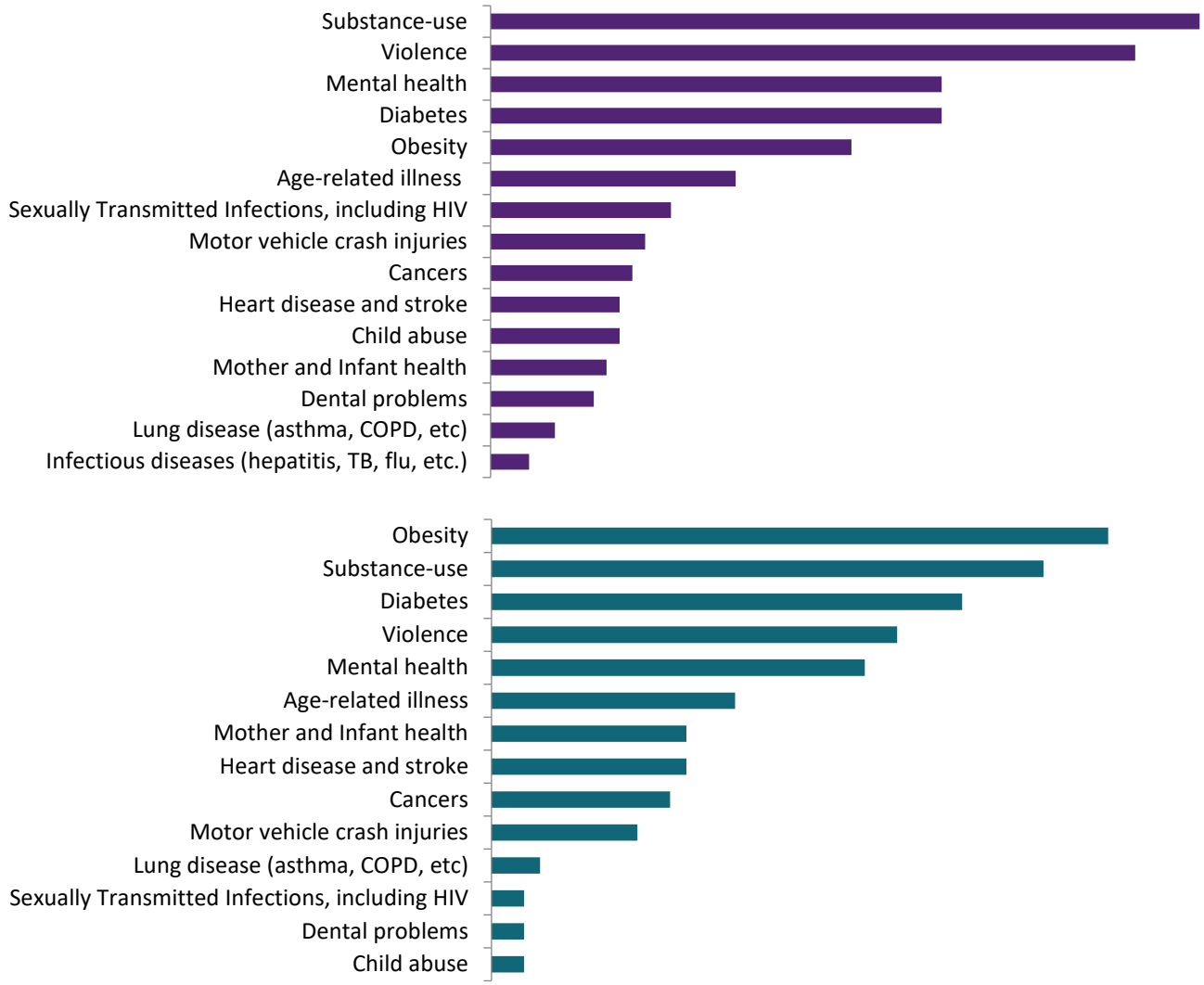
Top Five – Youth

1. Substance use (53.4 percent)
2. Violence (48.5 percent)
3. Mental health (34.0 percent)
4. Diabetes (34.0 percent)
5. Obesity (27.2 percent)

Top Five – Employees

1. Obesity (51.4 percent)
2. Substance use (46.0 percent)
3. Diabetes (39.2 percent)
4. Violence (33.8 percent)
5. Mental health (31.1 percent)

Figure 24. *Community Input Survey: "What do you think are the three most important health problems in your community"? Youth, n = 103 (top) and Employees, n = 74 (bottom)**



**Infectious diseases were excluded from Employees bar chart because zero respondents chose this as a top health problem*

Youth and employee respondents agreed on four of their top five factors needed for a 'Healthy Community.' Unlike the broader Chicago community, youth and employees identified good schools as a top priority, while respondents from the broader community identified access to community services as one of their top five. Clean environment was one of the top five for youth, while access to healthy food was a top five for employees. Additional rankings for things needed for a 'Healthy Community' shown in **Figure 25.**

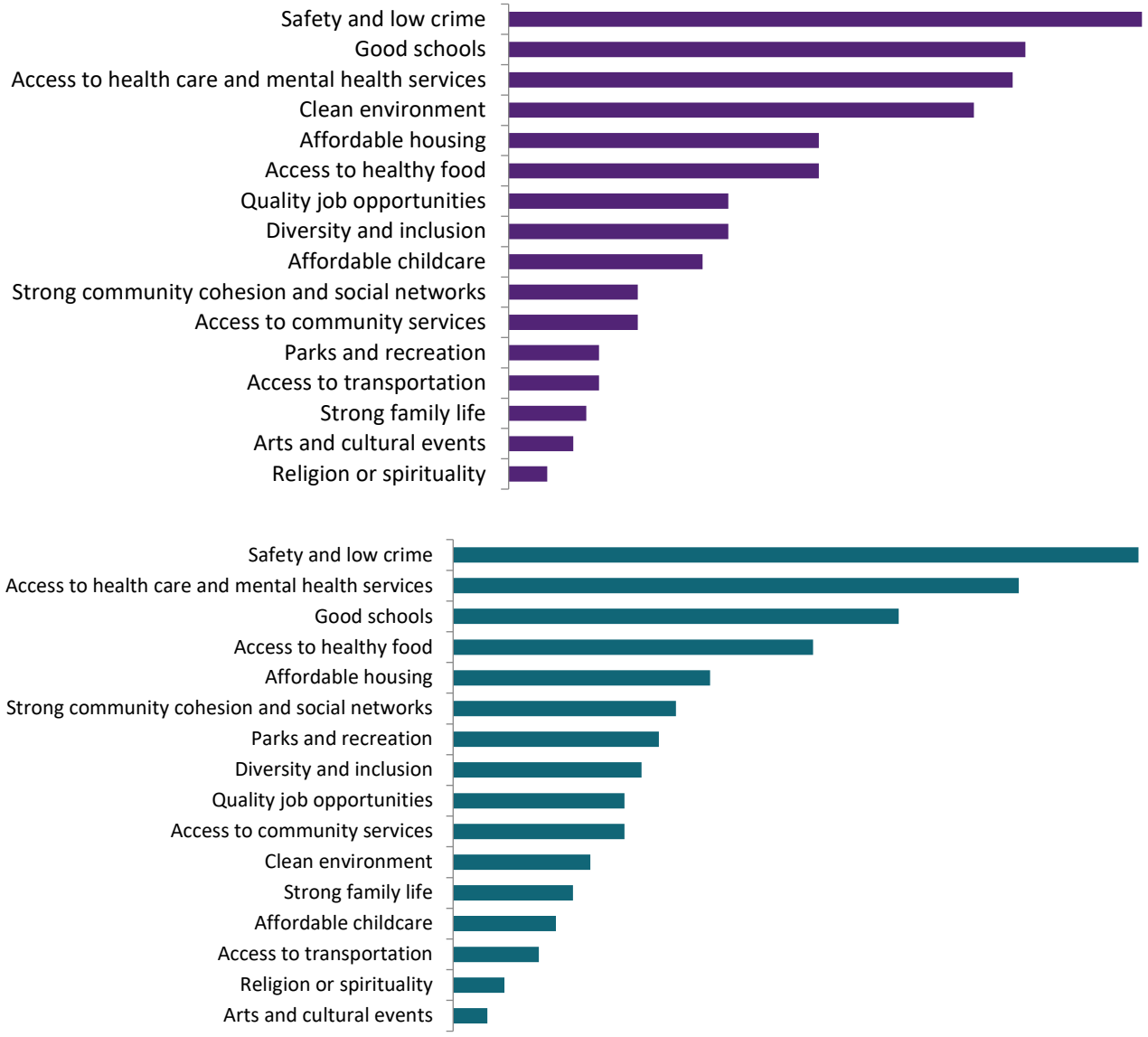
<u>Top Five – Youth</u>

1. Safety and low crime (47.6 percent)
2. Good schools (48.5 percent)
3. Access to health care and mental health services (37.9 percent)
4. Clean environment (35.0 percent)
5. Affordable housing (23.3 percent)

<u>Top Five – Employees</u>

1. Safety and low crime (54.1 percent)
2. Access to health care and mental health services (44.6 percent)
3. Good schools (35.1 percent)
4. Access to healthy food (28.4 percent)
5. Affordable housing (20.3 percent)

Figure 25. *Community Input Survey: "What do you think are the three most important things necessary for a 'Healthy Community'"? Youth, n = 103 (top) and employees, n = 74 (bottom)*



Youth and employees were asked the same two open-ended questions that were asked of the broader Chicago community. Like the broader community, youth and employees identified community cohesion as the number one strength in their community and both identified safety and low crime and parks and recreation as top five community strengths (**Figure 26**). In terms of community improvements, youth and employees identified safety and low crime as the top opportunity for improvement, like the broader Chicago community. Youth and employees also identified transportation and diversity and inclusion as top five priorities for community improvements (**Figure 27).**

Figure 26. *Top five themes from Community Input Survey: "What are the greatest strengths or best things in the community where you live? (List up to 3)"? Youth, n = 103 (top) and employees, n = 74 (bottom)*

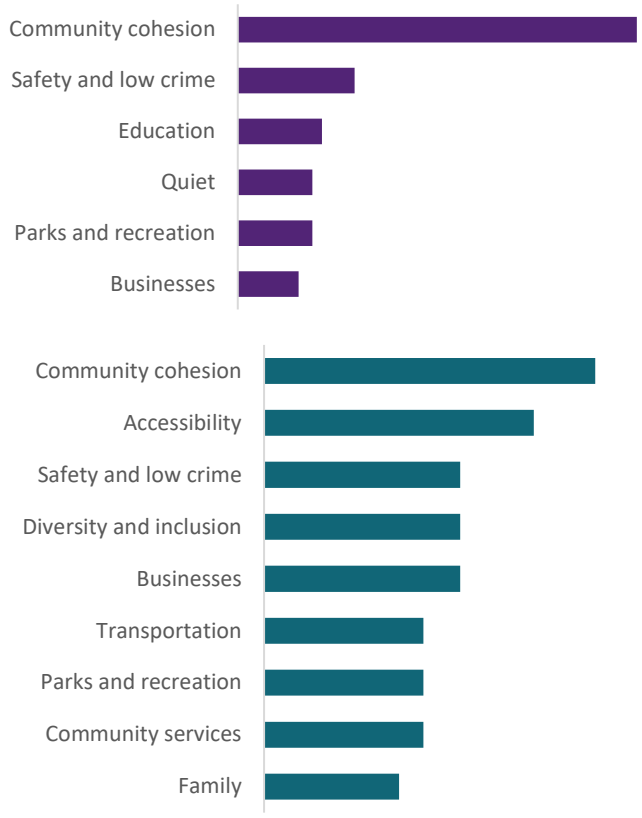
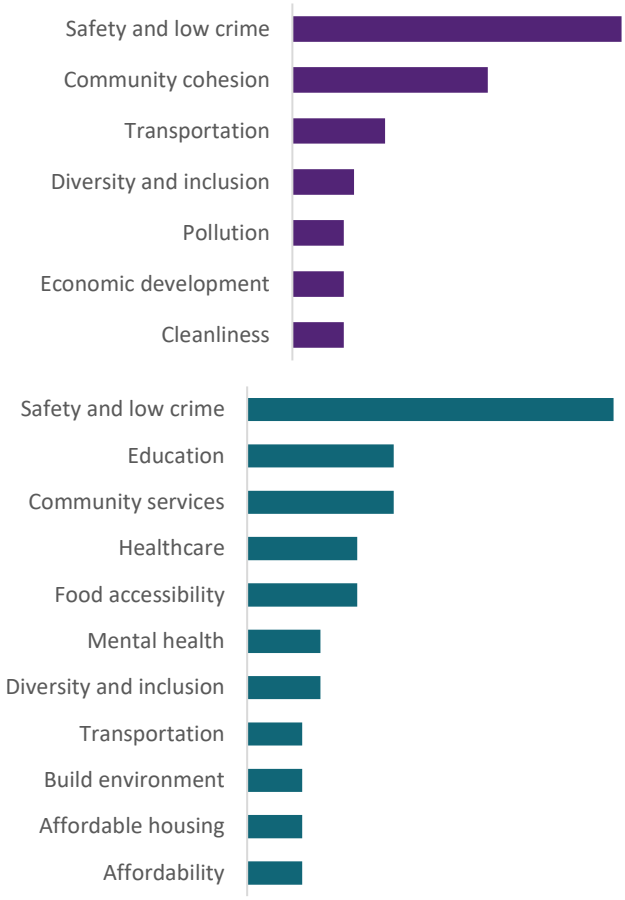


Figure 27. *Top five themes from Community Input Survey: "What is one thing that you would like to see improved in your community?" Youth, n = 103 (top) and employees, n = 74 (bottom)*



Collaborative CHNA Focus Groups

The Collaborative CHNA focus group facilitators asked participants about the underlying root causes of health issues that they see in their communities and specific strategies for addressing those health needs. IPHI developed the focus group questions using resources from existing CHNA toolkits and peer-reviewed studies, in consultation with the CHNA committee and colleagues at partner health departments. Each focus group was hosted by a community-based organization or hospital, and participation ranged from three to 40 people. Most focus groups were 90 minutes long with an average of 10 participants.

Community input from the Collaborative CHNA's 52 community input sessions (focus groups and learning map sessions) throughout Chicago and Cook County is integrated throughout the assessment in blue ***COMMUNTY INPUT*** *boxes.*

Lurie Children's Interviews

In addition to the community input collected for the Collaborative CHNA, Lurie Children's conducted interviews with parents and caregivers (n = 45) between December 2018 and January 2019 in our priority area of 60639, specifically Belmont Cragin and Austin. These focused on the needs of parents and caregivers and family supports broadly. Needs related to social determinants of health, including food insecurity and housing stability, were discussed. Additionally, parents and caregivers were interested in increasing their health literacy, navigating health insurance, creating safe environments, learning about child development, gaining positive discipline skills, and prioritizing self-care. Concerns related to managing the health conditions of their children and adolescents were discussed, including asthma, food allergies, and obesity. Additionally, parents and caregivers were concerned about social issues impacting their children and adolescents, including bullying, school safety, sex and sexually-transmitted infections, social media, and positive body images.

Lurie Children's Focus Groups

Lurie Children's facilitated six focus groups between January and May 2019 with patients (n = 14) and patient families (n = 24), youth (n = 24) and parents (n = 20) from 60639, and Lurie Children's employees (n = 43). The focus groups with patients and patient families focused on community strengths, top health and social needs and ways to address the needs identified.

PATIENTS – Patients were members of Lurie Children's Kids Advisory Board and ranged in age from 14 to 18 years old. Three out of 14 lived in Belmont Cragin, four others lived in the City of Chicago, including Gold Coast, Lincoln Park, Rogers Park and West Lawn. The remaining lived outside of Chicago. The overall themes included the need for better school supports, mental and behavioral health, social determinants of health, and transitioning care and services into adulthood.

All patients were living with chronic medical conditions, most with complex chronic conditions and this was a reoccurring topic of discussion, particularly in terms of how they manage through resilience: *"When you have these challenges, they [the challenges] kind of help you. Sometimes things in life change, but then the pain helps you accept things, and you start to realize it makes you stronger."* Patients also discussed challenges they faced managing their diagnosis and their school environments and social circles: *"sometimes peers or your friends don't understand that if you're in the hospital you need extra time to get school work done, but they don't understand."* Many felt that they were missing important linkages between school, home and the hospital.

Mental and behavioral health were also prominent topics of discussion, including substance use, self-harm and suicide and lack of access: *"It's hard to find places in my area that have these services."* Patients discussed community violence and perceptions of safety in their neighborhood: *"I don't want to say that it's a dangerous neighborhood, but I have to be home at a certain time, before it gets dark. There are a lot of weird people in my neighborhood."* Patients also discussed the need for tailored medical services and help planning for adulthood.

PATIENT FAMILIES – Patient families included members of our Family Advisory Board and parents and caregivers of the members of the Kids Advisory Board. Three out of the 20 patient family members lived in Belmont Cragin, seven others lived in Chicago, including Beverly, Hyde Park, Lincoln Park, Pilsen, Portage Park, River North, and Uptown. The remaining lived outside of Chicago. The main themes discussed included access to care, mental and behavioral health, social determinants of health and the built environment.

Families were concerned about the cost of healthcare services and prescriptions, but also discussed challenges they faced navigating the healthcare system, particularly the complexities of health insurance, healthcare quality and difficulty getting appointments: *"Access to healthcare is now between 9 am and 3 pm. It's so hard to get appointments. Sometimes if it's too challenging, you just skip it. Could clinicians expand availability to evening and weekends, particularly specialties like GI and cardiology, which are the hardest to schedule?"*

Mental health supports were discussed repeatedly, including the supports for the whole family and difficulties with accessing mental health services: *"My child is currently awaiting [procedure redacted for privacy]. I looked for counseling for her and I could only find one person in [my community]. They didn't accept insurance and I can't afford to pay out of pocket."* One family member was even moved to enroll in a clinical psychology graduate program to address the workforce shortage they had experienced personally.

Families were concerned with transportation, particularly for their children with special needs and discussed the lack of accessibility and walkability in their communities. Affordable and accessible housing was also a priority, particularly for families with children who use wheelchairs or have limited mobility. Families discussed these challenges in the context of community supports and social connections to address the related need: *"[Regarding challenges with a walk-up rental unit] The fire department helped carry my daughter up and down the stairs to help out and to get her to school. They are there to help."*

COMMUNITY YOUTH AND PARENTS – Lurie Children's worked with Northwest Side Housing Center to coordinate two focus groups with youth and parents in Belmont Cragin. The youth group discussions focused on what makes a community healthy, things participants would like to change about their community, and how these are connected to health and wellbeing. The main themes identified were the social determinants of health (e.g., housing and homelessness, education), community cohesion (e.g., friendly neighbors, sense of belonging), built environment and transportation (e.g., street conditions, public transit, bike lanes), community violence and crime, and youth programming and opportunities (e.g., sports and recreation, job training and opportunities).

The parent group was conducted in Spanish, with three Spanish-speaking facilitators. Parents were prompted to answer the focus group questions through collage and the creation of a vision board in small groups of two-three. Parents then presented their vision board and discussed the strengths of Belmont Cragin and what's missing that could make their community an even better place to live and raise their families. Most of the discussion focused on social determinants of health and various factors related to social and environmental conditions in their community. Reoccurring themes included immigration and family separation, racism and discrimination, safety and relationships with law enforcement, community cohesion, family values and faith, clean environment, healthy food access, and educational and recreational opportunities for their children.

Immigration, discrimination and family separation were discussed by a majority of the 10 groups that presented, often in terms of how the two topics are interrelated for their community: "*We are all immigrants, and we get treated poorly. ICE has taken our people; they did nothing wrong besides being in the wrong place at the wrong time."* Participants also discussed challenges with law enforcement: *"My home got broken into, and they thought my husband and I were the intruders when the police arrived, although we are the ones that called the cops."* Another participant noted perceived bias in terms of law enforcement: *"I got pulled over because my car was 'too nice to be mine.'"* Participants felt a lack of trust in law enforcement, even though many were concerned about safety and violence in their community: *"We also don't feel comfortable reporting crimes because cops accuse us of being criminals, although we are asking for help." "We never know if we'll make it back to our families" (in reference to shootings/gun violence).*

Faith and family were discussed as cornerstone values for many of the participants: *"God is fundamental for family structure – it helps us raise kids and keep our families together."* Climate change and the impacts on the environment were important concerns of focus group participants: *"We can't cause change at an individual level, we need to work together to preserve our planet."* Access to healthy, affordable foods was discussed by multiple groups: *"We want to eat healthy, but we can't afford it, a head of lettuce went up to $2, and a cheeseburger is $1."* Participants also wanted more knowledge about how to prepare healthy foods: *"We know that we're supposed to eat healthier, but sometimes we don't know how to combine the food to make it taste good."*

Every group shared their concerns and hopes for their children: *"I work in Subway, and I see high school kids staying until 10 or 11 p.m. because they have nothing to do."* Participants discussed the need for more and varied recreational opportunities: *"Not everyone like soccer & basketball, we need more options."* Education was discussed, particularly in terms of how parents and caregivers can support youth in educational attainment: *"How can we as parents/grandparents help children finish school, we don't want more drop outs."*

EMPLOYEES – Lurie Children's convened 41 employees in May 2019 as part of the city-wide *On the Table* forum, created by The Chicago Community Trust, to discuss the strengths of and challenges facing Chicago, including potential solutions to address the needs identified and Lurie Children's role in those solutions.

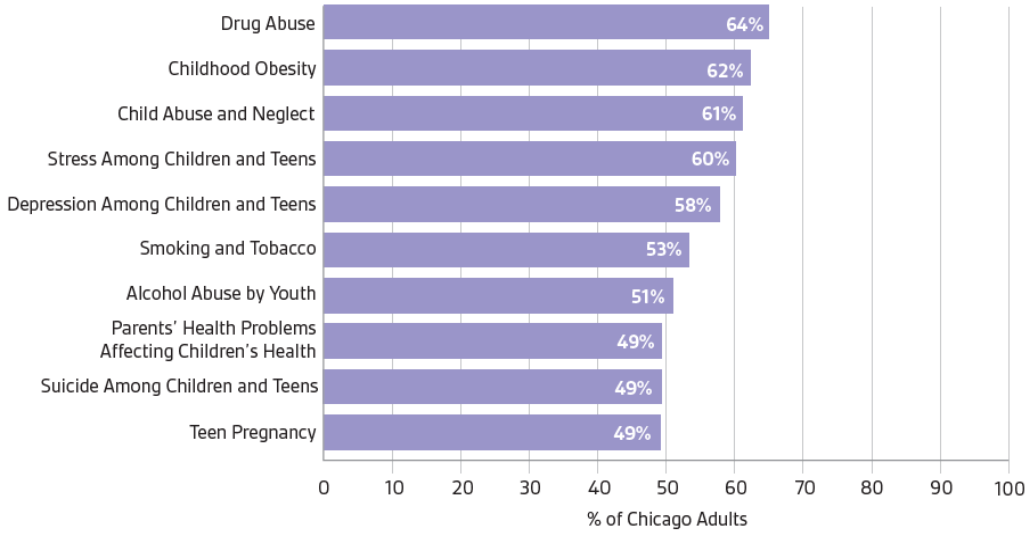
In terms of Chicago's strengths, the discussion included Chicago's diversity, civic engagement and non-profit community-based organizations, museums and other cultural institutions, parks and recreation, youth opportunities, and state-of-the-art hospitals and health systems. Participants also discussed issues facing Chicago. The main themes of discussion included inequality, segregation and racism; violence and child injury; unmet physical and mental health needs; lack of healthy food access and affordable, quality housing; and unequal access to education and economic opportunities. Participants brainstormed potential solutions to strengthen children and families with a focus on policies and initiatives that will strengthen communities, improve access to physical and mental health services, make Chicago safer, improve education and advance equity.

Voices of Child Health in Chicago

In partnership with the Chicago Department of Public Health, Lurie Children's developed and fielded the Healthy Chicago Survey Jr. (HCS-Jr). HCS-Jr is a set of child health-focused modules that were added to the annual Healthy Chicago Survey (HCS), beginning in December 2017. As a population-representative, city-wide phone-based survey originally launched in 2014, HCS is designed to characterize the health of Chicagoans, including

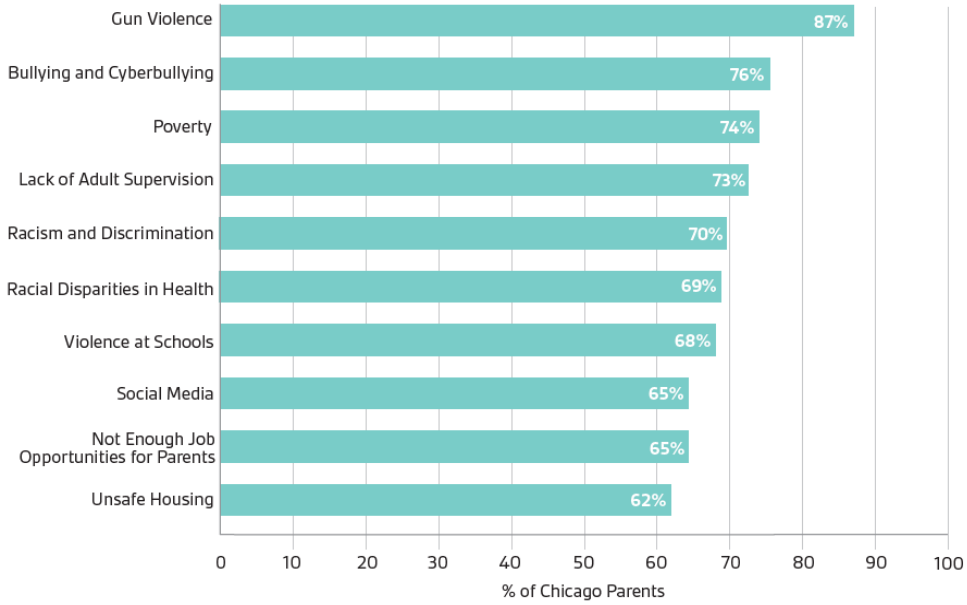
health concerns for each community and the social and environmental factors that impact health. The version with HCS-Jr was fielded through June 2018 and collected data from 3,310 adults regarding their perspectives on child health specifically. Individuals were asked what their biggest concerns were for the health of children in Chicago. **Figure 28** lists the top 10 health problems for children and adolescents in Chicago, based on survey responses.

Figure 28. *Top 10 health problems facing children and adolescents in Chicago, reported by Chicago adults (HSC-Jr, 2017-2018)*



Survey respondents were also asked which social issues are "big problems" for children and adolescents in the city—not just their own kids. **Figure 29** lists the Top 10 social issues for children and adolescents in Chicago, as seen by parents in Chicago

Figure 29. *Top 10 social issues affecting youth in Chicago, identified by Chicago parents (HSC-Jr, 2017-2018)*



2019 CHNA Results and Data

PRIORITY HEALTH ISSUES

Alliance for Health Equity Model

Based on the findings from the collective assessment, the 2019 Alliance for Health Equity Collaborative CHNA identifies the following community health priorities (**Figure 30**).

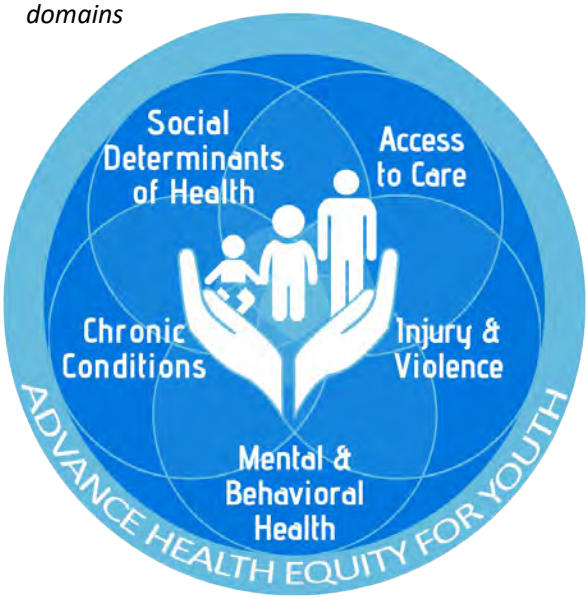
Figure 30. *Priority Community Health Issues, Alliance for Health Equity, Chicago and Suburban Cook County, 2019*

Lurie Children's 2019 CHNA Priorities

For more than 100 years, Lurie Children's mission has been to improve the health and well-being of children. In order to steward this mission in Chicago in the coming years, our overarching community health strategy goal must be to advance health equity for youth and their families. Consideration of family context connects directly to the *Maternal and Child Health* priority in Alliance for Health Equity Model and is a cross-cutting emphasis in our assessment. In our 2019 CHNA, we focus on the following priority domains to advance our overarching goal (**Figure 31**):

- Social Determinants of Health (page 41)
- Access to Care (page 50)
- Chronic Health Conditions (page 55)
- Mental and Behavioral Health (page 61)
- Unintentional Injury and Violence (page 68)

Figure 31. *Lurie Children's 2019 CHNA priority domains*



Healthy People 2020, developed by the Office of Disease Prevention and Health Promotion within the U.S. Department of Health and Human Services, includes access to healthcare services as a social determinant of health. Like the Alliance for Health Equity Model, Lurie Children's elevates this particular social determinant of health to a priority domain because providing pediatric healthcare services is one of the pillars of our mission to enhance the health and well-being of all children. Both Social Determinants of Health and Access to Care are primary drivers for the subsequent priority domains of (1) Chronic Health Conditions, (2) Mental and Behavioral Health, and (3) Unintentional Injury and Violence.

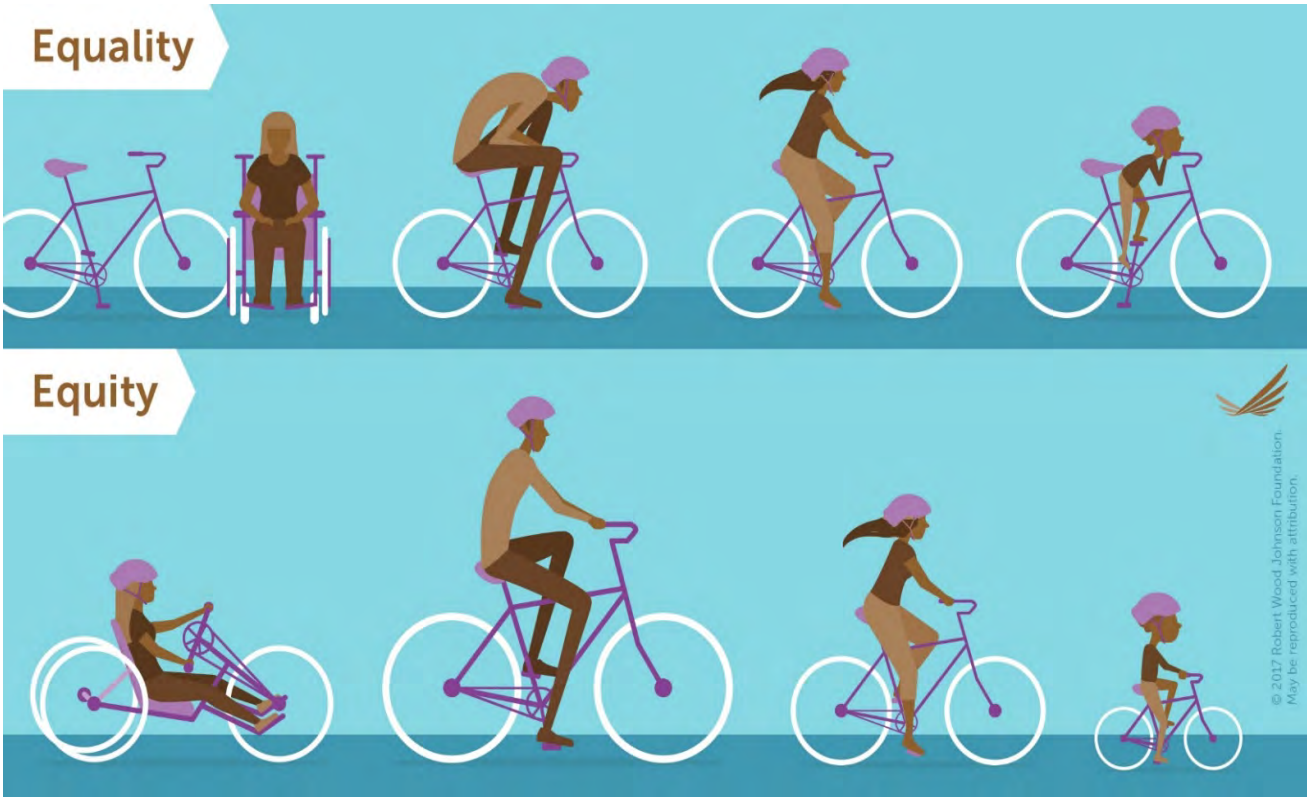
OVERVIEW OF HEALTH INEQUITIES

Health inequities can be defined as differences in the incidence, prevalence, mortality, burden of disease, or the distribution of health determinants between different population groups (National Institutes of Health, 2017; World Health Organization). Health inequities can exist across many dimensions such as race, ethnicity, gender, sexual orientation, age, disability status, socioeconomic status, geographic location, and military status (National Academies of Sciences, Baciu, Negussie, Geller, & Weinstein, 2017). There are four overarching concepts that demonstrate the necessity of addressing health inequities:

1. **Inequities are unjust** – Health inequities result from the unjust distribution of the underlying determinants of health such as education, safe housing, access to healthcare, and employment
2. **Inequities affect everyone** – Conditions that lead to health disparities are detrimental to all members of society and lead to loss of income, lives, and potential
3. **Inequities are avoidable** – Many health inequities stem directly from aspects of government policies and can, therefore, be addressed through policy interventions
4. **Interventions to reduce health inequities are cost-effective** – Evidence-based public health programs to reduce or prevent health inequities can be extremely cost-effective particularly when compared to the financial burden of persistent disparities (Metropolitan Planning Council, 2017; National Academies of Sciences et al., 2017; Woodward & Kawachi, 2000)

It is important to note that equality and equity are different (**Figure 32**). While equality is about treating everyone the same with equal access and resources, equity takes into consideration the unique needs and assets of the individual or population to provide tailored supports. Health inequities involve more than unequal access to the resources needed to maintain or improve health (World Health Organization).

Figure 32. *The difference between equality and equity (TEQuity and Robert Wood Johnson Foundation, 2018)*



THE ROLE OF RACISM

Race and ethnicity are socially constructed categories that have profound effects on the lives of individuals and communities as a whole. Racial and ethnic disparities are arguably the most persistent inequities in health over time in the United States (National Academies of Sciences et al., 2017). Racial and ethnic inequities in health are directly linked to racism.

> *"Racism is the system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call "race"), that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources." American Public Health Association (APHA) Past President Camara Jones, MD, PhD, MPH*

Racism diminishes the overall health of our nation by preventing some people the opportunity to attain their highest level of health and is a driving force of the social determinants of health (American Public Health Association, 2019). In addition, racism can be traumatic to the individuals and communities that are routinely exposed to it, thus causing and exacerbating health inequities. Racism can be unintentional or intentional and operates at individual and systemic levels.

There is a common misconception that racism is a rare problem of isolated, individual attitudes and actions, or most damagingly—that racism is a thing of the past (Race Forward, 2014). While individual racism is important to address, it is particularly important to understand and address the institutional and structural levels of racism (Race Forward, 2014). When addressing racism, the focus should be shifted from intent or conscious attitudes and beliefs and turned to interventions that acknowledge the systems and structures that are either supporting positive outcomes or hindering them (Powell, 2013).

Segregation, Racial Inequities, and Health in the Chicago Metro Area

Federal and local policies that established and continue to sustain racial and ethnic segregation in Chicago are rooted in racism (Metropolitan Planning Council, 2017). A 2017 study by the Metropolitan Planning Council and The Urban Institute analyzed economic, racial, and ethnic segregation patterns in the 100 largest metropolitan areas in the Unites States to determine what the impacts would be if the Chicago region reduced its levels of segregation to the median levels of the nation's 100 biggest metro areas (Metropolitan Planning Council, 2017). The study found that segregation in the Chicago metro area significantly decreases the region's overall economic performance, results in higher homicide rates and increased loss of life, and results in much lower rates of post-secondary educational attainment among whites and black/African Americans (Metropolitan Planning Council, 2017).

Achieving Racial Equity

Racial equity is reached when race and ethnicity no longer determine an individual or community's socioeconomic and health outcomes (Center for Social Inclusion). Racial equity is achieved when those most impacted by structural and institutional inequity are meaningfully involved in the creation and implementation of institutional policies and practices that impact their lives (Center for Social Inclusion). Racial equity in health is achieved when the health outcomes of all racial and ethnic groups are indistinguishable from each other.

The Relationship between Inequities, Trauma, and Toxic Stress

Inequities are particularly injurious to the communities that experience them not only because they limit access to services and other resources, but also because the experiences of marginalization and discrimination are traumatic. Research has established that traumatic experiences can cause stress that is toxic to the body and can result in dysregulation, inflammation, and disease. The effects of trauma and toxic stress are detrimental throughout the lifespan and can be particularly deleterious when exposure begins in childhood. As a result, exposure to trauma and the resulting toxic stress contribute to widening health disparities. Supporting and partnering with communities that have experienced trauma to build resiliency is an important step in reducing health inequities. However, it is critical to address the underlying root causes of traumatizing inequities with a focus on future prevention.

COMMUNITY INPUT – *Discussions about inequities occurred in focus groups across the city. Participants highlighted inequities in social determinants of health, access to healthcare, and healthcare quality, in particular. Communities of color, children, LGBTQ+, immigrants, individuals living with disabilities, and individuals living with mental illness or a substance use disorder were described as sharing the greatest burden of these inequities.*

- *"It feels like this structural racism is impacting everything. I mean whether we're talking about the meetings we can attend, whether we're talking about the properties we can buy because of redlining, whether we're talking about being able to afford insurance. It really permeates everything from economics to education to even the way that we think." (Garfield Park Community Council Learning Map Session)*
- *"I moved from the South side and predominately black communities. There's a lack of affordable decent housing, lack of nutritious food—everywhere except the North side." (NAMI Chicago – Individuals)*
- *"On the West side there isn't much funding to create better opportunities like schools and jobs." (Breakthrough)*
- *"Engage youth, start with the education system. As black children, we have poor education." (After School Matters Learning Map Session).*
- *"Soon we will be adults in this community, so they need to give us the education, teachers, and better schools we need because that will advocate for a better Harvey in the future." (Restoration Ministries)*
- *"Healthcare is not looking to provide services to the LGBTQ community in a way that they are providing services to well-to-do cis-gendered heterosexual whites." (Affinity Community Services)*

SOCIAL DETERMINANTS OF HEALTH

According to the World Health Organization, social determinants of health (SDoH) are the social, economic, and environmental conditions into which people are born, live, work, and age. These factors include (1) economic stability, (2) education, (3) neighborhood and built environment, (4) social and community context, and (5) access to healthcare (**Figure 33**). Research has long established that SDoH are primary drivers of health outcomes (Robert Wood Johnson Foundation, 2008).

- Children born to mothers without a high school education are twice as likely to die before their first birthday as children born to mothers who are college graduates
- Self-reported poor health increases with decreasing levels of income and education
- Low-income individuals are more likely to have a chronic disease

Figure 33. *Model of Social Determinants of Health, modified from Healthy People 2020*

These socioeconomic factors are interrelated and interdependent. For the purposes of this report, data related to SDoH are reported across sections. In this section, specific data related to economic stability, education and neighborhood and built environment will be reported, with inequities and disparities highlighted where possible. Community violence and safety will be discussed in the *Unintentional Injury and Violence* section. Data related healthcare insurance and services are discussed in the *Access To Care* section.

Lurie Children's has begun a process to expand screening of patients for social determinants of health, and to provide resources to help address these issues. Other health systems increasingly recognize the role of social determinants of health and the importance of collecting information on social needs (Feinglass et al., 2018; Rizzo et al., 2016).

Community Input – *Socioeconomic inequities were mentioned in several focus groups. Inequities in community economic investment and development, employment opportunities, transportation resources, quality affordable housing, education opportunities, and food access were highlighted particularly by groups held on the West and South sides of the city and county. In addition, groups held on the North side of the city highlighted disparities in resource distribution, with the North side having the most access to economic opportunities and community resources. Focus group participants attributed the lack of business investment and economic resources on the South and West sides to underlying factors such as long-term disinvestment in certain communities, the loss of locally owned businesses, limited educational resources, low levels of home ownership, and minimal job opportunities.*

Similarly, community input survey respondents identified areas for improvement in their communities that related to socioeconomic inequities including more job opportunities, lower housing costs, more affordable food options, and increased school funding.

Poverty

Poverty can create barriers to accessing quality health services, healthy food, recreation opportunities, and other necessities of good health status. It strongly influences housing stability, educational opportunities, living environment, and health behaviors. Examples of how poverty shapes and impacts the health of children and communities include:

- In 2017, 86.1 percent of people in households with an annual income of less than $25,000 had health insurance coverage, compared with 92.1 percent of people in households with income of $75,000 to $99,999, and 95.7 percent of people in households with income of $125,000 (Berchick, Hood, & Barnett, 2018).
- Research indicates that communities with better access to healthy foods and limited access to convenience stores have healthier diets and lower rates of obesity (Larson, Story, & Nelson, 2009). Low-income communities are less likely to have access to supermarkets and healthy foods and tend to have a higher density of fast-food restaurants and other sources of unhealthy food such as convenience stores (Larson et al., 2009).
- There tends to be a higher density of tobacco retailers in low-income communities, and smoking rates are higher among people living in poverty (Centers for Disease Control and Prevention (CDC); Yu, Peterson, Sheffer, Reid, & Schneider, 2010).
- Low-income communities tend to have fewer recreational resources such as park space and recreational programs (Dahmann, Wolch, Joassart-Marcelli, Reynolds, & Jerrett, 2010). Lower access to parks and recreational programs has been linked to lower physical activity and higher body mass indexes (BMIs) among children (Wolch et al., 2011).
- Low-income communities are more likely to have higher rates of violence, higher rates of discrimination, under-resourced schools, higher rates of unemployment, higher rates of incarceration, and greater material deprivation such as a lack of housing, heat, water, and electricity (Khullar & Chokshi, 2018). These issues are chronic stressors that are linked to higher rates of chronic disease throughout the lifespan (Khullar & Chokshi, 2018).
- Child development can be affected by the experience of poverty, increasing chronic stress, food insecurity, and more frequent infectious diseases (Jensen, Berens & Nelson, 2017).
- In Illinois, whites and black/African American adults in the lowest income group had the highest prevalence of reporting four or more adverse childhood experiences (Health & Medicine Policy Research Group, 2013).

There are inequities in the geographic distribution of poverty. Communities with the highest poverty rates are primarily concentrated in the West and South sides of the of the City of Chicago, with over 40 percent of households in West Garfield Park, East Garfield Park, North Lawndale, Washington Park, and Englewood below the federal poverty level (**Figure 34**).

Overall, the percentage of individuals living in poverty in Chicago (21 percent) is higher than the state (14 percent) and national averages (15 percent) – more than one out of four children and adolescents 0-19 years old (27.3 percent) lives in poverty. However, people of color, especially children of color, experience higher rates of poverty than non-Hispanic whites (**Figure 35**). Of Chicago youth living in poverty, 44.3 percent are black/African American, followed by Hispanic/Latinx (27.6 percent), Asian (19.7 percent), and Non-Hispanic white (7.1 percent) (American Community Survey, U.S. Census Bureau). Black/African Americans and Hispanics/Latinxs also have the lowest median household incomes.

Figure 34. *Distribution of households below the federal poverty level (left) and children living in households below the federal poverty level (right) (American Community Survey, 5-year estimates, 2016)*

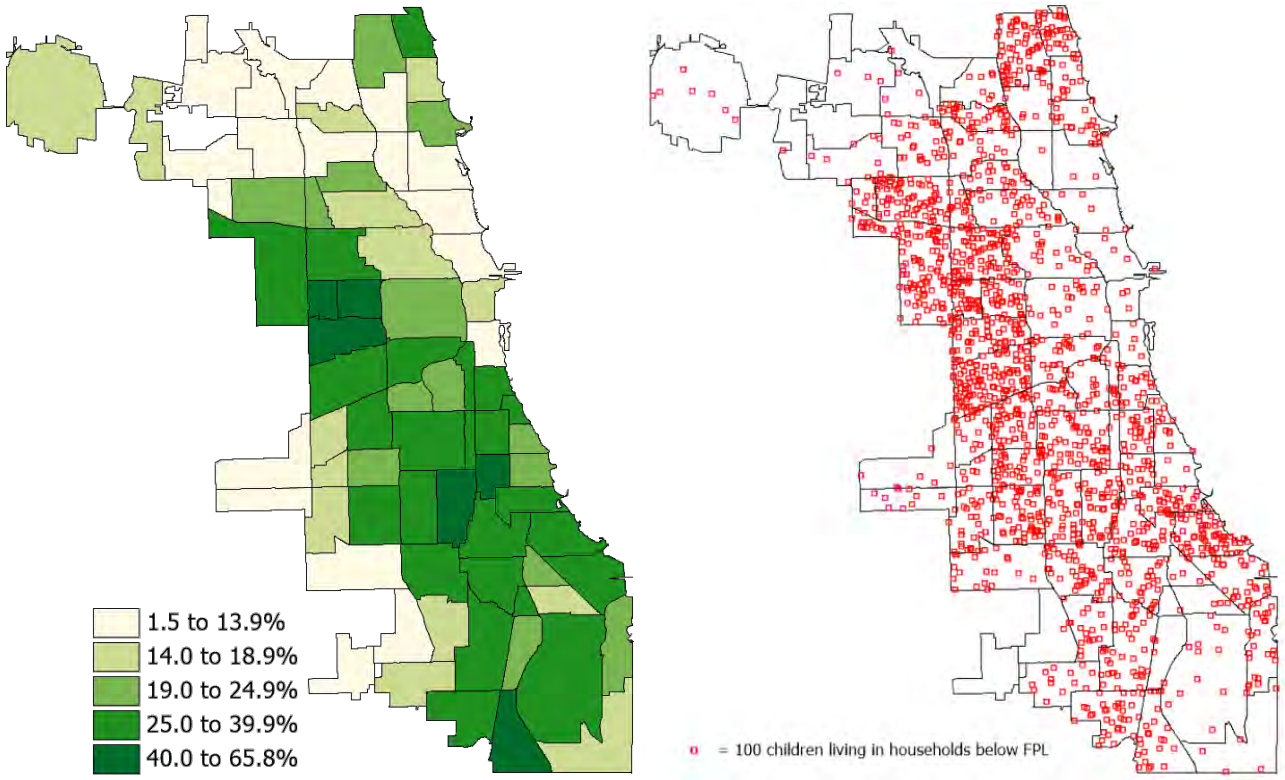
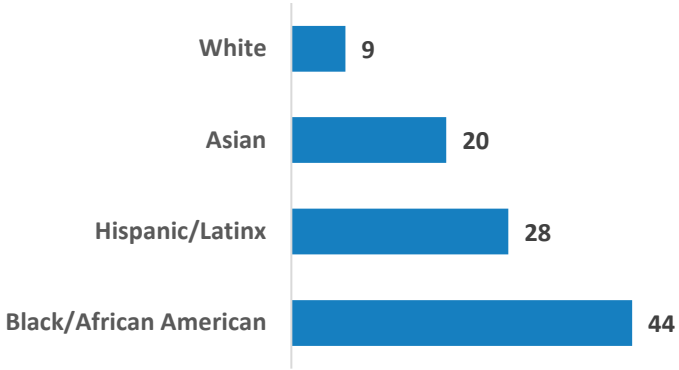


Figure 35. *Percentage of children living in poverty by race and ethnicity in Chicago (American Community Survey, 5-year estimates, 2016)*



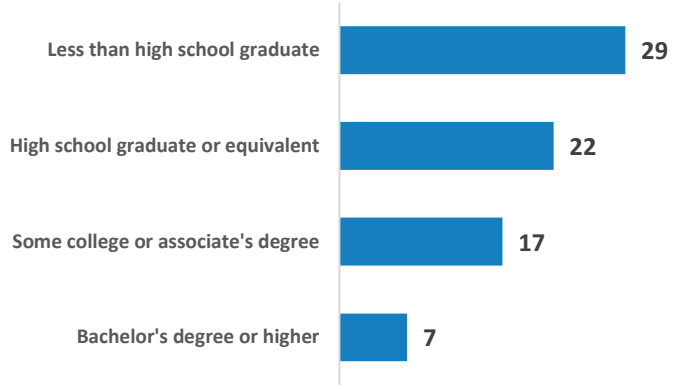
Education and Employment

Education is an important determinant of health. Poverty, unemployment, and underemployment are higher among those with lower levels of educational attainment than those with higher levels (**Figure 36**). In addition, rates of self-reported poor health, infant mortality, and chronic disease are often higher among individuals with lower levels of educational attainment.

A 2011 study found that a history of segregation in the United States has not only led to continued racial and ethnic segregation of schools, but that whites and Asians are disproportionately represented in higher-performing schools (Logan, 2011). The same report found that disparities in school performance are likely due to

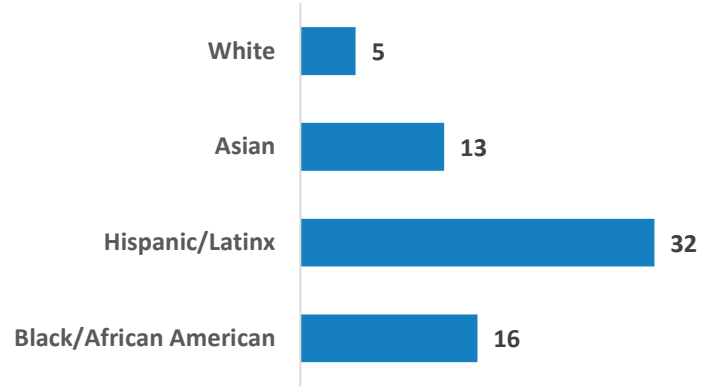
racial and ethnic disparities in poverty and not the racial composition of schools (Logan, 2011). Although overall high school graduation rates in Chicago (84 percent) are comparable to state (89 percent) and national rates (88 percent), there are profound differences between racial and ethnic groups. In Chicago, non-Hispanic whites and Asians have the highest rates of high school graduation and the highest rates of educational attainment overall (**Figure 37**).

Figure 36. *Poverty rate by educational attainment for adults 25 and older in Chicago (American Community Survey, 5-year estimates, 2016)*



In addition to elementary, secondary, and post-secondary inequities, there are disparities in early childhood education and school readiness as well. Socioeconomic status of parents is the biggest driver of school-readiness, access to quality childcare, and access to early childhood education resources (Garcia & Weiss, 2015). As a result of the socioeconomic inequities associated with race and ethnicity, children of color often lag behind their white peers when starting kindergarten and these delays can impact school success throughout the lifespan (Garcia & Weiss, 2015).

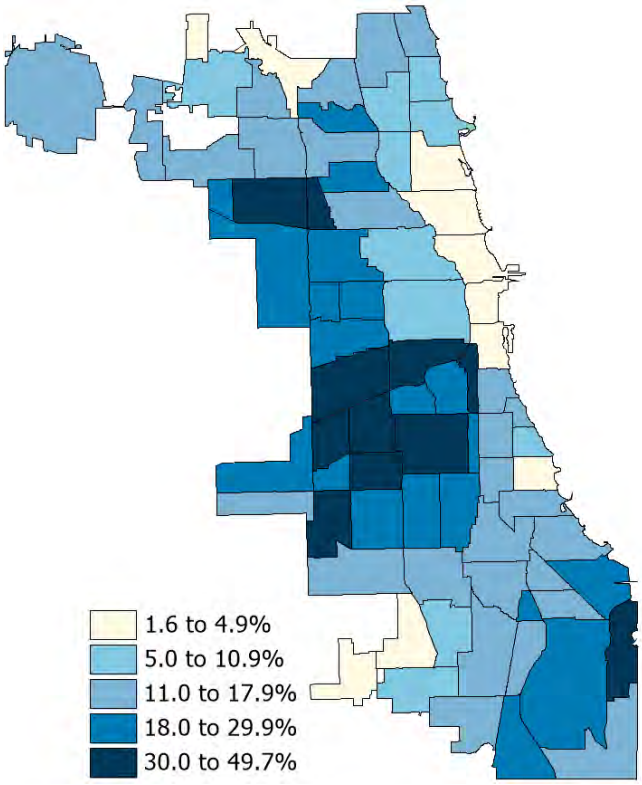
Figure 37. *Percent adults 25 and older with less than a high school education in Chicago by race/ethnicity (American Community Survey, 5-year estimates, 2016)*

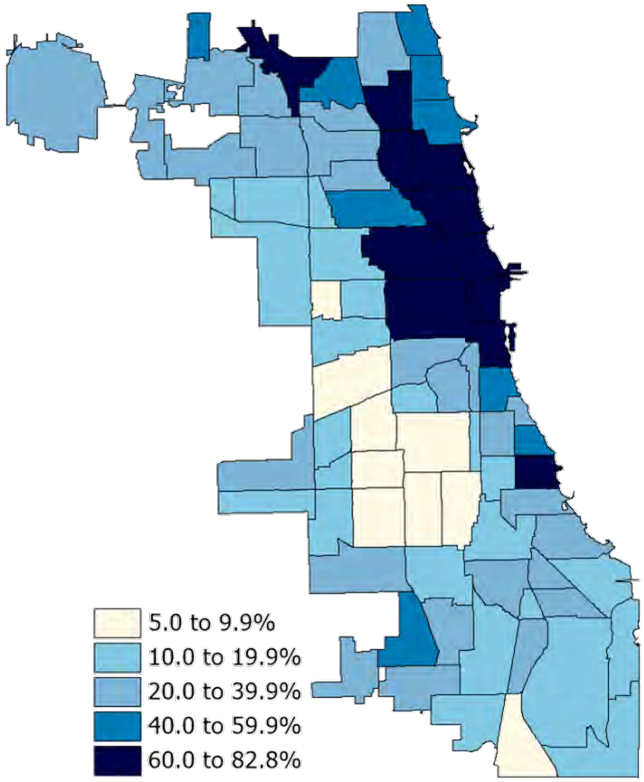


In Chicago, the geographic disparities in educational attainment are greatest between the West side of Chicago and the North side and downtown area (**Figure 38)**. Communities like Belmont Cragin, Hermosa, South Lawndale, Brighton Park, Archer Heights, Lower West Side, New City, Gage Park, West Lawn and Armour Square have the highest proportion (≥30 percent) of residents without a high school education.

Unemployment and underemployment can create financial instability, which influences access to healthcare services, insurance, healthy foods, stable quality housing, and other basic needs for the unemployed adult as well as children in the household. Lack of access to employer-sponsored health insurance and related benefits impacts healthcare access. Unemployment and underemployment in Chicago are often associated with a history of disinvestment and economic segregation. In the mid to late 20th century, much of the West and South sides of the city were thriving due to factory employment. As the factory industry started to move to lower cost locations, so did the job opportunities. The disinvestment in Chicago created a racial gap in employment opportunities that still has not been closed (Henricks, Lewis, Arenas, & Lewis, 2017). In 2016, unemployment rates for adults over age 16 in Chicago (8.1 percent) were similar to the state (8 percent) and national averages (7 percent) – overall, since 2012, unemployment rates have been trending down from a high of 13.7 percent. However, the unemployment rate for American American/black Chicagoans (16.8 percent) is still twice the overall rate and over 5 times higher than the unemployment rate for non-Hispanic white Chicagoans (3.2 percent).

Figure 38. *Educational attainment in Chicago – Percent of Chicagoans 25 years old and older without a high school education (left) and with a bachelor's or higher (right) (American Community Survey, 5-year estimates, 2016)*

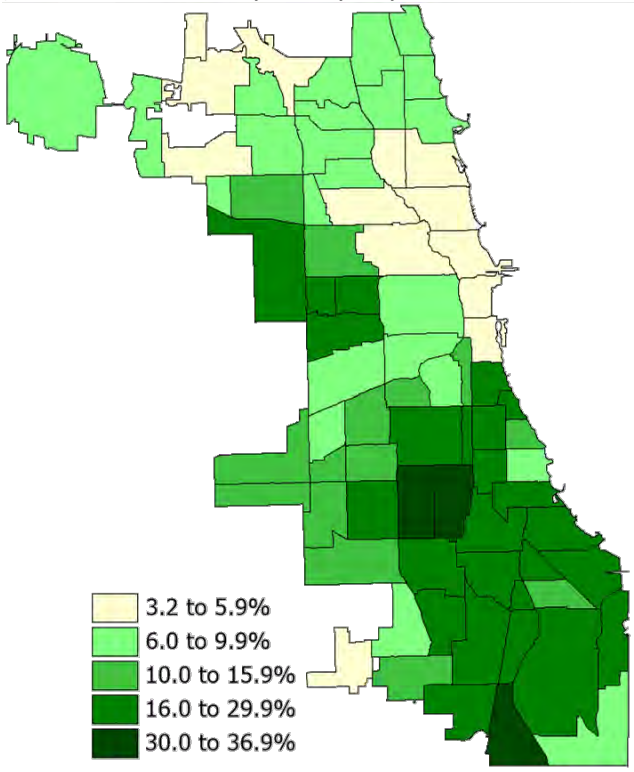




In 2015, Chicago was ranked one of the most economically segregated metro areas in the United States (Florida & Mellander, 2015). High rates of unemployment are concentrated in communities of color in the South and West sides of the city (**Figure 39**). There are significant differences in unemployment across racial and ethnic groups (**Figure 40**). Chicago has the greatest racial disparities in young adult employment in the nation (Svajlenka, 2016). In 2016, the employment rate among black/African Americans 20-24 years old was 47 percent, the lowest in the nation, and the rate for whites in the same age group was 73 percent, one of the highest in the nation (Svajlenka, 2016).

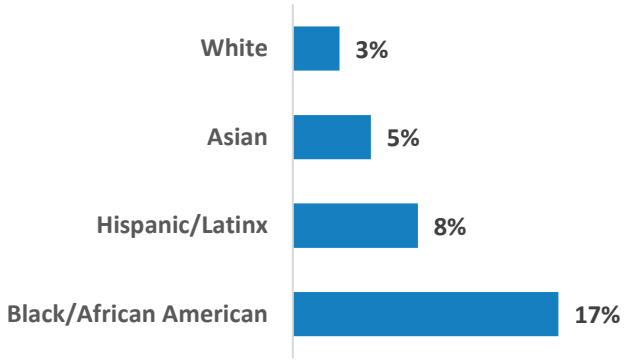
Low-income workers and underemployed workers face many of the same challenges as unemployed individuals. For example, while 58 percent of the overall population have employer-sponsored health insurance, only 35 percent of people in households making less than 250 percent of the federal poverty

Figure 39. *Percent of unemployed adults 16 years old and older in the civilian labor force in Chicago (American Community Survey, 5-year estimates, 2016)*



level have employer-sponsored health insurance (Kaiser Family Foundation, 2018). Health insurance gaps can lead to a decrease in utilization of preventative healthcare services. Additionally, underemployed individuals have reported more depression, alcohol abuse, and poorer physical health (America's Health Rankings).

Figure 40. *Percent unemployment among individuals 16 years old or older in Chicago by race/ethnicity (American Community Survey, 5-year estimates, 2016)*



COMMUNITY INPUT *– Education inequities and lack of employment opportunities were frequently discussed within focus groups. The major education-related concerns expressed by focus groups included:*

- *School closures and diminishing education opportunities on the West and South sides of Chicago*
- *Poor quality schools particularly on the South side of Chicago*
- *Limited or nonexistent resources for learning trades*
- *Lack of support programs such as quality, low-cost tutoring*
- *Limited adult education programs*

Participants linked education inequities to issues such as higher rates of community violence, increases in health issues such as substance use disorders and mental illness, and generational poverty. Reinvestment in community schools was nearly a universal recommendation from groups that discussed education issues.

Community input survey respondents referred to educational opportunities in their community throughout the survey. Approximately one-fifth of respondents reported that good schools were key factors for a healthy community. While some respondents cited education as one of the greatest strengths in the community, other respondents chose education as an area for growth showing the inequities of education.

Again, participants living in the West and South sides described having the least quality job opportunities and employment resources. However, certain populations such as those living with mental illness, young adults, homeless individuals, and formerly-incarcerated individuals were highlighted as having significant barriers to employment regardless of their geographic location. Within some communities, jobs are available, but they are described as part-time, temporary, and/or low-paying.

Additionally, 18 percent of community input survey respondents chose "quality job opportunities" as one of the most important factors in a healthy community. Survey respondents frequently identified job opportunities as an area for improvement in their community.

Housing and Homelessness

Poor housing conditions are associated with a wide range of health conditions including respiratory infections, asthma, lead poisoning, injuries, and poor mental health (Krieger & Higgins, 2002). As a result, addressing housing issues offers a unique opportunity to address an important social determinant of health (Krieger & Higgins, 2002). Research has confirmed that there are at least four direct pathways (**Figure 41**) in which housing impacts health (Taylor, 2018):

Figure 41. *Four pathways connecting housing and health (Taylor, 2018)*

- Stability – not having a stable home
- Quality and Safety – conditions inside the home
- Affordability – financial burdens resulting from high-cost housing
- Neighborhood – the environmental and social characteristics of where people live

STABILITY AND AFFORDABILITY – Homelessness and housing instability can have profound effects on health throughout the lifespan. Individuals who are homeless are more likely to become ill, have greater hospitalization rates, and have an increased burden of premature mortality (Maness & Khan, 2014). Caregivers of children 0 to 2 years old who have experienced unstable housing or homelessness are more likely to report fair or poor health, maternal depressive symptoms, and household material hardships (Sandel et al., 2018). In addition, their children have higher rates of lifetime hospitalizations and fair or poor child health (Sandel et al., 2018). Housing instability is associated with multiple health problems among youth and young adults including increased risk of teen pregnancy, early drug use, and depression (Robert Wood Johnson Foundation, 2011). Experiencing foreclosure is associated with negative behavioral health outcomes such as depression, anxiety, increased alcohol use, psychological distress and suicide (Tsai, 2015). Unstable housing can decrease the effectiveness of healthcare by making proper storage of medications difficult or impossible (Maqbool, Viveiros, & Ault, 2015).

QUALITY AND SAFETY – Environmental factors within homes are correlated with several poor health outcomes (Robert Wood Johnson Foundation, 2011). Lead exposure can lead to permanent brain and nervous system damage in children (World Health Organization, 2018). Housing issues such as water leaks, poor ventilation, carpeting, and pest infestations have been associated with poor health outcomes such as allergies and asthma (Robert Wood Johnson Foundation, 2011). Within Cook County, it is estimated that 39 percent of housing units have one or more substandard conditions (U.S. Census Bureau, American Community Survey, 2017). Crowded housing has been found to have negative impacts on a child's school achievement, behavior, and physical health (Solari & Mare, 2012). Throughout Chicago, there are several communities in which 6 percent or more of households are considered overcrowded, including Belmont Cragin (**Figure 42**).

Community-based programs and policy interventions have been shown to be effective in improving health through increasing the quality and safety of housing. Community-based interventions that remove potential asthma triggers from households have created improvements in quality of life, reduced emergency department visits, reduced hospitalizations, and reduced healthcare costs for both children and adults (Bhaumik et al., 2013; "Green and Healthy Homes Initiative").

In addition, smoking bans in public and affordable housing have led to reductions in the number of smokers, reductions in the number of cigarettes smoked per smoker, and reductions in secondhand smoke exposure among non-smokers (Kingsbury & Reckinger, 2016).

AFFORDABILITY – A lack of affordable housing can significantly impact a family's ability to access food, healthcare, community services and other basic needs. Low-income families that have difficulty paying their rent, mortgage or utility bills are less likely to have a primary care provider and are more likely to delay needed medical treatment (Robert Wood Johnson Foundation, 2011). In addition, severely cost-burdened renters and homeowners who are behind in their housing payments are more likely to be food insecure and go without prescribed medications (Alley et al., 2011; Joint Center for Housing Studies of Harvard University, 2017). In contrast, a 2010 study found that families that had affordable rent because of low-income housing credits increased their discretionary income by 77 percent, which put them in a position to buy health insurance, pay down debt or amass savings to pay for education or to buy a home (Walker, 2010). Within Chicago, there were approximately 120,000 subsidized housing units in 2018 (U.S. Department of Housing and Urban Development). In 2017, there was a shortage of 180,000 affordable rental housing units, an increase in the gap between the need and the supply of more than 20,000 units since 2007 (2019 State of Rental Housing in Cook County).

A household is considered cost-burdened when 35 percent or more of its monthly gross income is dedicated to housing. Severely cost-burdened households have 50 percent or more their monthly gross income dedicated to housing. Within Chicago there are several community areas where more than 44 percent of households are considered cost-burdened, primarily concentrated on the South and West sides, including Belmont Cragin and Austin (**Figure 43**).

Figure 42. *Distribution of crowded housing in Chicago (American Community Survey, 5-year estimates, 2016)*

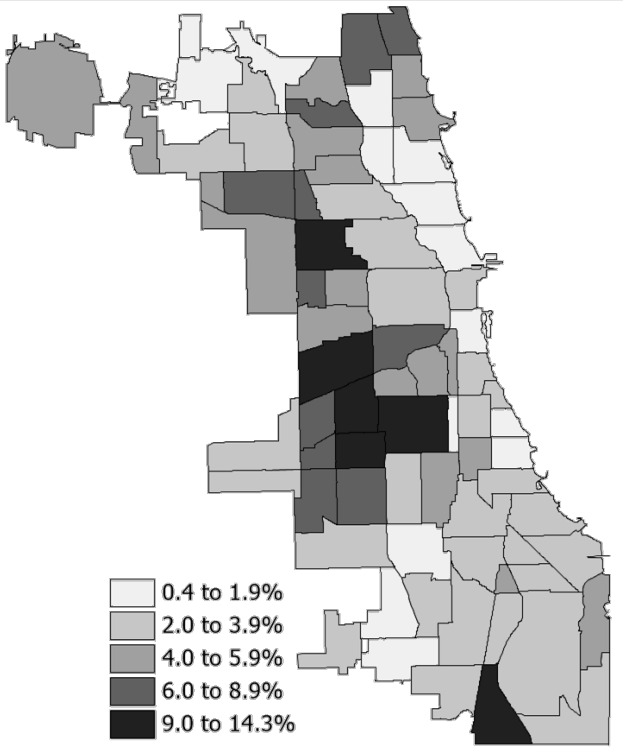
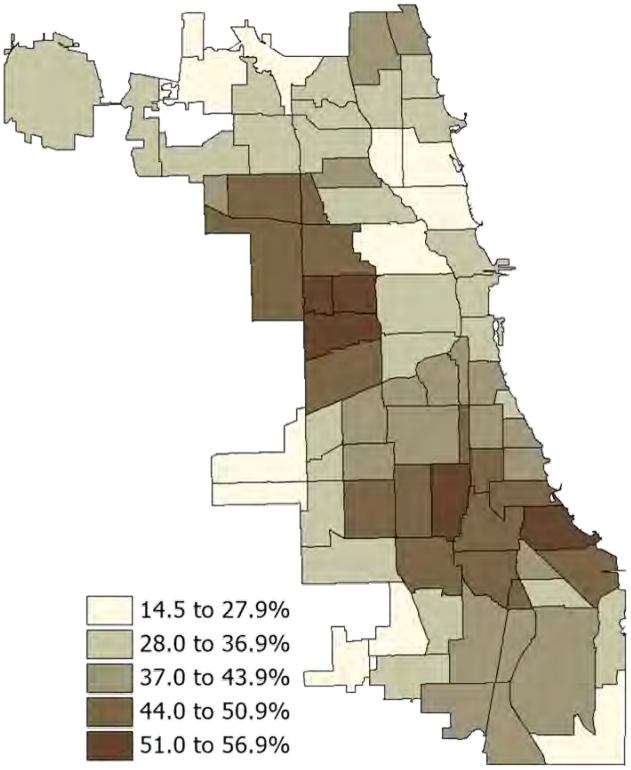


Figure 43. *Distribution of cost burdened households in Chicago (American Community Survey, 5-year estimates, 2016)*



NEIGHBORHOODS – There has been extensive research on the impacts that physical surroundings have on health. Access to public transportation, proximity to grocery stores with healthy foods and safe spaces to exercise have all been correlated with reduced chronic disease and improved health outcomes (Bell et al., 2013; Djurhuus et al., 2014; Ou et al., 2016). A Safe Routes to School Program that improved the number of sidewalks, bicycle lanes and safe crossings increased the rate of bicycling and walking among school-aged children (DiMaggio, Brady, & Li, 2015). Remediated abandoned buildings and vacant lots have been associated with significantly decreased heart rates among those that walk past and significantly reduced firearm violence in the community (South, Kondo, Cheney, & Branas, 2015). In addition to physical characteristics, social characteristics of neighborhoods including segregation, crime, and social capital can have tremendous impacts on health (Taylor, 2018).

COMMUNITY INPUT *– Major themes from focus group discussions related to housing included:*

- *Segregation prevents communities from having diverse economics, racial/ethnic groups, and resources*
- *Concerns over gentrification that pushes low-income families out of communities*
- *Safe, quality housing is often not affordable and affordable housing is often not safe or good quality*
- *Oversight of landlords and homeowners is lacking in many communities*

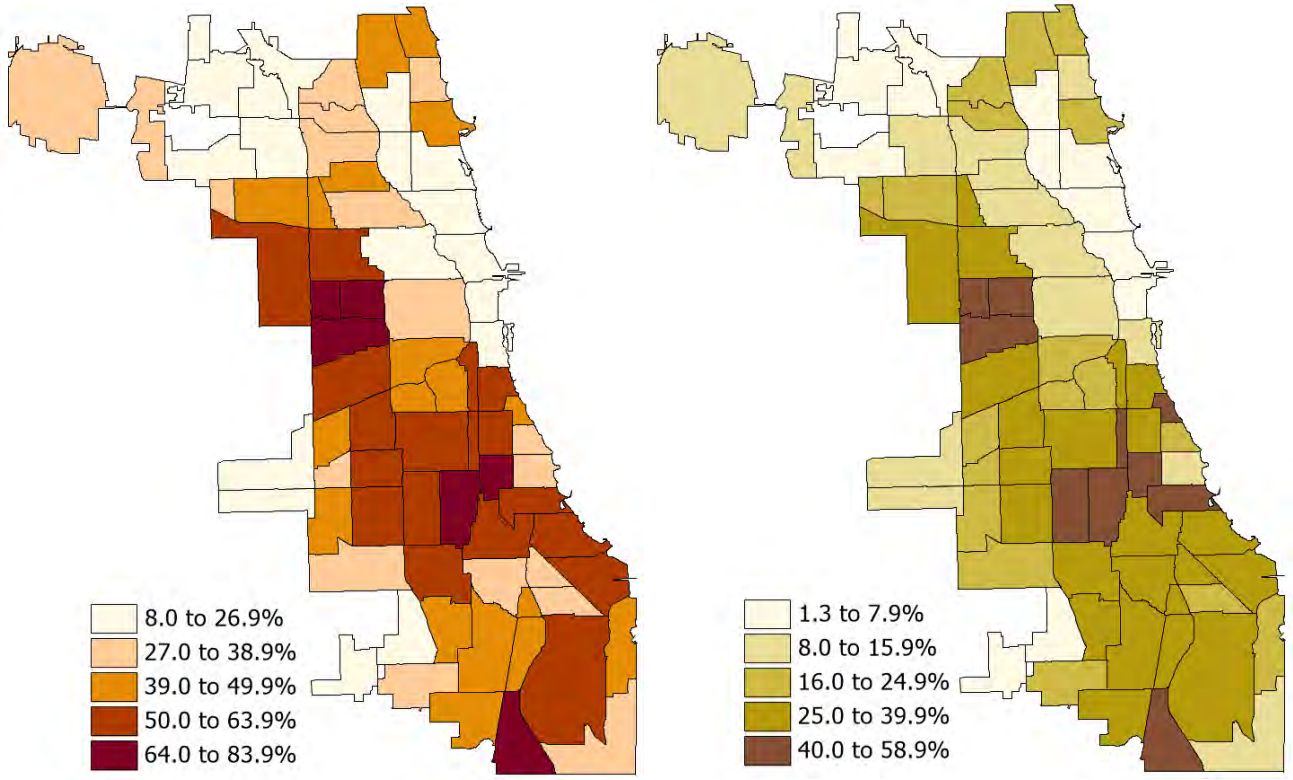
Food Access and Insecurity

Food security is a household-level social and economic condition of limited or uncertain access to adequate food (U.S. Department of Agriculture, 2018). Food insecurity can impact health in several ways (Weinfield et al., 2014):

- Combination of stress and poor nutrition can make individuals more susceptible to developing chronic diseases and make management of chronic diseases more difficult
- Worsening health problems and the associated medical care puts additional strain on household budgets and leaves less money for essential nutrition and other basic needs
- Chronic disease can lead to decreased employability and lower overall household income

Many communities in Chicago are at risk for food insecurity (**Figure 44).** Programs such as the Supplemental Nutrition Assistance Program (SNAP), local food pantries, summer meal programs, after school programs, shelters, and food banks provide important assistance to low-income individuals and families that struggle to access adequate nutrition (**Figure 44**).

Figure 44. *Risk of food insecurity (left) and households receiving SNAP benefits (right) in Chicago (Greater Chicago Food Depository; American Community Survey, 5-year estimates, 2016)*



COMMUNITY INPUT – *Focus group participants across Chicago reported difficulty accessing healthy foods. Participants on the West and South sides of the city reported a high proportion of fast-food restaurants and limited access to grocery stores selling healthier options. Low-income participants on the North side reported that there were several grocery stores available but they often could not afford them.*

Over 30 percent of community input survey respondents chose "access to healthy food" as one of the most important factors for a 'Healthy Community.' Respondents expanded upon food accessibility in their responses to the question related to areas for improvement in the community. Frequently, respondents mentioned a need for a grocery store in their community and increased access to healthy, affordable foods.

ACCESS TO CARE

Access to healthcare is broadly defined as the "the timely use of personal health services to achieve the best health outcomes" (Institute of Medicine, 1993). Healthy People 2020 describes the three steps required for an individual to access healthcare services:

- Gaining entry into the healthcare system
- Accessing a location where needed healthcare services are provided
- Finding a healthcare provider whom the patient trusts and can communicate with (U.S. Department of Health and Human Services, 2019)

There are several complex factors that further influence access to healthcare including proximity, affordability, availability, convenience, accommodation, reliability, quality, acceptability, openness, cultural responsiveness, appropriateness and approachability.

Healthcare Coverage

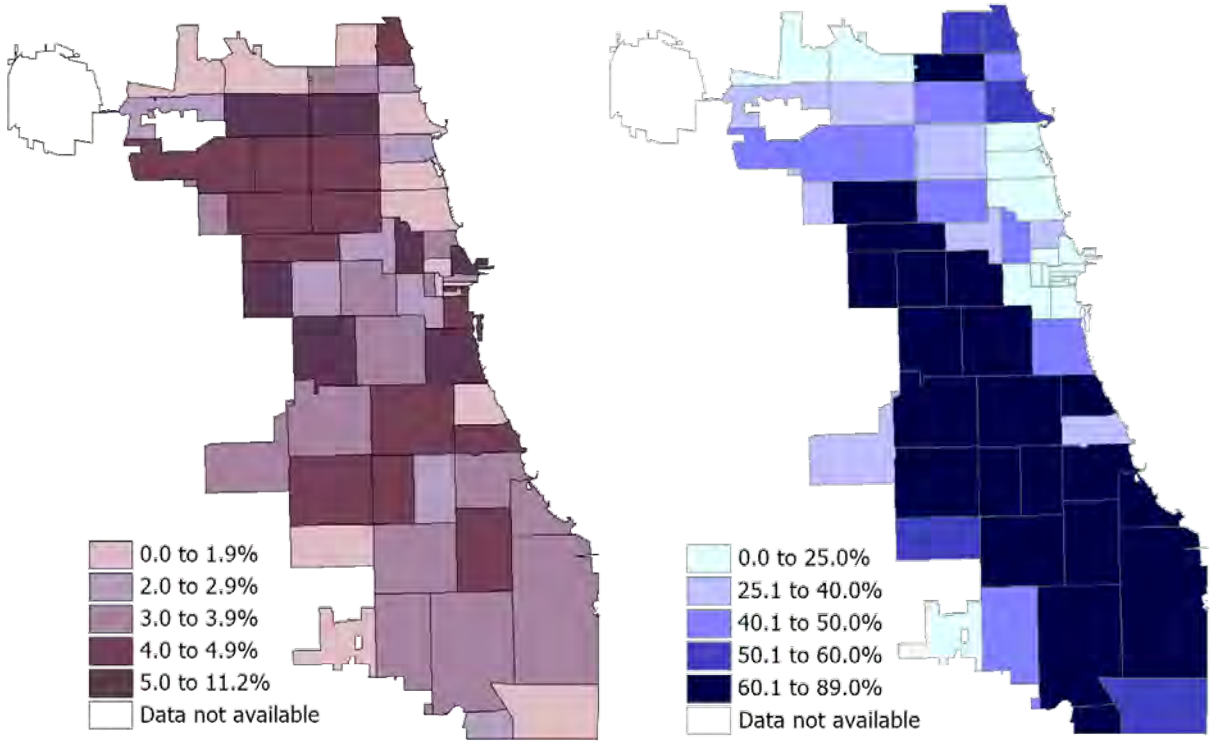
Entry into the healthcare system is usually gained through healthcare coverage including both private and public insurance benefits (U.S. Department of Health and Human Services, 2019). Fifty-three percent of Illinois residents receive insurance coverage through employer-sponsored plans.

In Chicago, 13 percent of the population does not have health insurance coverage compared to 9 percent of the Illinois population (U.S. Census Bureau, American Community Survey, 2017). However, uninsured rates are even higher among certain population groups. For example (Amadeo, 2019; Kaiser Family Foundation, 2019; U.S. Census Bureau, American Community Survey, 2017; Williamson, Antonisse, Tolbert, & Garfield, 2016):

- Uninsured rates are highest among the population 19-64 years old (18 percent) compared to children under 19 years old (4 percent) and adults over 65 years old (2 percent)
- Uninsured rates among the Hispanic/Latinx population (21 percent) are more than double those of the non-Hispanic white population (7 percent)
- In the U.S., among the non-elderly, 23 percent of lawfully present immigrants and 45 percent of undocumented immigrants are uninsured compared to 8 percent of naturalized and native-born citizens
- In the U.S., among citizen children, those with at least one non-citizen parent are more likely to be uninsured compared to those with citizen parents (7 percent vs 4 percent)
- One in five low-income Americans go without care because of cost compared to 1 in 25 high-income Americans
- Many of the working poor do not qualify for Medicaid and are often employed in professions that do not offer employer benefits

The geographic distribution of uninsured youth 0-18 years old in Chicago and the Medicaid coverage rates for children age 0-17 years old are presented in **Figure 45**. Uninsured individuals are significantly less likely to

Figure 45. *Distribution of uninsured youth 0-18 years old (left) and youth 0-17 years old receiving public insurance coverage (right) (American Community Survey, 5-year estimates, 2016)*



receive needed healthcare services. Nationwide, only 38 percent of uninsured adults visited a doctor in 2018 compared to 70 percent of those privately insured, and 74 percent of those with Medicaid coverage (Kaiser Family Foundation, 2018).

COMMUNITY INPUT – *Focus group participants mentioned several common barriers that prevent them from accessing the healthcare system:*

- *Complexity of obtaining and keeping public benefit coverage*
- *Policy changes that have led to severe delays in the distribution of medical cards from the state*
- *Fear within immigrant communities that obtaining benefits will impact their ability to acquire citizenship status*
- *High cost of some private insurance plans*
- *Lack of knowledge about available insurance and benefit options*
- *Diminishing access to services that assist individuals with obtaining coverage*
- *Logistical issues related to making healthcare appointments and arranging needed transportation*
- *Provider shortages particularly for specialists*
- *Structural racism and discrimination that lead to differences in the quality and availability of healthcare services between communities*

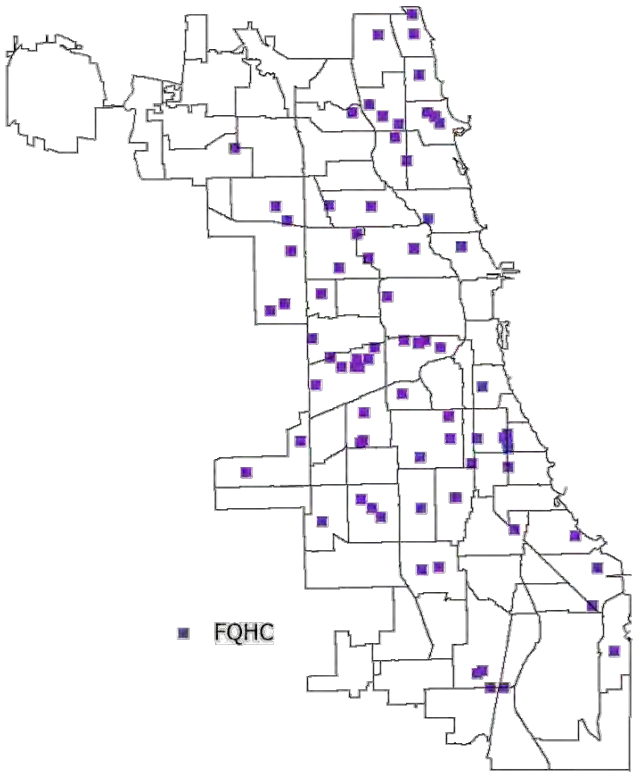
Focus group participants stated that lacking healthcare coverage can lead to multiple issues that are linked to poor health outcomes, including severe stress, an inability to access preventative services, worsening of health conditions due to delayed care, an increased need for emergency care, and substantial personal debt.

Proximity to Healthcare Services

Previous research has established that patients living further away from healthcare facilities have worse health outcomes related to survival rates, length of stay in hospital, and non-attendance at follow-up visits than those who live closer (Kelly et al., 2016). In addition, socioeconomic inequities play a role in geographic proximity to healthcare services.

Lurie Children's most significant partners in providing primary clinical and behavior healthcare to children in low/very low child opportunity neighborhoods are Federally Qualified Health Centers (FQHCs). FQHCs have an important role in eliminating disparities in access to healthcare and are located throughout Chicago (**Figure 46**). Nationwide, most FQHC patients have low incomes with 93 percent falling below 200 percent of the Federal Poverty Level (FPL) and 72 percent below 100 percent of the FPL (National Association of Community Health Centers, 2015).

Figure 46. *Distribution of FQHCs in Chicago (Centers for Medicare and Medicaid Providers of Service database, 2018)*



In addition to primary and preventative care, most FQHCs provide behavioral, oral, vision, and pharmacy services (National Association of Community Health Centers, 2015). By law FQHCs must (National Association of Community Health Centers, 2015):

- Serve a federally-designated medically underserved area or a medically underserved population
- Serve all individuals regardless of ability to pay
- Charge no more than a "nominal fee" to uninsured and underinsured individuals with incomes below 100 percent FPL, and charge uninsured and underinsured individuals between 101 - 200 percent FPL based on a sliding fee scale
- Provide non-clinical enabling services to increase access to care (e.g., transportation, translation, case management)

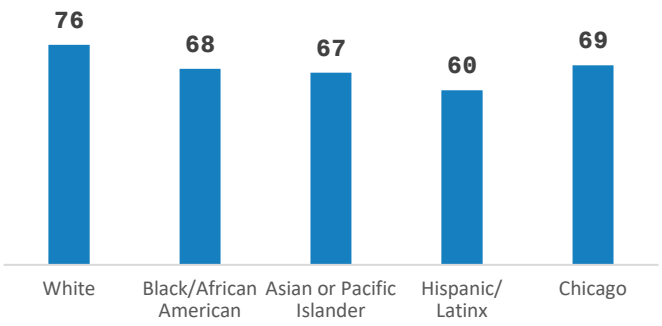
COMMUNITY INPUT – *The majority of focus groups that discussed healthcare access gave examples of the difficulties they encountered when trying to access a location where needed healthcare services are provided, including a lack of reliable transportation services, limited availability of local providers accepting public benefits, and overall provider shortages. Quotes from community residents included:*

- *"Patients need to have access to healthcare financially, geographically, and logistically." (NAMI Chicago – Family)*
- *"I was going to physical therapy and the transportation company blew me off a few times and so my physical therapy got canceled." (Housing Forward)*
- *"I had a friend who fell sick and she couldn't get an appointment for two months and couldn't pay bill without insurance and she couldn't take care of kids." (Asian Human Services Family Health Center)*
- *"My primary care physician was a two and half month wait to get an appointment to get into there. It was for pressing matters. I needed some x-rays, a MRI, a prostate exam, but it is such a process just to get in there." (Housing Forward)*

Healthcare Quality

Healthcare quality can vary greatly between communities due to several factors including the geographic proximity of a spectrum of emergency or urgent care services, proportion of the population receiving public benefits, funding for community-based services, education and training levels of healthcare staff, and localized provider shortages. Race and ethnicity also play a critical role in the quality of healthcare that patients receive. **Figure 47** shows percentage of adults in Chicago who reported that they were very satisfied with the health care they received in the past year by race/ethnicity.

Figure 47. *Percent healthcare satisfaction by race/ethnicity (Healthy Chicago Survey, 2017)*



Previous studies have established that racial and ethnic disparities in healthcare are in part a result of differential access to care and differing socioeconomic conditions. However, previous research has also established that when these differences are accounted for, race and ethnicity remain significant predictors of the quality of healthcare received (Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, 2003).

Perceptions of discrimination in healthcare have been associated with several outcomes among patients of color including decreased use of preventative healthcare, delayed use of prescription medication and medical tests, and worse chronic disease management and outcomes (Hausmann et al., 2008; Trivedi & Ayanian, 2006; Van Houtven et al., 2005). In addition, research has shown that persistent exposure to racism is traumatic for individuals and that trauma is an underlying root cause of many negative health outcomes.

COMMUNITY INPUT – *People of color participating in focus groups frequently described themselves as receiving lower quality healthcare compared to whites. Some of the examples of disparities in quality included:*

- *Poor provider communication including a lack of shared decision making*
- *Physician failure to provide surgical alternatives*
- *Negative remarks from physicians about a patient's ability to comply with recommendations even when they are making progress*
- *Delays in treatment for acute illnesses*

Multiple participants indicated that their previous experiences with providers made them reluctant to seek needed medical care, less likely to use preventative services, less likely to have a primary care provider, and much less likely to trust different providers in the future.

School-Based Health Services

School-based health services are an important healthcare resource for young people in communities. According to the American Public Health Association (2018), the use of school-based health centers is associated with:

- Improved educational achievement and attainment including higher GPA, higher grade promotion, reduced suspension rates, and reduced non-completion rates
- Increased use of vaccination and preventive services
- Reduced asthma morbidity
- Reduced violence
- Fewer emergency department visits and hospital admissions
- Higher contraceptive use among females
- Improved prenatal care and higher birth weights
- Lower illegal substance use and alcohol consumption

SCHOOL HEALTH ACCESS COLLABORATIVE – The School Health Access Collaborative (SHAC) is convened by the Public Health Institute of Metropolitan Chicago and Healthy Schools Campaign to bring together key stakeholders such as schools, students, families, and healthcare providers. The goal of the collaborative is to collectively work on improvements to the school health services infrastructure in Chicago and to increase student access to comprehensive, sustainable, and quality healthcare services. In 2018, the collaborative conducted a landscape analysis to determine the strengths, weaknesses, and opportunities within the school health services system. The findings of the analysis are summarized below:

- *CAPACITY AND RESOURCES*: An overarching gap is the lack of resources and investment in school health services. The resources needed range from additional school staff or providers to funding for services. The need is so great that even schools that have school-based health centers or established relationships with mobile providers do not have enough to match the service need. Furthermore, there is a need for consistent services throughout the year, including during summer. Frequent staff turnover create communication challenges related to coordinating healthcare services.

- *MENTAL AND BEHAVIORAL HEALTH*: There are gaps in mental health services on the South and West sides. Students that experience ongoing stress and trauma need ongoing support. Often one social worker is shared by multiple schools. Additionally, funding for behavioral health often gets reduced because of budget cuts.
- *SOCIAL AND STRUCTURAL DETERMINANTS OF HEALTH*: Students are not experiencing education in a vacuum. Additional factors such as housing can impact the health and learning environment. Moreover, some schools and community areas may be overlooked because they do not fall within certain data markers, which can result in certain communities being oversaturated and others not receiving services.
- *DATA SHARING*: Opportunities were identified around data collection, analysis, and sharing. Currently, the barriers to data collection and sharing are Health Insurance Portability and Accountability Act (HIPAA), Family Educational Rights and Privacy Act (FERPA), and the capacity required to manage and collect consistent and accurate data. Additionally, most hospital systems and electronic health records focus on adult health measures, not child and adolescent health, which further complicates the issue. A system that maintains all student health records could reduce redundancies and identify gaps.
- *COORDINATION OF SERVICES*: Healthcare and school systems have complex organizational structures that can lead to inconsistent communications and duplication of services. The infrastructure for managing relationships between schools and providers is in the development phase because there are overlaps in services at some schools and other schools are not receiving any services. School champions can assist in coordination of services by maintaining relationships with parents, community partners, and healthcare partners and advocating for school-based health programs.

CHRONIC HEALTH CONDITIONS

The definition of chronic disease varies widely in the United States and across the globe. However, chronic diseases are often defined as having the following characteristics (Australian Institute of Health and Welfare, 2016; Bernell & Howard, 2016; CDC, 2019; World Health Organization):

- Complex causality with multiple factors leading to onset including socioeconomics and health behaviors
- Long development period
- Prolonged course of illness that often requires ongoing medical attention
- Non-communicable
- Cause functional impairment in daily activities or disability

Worldwide and in the United States, chronic diseases are the leading causes of disability and death (CDC, 2019; World Health Organization). In addition, chronic disease rates are accelerating globally across all socioeconomic classes (World Health Organization). However, socioeconomic inequities have profound impacts on which populations and communities have the greatest burden of disease. Many of the socioeconomic inequities that are underlying root causes of chronic illness are explored in depth in the health inequities and social determinants of health section. As a result, this section will primarily focus on examining the burden of chronic diseases within Chicago.

PREVENTION – Chronic conditions such as heart disease, stroke, cancer, diabetes, arthritis, asthma, mental illness, and HIV/AIDs account for 90 percent of the nation's $3.3 trillion in annual healthcare expenditures (CDC, 2019). Addressing the risk factors in childhood through early prevention and ongoing management can mitigate the onset and reduce the costly physical and socioeconomic burden of these chronic conditions in adulthood. The Centers for Disease Control and Prevention have identified four domains of chronic disease prevention:

1. Epidemiology and surveillance: to monitor trends and track progress
2. Environmental approaches: to promote health and support healthy behaviors
3. Healthcare system interventions: to improve the effective delivery and use of clinical and other high-value preventive services
4. Community-clinical linkages: connections between community and clinical sectors to improve population health

RISK FACTORS – A small number of common risk factors contribute to most of the main chronic diseases (World Health Organization; Egger & Dixon, 2014; Illinois Department of Public Health):

- Unhealthy diet
- Physical inactivity
- Tobacco use
- Stress and/or depression
- Maternal and infant health
- Poverty and other social and structural determinants of health

Many of these risk factors are present in childhood and adolescents – Chicago youth report unhealthy dietary habits and low incidence of daily physical activity, among other risk factors for chronic disease (**Table 7**).

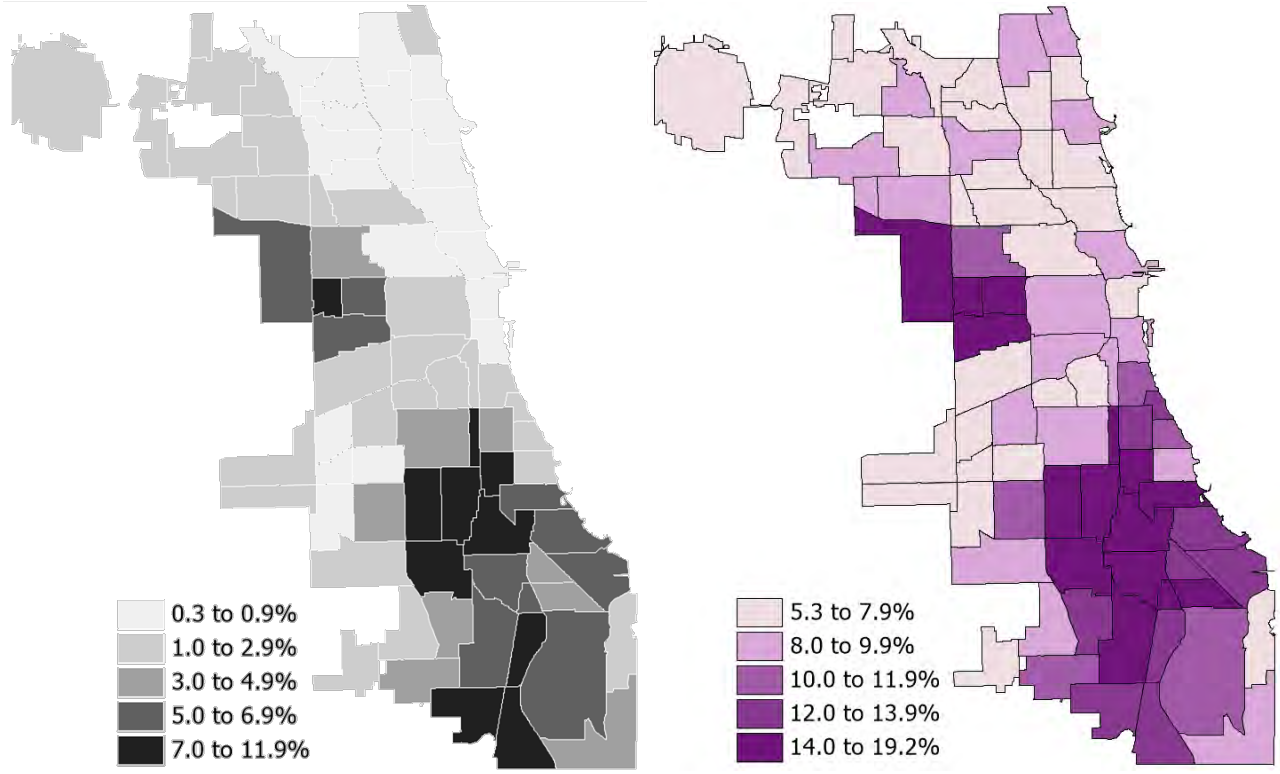
Table 7. *Self-reported risk factors for adolescents (Youth Risk Surveillance Survey (YRBS), 2017)*

	Chicago (2017)	Illinois (2017)	United States (2017)
Did not eat vegetables at least once a day	50%	n/a	n/a
Did not eat breakfast all 7 days of the week	76%	n/a	65%
Were not physically active (60 minutes) on all 7 days of the week	81%	77%	74%
Screen time – video games or computer more than 3 hours a day	41%	42%	43%
Obesity	18%	15%	15%
Smoker - current	6%	8%	9%
E-Cigarettes or other vaping products *	7% (current) 37% (ever)	13% (current) 41% (ever)	13% (current) 42% (ever)
Attempted suicide	12%	10%	7%

**The 2018 Illinois Youth Survey found higher current rates of e-cigarette use among adolescent respondents in the 12-15 percent range in Chicago and Suburban Cook County. (Illinois Youth Survey, 2018)*

Risk factors for youth begin early – before birth and in early childhood. For example, smoking during pregnancy increases the risk for low birth weight (CDC, 2019). In Chicago, the highest rates of smoking in pregnancy and low birth weight are found on the South and West sides (**Figure 48**). Low birth weight is associated with increased risk of hypertension, cardiovascular disease, and diabetes in adulthood (Ferrie, Langenberg, Shipley, & Marmot, 2006). Smoking during pregnancy also increases the risk of childhood asthma (Neuman, et al., 2012).

Figure 48. *Distribution of percent of births where mother smokes any cigarettes during pregnancy (left) and low birthweight rate (right) (Chicago Health Atlas)*

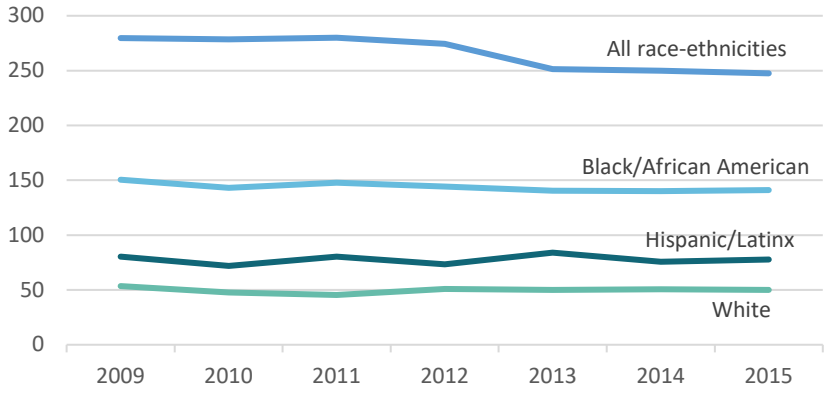


Asthma

Although asthma occurs in all racial and ethnic groups, low-income communities and communities of color share a disproportionate burden of asthma morbidity and mortality (Forno & Celedón, 2012). In the City of Chicago, black/African American children and adolescents are five times more likely to visit the emergency department for an asthma-related condition than white children and adolescents (**Figure 49**). Previous research indicates that issues such as poverty, limited access to healthcare, exposure to violence, chronic stress, overcrowded housing, deteriorating infrastructure, poor housing conditions, and higher rates of air pollution all contribute to the increased burden of asthma morbidity and mortality in certain communities (Williams, Sternthal, & Wright, 2009b).

The inequities related to asthma outcomes are evident when viewing maps of ED visits for adults and children. Asthma-related emergencies are concentrated in low-income communities of color in the West and South regions of the city and county (**Figure 50**).

Figure 49. Age-adjusted a*sthma ED visits for children under 18 years old in Chicago (Respiratory Health Association, 2018)*



These inequities align with the Child Opportunity Index (COI) and highlight the disparities evident in communities with low and very low COI (**Figure 51**). The rates of emergency department (ED) visits and hospitalizations increase as the opportunity decreases.

Racial/ethnic disparities also exist in ED visits and hospitalizations for asthma. Hispanic/Latinx youth were hospitalized at more than twice the rate of whites and Asians, while black/African American youth were hospitalized at rates more than 4 times greater (**Figure 51**).

Figure 50. *Age-adjusted asthma ED visit rates per 10,000 in Chicago among children under 18 years old (Illinois COMPdata, 2015-2017)*

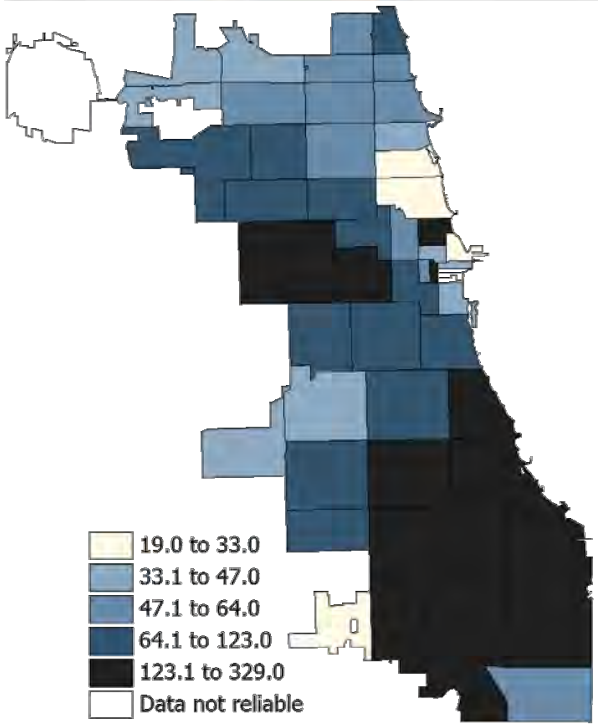
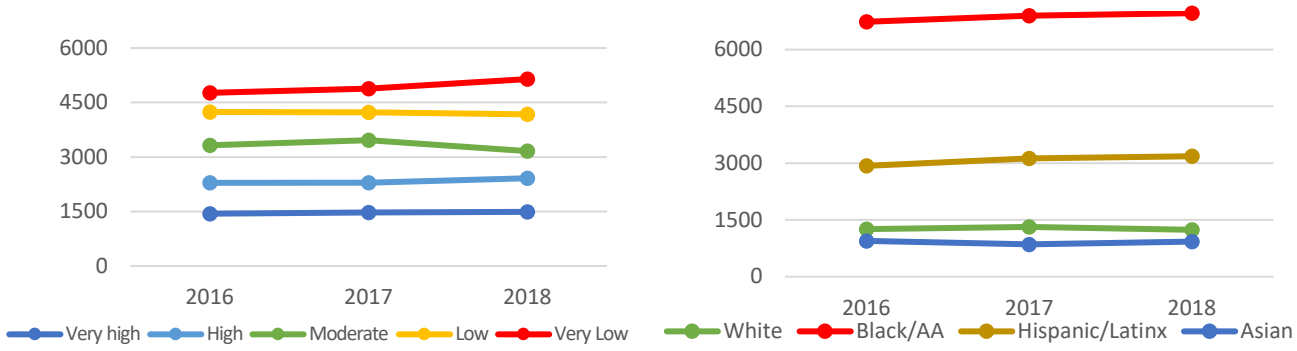


Figure 51. *ED visits and hospitalization rates per 100,000 with asthma diagnosis 0-19 years old in Chicago by COI (left) and by race/ethnicity (right) (Illinois COMPdata, 2016-2018)*



COMMUNITY INPUT – *Quotes from community residents that participated in focus groups demonstrate the tremendous toll that asthma is having on their well-being and the well-being of their families.*

- *"I can't keep count of how many times I go to the ER with my child."*
- *"I always take my child to the ER. As he gets older, it's has gotten more severe, and he is agitated. He asks questions about when he can stop taking medications."*
- *"My child takes a lot of medication. At night he gets frustrated and says, 'here we go again.' He takes sleep apnea medication plus 2-3 medications for asthma."*
- *"I'm running on no sleep because my child can't sleep at night. Then the hospital gives him medication to knock him right out – and then I have to carry him off the bus. He's 69 pounds. Give me the medication so I can give it to him at home, so I can get a break. Let me take a shower and straighten stuff up. You can't take a break, it's your child, you do what you have to do."*

Complex Chronic Conditions

Complex Chronic Conditions (CCC) are generally health conditions that involve multiple morbidities or a higher degree of medical complexity, which requires treatment from various healthcare providers and specialists beyond that which is required in childhood generally. These conditions can include chronic physical, developmental, behavioral, or emotional conditions. Examples include the following categories: neurologic and neuromuscular (e.g., muscular dystrophies, cerebral palsy), respiratory (e.g., cystic fibrosis), hematologic or immunologic (e.g., sickle cell disease), cardiovascular, renal and urologic, gastrointestinal (e.g., Crohn's disease), metabolic, malignancy, and other congenital or genetic defect. Individuals with CCC can present with functional limitations and disabilities oftentimes requiring technological support – children with special healthcare needs account for a large amount of healthcare spending with almost half of the 13.3 million children covered by Medicaid or another form of public insurance (Musumeci & Chidambaram, 2019).

In Chicago, hematological-immunological CCC rates are the highest at 457.1 per 100,000 Chicago youth 0-19 years old, followed by technology dependent, gastrointestinal, cardiovascular disease, and neuro-muscular in the top five categories (**Figure 52**). ED visits and hospitalizations have remained relatively stable for patients 0-19 years old diagnosed with CCC in Chicago over the last few years (**Figure 53**).

Figure 52. *ED visits and hospitalization rates per 100,000 for CCC by condition 0-19 years old in Chicago (Illinois COMPdata, 2016-2018)*

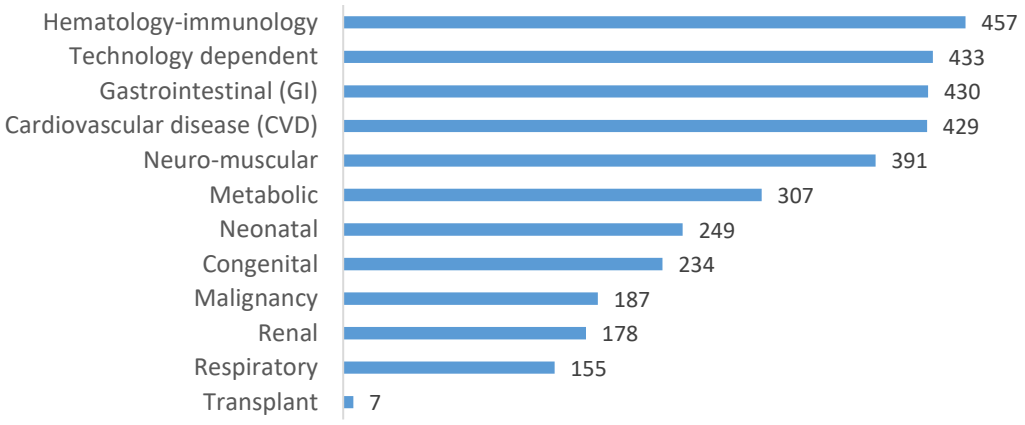
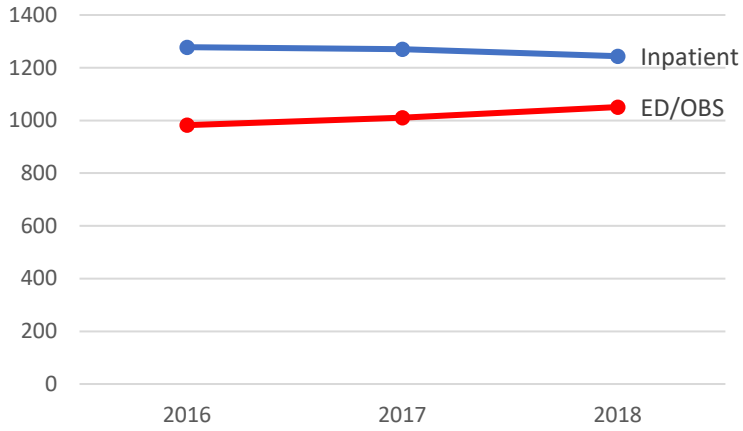


Figure 53. *ED visits and hospitalization rates per 100,000 with CCC diagnosis by visit type 0-19 years old in Chicago (Illinois COMPdata, 2016-2018)*



As observed in asthma data, rates remain relatively consistent across COI, with the highest ED visit and hospitalization rates at the lowest COI level. Although the disparity between the levels is less marked, rates in Very Low COI communities are over 75 percent higher than Very High COI communities from 2016 to 2018 (**Figure 54)**. Racial disparities are the greatest for black/African American youth in Chicago with rates at least 1.4 times great than whites and almost twice that of Asians (**Figure 54**).

Figure 54. *ED visits and hospitalization rates per 100,000 with CCC diagnosis by COI (left) and race/ethnicity (right) 0-19 years old in Chicago (Illinois COMPdata, 2016-2018)*

Obesity

Obesity in the United States is a well-established public health crisis. Of the leading causes of death in the U.S., obesity is a risk factor for seven out of the top 10: heart disease, cancer, pulmonary disease, stroke, Alzheimer's, diabetes, and kidney disease (Behrens, Matthews, Moore, Hollenbeck, & Leitzmann, 2014; Guh et al., 2009; Ebrahim, Stuart, & Mark, 2009; National Center for Health Statistics, 2016; Wang, Chen, Song, Caballero, & Cheskin, 2008). Children and youth with obesity or overweight have increased risk for high blood pressure, high cholesterol, and other cardiovascular abnormalities; pre-diabetes and Type 2 diabetes; sleep apnea; gall bladder disease; musculoskeletal abnormalities and injury; and adverse mental health outcomes related to social isolation, bullying, and low self-esteem (Daniels et al., 2005; Dietz, 2004; Freedman, Zuguo, Srinivasan, Berenson, & Dietz, 2007; Li, Ford, Zhao, & Mokdad, 2009; Paulis, Silva, Koes, & Middelkoop, 2014). Obesity and overweight in youth also increases the risk of adult obesity/overweight and the subsequent adverse health outcomes (Freedman et al., 2005; Whitaker, Wright, Pepe, Seidel, & Dietz, 1997).

According to the National Center for Health Statistics (2014), youth obesity has tripled since the seventies (Fryar, Carroll & Ogden, 2014). Between 2003 and 2012, overweight or obesity in youth 2-19 years old hit a plateau, remaining steady at 31.8 percent—with obesity for this age group at 16.9 percent (Ogden, Carroll, Kit, & Flegal, 2014). Almost one out of every three youth is overweight or obese and at risk for potentially severe and lifelong disease.

Childhood obesity in Illinois outpaces the national average across age ranges and data sources. Illinoisans 10-17 years old have rates of obesity at 16.2 percent compared to the national average of 15.8 percent placing Illinois as the 17th worst in the nation (National Survey of Children's Health, 2016-17). Illinois ranks 14th for children 2 to 4 years old who receive WIC benefits with obesity rates at 15.2 percent compared to the national average of 14.5 percent (Pan et al., 2016).

According to the Youth Risk Behavior Survey (2017), obesity rates for high school students in Chicago rose by nearly 25 percent between 2013 and 2017 (**Figure 55**). Sixty-two percent of Chicagoans considered childhood obesity to be a big problem facing child and adolescent health in the city, making the second most common issue that Chicagoans identified (HCS-Jr., 2017).

Figure 55. *Percent students with obesity (BMI >= 95th Percentile) in Chicago (YRBS, 2011-2017*)

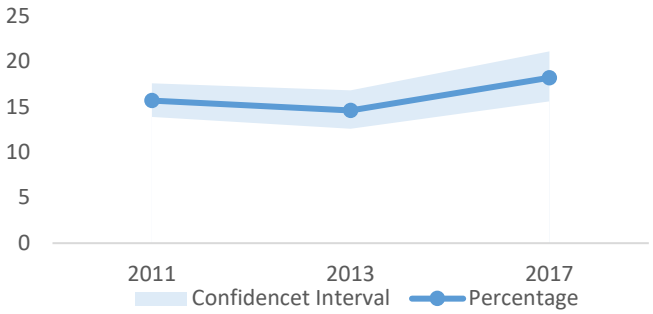
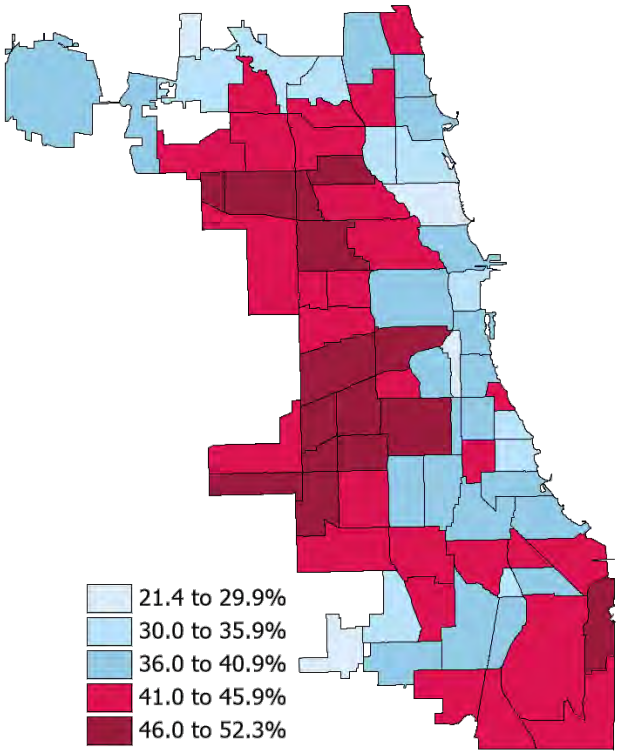


Figure 56 illustrates the disparity in obesity and overweight rates for Chicago Public Schools students in Kindergarten, 6th and 9th grades between community areas. The highest rates of obesity and overweight are on the West and Southwest sides of Chicago – generally aligning with the Child Opportunity Index.

Figure 56. *Distribution of overweight and obesity for Chicago Public School Kindergarten, 6th and 9th grade students by community area 2011-2012 (Healthy Chicago, 2013)*



Based on findings from the Healthy Chicago Survey, Jr, Chicago parents have expressed a number of challenges to healthy eating for their kids including:

- Time for sit-down family meals (36%)
- Cost of healthy foods (33%)
- Time it takes to prepare healthy foods (26%)
- Convenience of fast foods (24%)

MENTAL AND BEHAVIORAL HEALTH

In 2016, one in six U.S. children 2–8 years old (17.4 percent) had a diagnosed mental, behavioral, or developmental disorder (Cree et al., 2018). According to the National Alliance on Mental Illness (NAMI), at least one in five adolescents have or will have a serious mental or behavioral health condition. Chicago prevalence data for youth mental health disorders is limited. It is estimated that over 30 percent of Chicago high school students experience depression and over 5 percent reported attempting suicide in the past 12 months (YRBS, 2017). The causes of mental health disorders are complex and interrelated and there are gaps in the system to address and treat. The following are common findings from existing collaborative assessments, secondary data, and primary data collected through the Collaborative CHNA process distilled into key points related to mental health and substance use disorders for youth and families in Chicago.

Trauma and Childhood Adversity

Trauma can disrupt normal child development, interfere with learning, exacerbate mental health symptoms, and lead to long-term medical health issues. Currently there are no accurate estimates of the prevalence of traumatized children in Illinois. Trauma can result from adverse experiences. Due to resilience and protective

factors, not all children exposed to adverse events will become traumatized. The Illinois Department of Public Health reports results from a 2013 survey where one in seven Illinois adults say they encountered at least four categories of adverse childhood experiences (ACEs) prior to age 18 years. Hispanics/Latinx and black/African Americans report a higher incidence of ACEs (one in five) than whites (one in eight). Risk for negative behavioral, medical and academic outcomes increases with trauma exposure.

Several subgroups of children are at high risk for trauma. Children who have been abused and neglected or exposed to domestic violence are at risk of developing trauma-related effects. The Illinois Department of Children and Family Services (DCFS) served 21,483 youth in 2017 – those children are at risk of various trauma-related outcomes. Similarly, youth in juvenile detention centers report a high rate of exposure to adverse events. In a study by Cook County Juvenile Detention Center, over 90 percent of youth reported exposure to at least one adverse event, with an average of six events resulting in a high risk of trauma. These numbers illustrate a clear need to incorporate trauma measures into clinical assessments and treatment of children and youth (Illinois Children's Mental Health Partnership, 2017).

Research is revealing how exposure to trauma and adversity puts individuals at greater risk for mental illness, substance use disorder, and chronic illness across the lifespan. Trauma and adversity disproportionately affect communities of color and sexual and gender minorities, and are particularly prevalent among justice-involved populations, making addressing trauma a priority for achieving health equity (Substance Abuse and Mental Health Services Administration, 2014).

Fragmentation of Services and Integration of Care

National Alliance on Mental Illness (NAMI) of Chicago's "Roadmap to Wellness: Reframing the Mental Health Conversation for Chicago" explicitly makes the case for an understanding of mental health that is inclusive of all people and is "seen as primary healthcare" (NAMI Chicago, 2019). "Mental health" is often detached from a general concept of wellness in a way that "cardiac health," for example, is not. As a result, mental health services are often provided in a distinct, stigmatized silo that is not subject to the same demand for quality as most other healthcare sectors.

A common theme in mental health system is fragmentation—gaps, bottlenecks, and silos within and between types of providers and health plans and between various state agencies responsible for health and human services. The physical, operational, and financial separation of mental health from general healthcare creates barriers to timely access to necessary services for individuals and families and interferes with population health approaches that depend on seamless connections between various services. Children with mental health needs become involved in multiple systems. It is not uncommon for the same child to be served by mental health, education, and healthcare systems, not to mention child welfare and juvenile justice. Research has demonstrated that integrating primary and mental healthcare can improve access to care and outcomes related to physical and mental health (Collins, Hewson, Munger, & Wade, 2010; Scharf et al., 2014). Integrated care models prioritize social determinants of health that interfere with and engage with treatment plans.

Across Cook County, efforts toward integrating primary and mental healthcare are underway, from county-wide care coordination strategies to neighborhood partnerships. At the state level, Illinois' Behavioral Health Transformation Plan presents opportunities to strengthen and replicate these local projects. Illinois entered into a consent decree in 2018, requiring Illinois Department of Healthcare and Family Services to reform the children's mental health system for Medicaid-eligible youth.

Social and Structural Determinants of Health

Social factors, especially housing, but also poverty, education, employment, food security, interpersonal relationships, and transportation, affect mental health status and access to mental health and substance use services. Yet social needs are inadequately assessed and addressed in most healthcare settings.

Stigma and Discrimination

Assessments of mental health needs in Chicago indicate that stigma and discrimination against people with mental illness and substance use disorder persists in communities, schools, workplaces, and even in healthcare settings. Stigma deters people from seeking treatment before a crisis, and the experience of discrimination discourages ongoing engagement with treatment.

Workforce Shortages and Gaps in Training

Community residents and referring medical providers report barriers to access due to mental health professional shortages and low reimbursement rates, stifling the potential for workforce growth. Shortages of pediatric mental health providers is particularly severe in Cook County with only 15 child and adolescent psychiatrists per 100,000 children under 18 years old (American Academy of Child & Adolescent Psychiatry). Core components of integration models, such as outreach and engagement and communication between providers, are not reimbursed under fee-for-service nor are the full costs covered by most managed care and per-member-per-month care coordination payment arrangements (Gerrity, 2016).

Collaborative CHNA data (secondary data, community input, and stakeholder input) shows that progress toward integrated care and community well-being still faces formidable barriers in Chicago communities. Shortages of mental health and substance use treatment professionals in the community exacerbate an overreliance on institutions, including jails and prisons, for initiation of treatment.

Priority Populations

Mental health plays a role in the lives of all kinds of people and communities, but certain populations are impacted more severely or experience inequities due to structural factors including trauma, racism, and poverty. The following groups were identified as priority populations for community responses to mental health needs:

- Children's needs are distinct from adults and require specific systems to support their mental health in their homes, schools, and communities
- Black/African Americans and Native Americans who have the highest rates of mental illness
- LGBTQ+ individuals who are two or more times more likely to have a mental health condition and who have reported feeling unwelcome in many healthcare settings
- Immigrants who encounter linguistic and cultural barriers to care, and cite fear that accessing services or public aid may endanger themselves or their families
- Low-income individuals who struggle to afford out-of-pocket expenses and are vulnerable to changes in program funding and closures of public mental health centers
- Individuals in the justice population who, despite their extremely high rates of mental illness and substance use disorder and nearly universal eligibility for Medicaid under the ACA, frequently fall through the cracks when transitioning from correctional facilities to the community (TASC Inc., 2016)
- People who have experienced trauma and at greater risk for depression, substance use disorder, and chronic disease, and are also more likely to forgo care if it is offered in settings that do not implement trauma-informed approaches (National Council for Behavioral Health; Stillerman)
- Children with intellectual or developmental disabilities who have higher rates of mental health disorders

COMMUNITY INPUT *– Input from community focus groups and surveys provided strong evidence that mental health and substance use are key health issues across the entire geography of Chicago. Mental health, substance use, stress, and trauma were key topics of discussion in at least 80 percent of focus groups, across geography, age, and race/ethnicity. Focus groups discussed how behavioral health impacted the health of their communities. The major themes that emerged included:*

- *Prevalence of chronic stress among youth and adults in communities*
- *Lack of education among youth, adults, and public servants about mental illness and substance use disorders*
- *Difficulties accessing behavioral health treatment resulting from provider shortages, minimal community-based resources, stigma, poor health care coverage, financial cost, and policy issues*
- *Consequences of untreated conditions*
- *Impacts of abuse and other forms of trauma on behavioral health*

Focus group input showed that closure of mental health centers and community-based services and ongoing difficulty accessing behavioral health providers continues to be a top concern for Chicago communities. Exacerbating overall behavioral health provider shortages is an inadequate pool of providers who accept public insurance. Focus groups also described complex, often confusing, changes to Medicaid rules and the high cost and benefit gaps of private insurance as barriers to care.

Utilization of Emergency Care

MENTAL ILLNESS – Mental health-related ED visits for youth in Chicago communities range from 24 per 10,000 to 76 per 10,000 (**Figure 57**). As previously mentioned, ED admission rates in these communities are heavily influenced by socioeconomic inequities such as poverty, housing instability, food insecurity, and poor access to healthcare. These inequities are reflected in the COI disparities – communities with Very Low COI have the highest rates of ED visits and hospitalizations with a mental health diagnosis (**Figure 58**). Racial disparities are even greater with hospitalization rates for black/African American youth almost twice as high as white youth and as much as four times higher than Asian youth (**Figure 58**).

Figure 59 illustrates the distribution of ED visits and hospitalization rates by diagnosis type with substance use disorders the most prevalent. Following substance use is "other diagnosis," which includes mental disorders due to known physiological conditions, schizotypal, delusional, mood (affective) disorders, dissociative, stress-related, behavioral syndromes associated with physiological disturbances and physical factors, behavioral and emotional disorders with onset usually occurring in childhood and adolescence, and various other mental disorders.

Figure 57. *ED visit rate per 10,000 with a mental health diagnosis under 18 years old in Chicago (Illinois COMPdata, 2015-2017)*

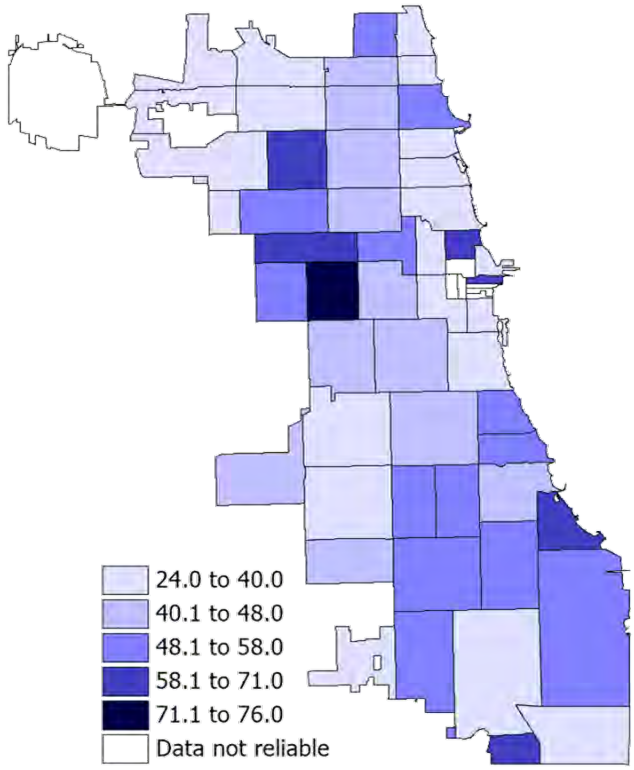
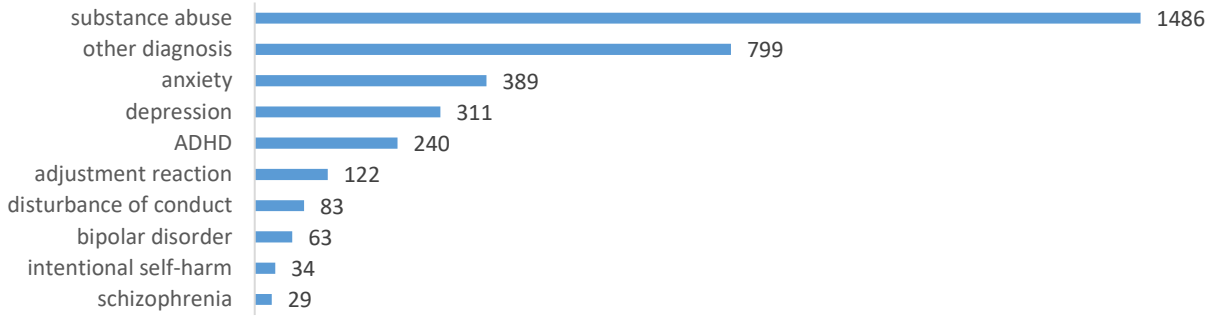


Figure 58. *ED visits and hospitalization rates per 100,000 with a mental health diagnosis by COI (left) and by race and ethnicity (right) 0-19 years old in Chicago (Illinois COMPdata, 2016-2018)*

Figure 59. *ED visits and hospitalization rates per 100,000 with mental health diagnosis 0-19 years old in Chicago by diagnosis (Illinois COMPdata, 2016-2018)*



SUICIDE AND INTENTIONAL INJURY -- In Chicago, child ED rates for suicide and intentional injury are typically higher in communities with higher rates of ED visits for mental illness. ED visit rates range from 21 per 10,000 to 93 per 10,000 for Chicago children 10-17 years old (**Figure 60**).

In Illinois, suicide rates increased among youth 10-17 years old from 2007 to 2015 with males having higher suicide rates (4.1 per 100,000) compared to females of the same age group (2.4 per 100,000) from 2013 to 2015 (IVDRS, 2018).

SUBSTANCE USE DISORDERS – Drug overdose deaths are on the rise in Chicago since 2012 (**Figure 61**). In addition, there have been marked increases in opioid overdose deaths; however, the burden of opioid-related mortality is unevenly distributed across communities (**Figure 62**).

EDs provide unique opportunities to screen patients, initiate evidence-based treatment, provide overdose prevention, and connect patients to ongoing community-based care. ED admission rates among youth for substance use disorders and alcohol use in Chicago (**Figure 63**) indicate a need for enhanced approaches to substance use treatment and prevention in several communities.

Figure 61. *Trend in age-adjusted drug overdose mortality rate per 100,000 in Chicago (Illinois Department of Public Health, 2012-2017)*

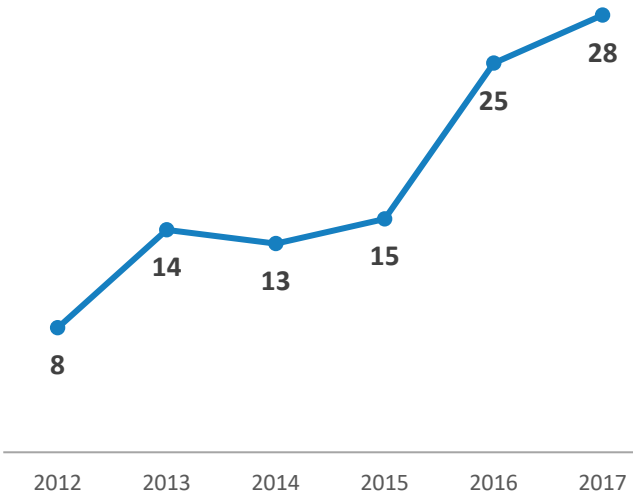


Figure 60. *Suicide/self-inflicted injury ED visit rates per 10,000 10-17 years old in Chicago (Illinois COMPdata 2015-2017)*

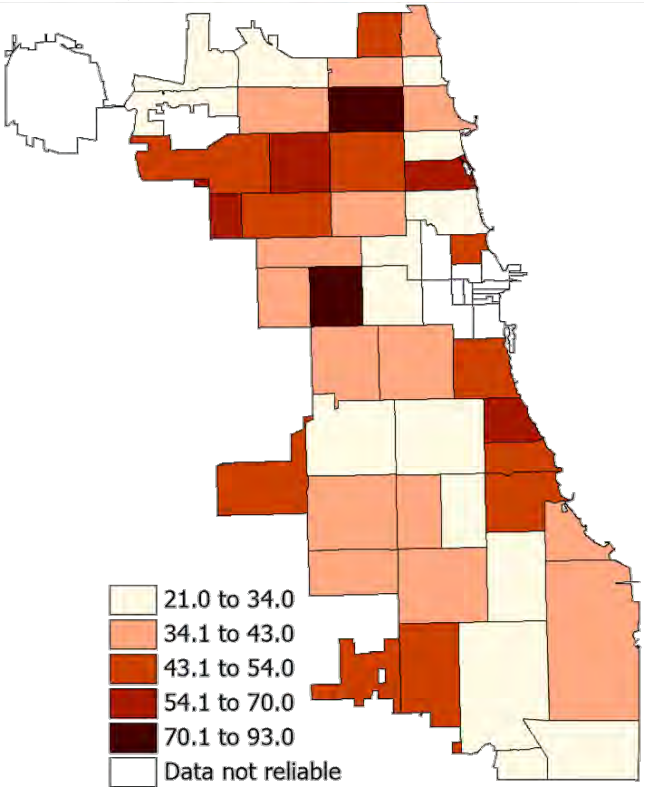


Figure 62. *Incidence of opioid overdoses in Chicago, all ages (Cook County Medical Examiner's Office, 2017)*

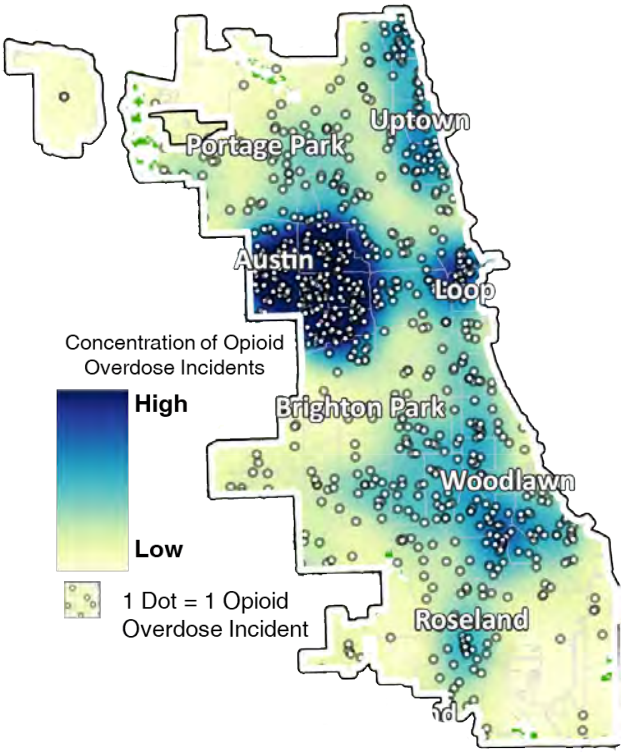
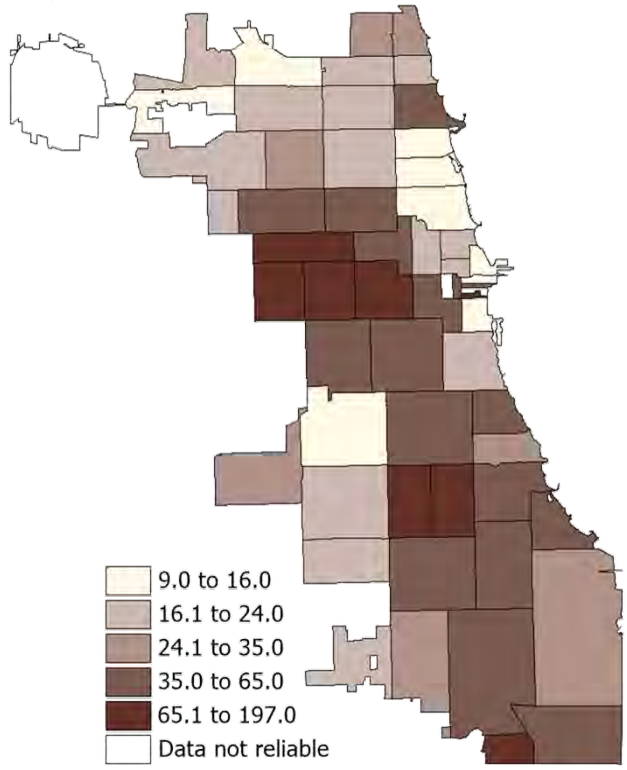


Figure 63. *Substance use ED visit rates per 10,000 in 10-17 years old in Chicago (Illinois COMPdata, 2015-2017)*



Community Input – *In addition to bureaucratic and financial obstacles, focus groups explained that stigma and trauma are sometimes reinforced by providers who dismiss behavioral health patients' complaints of physical symptoms. Participants conveyed that more education about mental illness and substance use is needed for community members, healthcare professionals, and public officials. Focus group participants linked chronic stress to several different health effects. Community members reported that stress impacted their ability to cope with chronic illnesses such as diabetes and could disrupt their ability to engage in behaviors such as healthy eating and exercise. Parents caring for children with asthma and caregivers for older adults reported that the stress of caring for a family member had negative impacts on their mental and physical well-being. Youth living with asthma reported that stress was a trigger for their asthma attacks. Individuals living with mental illness or a substance use disorder from two different focus groups mentioned that stress negatively impacts their recovery process. Participants from three focus groups directly linked chronic stress to the development of substance use disorders.*

Among community input survey respondents:

- *50 percent ranked "Access to healthcare & mental health services" as one of "the three most important things necessary for a 'Healthy Community'"*
- *40 percent selected "Mental health" as one of "the three most important health problems in your community," and 30 percent selected "Substance Use"*

UNINTENTIONAL INJURY AND VIOLENCE

Unintentional Injury

Unintentional injuries are the leading cause of death among children and adolescents in Illinois and the U.S. Unintentional injuries include suffocation, drowning, poisoning, fires, falls, motor vehicle crashes, and occupational injuries (Illinois Department of Public Health, 2019; CDC, 2016).

The two pediatric age groups with the highest unintentional injury death rates are infants (≤ 1 year old) and adolescents 15-19 years old. Infants had a 46 percent increase in unintentional injury death rate between 1999-2015, exceeding the death rates of adolescents 15-19 years old beginning in 2007 (Ballesteros, et al., 2018). There has been a recent increase in unintentional injury deaths among adolescents nationwide after many years of decreasing death from injuries. Among youth 10-19 years old, deaths attributable to unintentional injury declined steadily between 1999 and 2013 (from 20.6/100,000 to 10.6/100,000); however, the rate increased by 13 percent between 2013 and 2016 (up to 12.0/100,000) (Curtin, et al., 2018).

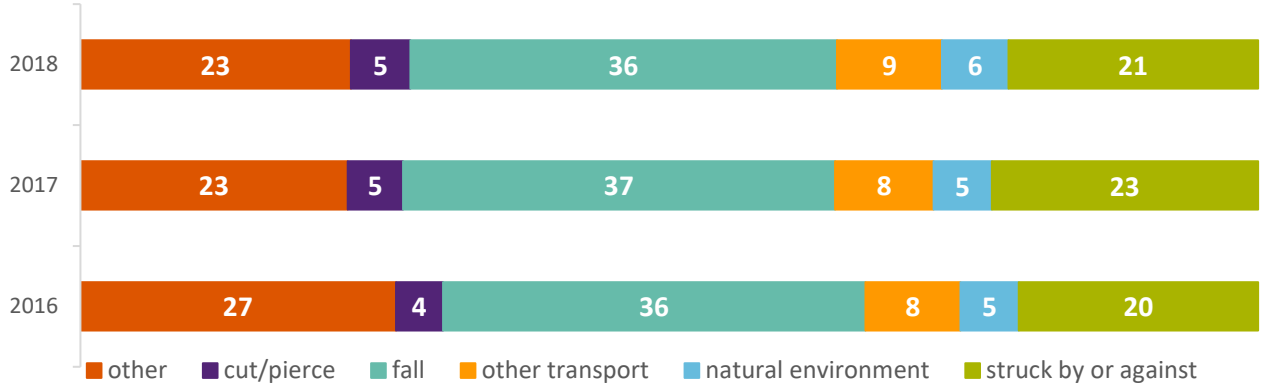
Unintentional injuries are also a major cause of emergency department visits, hospitalization, and permanent disability among children and adolescents. The CDC estimates that for every child who dies from an unintentional injury, there are an additional 900 children treated in the emergency department (CDC, 2016). In addition, unintentional injuries are a major contributor to infant mortality each year in Chicago and in Illinois.

Unintentional injuries resulting in death or non-fatal injuries disproportionately affect particular groups by sex, race/ethnicity, disability, geography, and socioeconomic status. Black/African American children and adolescents have a disproportionate burden of unintentional injuries with increased risk for drowning, pedestrian injuries, falls, and suffocation/sudden unexpected infant deaths (SUID) (Children's Safety Network, 2017; Briker, et al., 2019). Boys have higher death and hospitalization rates due to unintentional injuries, including motor vehicle traffic, falls, drowning, and suffocation/SUID, compared to girls (Briker, et al., 2019; Ballesteros, et al., 2018; Safe Kids Worldwide, 2017; Curtin, et al., 2018; Children's Safety Network, 2017). American Indian and Alaskan Native children and adolescents experience high unintentional injury death rates and are more susceptible to death from motor vehicle traffic injuries among infants (Ballesteros, et al., 2018; Children's Safety Network, 2017). Children and adolescents with disabilities, particularly physical disabilities, are at increased risk of unintentional injuries compared to their counterparts without disabilities (Shi, et al., 2015; Children's Safety Network, 2017).

In Chicago, the rates of ED visits and hospitalization for unintentional injury vary by COI – but unlike other ED and hospitalization data presented previously, the rates are not directly related to COI. For example, ED visit and hospitalization rates for unintentional injury are higher in communities with Moderate COI than in communities with Low COI (**Figure 64**). Racial and ethnic disparities, however, are evident but less marked than other data presented. ED visit and hospitalization rates for black/African American, Hispanic/Latinx and white youth in Chicago are relatively similar; however, Asian youth in Chicago have rates approximately one-third lower than their counterparts (**Figure 64). Figure 65** depicts ED visits and hospitalization rates for unintentional injury by type of injury – falls are the leading cause of unintentional injury in Chicago youth. Other includes injuries related to fire/hot objects, motor vehicle traffic, pedal cyclist and pedestrian.

Figure 64. *ED visits and hospitalization rates per 100,000 with unintentional injury diagnosis 0-19 years old in Chicago by COI (left) and race/ethnicity (right) (Illinois COMPdata, 2016-2018)*

Figure 65. *Percent ED visits and hospitalizations with unintentional injury diagnosis by injury type 0-19 years old in Chicago (Illinois COMPdata, 2016-2018)*



Within Chicago, there are several types of unintentional injury that have highly concerning negative impacts on community health, and this CHNA includes data related to SUID and sleep-related death, water-related injuries and drowning, motor vehicle related injuries, and falls.

SUDDEN UNEXPECTED INFANT DEATHS (SUID) AND SLEEP-RELATED DEATH – Sudden unexpected infant deaths (SUID) is one of the top causes of death in the first year of life, and includes sudden infant death syndrome (SIDS), accidental suffocation or strangulation in the baby's sleep environment, and other deaths from unknown causes. A recent study identified 221 sudden unexpected infant deaths (SUIDs) in Chicago between 2011 and 2015 (Roehler, et al., 2018). Among sleep-related infant deaths in Cook County in 2015-2016, the majority of deaths took place on the South and West sides of Chicago (**Figure 66**) (Briker, et al., 2019).

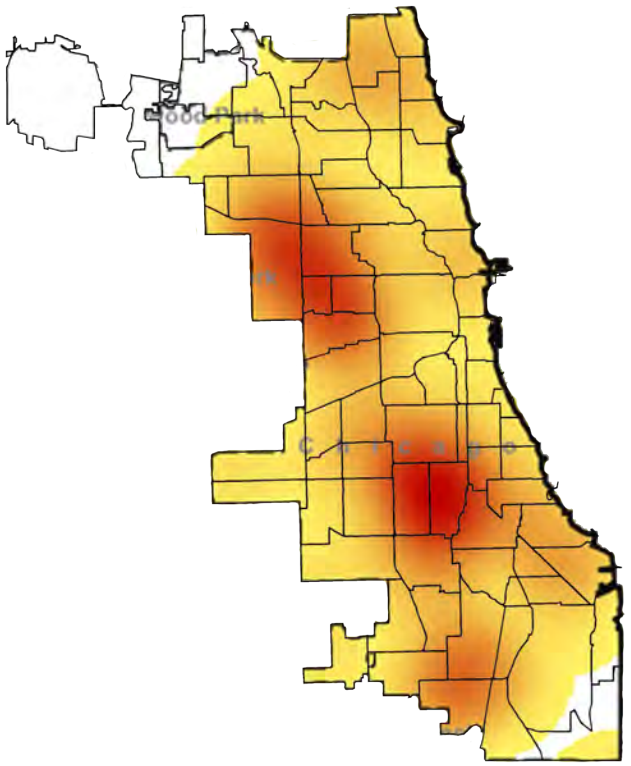
MOTOR VEHICLE RELATED INJURIES – Nationwide, motor vehicle related injury is the leading cause of unintentional injury death among children and adolescents; however, in Chicago, motor vehicle related deaths are a smaller proportion of injury deaths (Roehler, et al., 2018; Ballesteros, et al., 2018; CDC). Nonetheless, in Chicago, many children and adolescents involved in motor vehicle crashes sustain very serious but non-fatal injuries.

Child passengers: A recent study conducted by researchers at our Stanley Manne Children's Research Institute found that between 2011-2015, 324 young children (under 8 years old) not using a child safety seat sustained "incapacitating" injuries in motor vehicle crashes across Cook County, and seven children died (**Figure 67**).

Child/adolescent pedestrians: In Chicago, children 18 and under are more likely to experience a pedestrian injury (146.6 per 100,000) than adults (117.3 per 100,000) (Koopmans, et al., 2015).

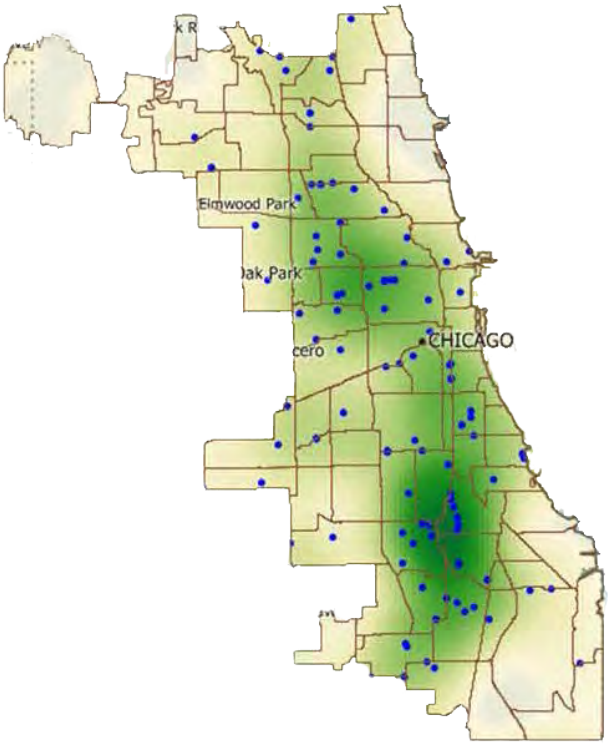
WATER-RELATED INJURIES AND DROWNING – Since 1999, the number of unintentional drowning deaths among children and adolescents 18 years and under has decreased; however, drowning remain a serious issue as it is the leading cause of unintentional injury death among children 1-4 years old (Ballesteros, et al., 2018; Safe Kids Worldwide, 2015). Half of all patients treated

Figure 66. *Incidence map of sleep-related infant deaths in Chicago with white indicating no deaths and red the highest incidence, 2015 and 2016*



(Modified from Briker, et al., 2019)

FIGURE 67. M*otor vehicle crashes in Chicago resulting in fatal or incapacitating injury to a child passenger not restrained in a child safety seat (restrained by a seatbelt or unrestrained), 2011-2015*



(Modified from Salow, Simon, & Sheehan, 2019)

for drowning in emergency departments require hospitalization, and many are left with permanent disabilities from brain injuries (CDC).

FALLS, INCLUDING WINDOW FALLS – In the United States, falls are the leading cause of non-fatal injuries for all children 18 and under. These injuries result from activities such as climbing on furniture, playing on playgrounds, falling down stairs, and playing near unsecured windows. Nationwide and in Chicago, falls are the leading cause of emergency department visits among children under 15 with approximately 8,000 visits to the ED per day nationwide (Ballesteros, et al., 2018; Safe Kids Worldwide, 2017; Ann & Robert H. Lurie Children's Hospital of Chicago, 2018). According to the CDC there are, on average, 275,000 children who suffer traumatic brain injuries from falls each year. In Chicago, the rate of window falls among children younger than 5 decreased by 50 percent between 2002 and 2016 as a result of *Stop the Falls*, a multi-stakeholder window fall prevention campaign led by Lurie Children's experts.

RISK FACTORS FOR DIFFERENT TYPES OF UNINTENTIONAL INJURIES – Recent literature has identified factors and findings that increase the risk of experiencing different types of unintentional injuries and related deaths among children and adolescents:

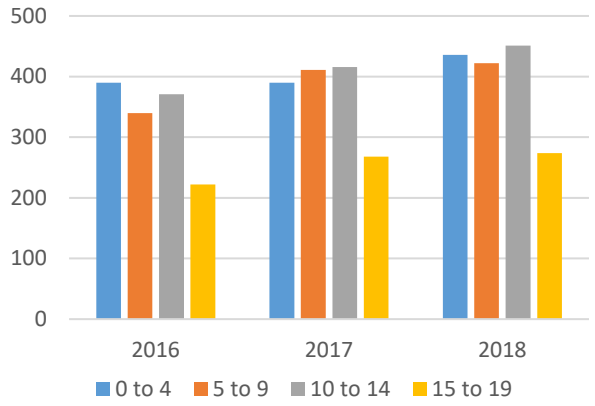
- Sleep-related death (SUIDs) (Briker, et al., 2019):
    - SUIDs most often occur in younger infants, with a recent study finding the median age in Cook County to be 2 months.
    - SUIDs disproportionately affect black/African American infants (65 percent of sleep-related infant deaths in Cook County in 2015-2016).
    - Sleeping risk factors, such as co-sleeping and sleeping on the stomach, were present in 72-89 percent of SUIDs cases in Cook County.
- Drowning (Safe Kids Worldwide, 2015, CDC)
    - The unintentional drowning death rate is highest among children ages 1 to 4, and swimming pools are the most common site. Studies have shown that participation in formal swimming lessons is associated with substantial reduction (88 percent) in the risk of drowning among children 1-4 years of age (Brenner et al., 2009).
    - African-American/black children have the highest rate of drowning fatalities. Black children 5-14 years old drown at three times the rate of white children.
    - American Indian/Alaska Native children have the second highest rate of drowning fatalities.
- Motor vehicle related deaths and injuries (Salow, et al., 2019):
    - Nationwide, 73 percent of child motor vehicle related fatalities were passengers, 21 percent were pedestrians, and 4 percent were cyclists.
    - Among child passengers 0-8 years old in Cook County who experienced incapacitating or fatal injuries in a crash, 62 percent were not using a child safety seat (13 percent unrestrained and 49 percent inappropriately restrained with a seatbelt).
    - Nearly half of crash injuries occur within five miles from place of residence. In Chicago, three ZIP codes on the South side (60620, 60621, 60628) accounted for 11 percent of unrestrained fatalities and injuries among children 8 and under.
- Falls (Safe Kids Worldwide, 2017; Ann & Robert H. Lurie Children's Hospital of Chicago, 2018)
    - Falls are the leading cause of unintentional injury in youth with the largest proportion of injury in children 4 years old and under.
    - Males are more likely than females to die from fall-related injuries; a recent window fall study in Chicago conducted by Lurie Children's found that 69 percent of window falls were in boys.
    - Children are twice as likely to be suffer a fall-related injury at home than in a childcare facility.

Child Maltreatment

Child maltreatment is a form of violence or harm, intentional or unintentional, committed by a parent or caregiver against an infant, child or adolescent. There are four types of maltreatment that include (1) physical abuse, (2) emotional or psychological abuse, (3) sexual abuse and (4) neglect. Generally, children under the age of 4 years old, children with special needs and children in low-resource communities are especially vulnerable (CDC, 2019). Lack of parenting and child development knowledge, parental stress, and social isolation are risk factors for child maltreatment (CDC, 2019). The impact of child abuse and neglect can be felt into adulthood affecting health and well-being across the lifespan (Felitti et al., 1998). Nurturing parenting skills, access to social services and supportive communities reduce childhood risk of abuse. Other social determinants of health (e.g., stable housing, access to healthcare, financial stability) are also protective factors (CDC, 2019).

In Chicago, the number of ED visits and hospitalizations for child maltreatment related injuries between 2016 and 2018 for children 0-14 years old are relatively similar across age groups, with rates for adolescents 15-19 years old at least 30 percent lower (**Figure 68)**. Across all age groups there has been an increase in ED visits and hospitalizations between 2016 and 2018, ranging from 11.8 percent for 0-4 years to as much as 24.1 percent for 5-9 years old.

Figure 68. *Number of ED visits and hospitalizations for child maltreatment related injuries 0-19 years old in Chicago by age group (Illinois COMPdata, 2016-2018)*



The risk factor of low-resource communities is evident in the Chicago ED visit and hospitalization rates with the communities with Low and Very Low COI having the highest rates (**Figure 69**). These rates have remained relatively steady between 2016 and 2018 for the Moderate, High and Very High COI communities, but have increased 15.9 percent and 32.3 percent for Very Low and Low COI, respectively. Racial and ethnic disparities exist beyond socioeconomics with the hospitalization rate for child maltreatment injury for Hispanic/Latinx children 1.7 to almost five times greater than white and Asian children, and the rate for black/African American youth 8.1 to 18.4 times greater (**Figure 69**). Approximately 10 percent of ED visits and hospitalizations for injuries related to child maltreatment (2016-2018) were related to neglect and over 30 percent were due to physical abuse (**Figure 70**). The majority of maltreatment injuries were attributed to sexual abuse, accounting for over 50 percent of ED visits and hospitalizations.

Figure 69. *ED visits and hospitalization rates per 100,000 for child maltreatment related injuries 0-19 years old in Chicago by COI (left) and race/ethnicity (right) (Illinois COMPdata, 2016-2018)*

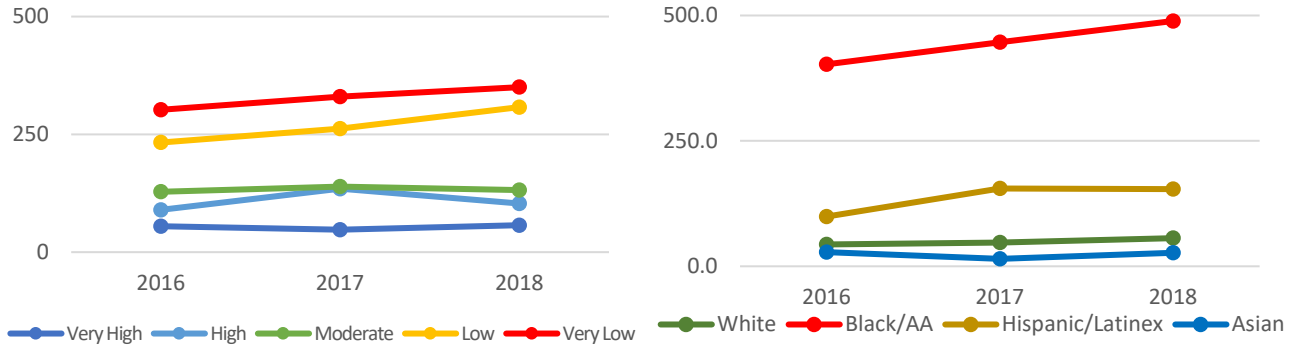
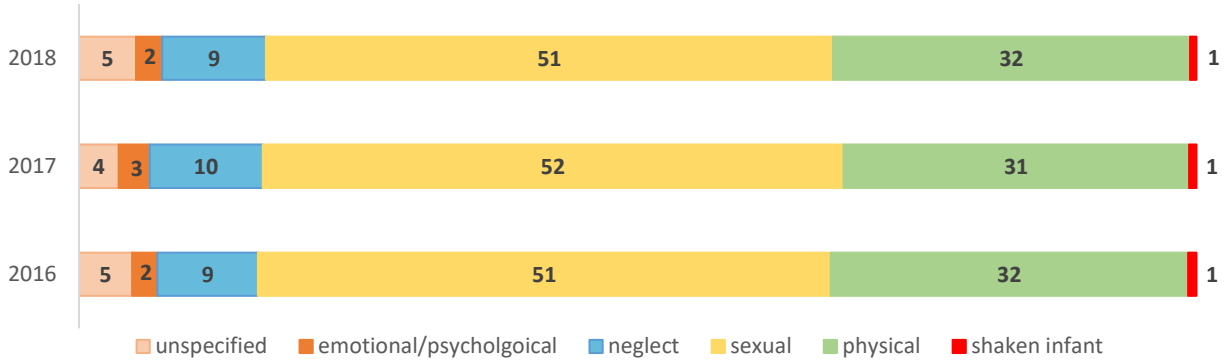


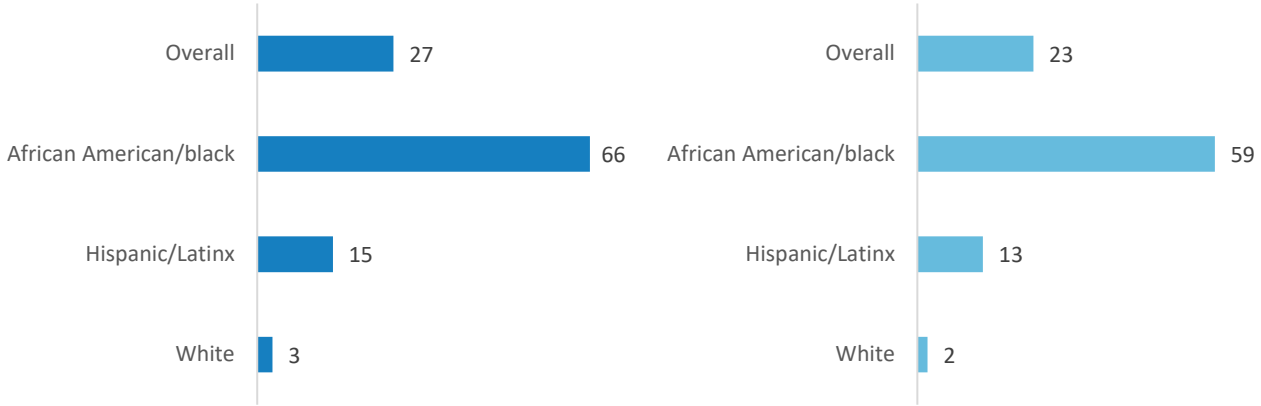
Figure 70. *Percent ED visits and hospitalizations for child maltreatment related injuries 0-19 years old in Chicago by injury type (Illinois COMPdata, 2016-2018)*



Community Violence and Safety

Although violence occurs in all communities, it is concentrated in low-income communities of color, particularly predominantly black/African American neighborhoods. Black/ African American residents in Chicago have the highest burden of homicide and firearm-related mortality (**Figure 71**). The root causes of community violence are multifaceted and include issues such as the concentration of poverty, education inequities, poor access to health services, mass incarceration, differential policing strategies, and generational trauma. Research has

Figure 71. *Age-adjusted rates per 100,000 of homicide (left) and firearm-related mortality (right) in Chicago (Illinois Department of Public Health, 2016)*



established that exposure to violence has significant impacts on physical and mental well-being. In addition, exposure to violence in childhood has been linked to trauma, toxic stress, and an increased risk of poor health outcomes across the lifespan. Violence also has a negative impact on the socioeconomic conditions within communities that contribute to the widening of disparities.

Research has long established that exposure to interpersonal and/or community violence is strongly linked to the development of mental illness, post-traumatic stress disorder (PTSD), and substance use disorders. The following examples demonstrate the impact that exposure to violence can have on the behavioral health of children, youth, and adults:

- Youth who are exposed to interpersonal violence have a significantly higher risk for PTSD, major depression, and substance use disorders (Kilpatrick et al., 2003).
- Women who experience intimate partner violence are three times more likely to have symptoms of depression, four times more likely to have PTSD, and six times more likely to have suicidal ideation (Houry, Kemball, Rhodes, & Kaslow, 2006; Prevention Institute, 2011).
- Thirty-five percent of urban youth exposed to community violence develop PTSD, compared to 20 percent of soldiers deployed to combat areas in the last six years (U.S. Department of Veterans Affairs, 2019).
- Teens who witness a stabbing are three times more likely to attempt suicide (Pastore, Fisher, & Friedman, 1996).
- Teens who witness a shooting are twice as likely to abuse alcohol (Pastore et al., 1996).

Numerous studies have shown that violence not only affects behavioral health but physical health as well. In addition to the physical scars, acute injuries, and disabilities that often result from surviving a violent incident, exposure to violence increases an individual's risk for developing chronic diseases, increased hospitalizations and emergency department visits, and negative health behaviors. Examples include:

- Children of mothers experiencing chronic intimate partner violence are at two times greater risk of developing asthma than children who are not exposed (Suglia, Enlow, Kullowatz, & Wright, 2009).
- Increased exposure to violence is linked to a higher number of days of significant asthma symptoms in children; the greater the exposure, the greater the number of symptomatic days (Wright et al., 2004).
- Adults who are exposed to violence as children have an increased likelihood of developing several different chronic health conditions such as ischemic heart disease, cancer, stroke, chronic obstructive lung disease, diabetes, and hepatitis (Carver, Timperio, & Crawford, 2008; Felitti et al., 1998).
- Adults exposed to intimate partner violence have an increased risk of developing chronic disease compared to those not exposed (Coker, Smith, Bethea, King, & McKeown, 2000; Shonkoff, Boyce, & McEwen, 2009).
- Individuals who have been exposed to interpersonal or community violence have a greater chance of developing negative health behaviors such as smoking, eating disorders, substance abuse, decreased physical activity, and poor sleep habits (Carver et al., 2008; CDC, 2008; Coker et al., 2000; McNutt, Carlson, Persaud, & Postmus, 2002; Plichta, 2004; Prevention Institute, 2011a; Salzinger, Feldman, Stockhammer, & Hood, 2002).
- Children of women who experience intimate partner violence are more likely to be obese than other children and the effect is higher for families living in unsafe neighborhoods (Kendall-Tackett & Marshall, 1999).

- Parents who perceive their neighborhood as unsafe are four times more likely to have overweight children than parents who perceive their neighborhood as safe (Burdette, Wadden, & Whitaker, 2006).
- People who described their neighborhood as unsafe are nearly three times more likely to be physically inactive than people who describe their neighborhood as extremely safe (Johnson et al., 2009).

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

Historically, violent crime data in the Unites States have been difficult to assess due to differences in reporting standards and reliability of measurements between police jurisdictions. There is some limited ability to compare violent crime rates between community areas in Chicago (**Table 8**). It is clear that there are substantial geographic differences in violent crime rates between community areas, with the South and West sides of the city having the greatest burden of violent crime.

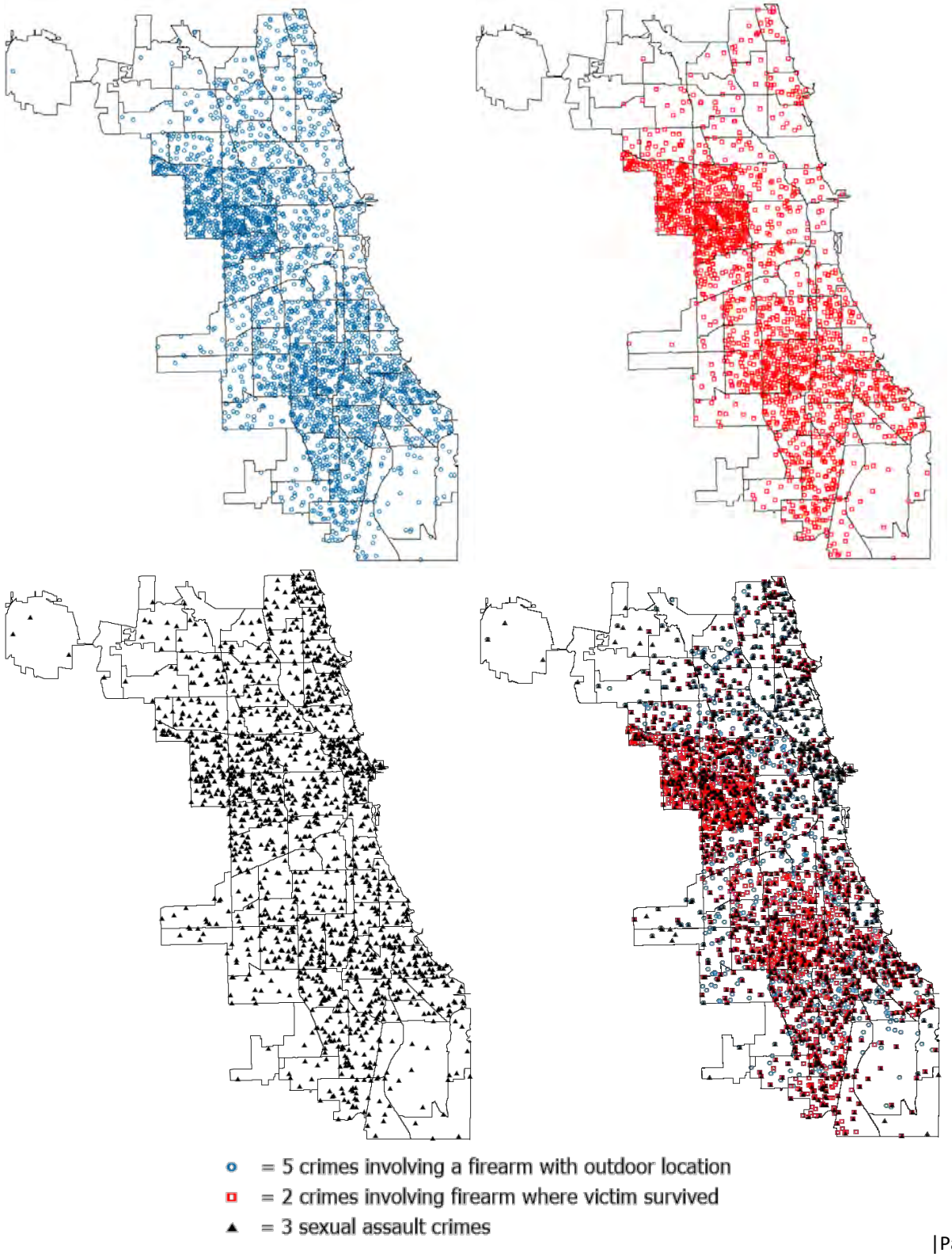
Table 8. *Community areas with the highest and lowest violent crime rates* in Chicago (Chicago Police Department Research and Development Division, 2016)*

Highest	Crude Rate (per 100,000)	Lowest	Crude Rate (per 100,000)
Fuller Park	16,238	**Forest Glen**	1,086
West Garfield Park	13,905	**North Center**	1,293
East Garfield Park	13,104	**Edison Park**	1,340
North Lawndale	12,714	**Mount Greenwood**	1,456
Riverdale	12,512	**Lincoln Park**	1,532
Washington Park	12,128	**Norwood Park**	1,680
Englewood	11,173	**Clearing**	1,776
Greater Grand Crossing	10,680	**Beverly**	1,797
West Englewood	10,134	**Dunning**	1,846
Chatham	9,417	**Jefferson Park**	1,945

**Number of reported crime incidents relating to violence, including homicide, criminal sexual assault, robbery, aggravated assault, and aggravated battery per 100,000 population*

Following a similar distribution, firearm-related crimes (e.g., shootings in public spaces and non-fatal shootings) are often most prevalent on the South and West side communities (**Figure 72**). When overlaying other types of crime such as sexual assault, these same communities experience a higher concentration of violence and align with the areas of Low and Very Low COI (**Figure 72**).

Figure 72. *Distribution of violent crime in Chicago – crimes involving a firearm with outdoor location (top left), crimes involving firearm where victim survived (top right), sexual assault (bottom left) and composite map (bottom right) (Chicago Police Department, 2016)*



Families in Chicago recognize this continued burden of violence. Parents rated gun violence as the top social issue affecting children and adolescents in Chicago, with 87 percent considering gun violence a big problem (Healthy Chicago Survey, Jr., 2017). Chicagoans on the South and West sides reported the lowest percent (70 percent and below) of feeling safe in their neighborhood "all of the time" or "most of the time" compared to communities on the North side of Chicago (**Figure 73**).

Within Chicago communities, violence continues to disproportionately affect young black males. In 2017, young black males were 13.7 times more likely to die from a firearm-related homicide than non-black males in Chicago (IVDRS, 2019). In Chicago among youth 0-19 years old, black/African American youth experienced on average five times higher ED/hospitalization rates compared to white youth for an intentional injury from 2016 to 2018 (**Figure 74**). ED/hospitalization rates for intentional injuries were highest in communities of Low and Very Low COI (**Figure 74).** Injuries due to unarmed fighting/bodily force/striking/biting comprised more than half (60 percent and up) of the injuries followed by firearm for Chicago youth 0-19 years old from 2016 to 2018 (**Figure 75**).

Figure 73. *Percent of adults who report feeling safe in their neighborhood "all of the time" or "most of the time" (Chicago Police Department, 2015-2017)*

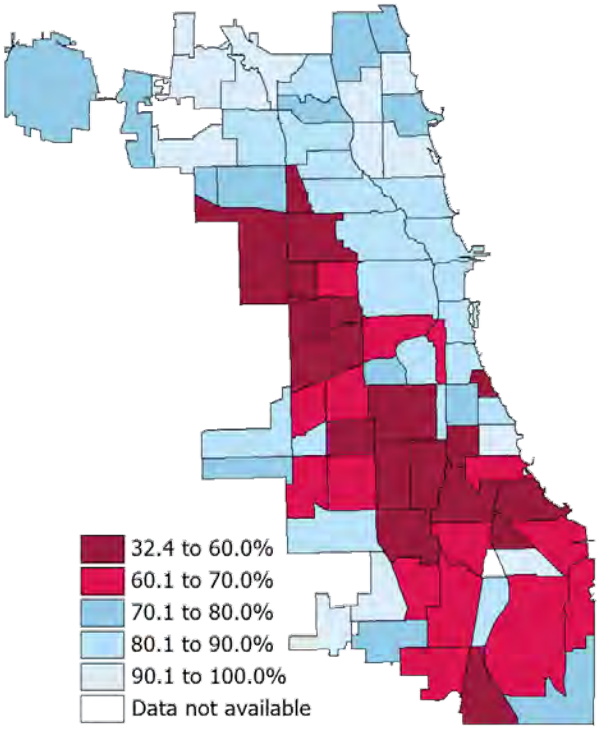


Figure 74. *ED visits and hospitalization rate per 100,000 with intentional injury diagnosis 0-19 years old in Chicago by COI (left) and race/ethnicity (right) (Illinois COMPdata, 2016-2018)*

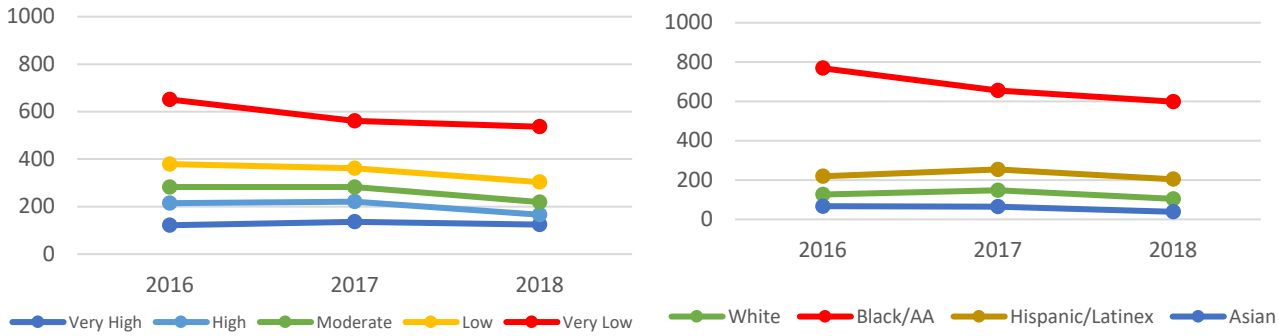
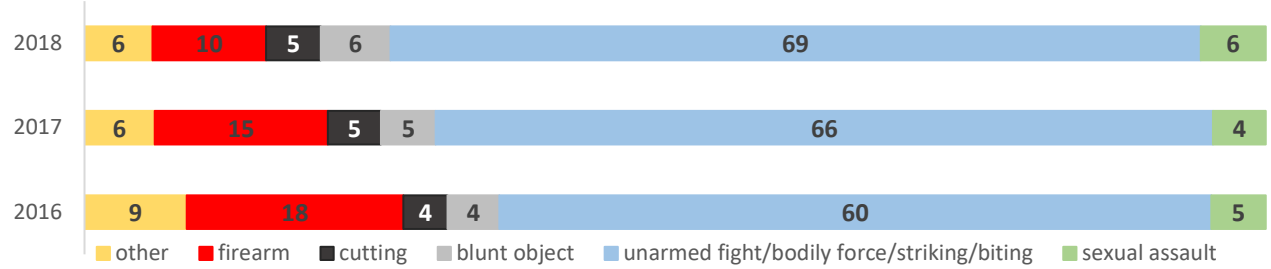


Figure 75. *Percent ED visits and hospitalization rate per 100,000 with intentional injury diagnosis 0-19 years old in Chicago by injury type (Illinois COMPdata, 2016-2018)*



Community Input – At least 20 focus groups discussed the importance of safety in creating healthy communities and the detrimental effects that violence can have on individuals and the community overall. The most commonly mentioned safety issues were gun violence, gang activity, drug-related activities, burglaries, and armed robberies. Gun violence was mentioned as an issue across the city; however, it was most often mentioned by participants living on the South and West sides. The same geographic trend occurred in discussions about gang and drug-related activity. Burglaries and armed robberies were reported by focus group participants across the city's North, West, and South sides. Participants related that the prevalence of violence in their communities has led to health issues such as chronic stress, trauma and decreased mental well-being and decreased physical activity due to unsafe neighborhoods.

Within community input surveys, respondents shared the importance of safety and low crime in their communities. Overall, 37 percent of respondents chose "safety and low crime" as one of the most important factors for a healthy community. Frequently, survey respondents recognized safety and low crime as one of the greatest strengths in the community. Safety and low crime was also the most mentioned area for improvement by respondents.

BULLYING – Bullying is a form of interpersonal violence that is defined as any unwanted aggressive behavior by a youth or group of youths that involves a real or perceived power imbalance and is repeated multiple times or likely to be repeated (National Center for Injury Prevention and Control, 2018). It can be physical, verbal, social, or through technology and can inflict physical, psychological, social, or educational harm on the targeted youth (National Center for Injury Prevention and Control, 2018). Bullying increases a student's risk for emotional distress, self-harm, depression, anxiety, sleep difficulties, death, lower academic achievement, and dropping out of school (Ladd et al., 2017; National Center for Education Statistics, 2016).

Chicago parents rated bullying as the one of the top social issues facing youth in Chicago, with 76 percent of parents considering it a big problem (Healthy Chicago Survey, Jr., 2017).

Bullying is also a common problem with approximately 20 percent of students between sixth and 12th grade reporting that they have been bullied at some point (National Center for Education Statistics, 2016). However, some student populations report much higher rates of bullying, including students with physical or intellectual disabilities, students of color, and students who identify as or are perceived as LGBTQ+ (**Table 9**).

Table 9. *Estimated national rates of bullying for different student populations*

Population	Estimated percentage of population that experiences bullying
Overall student population	20%
Students with disabilities	34% of students with behavioral or emotional disorders 34% of students with autism 24% of students with intellectual disabilities 21% of students with health impairments 19% of students with specific learning disabilities
Students of color	25% of non-Hispanic African American students 22% of non-Hispanic white students 17% of Hispanic/Latinx students 9% of Asian students
LGBTQ+ students	74% of LGBTQ+ students are verbally bullied because of their sexual orientation 55% of LGBTQ+ students are verbally bullied because of their gender expression 36% of LGBTQ+ students are physically bullied because of their sexual orientation 23% of LGBTQ+ students are physically bullied because of their gender expression

(Gay, Lesbian, and Straight Education Network, 2013; National Center for Education Statistics, 2016; National Center for Injury Prevention and Control, 2018; Rose & Espelage, 2012)

Summary of 2016 CHNA and 2017-2019 Community Health Implementation Plan

2016 CHNA PRIORITIES

Lurie Children's conducted a comprehensive Community Health Needs Assessment (CHNA) in 2015 and 2016. CHNA efforts were motivated by the desire to: (1) identify barriers to good health and well-being for Chicago children and adolescents; and (2) guide continuing efforts by Lurie Children's to improve child and adolescent health and well-being in Chicago, in partnership with individuals, programs, and organizations also dedicated to these objectives.

Based on the findings of the CHNA and in collaboration with Lurie Children's subject matter experts and the Public Policy Committee (now the Policy, Advocacy and Community Engagement Committee) of Lurie Children's Board, the CHNA Committee developed the 2017-2019 Community Health Implementation Plan (CHIP). The full Progress Report (**Appendix D**) provides an update on Lurie Children's progress in achieving the metrics and activities outlined as of June 2019. The Implementation Plan focuses on the eight priority areas identified in the 2016 CHNA: (1) social determinants of health; (2) access to care; (3) asthma; (4) child maltreatment; (5) complex chronic conditions; (6) mental health; (7) obesity, physical activity and nutrition; and (8) violence-related injury and mortality. The first two priorities — social determinants of health and access to care — are overarching themes of the subsequent priority health conditions and the Child Opportunity Index (COI) is the lens through which health inequities are viewed.

REVIEW OF 2017-2019 IMPLEMENTATION PLAN PROGRESS

Lurie Children's experts made significant progress in the implementation of activities and potential activities in each of the eight priority areas identified in the CHNA. Highlights include:

Strengthened Infrastructure to Amplify Synergies and Impact

- Formed Lurie Children's Healthy Communities to advance and align the community facing efforts of our clinical and public health experts. With oversight from the Policy, Advocacy and Community Engagement Committee of the Lurie Children's Board of Directors, the team developed a Strategic Plan to support the Medical Center's Vision 2025 with a focus on improving health equity for Chicago's children.
- Received a $12 million gift from an anonymous donor to support efforts to address three of the related priority areas identified in the CHNA: child maltreatment, mental health, and violence. The funded projects include developing innovative technology to identify child abuse, helping youth break the cycle of violence, training school personnel how to recognize trauma and intervene effectively, and enhancing research and evaluation efforts in the three focus areas.

Built Collaborative Partnerships & Coalitions

- Joined West Side United, a group of hospitals working together on economic vitality, population health and community initiatives to improve the health of those who live on Chicago's West side.
- Began housing the Illinois Children's Mental Health Partnership and the Illinois Childhood Trauma Coalition within Lurie Children's Center for Childhood Resilience.
- Implemented the Juvenile Justice Collaborative demonstration project, a care coordination model for justice-involved youth. In the JJC's pilot year, no youth connected to services was re-arrested during their participation in the program.

Mobilized Policy & Advocacy Efforts

- Convened a statewide Collaborative for Children's Health Policy by partnering with several organizations to develop and advance policies that will improve child and adolescent health and well-being.
- Continued collaboration with the Illinois Gun Violence Prevention Coalition to support passage of the Combating Illegal Gun Trafficking Act (PA 100-1178), which was signed into law in 2019.
- Worked with Senator Dick Durbin to develop and pass provisions in the SUPPORT For Patients and Communities Act (H.R. 6) in 2018 to help children exposed to trauma by increasing federal mental health funding and coordination across agencies.

Expanded Trainings & Education

- Center for Childhood Resilience trained 3,000+ partners in trauma-informed practices and social-emotional learning.
- Strengthening Chicago's Youth hosted 37 educational opportunities attended by over 2,500 partners.
- Consortium to Lower Obesity in Chicago Children trained 700+ participants in health curricula.
- Partnered with Respiratory Health Association to provide asthma education in schools to 349 students and 318 school staff.
- The Smith Child Health Evaluation Core trained 175 partners on topics related to program evaluation.
- Workforce Development provided 500+ internships, including 43 to youth in the Supporting Adolescents with Independent Life Skills program.

2016 CHNA WRITTEN FEEDBACK

Lurie Children's did not receive written feedback on the 2016 CHNA.

Conclusion

SUMMARY OF 2019 NEEDS IDENTIFIED

Lurie Children's Community Health Needs Assessment (CHNA) combined the Alliance for Health Equity's Collaborative CHNA, public health data, community input, existing research, existing plans, and other existing assessments to document the health status of communities within Chicago and to highlight health inequities and disparities that are negatively impacting child health. The CHNA also provided insight into community-based assets and resources that should be supported and leveraged during the implementation of health improvement strategies. The overarching goal of our community health strategy is to advance health equity for youth and their families – consideration of family context is a cross-cutting emphasis in our assessment. Based on the information provided in the CHNA, input from stakeholders and community input, five priority domains were identified for implementation planning:

- **Addressing social determinants of health** including addressing structural racism, advancing policies that promote health equity, creating safe and supportive environments, addressing housing stability and food access, and advancing community-driven decision making
- **Improving access to care and community resources** through interventions, programs, and policy and systems improvements
- **Improving mental and behavioral health, including substance use disorders**
- **Addressing the risk factors, prevention, and management of chronic health conditions,** particularly focused on asthma, complex chronic conditions and obesity
- **Preventing unintentional and violence-related injuries and mortality**

By implementing strategies and supporting existing work within the priority domains, Lurie Children's aims to promote health equity, reduce health disparities and improve the overall health and well-being of infants, children, adolescents and their families in Chicago. To be successful, Lurie Children's will continue to collaborate with the Alliance for Health Equity, community-based partners, various government agencies and Chicago youth and families.

ADOPTION OF 2019 LURIE CHILDREN'S CHNA BY GOVERNING BODY

Lurie Children's 2019 Community Health Needs Assessment was present to the Policy, Advocacy and Community Engagement Committee of the Lurie Children's Board of Directors on July 17, 2019. The CHNA was approved and adopted unanimously.

PUBLIC AVAILABILITY AND CONTACT

Lurie Children's 2019 CHNA is publicly available online at luriechildrens.org/community. For additional questions, please contact *Lurie Children's Healthy Communities:*

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Appendices

APPENDIX A: ADVISORY COMMITTEE MEMBERS

Lurie Children's Healthy Communities External Advisory Committee

- Jake Ament, Director, Neighborhood Network, LISC Chicago
- Kenneth Fox, MD, Chief Health Officer, Chicago Public Schools
- Pat Garcia, MD, Associate Dean for Curriculum and Professor of Obstetrics and Gynecology and Medical Education, Northwestern University Feinberg School of Medicine
- Lauren Gorter, Lurie Children's Board
- Darlene Hightower, Vice President, Community Health Equity, Rush University Medical Center
- Erika Holliday, Past President, Lurie Children's Family Advisory Board
- Mike Kelly, General Superintendent and CEO, Chicago Park District
- Norman Kerr, Vice President, Violence Prevention, UCAN
- Michelle Martinez, Lurie Children's Family Advisory Board
- Elizabeth McChesney, Director, Children's Services and Family Engagement, Chicago Public Library
- Michelle Morales, CEO, Mikva Challenge
- Julie Morita, MD, former Commissioner, Chicago Department of Public Health
- James Rudyk, Executive Director, Northwest Side Housing Center
- Smita Shah, President and CEO of SPAAN Tech, Inc, and Lurie Children's Board Member
- Darnell Shields, Executive Director, Austin Coming Together
- Monsignor Kenneth Velo, Big Shoulders Fund, DePaul University and Lurie Children's Board Member

Lurie Children's Healthy Communities Internal Advisory Committee

- Rishi Agrawal, MD, Hospitalist
- Barb Bayldon, MD, Academic General Pediatrics and Primary Care
- Adam Becker, PhD, Executive Director, Consortium to Lower Obesity in Chicago Children (CLOCC)
- Jennifer Calligan, Director, Marketing and Communications
- Colleen Cicchetti, PhD, Executive Director, Center for Childhood Resilience
- Mary Kate Daly, Executive Director, Healthy Communities
- Matthew M. Davis, MD, MAPP, Senior Vice President and Chief of Community Health Transformation
- Kelli Day, Director of Operations, Healthy Communities
- Jill Fraggos, Director, Government Relations
- Mariana Glusman, MD, Academic General Pediatrics and Primary Care
- Chris Haen, Executive Director, Health Partners
- Susan Hayes Gordon, Senior Vice President and Chief of External Affairs
- Marie Heffernan, PhD, Associate Director, Voices of Child Health in Chicago
- Amy Hill, Executive Director, Injury Prevention & Research Center
- Cynthia LaBella, MD, Sports Medicine
- Jennifer Leininger, Associate Director, Strengthening Chicago's Youth and Adolescent Medicine
- Rebecca Levin, Executive Director, Strengthening Chicago's Youth

- Maryann Mason, PhD, Director, Illinois Violent Death Reporting System
- Anya Maziak, Director, Lurie Children's Foundation
- Nell McKitrick, Director of Operations, Center for Childhood Resilience
- Mo Otting, EMS Coordinator, Emergency Medicine
- Stephanie Pelligra, Sr. Director, Pediatrics Administration and Operations
- Madiha Qureshi, Teamwork to Reduce Infant, Child and Adolescent Mortality (TRICAM)
- Maria Rivera, Manager, Workforce Development, Human Resources
- Andrea Romaniuk, Manager, Population Health, Information Management
- Ellen Rosendale, Director, Family Services
- Susan Ruohonen, Sr. Director, Family Services
- Corinne Sadecki-Lund, Trauma Coordinator, Trauma
- Michelle Sagan, MD, Orthopedic Surgery & Sports Medicine
- Parag Shah, MD, Hospitalist
- Karen Sheehan, MD, MPH, Medical Director, Healthy Communities
- Tracie Smith, Director, Data Analytics and Reporting

APPENDIX B: TIMELINE AND KEY DATES

Lurie Children's Healthy Communities team led the CHNA planning and implementation process with oversight and guidance from Healthy Communities Internal and External Advisory Committees. We also asked these committees to review and provide feedback on drafts of the Alliance for Health Equity's Collaborative CHNA and Lurie Children's CHNA. **Table 10** is a summary of key meeting dates and Lurie Children's participation in the Alliance for Health Equity Collaborative CHNA planning and implementation.

Table 10. *Meeting timeline and brief summary of meeting content related to CHNA*

DATE	MEETING	BRIEF AGENDA
Apr 2018	Alliance for Health Equity (AHE) and LCHC	Overview of Collaborative CHNA, timeline, community input and secondary data
Apr 2018	LCHC Internal Advisory Committee	Annual work plan, including CHNA
Jun 2018	AHE Collaborative CHNA Committee	Collaborative CHNA goals, timeline and community input planning, survey development and focus group recruitment
Aug 2018	AHE Collaborative CHNA Committee	Community input final survey review
Sep 2018	LCHC Internal Advisory Committee	CHNA overview and committee role
Sep 2018	AHE Collaborative CHNA Committee	Review of secondary data and core indicators and focus group scheduling
Oct 2018	AHE Collaborative CHNA Committee	Review of Collaborative CHNA outline and data visualizations
Nov 2018	AHE Collaborative CHNA Committee	General update, including survey dissemination and targeting underrepresented groups for survey collection
Nov 2018	AHE Collaborative CHNA Data Visualization Work Group	Maps, graphs and other visualizations of health indicators, qualitative community input surveys and focus groups
Dec 2018	AHE Collaborative CHNA Committee	General Collaborative CHNA update
Dec 2018	LCHC Internal Advisory Committee	Collaborative CHNA and service area community
Dec 2018	LCHC External Advisory Committee	CHNA overview and committee role
Feb 2019	AHE Collaborative CHNA Committee	Review draft Collaborative CHNA and Community Input Reports
Mar 2019	LCHC Internal Advisory Committee	Community input, secondary data, and priority domains
Mar 2019	LCHC External Advisory Committee	Collaborative CHNA, service area, community input, secondary data and priority domains
Mar 2019	Lurie Children's Physician Advocacy Advisory Board*	Collaborative CHNA, service area, community input, secondary data and priority domains
Jun 2019	Joint Meeting – Internal & External Committees	Review of final Collaborative CHNA and draft Lurie Children's CHNA
Jul 2019	Policy, Advocacy and Community Engagement (PACE) Committee	Review and approval of final Lurie Children's CHNA

**Presentation to garner additional feedback from clinical and public health experts*

APPENDIX C: COMMUNITY INPUT SURVEY TOOL

Alliance for Health Equity

Community Input Survey for Chicago and Suburban Cook County

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

The Alliance for Health Equity is a group of over 30 hospitals, local health departments and community organizations in Chicago and Suburban Cook County that are working together to conduct a Community Health Needs Assessment (CHNA). Your input is very important and will help create a plan to improve community health. The survey should take about 5 minutes to complete. Your responses are anonymous, and you will not be asked your name. If you have any questions about the survey, please contact Andi Goodall at Andi.Goodall@iphionline.org or (312) 850-4744. More information about the CHNA process is available online at www.allhealthequity.org

Tell Us About Your Community

NOTE: This survey is intended for residents of Chicago and Cook County. If you do not live in Chicago or Cook County, please return the survey to the survey distributor.

1. **What is your home Zip Code:** _____

2. **What neighborhood or community do you live in?** _____

3. **How many years have you lived in your community?** _____

4. **What are the greatest strengths or <u>best things</u> in the community where you live? (List up to 3)**

5. **What do you think are the <u>three</u> most important health problems in your community? (Choose 3)**

- ☐ **Age-related illness** (arthritis, hearing/vision loss, Alzheimer's/dementia, etc.)
- ☐ **Cancers**
- ☐ **Child abuse**
- ☐ **Dental problems**
- ☐ **Diabetes** (high blood sugar)
- ☐ **Heart disease and stroke**
- ☐ **Infectious diseases** (hepatitis, TB, flu, etc.)
- ☐ **Lung disease** (asthma, COPD, etc)
- ☐ **Mental health** (depression, anxiety, PTSD, suicide, etc.)
- ☐ **Mother and Infant health**
- ☐ **Motor vehicle crash injuries**
- ☐ **Obesity**
- ☐ **Sexually Transmitted Infections (STIs/STDs), including HIV**
- ☐ **Substance-use** (alcohol, prescription misuse, and other drugs)
- ☐ **Violence**
- ☐ **Other:**_____

Optional Comment:

6. **What do you think are the three most important things necessary for a "Healthy Community?" (Choose 3)**

- ☐ Access to community services
- ☐ Access to health care and mental health services
- ☐ Access to healthy food
- ☐ Access to transportation
- ☐ Affordable childcare
- ☐ Affordable housing
- ☐ Arts and cultural events
- ☐ Clean environment
- ☐ Diversity and inclusion
- ☐ Good schools
- ☐ Parks and recreation
- ☐ Quality job opportunities
- ☐ Religion or spirituality
- ☐ Safety and low crime
- ☐ Strong community cohesion and social networks
- ☐ Strong family life
- ☐ Other: _____

Optional Comment:

7. **What is one thing that you would like to see improved in your community?**

Tell Us About Yourself

8. **Your Age**

- ☐ 18-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45-54
- ☐ 55-64
- ☐ 65-74
- ☐ 75-84
- ☐ 85 and older

9. **What is your gender identity?**

- ☐ Female
- ☐ Male
- ☐ Non-Binary, Genderqueer
- ☐ Gender neutral
- ☐ Transwoman
- ☐ Transman
- ☐ Other:_____

10. **What is your sexual orientation?**

- ☐ Straight
- ☐ Gay or Lesbian
- ☐ Bisexual
- ☐ Prefer not to answer
- ☐ Other_____

11. Which racial and ethnic groups do you identify with? (Check all that apply)

- ☐ Asian
- ☐ South Asian
- ☐ East Asian
- ☐ Pacific Islander
- ☐ African American/black
- ☐ Hispanic/Latino(a)
- ☐ Middle Eastern/Arab American
- ☐ Native American
- ☐ White
- ☐ Other (please specify):_____

12. What is the highest level of education you have completed?

- ☐ Some or no high school
- ☐ High school graduate or GED
- ☐ Vocational or technical school
- ☐ Some college
- ☐ College graduate or higher

13. How many people live in your household? _____

14. Are there children of the following ages living in your household? (Check all that apply)

- ☐ Children aged 0-4 in my household
- ☐ Children aged 5-12 in my household
- ☐ Children aged 13-17 in my household
- ☐ No children in my household

15. Do you or anyone in your household have a disability?

- ☐ Yes
- ☐ No

16. Annual Household Income

- ☐ Less than $10,000
- ☐ $10,000 to $19,999
- ☐ $20,000 to $39,999
- ☐ $40,000 to $59,999
- ☐ $60,000 to $79,999
- ☐ $80,000 to $99,999
- ☐ Over $100,000

APPENDIX D: 2017-2019 COMMUNITY HEALTH IMPLEMENTATION PLAN PROGRESS REPORT

Community Health Implementation Plan

Progress Report | June 2019

Ann & Robert H. Lurie
Children's Hospital of Chicago®
Healthy Communities

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Executive Summary

This report provides an update on Lurie Children's progress in achieving the metrics and activities outlined in its 2017-2019 Community Health Implementation Plan, as of June 2019. The Implementation Plan focuses on eight priority areas identified in the most recent Community Health Needs Assessment (CHNA): *(1) social determinants of health; (2) access to care; (3) asthma; (4) child maltreatment; (5) complex chronic conditions; (6) mental health; (7) obesity, physical activity and nutrition; and (8) violence-related injury and mortality.*

OVERVIEW OF PROGRESS

Lurie Children's experts made significant progress in the implementation of activities and potential activities in each of the eight priority areas identified in the CHNA. Highlights include:

Strengthened Infrastructure to Amplify Synergies and Impact

- Formed Lurie Children's Healthy Communities to advance and align the community facing efforts of our clinical and public health experts. With oversight from the Policy, Advocacy and Community Engagement Committee of the Lurie Children's Board, the team developed a Strategic Plan to support the Medical Center's Vision 2025 with a focus on improving health equity for Chicago's children.
- Received a $12 million gift from an anonymous donor to support efforts to address three of the related priority areas identified in the CHNA: child maltreatment, mental health, and violence. The funded projects include developing innovative technology to identify child abuse, helping youth break the cycle of violence, training school personnel how to recognize trauma and intervene effectively, and enhancing research and evaluation efforts in the three focus areas.

Built Collaborative Partnerships & Coalitions

- Joined West Side United, a group of hospitals working together on economic vitality, population health and community initiatives to improve the health of those who live on Chicago's West Side.
- Began housing the Illinois Children's Mental Health Partnership and the Illinois Childhood Trauma Coalition within Lurie Children's Center for Childhood Resilience.
- Implemented the Juvenile Justice Collaborative demonstration project, a care coordination model for justice-involved youth. In the JJC's pilot year, no youth connected to services was re-arrested during their participation in the program.

Mobilized Policy & Advocacy Efforts

- Convened a statewide Collaborative for Children's Health Policy by partnering with several organizations to develop and advance policies that will improve child and adolescent health and wellbeing.
- Continued collaboration with the Illinois Gun Violence Prevention Coalition to support passage of the *Combating Illegal Gun Trafficking Act* (PA 100-1178)), which was signed into law in 2019.
- Worked with Senator Dick Durbin to develop and pass provisions in the *SUPPORT For Patients and Communities Act* (H.R. 6) in 2018 to help children exposed to trauma by increasing federal mental health funding and coordination across agencies.

Expanded Trainings & Education

- Center for Childhood Resilience trained 3,000+ partners in trauma-informed practices and social-emotional learning.
- Strengthening Chicago's Youth hosted 37 educational opportunities attended by over 2,500 partners.
- Consortium to Lower Obesity in Chicago Children trained 700+ participants in health curricula.
- Partnered with Respiratory Health Association to provide asthma education in schools to 349 students and 318 school staff.
- The Smith Child Health Evaluation Core trained 175 partners on topics related to program evaluation.
- Workforce Development provided internships 500+ internships, including 43 to youth in the Supporting Adolescents with Independent Life Skills program.

Community Health Needs Assessment and Implementation Plan

Ann & Robert H. Lurie Children's Hospital of Chicago conducted a comprehensive Community Health Needs Assessment (CHNA) in 2015 and 2016. CHNA efforts were motivated by the desire to: (1) identify barriers to good health and well-being for Chicago children and adolescents; and (2) guide continuing efforts by Lurie Children's to improve child and adolescent health and well-being in Chicago, in partnership with individuals, programs, and organizations also dedicated to these objectives. Details are outlined in the Community Health Needs Assessment 2016.

Based on the findings of the CHNA and in collaboration with Lurie Children's subject matter experts and the Public Policy Committee of Lurie Children's Board, the CHNA Committee developed the 2017-2019 Community Health Implementation Plan. The first two priorities — social determinants of health and access to care — are overarching themes of the subsequent priority health conditions and the Child Opportunity Index (COI) is the lens through which health inequities are viewed.

The COI is a measure of relative opportunity across neighborhoods (Figure 1) and provides a means of exploring social determinates of health for children. The index includes three sub-indices: Educational Opportunity Index, Health and Environmental Opportunity Index, and the Social and Economic Opportunity Index. Metrics that comprise the index can be found in Table 1. More detailed information about the Child Opportunity Index can be found at www.diversitydatakids.org/files/CHILDOI/DOCS/DDK_KIRWAN_CHILDOI_OVERVIEW.pdf.

Figure 1. COI by Chicago Community Area

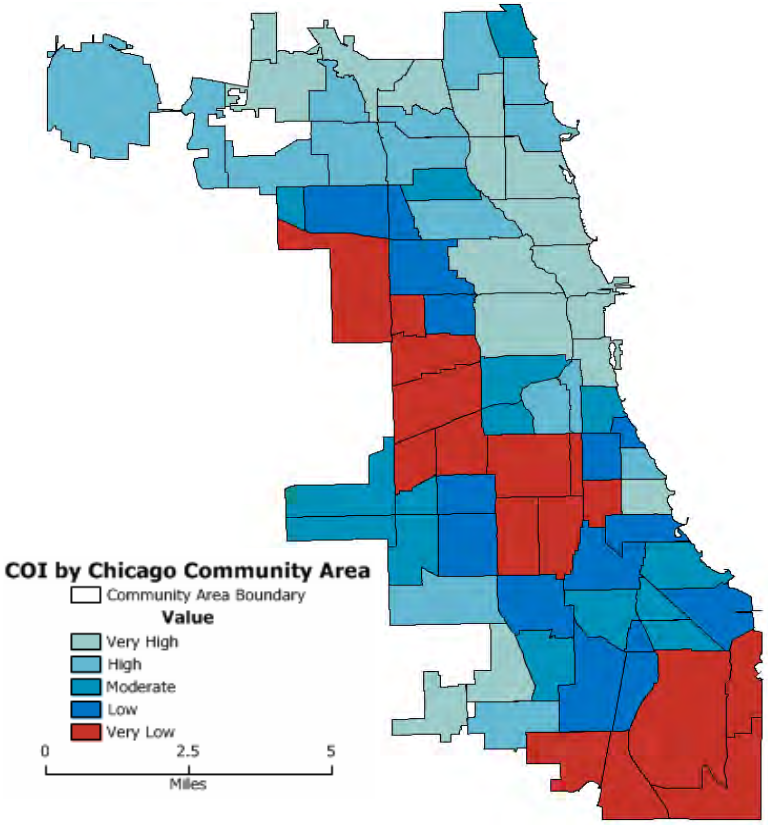


Table 1. Components of Child Opportunity Index Score	
Educational Opportunity Index	Adult educational attainment
	Student (school) poverty rate
	Reading proficiency rate
	Math proficiency rate
	Early childhood education neighborhood participation patterns
	High school graduation rate
	Proximity to high-quality[1] early childhood education centers
	Proximity to early childhood education centers of any type
Health and Environmental Opportunity Index	Retail health food index
	Proximity to toxic waste release sites
	Volume of nearby toxic release
	Proximity to parks and open spaces
	Housing vacancy rates
	Proximity to health care facilities
Economic Opportunity Index	Neighborhood foreclosure rate
	Poverty rate
	Unemployment rate
	Public assistance rate
	Proximity to employment

[1]*Accredited by the National Association for the Education of Young Children*

For each of the priority health conditions — asthma, child maltreatment, complex chronic conditions, mental health, obesity, and violence — the Implementation Plan outlines age group(s) and populations at highest risk, current and potential activities, Lurie Children's Divisions/Programs involved, potential community partners, anticipated impact, and monitoring and evaluation plans. These details are outlined in the Community Health Implementation Plan.

In early 2017, Lurie Children's Healthy Communities was created as a result of the CHNA process. It is designed to maximize the positive impact the medical center and its partners have on child health in the community. Healthy Communities builds on decades of Lurie Children's experts' successful public health outreach and leads the monitoring and evaluation of the Implementation Plan. The following is a progress report describing efforts to advance the priorities and activities of the Implementation Plan. The first two priorities – the overarching themes of this work – include summative highlights of our key partnerships and projects. Each of the subsequent priority health conditions includes a dashboard of relevant data and key successes followed by a detailed table of activities and progress.

Data Sources

HOSPITALIZATIONS AND EMERGENCY DEPARTMENT VISITS

Hospitalization data, including emergency department (ED) visits and inpatient admissions, were obtained from the Illinois hospital discharge database, COMPdata, which is maintained by the Illinois Hospital Association. Hospitalization cases include Chicago children and adolescents of ages 0-19 years who were discharged in calendar years 2016-2018, except where noted. Excluded cases were those who were deceased and those not living in Illinois. Rates were calculated using 2016-2017 American Community Survey 1-year estimates; 2017 American Community Survey 1-year estimates were used as a proxy for 2018 population estimates.

FOOD INSECURITY

Food insecurity data was obtained from the Greater Chicago Food Depository (GCFD). The GCFD has used the percent of the population living in households with incomes below 185% of the federal poverty level from the U.S. Census American Community Survey 5-year estimates (2013-2017) as a prominent standard data point in their assessment of risk of food insecurity. This data point has been widely used because it is a common income eligibility threshold for federal nutrition programs such as the National School Lunch Program and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). That said, this should not be interpreted as the actual number of those who experience food insecurity, since some households with incomes below 185% FPL are not food insecure, while others above this income level are food insecure.

CHICAGO YOUTH RISK BEHAVIOR SURVEY

The Chicago Youth Risk Behavior Survey (YRBS) was completed in randomly selected public high schools in Chicago during the spring of 2017. The survey focuses on priority health-risk behaviors that result in the most significant mortality, disability, and social problems during both adolescence and adulthood. Questions cover nutrition, tobacco use, alcohol and other drug use, physical activity, injuries, and sexual behavior resulting in sexually transmitted diseases and pregnancy. YRBS is one component of the Youth Risk Behavior Surveillance System developed by the Centers for Disease Control and Prevention, in collaboration with representatives from state and local departments of education and health, other federal agencies, and national education and health organizations.

PRIORITY AREA 1 – Social Determinants of Health

Health and wellness are impacted by more than healthcare services and Lurie Children's is committed to addressing the social determinants of health – the conditions in the places where children are born, live, learn, and play. The following describes some of the initiatives Lurie Children's is working to advance that address these underlying and interconnected influencers of child health and health inequities.

HOSPITAL COLLABORATIONS

West Side United

In May 2017, Lurie Children's was invited to join *West Side United*, a group of hospitals, funders, technical and community organizations working together on economic vitality, population health and community-driven initiatives to improve the health of individuals who live on the West Side of Chicago. The goal of this Collaborative is to coordinate the efforts each individual hospital is undertaking to maximize overall positive impact and improve health equity with the objective of lowering the 16-year life expectancy gap between Chicago's Loop and the West Side.

West Side United (westsideunited.org) was started by Rush University Medical Center as part of its CHNA and currently includes six hospitals/health systems. It is governed by the Leadership Council, on which Lurie Children's Matthew Davis, MD, MAPP serves as Secretary. The participating hospitals/health systems include: Rush University Medical Center, Lurie Children's, AMITA Health, Cook County Health, Sinai Health System and the University of Illinois Hospital & Health Sciences System. The West Side neighborhoods include 10 community areas: Austin, Belmont Cragin, Near West Side, West Town, Lower West Side, East Garfield Park, West Garfield Park, North Lawndale, South Lawndale and Humboldt Park (Figure 2).

Figure 2. Illustration of West Side United communities

Over the past two years, the number of West Side United partners has grown to over 50 non-profits, technical and business partners, government agencies and faith-based institutions, of which Lurie Children's is a leader in this work. Lurie Children's serves in leadership positions on the Anchor, Communications, Community Hiring/HR, and Food Access Committees and is actively engaged in the Operations, Education, Investments, Metrics, Procurement, and Career Pathways Committees.

West Side United is focused on four priorities: health and healthcare, neighborhood and physical environment, economic vitality, and education (Figure 3). These priorities include collective investment of $1.7 million in community development projects through loans, $250,000 in grants to local organizations to add more community health workers and increase access to mental health services, and $85,000 in one-time capital grants to small businesses. West Side United hospitals provided over 400 high school internships to expose students to healthcare careers and started Career Pathways, a program for existing employees to become Medical Assistants. West Side United also developed a strategic plan to address food insecurity that includes a fruits and vegetables voucher program, increased nutrition education at schools, and stronger ties between hospitals and food pantries.

Figure 3. West Side United's Priorities

Alliance for Health Equity

Lurie Children's is engaged in another hospital-community collaborative to improve population and community health through collective impact. The *Alliance for Health Equity* (allhealthequity.org) is a partnership between the Illinois Public Health Institute, hospitals, health departments, and community organizations across Chicago and Cook County. As a member of the Steering Committee, in addition to membership on various workgroups (e.g., community safety, data, food access, housing, policy, trauma-informed care and social determinants of health), Lurie Children's ensures that the pediatric perspective is well-represented.

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

Chicago HEAL Initiative

Lurie Children's is one of 10 Chicago hospitals to join forces with U.S. Senator Dick Durbin (D-IL) to reduce violence as part of the *Chicago Hospital Engagement, Action and Leadership (HEAL) Initiative*. Senator Durbin launched the Chicago HEAL Initiative in October 2018 to bring together hospitals to make tangible commitments to reduce gun violence, heal the physical and mental trauma that violence inflicts on victims, increase well-paying jobs, and create other economic opportunities in the neighborhoods they serve.

Healthcare Anchor Network

In 2018, Lurie Children's became the third children's hospital in the country to join the Democracy Collaborative's *Healthcare Anchor Network* (www.healthcareanchor.network), a group of hospitals and health systems committed to building more inclusive and sustainable local economies. This group shares innovative ideas and best practices to expand hospitals' role as anchor institutions by expand community hiring, procurement and investment opportunities.

HEALTHCARE ANCHOR NETWORK

WORKFORCE EDUCATION

To ensure that we can deliver healthcare that meets social, cultural and linguistic needs, we strive to have a workforce that mirrors the diversity of our patients. In addition, we proactively reach out to young people in under-resourced communities to ensure that they have access to opportunities in healthcare careers through *Lurie Children's Workforce Education and Community Engagement*. Through these opportunities, we provide over 200 internships annually and have hired more than 70 former interns into employment at Lurie Children's.

NEIGHBORHOOD-BASED INITIATIVES

One of Lurie Children's Healthy Communities' top priorities is to invest in comprehensive multifaceted neighborhood-based initiatives to "move the needle" on child health issues, especially in under-resourced and vulnerable communities where children's health is particularly compromised. Using emergency room, asthma, potential child maltreatment and mental health needs data, we identified one ZIP code — 60639, which includes Belmont Cragin and Austin — as the neighborhoods that account for our largest patient volumes in each of these areas. Both communities also score on the lower end of the Child Opportunity Index (Belmont Cragin scores "low," Austin scores "very low").

The Healthy Communities team is working with agencies and community leaders in Belmont Cragin to prioritize activities based on the neighborhood's Quality of Life Plan created in partnership with LISC Chicago and Northwest Side Housing Center (NWSHC) with input from 600 residents and 30 local agencies. In 2018, a Community Outreach Specialist was hired by Lurie Children's to serve as a critical point of connection for the hospital and "boots on the ground" in Belmont Cragin. Lurie Children's has also secured a $1.25 million philanthropic gift to support this work starting in 2019.

To date, we have provided asthma education in schools (see Priority Activity 3 dashboard and Activity 3.08) and parenting education and support with a local community service provider (see Parenting Supports below). In addition, the Center for Childhood Resilience has conducted trainings on building resilience in refugee/immigrant children and families at Portage-Cragin Branch of Chicago Public Libraries and is leading a learning collaborative focused on trauma resilient & responsive schools. We are working with NWSHC to coordinate a speaker series comprised of Lurie Children's clinicians and educators as part of their Parent University hosted at Steinmetz College Prep in Belmont Cragin. Topics have included healthy nutrition, parenting support/child development, bystander CPR, and injury prevention, including car seat distribution and installation.

Adam Becker, PhD, and NWSHC received a joint seed grant from the Alliance for Research in Chicagoland Communities (ARCC) within Northwestern University's Center for Community Health. The ARCC seed grant is supporting a community-based participatory research in Belmont Cragin.

Lurie Children's Workforce Education team has expanded the Discovering Healthcare Careers internships to include students at Steinmetz College Prep and developed a new STEM program at ITW David Speer Academy. We have also sponsored various events within Belmont Cragin and Austin through Lurie Children's Community Volunteer Corp, including Chicago Cares' Serve-a-thon at Steinmetz High School, HopeFest in Belmont Cragin, and the Back-to-School Celebration with Chicago Public Schools for Austin and Belmont Cragin communities at Michele Clark High School.

Concurrently, Lurie Children's participated in the development of Austin's Quality of Life Plan, which was led by LISC Chicago and Austin Coming Together and finalized in early 2019. Lurie Children's is continuing to work with community leaders in Austin to identify key needs and priorities that align with Lurie Children's expertise.

PARENTING SUPPORTS

To strengthen and support Chicago parents in vulnerable communities, Lurie Children's experts are meeting parents where they are, and partnering with community and city organizations to ensure efficiency and sustainability. Lurie Children's Healthy Communities is supporting various initiatives with community and city-wide partners.

Lurie Children's continues to partner with Metropolitan Family Services to strengthen and support their Parenting Fundamentals initiative. Parenting Fundamentals is an evidenced-based intervention that combines positive parenting classes with home visits and connection to supportive social services. This intervention has been shown to increase parenting knowledge and skills, increase supportive family environments, and reduce risk for child abuse. In early 2018, Lurie Children's Healthy Communities began a pilot to integrate healthcare practitioners into two Metropolitan Family Services' parenting classes in Belmont Cragin and Austin. Lurie Children's Healthy Communities social worker and advanced practice nurse – with over 40 years combined expertise in child development and clinical education – provided health-centered education to supplement the positive parenting curriculum.

Lurie Children's Healthy Communities social worker and advanced practice nurse are also leading a pilot support group for parents focused on peer mentoring, self-care, and positive parenting with parents from Lurie Children's Chicago Youth Programs (CYP) Clinic. These parents are high-risk families from low-resource communities and the sessions are parent-driven and focused on providing a safe space for parents to support one another and learn new techniques for self-regulation, positive parenting, and healthy interpersonal relationships.

In 2018, Lurie Children's Healthy Communities hosted a Cigna Community Ambassador Fellow to lead an effort to leverage lessons learned from the pilots with Metropolitan Family Services and CYP and collect community input to inform development of a parenting supports program. Program design includes a tiered approach with introductory and targeted sessions, including referrals to community service providers. We are currently continuing to plan for pilot implementation in late 2019 in Belmont Cragin.

Lurie Children's has formed a unique partnership with the Chicago Public Library (CPL) to further increase the number of parents exposed to positive parenting skill building and health education. New parents are significant users of the library system, both looking for parenting information and socializing with other new parents. Lurie Children's is working with CPL to integrate Lurie Children's health experts, including Community Medicine and Advocacy (CMA) residents, social workers, APNs, nutritionists and others into library programming, particularly in under-resourced neighborhoods. A pilot began in spring 2018 at the Rogers Park and Uptown branches of CPL, and CMA residents continue to integrate health information into library programming.

FOOD SECURITY AND HEALTH

Food insecurity is the condition in which people cannot reliably access adequate nutritious food. Food insecurity is a complex, multi-faceted issue driven by a myriad of socioeconomic factors and is particularly detrimental for children. Approximately 17% of children in Cook County, or 1 out of every 6, are food insecure.

Lurie Children's Healthy Communities and Lurie Children's primary care clinic in the Uptown community, in collaboration with the Greater Chicago Food Depository, launched Chicago's first on-site food pantry in a pediatric clinic, serving families that identify as food insecure. In the program's first nine months, we screened 2,287 unique patients using a standardized measure; 4.5 percent (102 unique patients) were identified as food

insecure. To date, we have distributed 104 bags of healthy, shelf-stable fruits, vegetables, legumes, grains and cereal to 82 unique patient families.

We are developing a pilot program with several clinical divisions to provide food to more families in need. Our planned intervention will have three components: a home food delivery program through which patient families can order food, paid for by the hospital through philanthropic support; transportation support for families who need assistance getting to local food pantries; and a longer-term home-delivery strategy for families to purchase healthy foods and beverages.

PRIORITY AREA 2 – Access to Care

Access to care is a key factor in child health equity, which extends beyond health insurance access. Lurie Children's is committed to addressing the barriers to and expanding the facilitators of access to care. This includes building community-clinic collaborations and strengthening partnerships with Federally-Qualified Health Centers (FQHCs); advocacy efforts to ensure children's health is a consideration in policy and funding decisions; and evaluation to ensure that we understand the landscape of child health in terms of health needs and community priorities. The following provides an overview of Lurie Children's efforts to advance this work.

COMMUNITY-CLINIC COLLABORATIONS

In 2019, Lurie Children's Healthy Communities hired a Director of Community-Clinic Collaborations to continue to build and strengthen partnerships with FQHCs, including managing our *Community Benefit Grants*. Since 2016, Lurie Children's has provided $675,000 in Community Benefit Grants to FQHCs to extend our mission and support key partners' pediatric-focused operations. In 2017, we revised the aim of these grants to (1) focus on mission impact concordant with their unique goals and with Lurie Children's CHNA priority areas, and (2) include more rigorous evaluation to measure impact.

Lurie Children's has been designated by the State of Illinois as an *Integrated Health Home*, a new initiative that is expected to launch in January 2020 (see Activity 5.04). The goal of this initiative is to better integrate physical and behavioral health care services and provide case management and care coordination for at-risk Medicaid enrollees. This initiative will enable Lurie Children's to expand its care coordination services to more at-risk children across the State. Leaders from Lurie Children's have been invited by the Illinois Department of Healthcare and Family Services to serve on the planning committee for children in this program.

Project ADAM is an initiative started at Children's Hospital of Wisconsin in 1999 to prevent deaths from sudden cardiac arrest through advocacy, education, preparedness and collaboration. Focused prevention training and education ensures schools and communities are not only equipped, but also trained in prevention of sudden cardiac deaths. In 2019, Lurie Children's became the Illinois affiliate and hired a Project Coordinator to lead bystander CPR trainings and provide technical assistance to local schools on the pathway to becoming Heart Safe Schools. To date, 37 trainings have been conducted with 1543 people trained, including 915 youth (12-17 years old).

In 2018, Lurie Children's began planning and development of *Lurie Children's Mobile Health Program*, a mobile care clinic and health promotion program which recognizes that health is more than traditional healthcare, and that the community is foundational in these efforts to extend a community of care to kids in the community. Providing health services in community settings brings care to individuals versus putting the onus on already burdened patients and families. Integrating these services with health information, resources, and everyday tools in partnership with community-based services and neighborhood anchors like parks, libraries, and schools is what differentiates this approach. The goals of Lurie Children's Mobile Health Program include creating a patient experience closer to home, addressing gaps in healthcare access, reducing ED visits for non-urgent care, increasing health literacy and health knowledge, and connecting community residents to community resources. The pilot will focus on our target communities of Belmont Cragin and Austin and will launch in fall 2019.

THE COLLABORATIVE FOR CHILDREN'S HEALTH POLICY

Beginning in 2017, Lurie Children's convened the following state-wide organizations as founding partners and executive council of the *Collaborative for Children's Health Policy* (www.collaborative4childrenshealth.org):

- American Academy of Pediatrics Illinois Chapter
- Ann & Robert H. Lurie Children's Hospital of Chicago
- EverThrive Illinois
- Illinois Children's Healthcare Foundation
- The Ounce of Prevention
- Voices for Illinois Children

The mission of the Collaborative for Children's Health Policy is to transform child and adolescent health and wellbeing in Illinois by partnering to advance policies and investments that will achieve health equity for youth, families and communities. The Collaborative is focused on removing the barriers that prevent sustaining progress and attention on critical child health policies in Illinois, including changing administrations, budget challenges and the lack of vote or voice by children. Jill Fraggos of Lurie Children's serves as Executive Director of the Collaborative.

In 2017-2018, the Collaborative hired a program coordinator to staff the organization and established policy aims to address difficulties children have accessing the services they need because of income inequity, insurance-related barriers, inadequate communication, wait lists, or lack of access to and availability of appropriate primary care. The Collaborative's policy priorities include:

- Increasing access to quality health services for all children
- Improving access to child mental health services
- Addressing key social determinants of health

The Collaborative for Children's Health Policy is staffing a bipartisan, bicameral group of Illinois legislators from the House and Senate co-chaired by Rep. Tom Demmer, Rep. Camille Lilly, Sen. Julie Morrison, and Sen. Chuck Weaver. The *Illinois Legislative Children's Health Caucus* will review early childhood development; physical, social and emotional health and well-being of Illinois children and adolescents; and evidence-based policies and programs to achieve health equity for children, families and communities throughout the state.

In February 2018, the Children's Health Caucus held its kick-off in Springfield, Illinois. To date, 20 members of the Illinois General Assembly have agreed to join the Children's Health Caucus. The membership is bipartisan, bicameral and representative of diverse groups of constituents throughout Illinois. The Children's Health Caucus has convened three meetings focused on access to specialty care for children on Medicaid and building mental health services in Illinois schools.

VOICES OF CHILD HEALTH IN CHICAGO

To further enhance Lurie Children's understanding of the needs of children and families in Chicago and our ability to meet those needs, the Smith Child Health Research, Outreach and Advocacy Center developed the *Voices of Child Health in Chicago* (luriechildrens.org/en/voices), a new program led by Matthew Davis, MD, MAPP and focused on surveying Chicagoans to better understand the issues that impact child health in Chicago. Through this endeavor, Lurie Children's will obtain data on children's health across the metropolitan area with an emphasis on measuring health needs and public attitudes regarding a wide range of health and health care topics, including the priority areas in Lurie Children's CHNA.

By asking Chicagoans directly about child health, we gain important perspectives and insights that sometimes can be overlooked in health research and policies. We are committed to bringing our research findings to the public to help foster an open dialogue about child health. By polling the public for its perspectives, we make sure that community views are part of our city's conversation about child health.

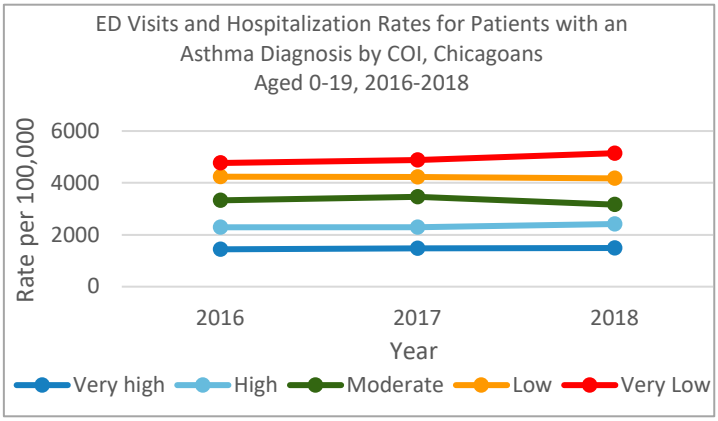
Lurie Children's has partnered with the Bureau of Maternal, Infant, Child, and Adolescent Health and the Bureau of Epidemiology at the Chicago Department of Public Health to develop and field the *Healthy Chicago Survey Junior (HCS-Jr)*. HCS-Jr is a set of child health-focused modules that were added to the annual Healthy Chicago Survey (HCS), beginning in December 2017. As a population-representative, city-wide phone-based survey originally launched in 2014, HCS is designed to characterize the health of Chicagoans, including health concerns for each community and the social and environmental factors that impact health. The version with HCS-Jr was fielded through June 2018 and collected data about adults' perspectives about child health specifically. Voices of Child Health in Chicago has released six reports to date based on these data:

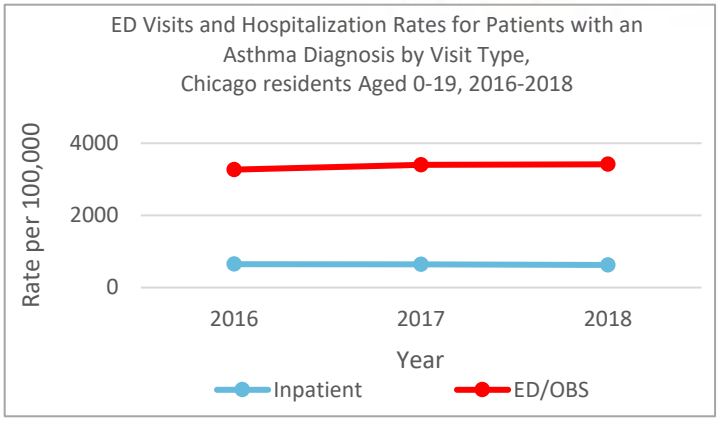
- Adults Across the City Identify the Top 10 Health Problems for Youth in Chicago
- Chicago Parents' Behaviors and Beliefs about their Children's Flu Vaccinations
- Chicago Parents Identify the Top 10 Social Issues Affecting Youth in the City
- Parental Paid Leave and Youth Health in Chicago
- Parent Concerns about Bullying and Cyberbullying
- Challenges to Healthy Eating for Kids

HCS-Jr was fielded for a second year and data collection concluded on May 31, 2019. The second-year data will be published in future Voices of Child Health in Chicago reports.

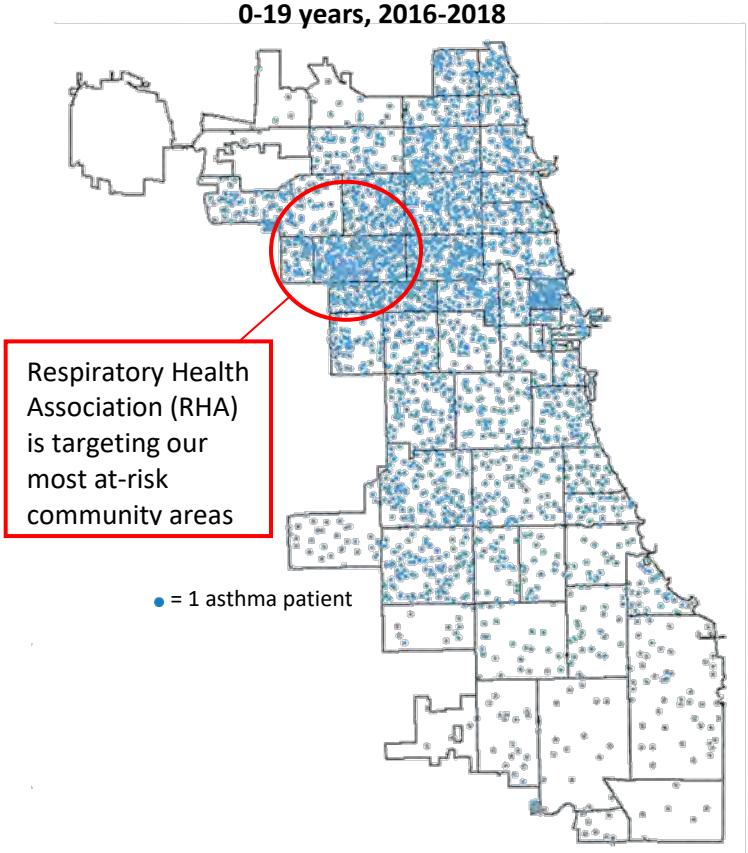
PRIORITY AREA 3 – Asthma

Ann & Robert H. Lurie Children's Hospital of Chicago
Healthy Communities



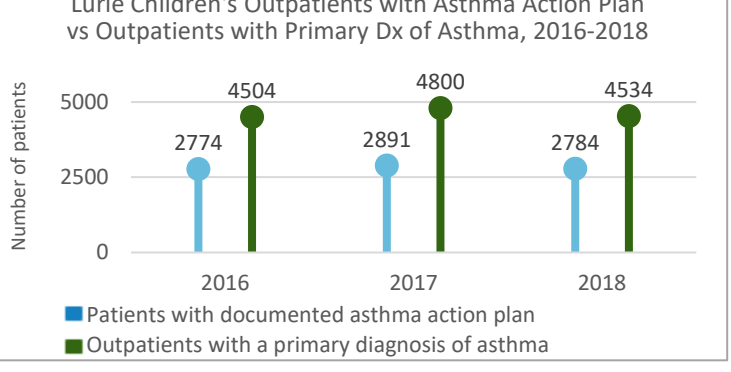


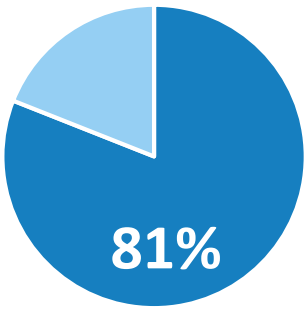
Lurie Children's Asthma ED Visits by ZIP Code, 0-19 years, 2016-2018



Key Successes: 2016-2018

- ✓ Implemented high-risk multidisciplinary asthma clinic with APN/SW and advanced clinicians with expertise in asthma complexity/biomedical severity
- ✓ Began partnership with Respiratory Health Association to provide asthma education in schools:
  - **349** students and **318** school staff trained in asthma education programs
  - **100%** of student participants received an asthma spacer to ease administration of aerosolized medicine and an educational workbook including an asthma action plan
- ✓ RHA 2018 Cohort Outcomes (pre→post training)
  - **37%** → **76%** of student participants understand quick relief meds reduce squeezing in airways
  - **53%** → **78%** of student participants know warning signs can help spot an asthma attack
  - **67%** → **87%** of student participants can identify environmental triggers
  - **61%** → **90%** of participating parents know long-term controller meds should be taken daily
  - **40%** → **79%** of participating school staff can identify asthma triggers





RHA's school staff participants report knowing what is needed to care for a child with asthma (up from 63% on pre-survey).

Lurie Children's activities addressing asthma:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
3.01	Implement Asthma Clinical Care Guidelines consistently across multiple ambulatory settings	Following the example of our Inpatient Asthma Clinical Care Guideline, Lurie Children's will implement an Asthma Clinical Care Guideline in outpatient clinics	Pilot evaluation of Uptown Clinic in initial stages, results will be used as baseline to identify barriers and summarize recommendations for full-scale review across all ambulatory settings.
3.02	Implement real-time risk scoring to inform clinical management of all asthma patients in ambulatory, emergency, and inpatient settings	Working with the already existing Asthma Registry at Lurie Children's, clinicians and staff will develop and implement a risk score for all asthma patients to better focus clinical decisions in real time	For outpatients, the Asthma Control Test (ACT) is administered to assess if asthma symptoms are well controlled for outpatient. For inpatients, the Lurie Children's Asthma Score (LCAS) is used as the scoring basis. In 2018, Healthy Communities received a philanthropic gift of $86,000 to support efforts to address high ED patient volumes for asthma from target ZIP code 60639 (Belmont Cragin, Hermosa, and Austin). To develop a deeper understanding of emergency room use among patients living in the 60639 ZIP code, we have established a registry to gather information and are developing a post-ED visit intervention to follow-up with patients and support their disease management. We also have identified key primary care practices where these children receive care and are working with providers to identify ways to reduce their patients' visits to our ED and improve their overall asthma care.
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
3.03	Ensure that all Chicago Public Schools (CPS) students with asthma have a written Asthma Action Plan	Work with CPS to develop a policy regarding Asthma Action Plans for all students with asthma. Advise CPS as to the proper components of the plan as well as plan for tracking and updating plans for all students on a routine (e.g., annual) basis	As part of the philanthropic gift referenced in 3.02, we are exploring with Chicago Public Schools the possibility of a screening process that would identify all students with asthma and ensure they have an asthma action plan on file with the school.
3.04	Explore opportunities to develop a program similar to the School Based Asthma Management Program in Denver	Expand Lurie Children's services to provide information and guidance for CPS students who have asthma, with a special emphasis on schools that are located in areas of low and very low child opportunity	Initial connections with CPS stakeholders made, continuing to build relationships within CPS to support efforts through partnership.

Lurie Children's activities addressing asthma:			
3.05	Explore opportunities to launch a mobile asthma care van	Consider options regarding a mobile health van that would provide outreach and education for asthmatic children and their parents/guardians living in areas of low and very low child opportunity	Lurie Children's has developed a partnership with MobileCare Chicago, a mobile asthma care van, to integrate these services through linkages to patients and families in the 60639 ZIP code through schools.
3.06	Deliver observed therapies for asthma in schools, with special focus on schools in low Child Opportunity Index areas	Consider instituting school-based observed therapy, and/or training school workforce to deliver school-based observed therapy, for asthmatic children	Continuing to explore feasibility and impact as potential activity.
3.07	Expand use of the Asthma Control Test in ambulatory settings	Explore new modalities to encourage asthmatic patients and families to complete the Asthma Control Test survey at each visit and have the responses automatically recorded in the patient's chart	Continuing to explore feasibility and impact as potential activity.
3.08	Support parental education regarding asthma control	Sustain existing program to educate patients and families on topics such as managing chronic disease and the dangers of third hand smoke, as well as expand education internally across more Lurie Children's-connected sites and externally to community locations	Partnership with Respiratory Health Association to provide evidence-based asthma educational services to children living with asthma and their caregivers in school-based settings. Target communities include Lurie Children's priority ZIP codes 60639, 60647 and 60651. Through February 2019, Fight Asthma Now© has been delivered to 349 students at 17 schools and community-based organizations. RHA's Asthma Management program was provided to 318 school staff and parents at 12 schools and community-based organizations. Trainings are scheduled or pending at an additional eight schools.
3.09	Ensure implementation of and adherence to Asthma Clinical Care Guidelines across Lurie Children's settings of care	Create a system to track utilization of Asthma Clinical Care Guidelines (CCG) for both the inpatient CCG and the ambulatory CCG	Results from efforts to implement in ambulatory settings will inform additional efforts.
3.10	Create Maintenance of Certification Opportunities	Update existing clinician webinars and present to physician groups such as the Lurie Children's Health Partner's Clinically Integrated Network	Continuing to explore feasibility and impact as potential activity.

PRIORITY AREA 4 – Child Maltreatment

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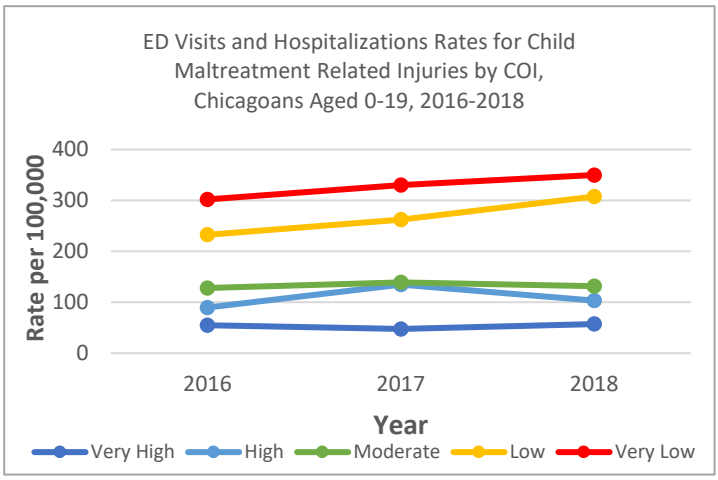
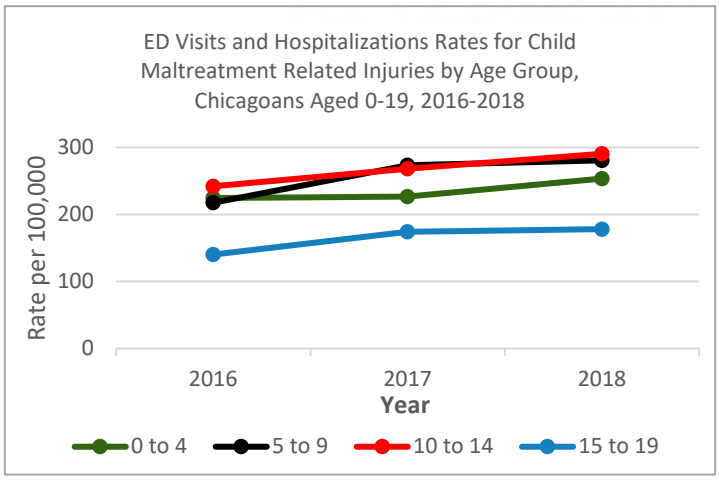
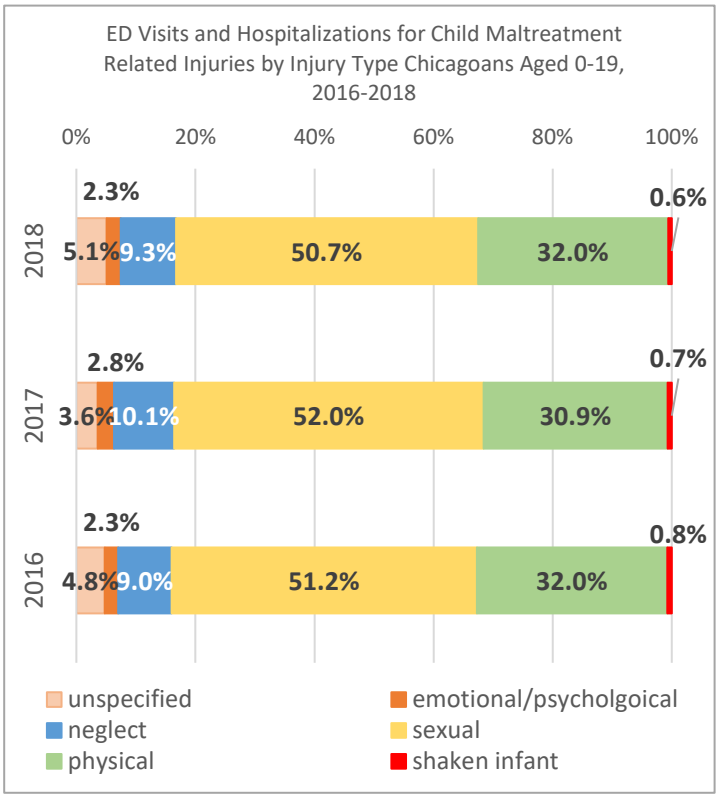


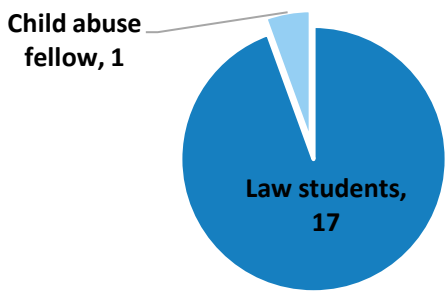




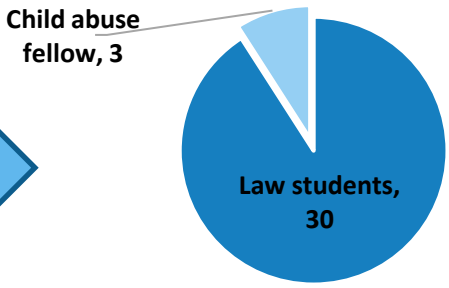
Key Successes: 2016-2018

- ✓ Protective Services Team conducts over **750** psychosocial assessments annually
- ✓ Over **800** social workers, nurses, and clinicians trained on child abuse assessments and policies
- ✓ **10-week** sessions for Healthy Communities Parenting Support classes in Belmont Cragin & Austin with Metropolitan Family Services
- ✓ **93** partners attended SCY's November 2017 quarterly meeting on how supporting parents can prevent violence with keynote provided by then Illinois First Lady and Ounce of Prevention Fund President, Diana Rauner
- ✓ Since May 2016, Illinois Childhood Trauma Coalition has been housed and staffed by Lurie Children's Center for Childhood Resilience and the coalition has grown by **40%**
- ✓ In 2016-2018, the Injury Prevention and Research Center (IPRC) distributed **60** baby boxes, **3,320** home safety bags, and **2,043** targeted home safety products to support parents in providing safe environments

Joint education efforts with Loyola University's CIVITAS Child Law Center



Number of fellows and law student participants in academic year 2017-2018



Number of fellows and law student participants in academic year 2018-2019

Lurie Children's activities addressing child maltreatment:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
4.01	Implement SCY policy recommendation: "Raise public awareness of how positive parenting contributes to academic, economic and family success, including working to remove the stigma on parenting enrichment opportunities"	Convene partners to develop and implement plan to advance policy recommendation regarding parent enrichment opportunities	In 2017, SCY initiated the Parenting Policy Workgroup to discuss opportunities for supporting parents through a larger parenting policy strategy. Members include Changing Children's Worlds Foundation, Metropolitan Family Services, Parenting 4 Non-Violence and Stroger Hospital. This group advocated for legislation to create a pilot program for school districts to include parenting education curriculum in 9th through 12th grades, which was signed into law in 2018. SCY's November 2017 quarterly meeting attended by 93 partners focused on how supporting parents can prevent violence with the keynote provided by then Illinois First Lady and Ounce of Prevention Fund President, Diana Rauner.
4.02	Continue to advocate for the proper transfer of Child Death Review Teams from DCFS to IDPH	Build on the momentum of Senate Resolution 1941, passed in spring of 2016 requiring that a study be done about the merits of transferring the Child Death Review Teams from DCFS to IDPH. Review report and support implementation legislation as appropriate	In 2016, Lurie Children's advocated for a transition to move Child Death Review (CDR) from DCFS to IDPH, which resulted in a resolution to study the proposed transition. The subsequent report did not recommend this transition to IDPH. Lurie Children's will continue to work with IDPH and DCFS to advocate for proposed CDR transition.
4.03	Collaborating with CIVITAS Child Law Center regarding legal education at Loyola University	Developed advocacy course and curriculum for law students as well as sitting judges for adjudicating child abuse and neglect cases, as well as informing judges about normal youth development	This joint education effort continues to assist in the education of Loyola's trial advocacy students and Lurie Children's child abuse fellows. In 2017-18 academic year, 17 law students and one child abuse fellow participated; in 2018-19 academic year, 30 law students and three child abuse fellows participated.

Lurie Children's activities addressing child maltreatment:			
4.04	Safe Kids Illinois	Led by the Lurie Children's Injury Prevention and Research Center (IPRC), Safe Kids Illinois focuses on a variety of child safety issues including sleep safety and personal safety	Monthly calls are convened of active coalitions in Illinois – Chicago, South Chicagoland, Winnebago County (Rockford), Peoria Area, Adams County (Quincy), Macoupin County and Edwards/Wayne and White Counties to provide updates on Safe Kids Worldwide programming and opportunities. Safe Kids Chicago hosts bi-monthly in-person meetings to support coalition work. Through these efforts, IPRC/Safe Kids Chicago distributed 60 baby boxes, 3,320 home safety bags, and 2,043 targeted home safety products (e.g., smoke/carbon monoxide detectors, window stops and furniture straps) in 2016-2018.
4.05	Support and partner with Illinois Childhood Trauma Coalition (ICTC)	Continue to host and support the Illinois Childhood Trauma Coalition (ICTC), a coalition comprised of 80 public and private organizations dedicated to promoting the prevention and treatment of childhood trauma	Since May 2016, ICTC has been housed and staffed by Lurie Children's Center for Childhood Resilience. The Coalition has grown by 40% since and is currently made up of over 120 public, private, clinical, research, advocacy and educational institutions. Since 2018, the Illinois Children's Mental Health Partnership (ICMHP) has been housed at Lurie Children's. ICMHP was created by the Children's Mental Health Act in 2003 to convene the child-serving state agencies, parents, youth, policymakers, providers, and advocates to identify needs and gaps, and recommend innovative solutions to improve children's mental health in Illinois and is the only statewide, public/ private partnership of policymakers and advocates in Illinois committed to improving the scope, quality, and access of mental health programs, services, and supports for children.
4.06	SANE Nurse Practitioners in Emergency Department	Sustain the Sexual Assault Nurse Examiner Program (SANE) in the Lurie Children's Emergency Department, where a trained nurse practitioner is available 24/7. Explore possibility of expanding this service to other ambulatory care settings	Currently, the Emergency Department (ED) has a staff of seven Nurse Practitioners that provide care to victims of sexual assault. Of those APRNs, six are nationally certified SANE-P (Pediatric) by the International Association of Forensic Nurses and two additionally carry the SANE-A (Adult/Adolescent) certification. Annually, these APRNs complete ~225 assessments at Lurie Children's. In addition, the ED APRN team provides continuing education to physicians, advanced practice providers, and nurses both internally and externally. This team has two partnership ED sites that employ Lurie Children's providers with eight Nurse Practitioners at those sites who have completed the SANE training and care for these victims at Central DuPage Hospital and Northwest Community Hospital. The volumes at these outreach sites are lower, approximately 30 annually, but having the SANE education has allowed for these victims to be cared for in their community. Lurie Children's developed the Pediatric Area-wide Sexual Assault Treatment Plan model and is on the statewide Sexual Assault Taskforce to provide implementation guidance for the Sexual Assault Survivors Emergency Treatment Act (SASETA) signed into law in 2018.

Lurie Children's activities addressing child maltreatment:			
4.07	Multidisciplinary Pediatric Education and Evaluation Consortium (MPEEC) Grant	Continue to support and be a partner in MPEEC, multidisciplinary, multi-institutional consortium convened by the Chicago Children's Advocacy Center	Chicago Children's Advocacy Center transitioned their administrative and convener role of MPEEC to the University of Chicago. Although Lurie Children's is no longer part of the consortium, we continue to work with Illinois Dept. of Children and Family Services (DCFS) to provide services and expertise, including technological solutions to connect DCFS investigators with child abuse pediatricians in serious physical abuse investigations (e.g., telemedicine).
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
4.08	Identify potential partner organizations to develop and facilitate community-based conversations about parenting skills and develop maltreatment prevention strategies	Convene community-based conversations about parenting skills and use conversation to help shape prevention messages at various levels and among various stakeholders, including pediatricians, bystanders, teens, faith/church groups and schools	Continuing to develop and build partnerships with various community-based organizations, including Changing Children's Worlds Foundation, Metropolitan Family Services, Parenting4Nonviolence, Stroger Hospital, and Chicago Public Libraries. These efforts include supporting and disseminating evidence-based parenting interventions. In 2018-2019, Healthy Communities facilitated community conversations with 45 parents, grandparents, and caregivers focused on parenting supports at five schools, community-based organizations, and library branches in the Belmont Cragin and Austin communities. This input has and continues to inform programming related to needs of parents and caregivers. The Juvenile Justice Collaborative (activity 6.07 and 8.02) provided seed grants to providers to develop and implement innovative approaches to family support, which includes partnerships around parenting interventions and programming. Findings from the projects were presenting at an April 2019 SCY training "Supporting Parents of Justice-Involved Youth" and are being compiled into a toolkit. For additional information about other activities, see Parenting Supports in Priority Area 1 and Activity 4.01.

Lurie Children's activities addressing child maltreatment:			
4.09	Research evidence-based programs to educate patients and staff on prevention of child maltreatment	Assess programs such as the CDC video series on discipline and Coping with Crying program, and implement a program to educate patients as well as programs to train hospital staff on a violence-free hospital environment	Lurie Children's Child Abuse Pediatrics continues to lead the development of Humagram, a first-of-its-kind software program to help clinicians, caregivers and child advocates determine if an injury is accidental or due to child abuse or neglect. Integrated into this technology are six evidence-based clinical decision rules addressing specific areas needed to improve recognition of physical abuse, including bruising, fractures, abusive head trauma, occult head injury (brain injury), scald burns and sexual abuse. In 2017, Lurie Children's received $3.7 million to support development of the Humagram technology and the expansion of telemedicine to support Child Abuse Pediatrics in providing expertise throughout the state of Illinois. As part of discharge, all NICU families receive education regarding *The Purple Period of Crying* to help new parents understand infant development.
4.10	Reinstitute first responder training (Child Maltreatment Awareness) at Lurie Children's	Utilize previously developed program to educate first responders for social workers, police, teachers, Early Intervention providers, etc. about the signs and symptoms of child abuse	Team comprised of EMS Coordinator and ED Social Worker currently working to revise and update child abuse and neglect training curriculum. Anticipated launch in 2019.

Lurie Children's activities addressing child maltreatment:			
4.11	Dissemination of Child Maltreatment research	Work to publish research findings on the clinical translation of new research in child maltreatment, including novel approaches to diagnosis, evaluation, and dissemination of findings	Lurie Children's Child Abuse Pediatrics hosts the annual Child Maltreatment Symposium to share emerging research and established best practices. In 2016-2018, 419 registered participants attended the symposium, with over 100 additional participates registering onsite. In 2018, Smith Child Health launched the Pediatric Injury Research Lab (PIRL) to lead efforts related to pediatric injury research and dissemination. Initial exploration of dashboards to synthesize all research and publications related to child maltreatment underway, including a matrix of ongoing and pipeline projects with efforts to explore multimedia platforms for dissemination (e.g., blogs/vlogs, podcasts, Facebook live streaming). Lurie Children's Protective Services Team (PST) leads intensive social worker trainings 1-3 times annually for Lurie Children's Social Work and Family Services team. These trainings are led by a multidisciplinary team of social workers, SANE nurses, child abuse pediatricians, DCFS investigators, and police focused on psychosocial assessment screening tool (PAST), policy, and follow-up; and incorporate the education simulation lab (Kids STAR Simulation Lab) for PAST to provide a real-world training experience. Since 2016, PST has trained over 750 nurses about child abuse and the role of social work as part of the new nurse orientation. All new Lurie Children's employees receive an overview of child abuse and the role of the PST as part of the new employee orientation. In May 2018, PST led a 3-day training on child abuse for six outside hospitals (Northwestern Memorial, Mercy, Tiger Huntley, Advocate, UI Health, and MacNeal) and facilitates other community-based trainings. Since 2016, those have included a Central DuPage ED physicians conference; web-based trainings with outpatient health clinicians; two out-of-state Skype trainings (SW/Child Abuse team in Omaha and Banner Health in Arizona); and a training at Children's Minnesota in Minneapolis.
4.12	Explore options for foster care clinic	Using Chicago Youth Programs as a model, explore the development of a foster care clinic at Lurie Children's	In 2018 at the request of DCFS, Aunt Martha's Health & Wellness and Lurie Children's launched a pilot program using an integrated care model for DCFS youth in care and families. This joint effort aims to improve the health outcomes and the care experience for DCFS-involved children, caregivers, and families. Built around the patient-centered model, the program features integrated primary care, behavioral health care, and care coordination services to remove barriers and improve access to care. Based on the success of the pilot program, it was renewed by DCFS in 2019.

PRIORITY AREA 5 – Complex Chronic Conditions

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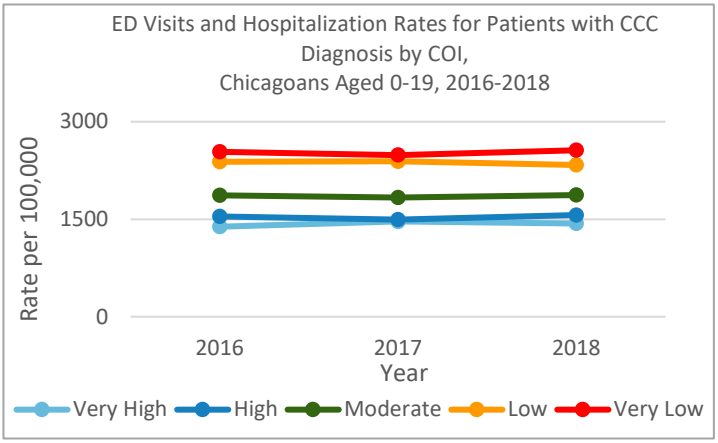
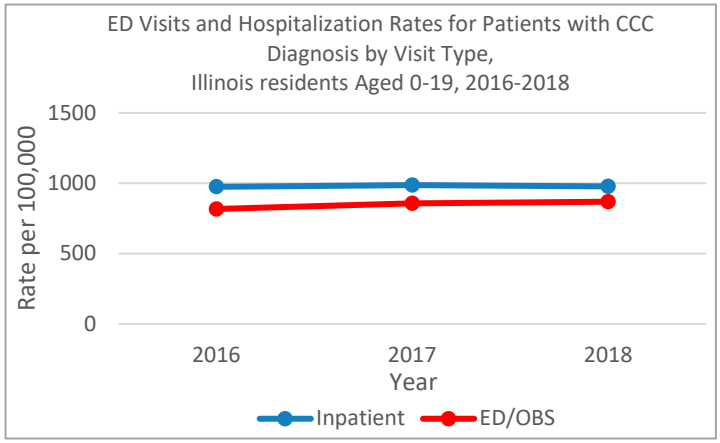




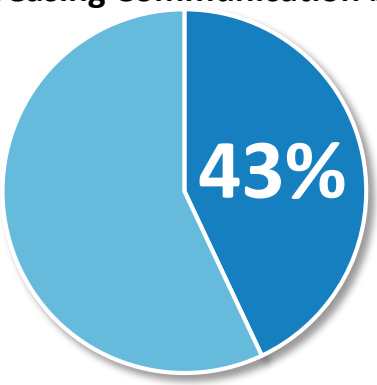
CCC Condition by Rank in Chicago, Aged 0-19, 2016-2018

RANK	CONDITION	# OF CASES
1	Hematology-immunology	8,707
2	Technical depression	8,249
3	Gastrointestinal (GI)	8,182
4	Cardiovascular (CVD)	8,166
5	Neuromuscular	7,445
6	Metabolic	5,853
7	Neonatal	4,750
8	Congenital	4,466
9	Malignancy	3,563
10	Renal	3,396
11	Respiratory	2,956
12	Transplant	141

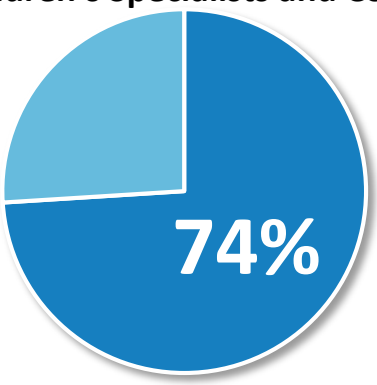
Key Successes: 2016-2018

- ✓ **750** medically-complex patients receive care coordination services
- ✓ **18** Care Coordinators on staff
- ✓ **112** active volunteers in ParentWISE & PeerWISE providing over **1800 hours** of service annually
- ✓ **18** parents/caregivers on the Family Advisory Board and **18** members on the Kids Advisory Board
- ✓ Chronic Illness Transition Team continues to help connect patients to Cystic Fibrosis Transition Program, Supporting Adolescents with Independent Life Skills (SAILS) and Workforce Development Program, Sickle Cell Transition Program, and Transition Team Medical Visit
- ✓ **20** participants in the SAILS Life Skills Program
- ✓ **43** participants were involved in the SAILS Workforce Development Internships

Increasing Communication between Lurie Children's Specialists and Community Physicians



Utilization of RapidConnect by Lurie Children's Attending Physicians



Utilization of RapidConnect by PCPs in Lurie Children's Clinically-Integrated Network

Lurie Children's activities addressing CCC's:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
5.01	Neurodevelopment follow-up clinic	Provide assessment and support for children with special health needs and neurodevelopmental concerns	Cardiac Neurodevelopment Clinic currently operates 1 day/week at the outpatient Clark/Deming location serving 32 patients/month with plans to continue to expand and grow.
5.02	ParentWISE Program	Pair parents of children with special health care needs with other parents of children whose diagnoses and needs are similar	The Parent Wisdom In Shared Experience (ParentWISE) and Peer Wisdom In Shared Experience (PeerWISE) programs continue to support caregivers of chronically ill and medical complex children and current patients. In 2017, 115 volunteers provided 1,844 hours of onsite and virtual support services with an 82% increase in referrals between 2016 and 2017. In 2018, 112 volunteers provided 1,842 hours of onsite and virtual support services. 155 unique patient families were supported by outreach contacts from paired volunteers, in addition to general support on all inpatient floors within the hospital.
5.03	Family Advisory Board / Kids Advisory Board	With support from Lurie Children's, two separate boards, one of patients and one of parents, advocate for and advise about the needs of children, adolescents and their families in the healthcare environment.	These ongoing partnerships with parents and patients continue to provide invaluable feedback that positively affects patient care, services, and facilities at Lurie Children's. The Family Advisory Board (FAB) currently has 18 members and a parent lead to coordinate the FAB and help develop additional strategies for engaging families in improvement efforts across the medical center. FAB members participate in various improvements and research at Lurie Children's. The Kids Advisory Board (KAB) has 18 current members between the ages of 12 and 19 years old and convenes monthly meetings to elicit feedback, insight and ideas on various projects and initiatives for Lurie Children's and iCAN (International Children's Advisory Network). At least once a year the FAB has a joint meeting with the KAB to share ideas and provide input on topics that impact both these groups.
5.04	Community programs supporting clinical activities of subspecialty divisions of Lurie Children's	For example, YMCA Camp Independence and Anixter Center serve as frequent partners of clinical teams at Lurie Children's to support children outside the hospital setting	Lurie Children's created a database of over 150 community partners, many of which support clinical activities.

Lurie Children's activities addressing CCC's:			
5.05	Improve PCP/hospitalist/specialist communication	Provider-to-Provider system is being implemented in the Clinically Integrated Network	RapidConnect, a communication tool to connect PCPs and specialists, has been rolled out to Lurie Children's divisions. As of 2019, 43% of Lurie Children's attending physicians and 75% of primary care physicians in Lurie Children's Pediatric Partners (formerly Lurie Children's Health Partners Clinically-Integrated Network) are utilizing the tool. Aim in 2019 is for universal adoption by all PCPs and specialists. RapidConnect was rolled out to the Mood Anxiety ADHD Collaborative Care (MAACC) program (see Activity 6.08 and 6.09). Total messages volume up 40% due in large part to MAACC.
5.06	Transition from pediatric to adult care	Specific clinical programs (e.g., Special Infectious Diseases, Cystic Fibrosis, and Spina Bifida) provide support for patients to transition to health care in the adult setting. More broadly, the Chronic Illness Transition Program supports transition of youth with complex chronic conditions to adult providers	The Chronic Illness Transition Team continues to provide support throughout the transition process to ensure that patients have continued access to high-quality healthcare and social services. This includes a transition clinic to coordinate care, tools and resources, surveys, a life skills program for all families (Supporting Adolescents with Independent Life Skills [SAILS]), and an internship program to help youth get the experience they need to transition to the adult workforce. In 2016-2018, 20 patients participated in the SAILS life skills program and 43 patients took part in the internship experience.
5.07	Telemedicine	Offer telemedicine healthcare institutions and primary care offices throughout Illinois	Lurie Children's telemedicine team continues to implement this technology across Chicago and Illinois, including expanding internal capacity to integrate telemedicine (i.e. videoconferencing, remote patient monitoring, education) across our specialty divisions. Lurie Children's has received a USDA grant to implement Emergency Department telemedicine in 23 rural counties across Illinois and $100,000 to implement in North Chicago suburb.
5.08	Expand Care Coordination	Provide care coordination to children served by practices in the Clinically Integrated Network with medical complexity or chronic care needs; transitional case management at the time of hospital discharge is also provided with care coordination initiatives	Lurie Children's provides care coordination services to 750 medically-complex patients annually. Care coordination continues to be provided through Blue Cross Community and Lurie Children's Health Partners Clinically-Integrated Network. Care coordination services were added for DCFS patients and families and NICU patients. (See Activity 5.10 re: NICU care coordination pilot). Currently, 18 Care Coordinators on staff. We anticipate an additional 600 care coordination patient once IHH is launched.

Lurie Children's activities addressing CCC's:			
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
5.09	Develop and evaluate additional models for integration, including risk-adjusted discharge support	Assess real time need for services during inpatient stays and immediately post-discharge; include emphasis on infants and children who received care in NICU	Development of risk assessment to determine follow-up care needs upon discharge is being finalized. Risk assessment determines level of risk based on clinical and social indicators. Interventions based on risk level are currently being developed.
5.10	Explore opportunities for development of a comprehensive initiative to support children with medical complexity	Assess models of care at other institutions and consider clinical care models for children with medical complexity, especially as they connect to community-based supports and programs	Initial exploratory review of different models underway (e.g., outpatient clinics, inpatient service), including early discussions with Children's Hospital of Wisconsin. New 2018 pilot program funded by Little Heroes Leagues will support three staffers (two nurses and a social worker) in the NICU to provide care coordination from the inpatient to outpatient setting for all NICU patients. This pilot will inform future planning as we work to improve processes for children with medical complexity and their families.

PRIORITY AREA 6 – Mental Health

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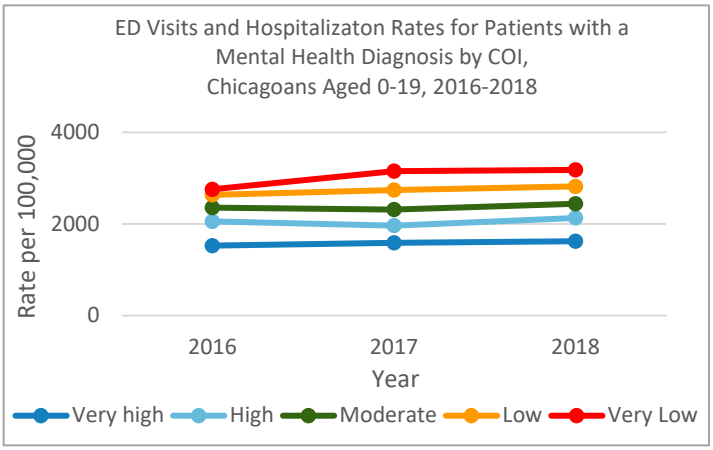
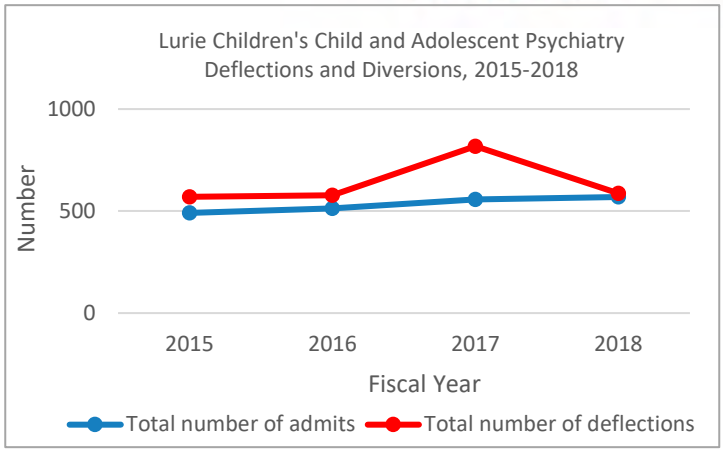
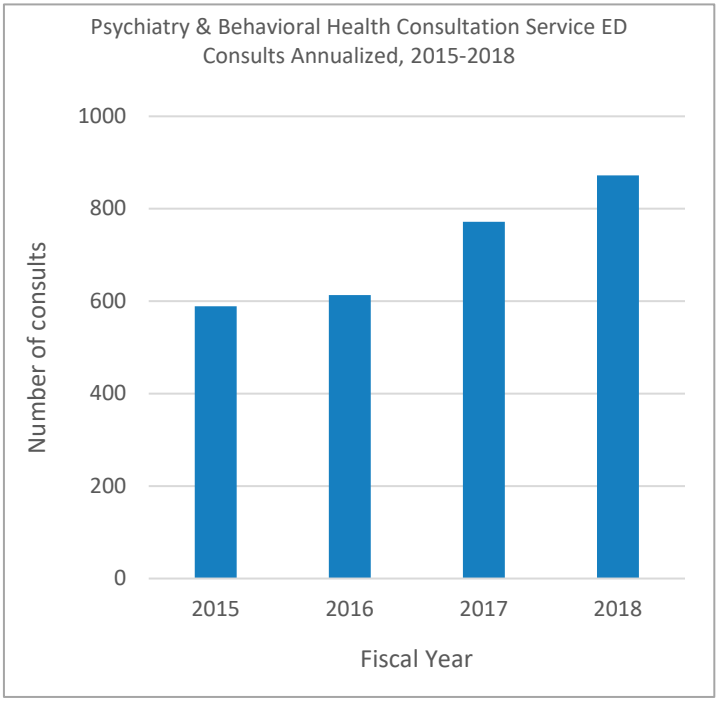






Key Successes: 2016-2018

- ✓ Over **75,000** outpatient psychiatry visits
- ✓ Expanded day program (Partial Hospitalization Program) from **12** → **14** patients in 2018
- ✓ Center for Childhood Resilience (CCR) engaged over **30** organizations/schools on trauma-informed practices, training over **1,800** staff
- ✓ Over **1,200** school staff trained on social-emotional learning strategies and practices
- ✓ **175** high school students attended the Kennedy Forum Annual Event on stigma reduction, co-hosted by Lurie Children's
- ✓ **30** primary care providers trained at Pediatric Pearls Spring 2017 session
- ✓ CCR facilitated a trauma-informed self-care seminar for over **60** Lurie Children's staff during Children's Mental Health Awareness week

NEW INITIATIVES

MAACC Program

Multidisciplinary team that provides care coordination between pediatric leadership at Lurie Children's and community pediatricians to build mental health care capacity

As of May 2019, 83 community pediatricians engaged and 180 patients referred

Juvenile Justice Collaborative

The Juvenile Justice Collaborative is a care coordination model for justice involved youth, whose mission is to minimize further involvement of youth in the justice system

As of May 2019, 213 youth connected to services and 139 youth completed program

TARGET

Innovative program to build capacity for mental health services through targeted assessments and evidence-based group interventions

As of May 2019, outreach to 450 families and 70 families enrolled in group therapies

Lurie Children's activities addressing mental health:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
6.01	Partner with schools to build sustainable systems for increasing access to mental health services	Provide strategic consultation and support capacity building efforts for social-emotional learning and evidence based-practices in the following school districts: CPS, Champaign Public Schools, and ECHO Special Education Collaborative. Includes dissemination evaluation of programs such as WOW "Working on Womanhood."	In 2016-2018, Center for Childhood Resilience (CCR) partnered with 41 schools from six schools districts (e.g. Chicago Public Schools District 299, Joliet Township District 204 High Schools, Champaign Unit 4, Proviso West District 209 High Schools, North Chicago School District 187, Hinsdale) on social-emotional learning (SEL) strategies and practices (e.g., Think First, Anger Coping), which included training 1,200+ school personnel and providing implementation support and technical assistance. CCR has supported CPS's expansion of Behavioral Health Teams district-wide to over 180 schools and have implemented a train-the-trainer model with CPS Network-level champions, including the development of curriculum toolkit and ongoing coaching support. Program evaluation for WOW was published in 2019 (Ford-Paz et al. (2019). Working on Womanhood (WOW): A participatory formative evaluation of a community-developed intervention. *Evaluation and Program Planning*, 72, 237-249. https://doi.org/10.1016/j.evalprogplan.2018.10.007
6.02	Work with youth-serving organizations and schools to become trauma-informed	Provide consultation and support capacity building efforts to become trauma-informed and embed trauma informed practices within unique settings, such as Chicago Public Libraries, CPS, Champaign Public Schools, Lansing Public Schools, and Faith-Based Organizations. Includes dissemination evaluation of programs such as Bounce Back school-based trauma intervention.	In 2016-2018, CCR worked with over 30 organizations and schools on trauma-informed practices, including training over 1,800 youth-serving staff and providing implementation support and technical assistance. Curriculum included CBITS, Bounce Back, and SPARCS (in the CPS Option Schools) and the pilot of STRONG for refugee and immigrant youth. CCR is piloting a new training approach to increase reach and optimize implementation support, including developing tools for early childhood and expanding partnerships to Girls Scouts and Golden Apple.
6.03	Address the mental health needs of marginalized (undocumented, immigrant, refugee, LGBTQ and youth of color) youth and families	Provide training and services for mental health and non-mental health professionals to better support youth and families and connect to additional services as needed (ICTC Refugee & Immigrant Committee, Chicago is With You – Mental Health Task Force, Chicago Public Schools, The Kennedy Forum).	In 2017, CCR implemented the "You Are Not Alone" initiative to broaden the number of mental health providers who are trained to work with marginalized youth and equip non-mental health professionals with evidence-based, trauma-informed resources. CCR built partnerships with Refugee One/Northeastern IL University and the Center for Latino Mental Health at The Chicago School of Professional Psychology. CCR conducted 30 trainings, reaching over 1,200 individuals in 2016-2018 and hosted a Chicago Community Trust "*On-*

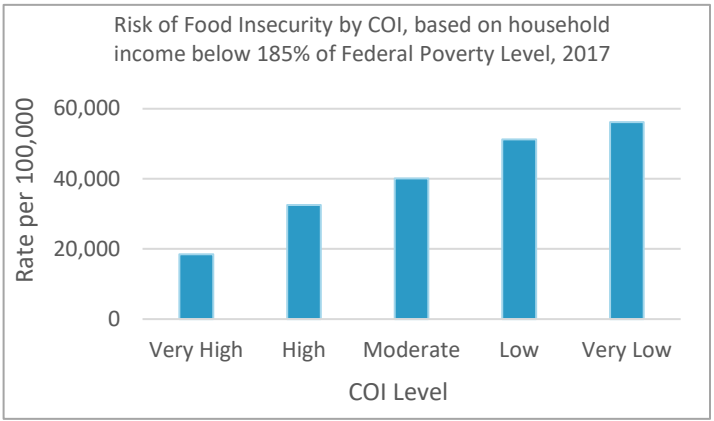
Lurie Children's activities addressing mental health:			
			The-Table" discussion with refugee/ immigrant high school students at Sullivan High School in May 2017. CCR is leading a pilot of Supporting Transition Resilience in Newcomer Groups (STRONG) intervention, an evidence-informed, school-based intervention for newcomer youth (~ages 5-18) experiencing psychological distress, to enhance the capacity of school mental health professionals to support the mental health needs of newcomer elementary and secondary students experiencing psychological distress. CCR is leads Professional Learning Collaboratives that include a newly added race and equity component to address disparities, implicit bias, and cultural humility.
6.04	Reduce stigma of mental illness	Partnering with Mikva Challenge to support efforts to increase youth voice on mental health and reduce stigma (Chicago Public Schools)	In December 2016, CCR partnered with Kennedy Forum Illinois, Chicago Community Trust, and Chicago Public Schools (CPS) to host 175 high school students from CPS, Mikva Challenge, Lyons Township and North Shore Mental Health America Group to participate in Kennedy Forum Annual Event focused on stigma reduction. CCR hosted an "*On The Table*" discussion in May 2019 with youth from various organizations focused on developing youth empowerment and leadership, including Mikva Challenge, and traveled to the state capital with Mikva Challenge for the proclamation of a *Trauma-Informed Awareness Day* to raise awareness and reduce stigma. CCR is also leading efforts to train youth and build capacity around a Mental Health Ambassadors program, which will culminate in a Youth Voice Summit in late 2019.
6.05	Provide input into CMS Waiver regarding mental health services	As the state of Illinois goes through the 1115 waiver application process, provide feedback to state agencies to help model programs that are evidence based and maximize outcomes for children and youth	Illinois Department of Healthcare and Family Services is in negotiations with CMS regarding implementation. CMS approved the ILDHFS 1115 waiver in May 2018. There were 10 pilots identified as part of the approval. Lurie Children's did not apply for any of the proposed pilots but continues to support efforts to expand Medicaid-billable services to support youth and families. www.ipha.com/news/post/3303/state-receives-approval-from-federal-cms-of-1115-waiver-behavioral-health-transformation
6.06	Participate in Healthy Chicago Hospital Collaborative's mental health-related efforts	Continue to serve on Healthy Chicago Hospital Collaborative's mental health sub-committee and participate in activities as necessary	CCR serves as active member of the Chicago Trauma Informed Hospital Collaborative and the Chicago Dept. of Public Heath Trauma-Informed City Advisory Committee.

Lurie Children's activities addressing mental health:			
6.07	Juvenile Justice Collaborative	Under SCY's leadership, convene youth service providers and government stakeholders in Cook County to develop a care coordination model for justice-involved youth, thus minimizing their further involvement in the justice system and reducing racial disparities	In 2017, the Juvenile Justice Collaborative implemented a demonstration project. To date, the JJC has conducted 267 intakes and connected 213 youth to services. Of those, 144 youth successfully completed the program. In the JJC's pilot year, no youth connected to services was re-arrested during their participation in the program. Further, JJC youth have a lower recidivism rate than overall diverted youth: 18% of youth who completed the JJC were re-referred to court within one year, compared to 32% of all diverted youth in Chicago. The Child and Adolescent Needs and Strengths (CANS) assessment was conducted before and after JJC participation. Needs decreased from an average of 3 needs/youth at intake to 1 need at discharge, while strengths increased from 4 to 5. SCY continues to implement this project, now in its third year of service provision. (See activity 8.02).
6.08	Primary care provider training	Train primary care providers to increase knowledge base and comfort at treating patients with behavioral and mental health diagnoses	To address the underlying need of mental health services in primary care settings, Lurie Children's aims to build capacity of primary care physicians to provide these services through a Mood, Anxiety, ADHD Collaborative Care (MAACC) Program (see 6.09). To date, 66 community-based pediatricians across 16 practices are completing education and participating in monthly phone conferences about mental health assessment, medication management, and treatment monitoring. Of our current participating practices, 49 have directly consulted or referred patients to the MAACC program. This has resulted in 180 patients referred to the MAACC program with 110 patients seen for a MAACC evaluation. Additionally, CCR trained approximately 30 providers at Pediatric Pearls Spring 2017 session.
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
6.09	Implementation of a high-volume behavioral health clinic at Lurie Children's	Upon receipt of funding, create and begin providing services in a high-volume clinic setting based on an evidence-informed model	Received 3-year $1.2 million anonymous donation to implement the TARGET program (i.e. high-volume behavioral health clinic) and the MAACC Program to increase community-based pediatrician's capacity to provide mental health care to their patients (see 6.08). TARGET clinicians and staff have contacted 450 families to offer TARGET groups and 70 families have been enrolled. TARGET has contributed to reduced wait times for outpatient services in the Department of Psychiatry (the waiting list is reduced by more than 40% relative to before the Anonymous funding was procured). Preliminary group outcomes are promising. Fifty (50) % of patients who have completed TARGET groups thus far have been determined to need no further psychotherapy following 12 weeks of TARGET group.

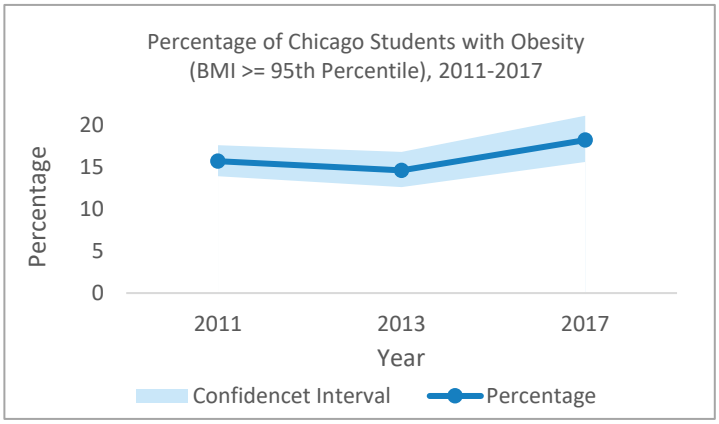
Lurie Children's activities addressing mental health:			
6.10	Coordinate mental health activities across Lurie Children's	Work toward shared understanding across the enterprise regarding mental health services provided in different divisions	In 2017, Dr. John T. Walkup joined Lurie Children's as Head of the Department of Child and Adolescent Psychiatry and medical school Division Chief. Continuing to explore efforts to coordinate mental health activities across Lurie Children's under Dr. Walkup's leadership. In 2019, the Department of Child and Adolescent Psychology received a $15 million philanthropic gift to support expansion of mental health services across the institution and throughout the community.
6.11	Co-location of mental health and medical services	Explore models to co-locate services to better serve patients with dual diagnoses	Lurie Children's is exploring co-location through our involvement in West Side United (see Priority 1). Identified as a 2018 priority, the coalition of hospitals and community partners are exploring opportunities to co-locate primary, behavioral, and/or mental health services on the West Side.
6.12	Train Lurie Children's staff and clinicians	Develop an evidence-based training on trauma informed care as well as social determinants of health for all tiers of the Lurie Children's Enterprise	CCR is an active member of the Alliance for Health Equity's Trauma-Informed Hospital planning committee. CCR also facilitated a trauma-informed self-care focused presentation for ~60 Lurie Children's employees in May 2017 during Children's Mental Health Awareness week and led a "School-Based Group Treatment for Trauma" session for Lurie Children's staff at Lurie's Annual Child Maltreatment Symposium in October 2016.
6.13	Increase telemedicine opportunities	Research models of care for telemedicine	Behavioral health services are a priority health service for the telemedicine team. The telemedicine team continues to explore these opportunities.
6.14	Strengthen program evaluation	Utilize existing Lurie Children's resources to build program evaluation into existing and new activities	Smith Child Health Research, Outreach and Advocacy Program has expanded evaluation capacity through the implementation of an Evaluation Core headed by Maryann Mason, PhD. In 2018-2019, the Evaluation Core has conducted 3 evaluation trainings (e.g. Introduction to Logic Models for Evaluation and Becoming Evaluation Ready). In addition, consultation and evaluation services were provided to 4 Lurie Children's programs.

PRIORITY AREA 7 – Obesity, Physical Activity and Nutrition

Ann & Robert H. Lurie Children's Hospital of Chicago®
Healthy Communities

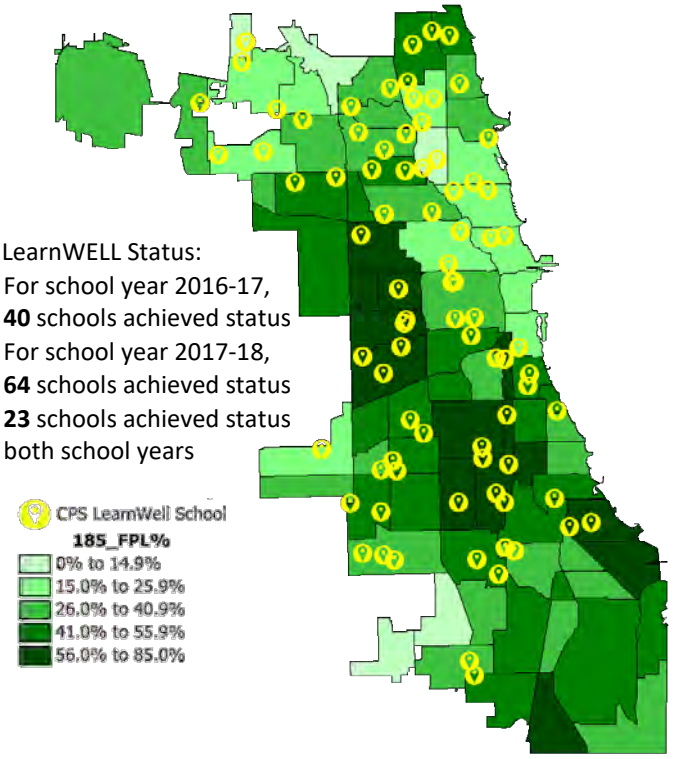


Data Source: American Community Survey 5-year estimates, 2013-2017



Data Source: Chicago Youth Risk Behavior Survey, 2011-2017

CPS Schools with LearnWELL Status by Federal Poverty Level (FPL), 2016-2018

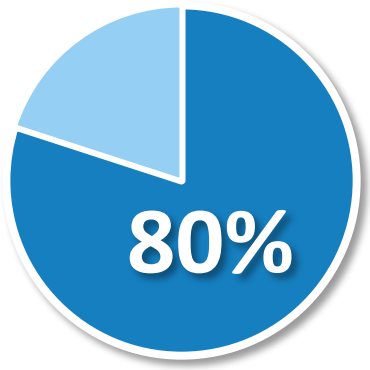


CPS LearnWELL Status:

- For school year 2016-17, **40** schools achieved status
- For school year 2017-18, **64** schools achieved status
- **23** schools achieved status both school years

Key Successes: 2016-2018

- ✓ **79** educators and partners educated on *5-4-3-2-1 Go!* Junior
- ✓ **53** people trained in *five*SMART trainings for by CLOCC staff
- ✓ **102** classrooms utilize *5-4-3-2-1 Go!* Junior curriculum and **800** kits distributed
- ✓ **155** inspections conducted at playgrounds utilized by over **25,644** youth through the Chicago Activate Neighborhood Environment for Health and Wellness (ANEHW) initiative
- ✓ CLOCC is working with **15** CPS schools to implement obesity prevention policies and programs
- ✓ Healthy Food Access Workshops included **81** partners from **42** organizations
- ✓ **25** Healthy Corner Stores received training and/or technical assistance



During 2018-19 school year, schools supported by CLOCC's +Network achieved 80% Healthy CPS criteria compared to 57% for schools not supported by +Network

During 2018-19 school year, CLOCC's +Network supported over 80 schools with obesity prevention policies and programs

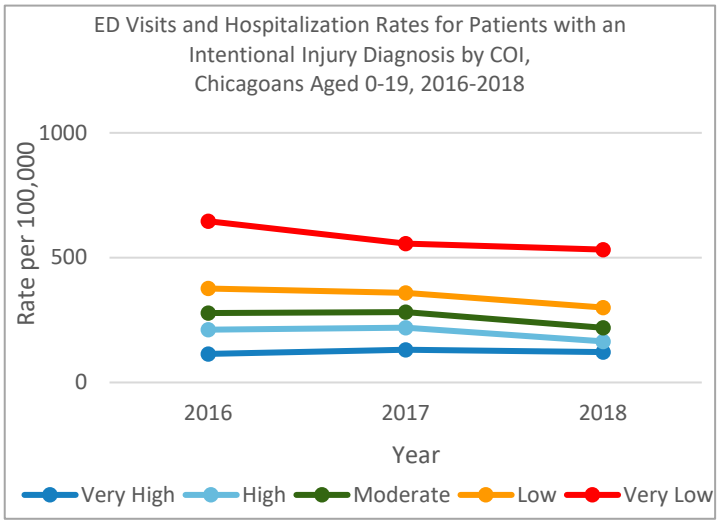
Lurie Children's activities addressing obesity, physical activity and nutrition:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
7.01	Support for schools as they work toward Healthy CPS/ LearnWELL designation	Currently CLOCC staff support over 10 schools working towards the Healthy CPS designation and additionally support partners that touch 15 to 20 schools	CLOCC provides support to 56 schools working toward Healthy CPS designation through direct efforts and CLOCC's +Network, a group of community partners who receive training and technical assistance from CLOCC. Of these schools, 27 have completed action plans working on 75 various obesity prevention criteria. The +Network now provides technical assistance (TA) on all Healthy CPS criteria. The 56 schools that received TA from the 16 +Network partners during School Year (SY) 17-18 had an average Healthy CPS achievement of 80% compared to 57% for schools who did not receive +Network TA. We currently have 20 +Network partners providing Healthy CPS TA to 85 schools for SY18-19.
7.02	Pair successful programs working in the food access space with starting/ struggling programs	CLOCC utilizes its large membership to pair programs that have been successful in making changes to food access in the community with those programs that are struggling to make those changes	CLOCC continues to provide training and education to community-based organization on evidence-based healthy food access improvement models and strategies. In 2016-2017, CLOCC convened three healthy food access workshops attended by 81 partners from 42 organizations across Chicago. CLOCC also provided in-depth technical assistance to staff from six of those organizations. CLOCC's focus on food access in 2018 shifted from healthy food workshops to developing a community arm to Lurie Children's food insecurity pilot (see Priority Area 1: Food Security and Health), in which we are identifying models for local food delivery for eligible Lurie Children's patient families, and work on West Side United's Healthy Food Access Work Group (see Priority Area 1: West Side United) through which we are developing strategies in advocacy, strengthening the emergency food system on the West Side, and supporting nutrition education in west side schools.
7.03	Work with healthy foods in corner stores in suburban Cook County	Currently funded initiative in suburban Cook County to advance the county's Healthy HotSpot Campaign	In 2016-2017, CLOCC supported 25 healthy corner stores throughout Suburban Cook County providing trainings, technical assistance, resources, supplies, and materials. In partnership with the University of Illinois, Cooking Matters, and the Food Trust, 25 trainings and educational events attended by 521 participants were conducted on health messaging, cooking demos and healthy tastings, and value-added products, promotion, and marketing. CLOCC worked with 8 of the 25 participating corner stores to establish and implement alternative sources of fresh produce. While three of these stores pursued one of the new sources, only one expressed an interest in sustaining that approach. However, all 25 participating stores continue to stock and sell produce. CLOCC is also a founding partner in the Chicagoland Healthy Corner Store Network with Chicago Partnership for Health Promotion, the Inner City Muslim Action Network, and the Food Trust to share resources and continue support for healthy corner stores. In 2018, the work of the Chicagoland Healthy Corner Store Network wound down as partners shifted focus to other strategies for addressing food access.

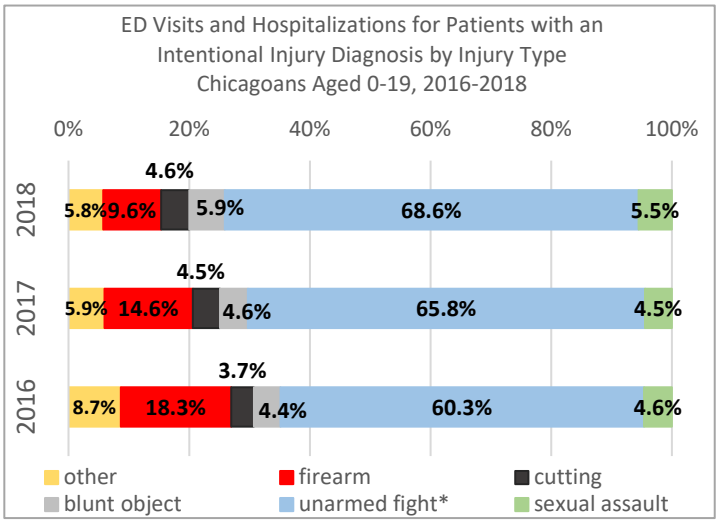
Lurie Children's activities addressing obesity, physical activity and nutrition:			
7.04	Support city initiative for "Healthy Kids Meals" at restaurants	Continue to advocate for a "Healthy Kids Meal" designation for restaurants in Chicago	In 2017, Chicago City Council introduced a resolution to explore policy options to make restaurant kids' meals healthier by holding a subject matter hearing in the Committee on Health and Environmental Protection. Through 2018, CLOCC conducted the Serve Chicago Kids Better campaign, a public education and social media campaign in support of this initiative reaching community groups across the city and continues to advocate for healthier kids' meals in Chicago restaurants.
7.05	Safe at Play	Part of Kohl's Cares: Play it Safe with Kohl's — the goal of Safe at Play is to build and improve playgrounds to create a safer play environment for children	In 2016-2018, the Injury Prevention and Research Center (IPRC) conducted 155 playground inspections utilized by over 25,644 youth through the Chicago Activate Neighborhood Environment for Health and Wellness (ANEHW) initiative funded by Kohl's Cares. IPRC also partnered with Bank of America to build a new playground in Chicago Lawn. In spring 2019, IPRC built our 22nd playground, in partnership with Bank of America at Chicago Academy serving the Belmont Cragin and Portage Park neighborhoods.
7.06	*5-4-3-2-1 Go!®* Junior	Based on *5-4-3-2-1 Go!®* developed and disseminated by CLOCC, this program is targeted at pre-school aged children and its goal to help children learn about healthy life styles. One pilot program is currently in the field with a second pilot planned	CLOCC completed two pilots of the new *5-4-3-2-1 Go!®* Junior curriculum with Chicago Youth Programs and Dominican University, training 39 educators to implement. Building on partnerships with the Ounce of Prevention Fund and Children's Home + Aid, 40 additional partners attended a *5-4-3-2-1 Go!®* Junior curriculum presentation. Currently, 102 classrooms utilize this curriculum to educate pre-school aged children and promote a healthy lifestyle. In 2018, 800 *5-4-3-2-1 Go!®* Junior Kits were provided to Dominican University for distribution to Head Start programs throughout the city of Chicago and 9 additional participants were trained at Dominican on the message and curriculum.

Lurie Children's activities addressing obesity, physical activity and nutrition:			
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
7.07	Identify schools in areas where obesity prevalence is relatively high and begin partnerships with those schools	Target schools at highest risk and already willing and enthusiastic. Explore funding opportunities and research ways to increase presence of obesity prevention messaging and programing in schools such as partnering with other community-based partners that would expand service delivery to better serve wellness/obesity programs that are already in place	CLOCC is linking their Chicago ANEHW work with their schools work to identify regions of priority and schools with strong community partners. Through CLOCC's +Network, a group of 16 organizations providing strategic and concentrated support to strengthen schools' wellness committees and achieve Healthy CPS designation, CLOCC is deepening connections and capacity of these organizations to serve as wellness anchors. CLOCC's +Network, now 20 organizations strong, continues to provide support to CPS schools across the city. A project in South Lawndale (Little Village) has brought 3 local community-based organizations into the +Network and connected them to five schools to support Healthy CPS designation efforts. Partners are also serving schools in other neighborhoods with high obesity prevalence.
7.08	Train primary care providers	Utilizing the COMP model, train primary care providers on strategies to help their patients with obesity and wellness related problems	Helen Binns, MD, MPH, Lurie Children's pediatrician, is American Board of Obesity Medicine certified, signifying specialized knowledge in the practice of obesity medicine and care. Additional funds are being sought to train other providers for Obesity Medicine Board Certification. Lurie Children's hired Kavitha Selvaraj, MD (former Lurie Children's fellow) to join the Wellness & Weight Management (WWM) team to help address the current 700 patient weight list for WWM services. Dr. Selvaraj is also certified by the American Board of Obesity Medicine.
7.09	Foster partnerships with Chicago Park District	CLOCC is currently part of a group from Lurie Children's that is working with the Chicago Park District regarding formalizing a relationship between the two organizations	Various groups within Lurie Children's continue to build relationships and formalize partnerships with the Chicago Park District. One example includes the development and evaluation of Camp Well, a pilot program to better integrate nutrition and physical activity into summer camp. In 2018, CLOCC conducted a year 2 pilot evaluation of Camp Well and used those findings to advise the Park District on systems changes to improve physical activity and nutrition outcomes for camp participants and staff.
7.10	Explore possible partnerships with organizations focused on child care	Work with state to meet physical and nutritional standards and help organizations adhere to those policies	Initial discussions underway with Advocate Health Care and the Illinois Public Health Institute to provide staff support to child care providers under the Nutrition and Physical Activity Self-Assessment for Child Care (NAP SACC) program. CLOCC convened a network of organizations to pursue a license for the State of Illinois to use Go NAP SACC, an online version of the obesity prevention support tool for childcare. In 2019, the license was procured and CLOCC now participates with the network to advance its use across the state.

PRIORITY AREA 8 – Violence-Related Injury and Mortality

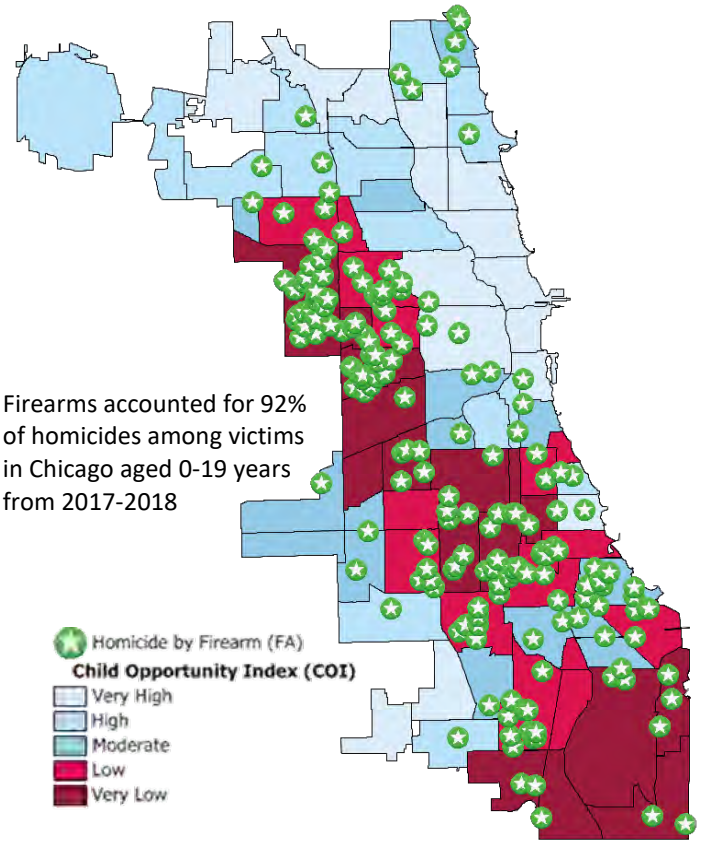
Ann & Robert H. Lurie Children's Hospital of Chicago® Healthy Communities





*Unarmed fight includes bodily force/striking/biting

Homicides by Firearm, Chicagoans 0-19 years, 2017-2018



Firearms accounted for 92% of homicides among victims in Chicago aged 0-19 years from 2017-2018

Key Successes: 2016-2018

- ✓ **30** policy action alerts were sent by Strengthening Chicago's Youth (SCY) to mobilize partners around advocacy efforts.
- ✓ SCY advanced several successful policy efforts
  - o Combating Illegal Gun Trafficking Act (PA 100-1178)
  - o Prohibit Preschool Expulsion (PA 100-105)
  - o Firearm Restraining Order (PA-607)
- ✓ Trainings & Presentations
  - o Over **2,500** partners attended **37** trainings and educational opportunities hosted by SCY
  - o Over **175** partners attended **7** trainings facilitated by Smith Child Health's Evaluation Corp
  - o **61** presentations/poster sessions and promotional events conducted by Illinois Violent Death Reporting System (IVDRS)

23 County reports and data briefs, plus 6 manuscripts and a factsheet

5,000+ Community partners, policy makers, and advocates reached through SCY's bimonthly newsletter

1,500+ Researchers, advocates, and community partners on IVDRS listserv

Lurie Children's activities addressing violence:			
CURRENT & UPCOMING		**DESCRIPTION**	**2016-2018 PROGRESS**
8.01	Gun violence prevention policy and advocacy	Participate in Illinois Gun Violence Prevention Coalition and Illinois Council Against Handgun Violence. Collaborate with gun violence prevention and justice reform partners around "Building a Safe Chicago—Calling for a Comprehensive Plan" and in the Chicago Gun Violence Research Collaborative	SCY actively advocates on gun violence prevention policy with the SCY Executive Director providing testimony at several General Assembly committee hearings. SCY collaborated with the Illinois Gun Violence Prevention Coalition on the Combating Illegal Gun Trafficking Act (SB 337), which passed both houses of the General Assembly in 2018 and was signed into law by Governor Pritzker in January 2019. Lurie Children's SCY is leading the public health component of Building a Safe Chicago, a multi-sector coalition of juvenile justice and gun violence prevention advocates which released a recommendation report focused on five priorities: 1) put public health first; 2) reduce illegal handgun availability; 3) tailor punishment to the crime; 4) ensure police effectiveness, and 5) invest to achieve equity. SCY was instrumental in developing the public health-related language for the SAFE Act, a bill proposed by the coalition in 2018 and reintroduced in 2019; key concepts of the SAFE Act were incorporated as the "Restore, Reinvest, Renew (R3) Program" in the adult-use cannabis bill passed in 2019. (Note that Lurie Children's opposed the adult-use cannabis bill, HB1438.)
8.02	Juvenile Justice Collaborative	Under SCY's leadership, convene youth service providers and government stakeholders in Cook County to develop a care coordination model for justice-involved youth, thus minimizing their further involvement in the justice system and reducing racial disparities.	In 2017, the Juvenile Justice Collaborative implemented a demonstration project. To date, the JJC has conducted 267 intakes and connected 213 youth to services. Of those, 144 youth successfully completed the program. In the JJC's pilot year, no youth connected to services was re-arrested during their participation in the program. Further, JJC youth have a lower recidivism rate than overall diverted youth: 18% of youth who completed the JJC were re-referred to court within one year, compared to 32% of all diverted youth in Chicago. The Child and Adolescent Needs and Strengths (CANS) assessment was conducted before and after JJC participation. Needs decreased from an average of 3 needs per youth at intake to 1 need at discharge, while strengths increased from 4 to 5. SCY continues to implement this project, now in its third year of service provision. (See activity 6.07)
8.03	Violence Data Landscape	SCY convenes a collaborative of community and youth violence prevention programs, researchers, and advocates to identify strategies to increase use and	SCY convened a successful 6-month planning project funded by the Joyce Foundation and is positioned for continuing efforts once additional funding is secured. In 2018, SCY released a catalog of publicly available violence data sources with tutorials and examples. As part of this project, SCY hosted a "Sharing Data for Violence Prevention"

Lurie Children's activities addressing violence:			
		dissemination of violence-related data for policy and program improvement in Chicago.	series comprised of two educational seminars (Lessons from Milwaukee and Local Lessons) attended by 187 partners.
8.04	Community-Academic Collaboration to Prevent Violence in Chicago	Using insight from community meetings, CACPVC is developing a Community-Based Participatory Research agenda for violence prevention that reflects the diversity of Chicago neighborhoods and will establish a permanent infrastructure to facilitate its implementation.	SCY concluded the NIH-funded CACPVC in 2017 and posted final results online, including the Violence Research Agenda and Recommendations to Support Community Engagement in Violence Research, and is developing a plan for dissemination of the CACPVC final results to communities that participated in the project.
8.05	IVDRS data releases and data briefs	Dissemination of results of surveillance as one of the CDC-funded National Violent Death Reporting Systems IVDRS has data on all violence-related deaths in Cook, DuPage, Kane, Lake, McHenry and Peoria counties, with more to be added in 2016	In 2016-2018, IVDRS published seven data briefs (Homicides in Chicago, Suicides in Chicago, Intimate Partner Homicides in Illinois, Role of Alcohol in Homicides, Homicides in Chicago Community Areas, Teen Suicide and Elder Suicide) and 16 county reports for all participating counties. In addition, IVDRS had six manuscripts accepted for publication; 14 abstracts accepted for presentation at six national and international conferences; delivered 61 presentations and completed 55 data requests. Since 2016, IVDRS has added 10 counties to data collection efforts: Effingham, Kankakee, Kendall, McLean, Madison, St. Clair, Sangamon, Tazewell, Will, and Winnebago counties, which combined with Cook, DuPage, Kane, Lake, McHenry and Peoria, account for 80.5% of all violent deaths in Illinois.
8.06	Enhance protocols for ED visits for assault-related injuries	Protocols will be used to promote intervention and follow-up to reduce likelihood of future violent encounters	Lurie Children's has a child maltreatment policy ("Reporting and Management of Child Abuse and Neglect") and decision matrix to provide guidance to ED clinicians to determine when a social work or Protective Services Team consult is needed for presenting injury. Currently, social workers utilize a psychosocial assessment with a follow-up from the Protective Services Team when warranted.
POTENTIAL ACTIVITIES		**DESCRIPTION**	**2016-2018 PROGRESS**
8.07	Collaborate with other hospitals around violence prevention	Explore implementing the Cardiff model—which connects health care, police, and EMS data on assault-related injuries—in Chicago	Lurie Children's is engaged with the Alliance for Health Equity, a Chicago and Cook County hospital-community collaborative led by the Illinois Public Health Institute. Lurie Children's is actively engaged on the Steering Committee, in addition to workgroups on community safety, data, food access, housing, policy, trauma-informed care and social determinants of health.

Lurie Children's activities addressing violence:			
			SCY is playing a leadership role in the Alliance for Health Equity Community Safety Workgroup. In 2018, the Workgroup began exploring implementing the Cardiff model in Chicago, and funds for a robust planning effort will be sought in 2019.
8.08	Engage community partners in development of research agenda and building evaluation capacity	Utilizing existing relationships with community organizations, work towards creation of a city-wide research agenda addressing violence and violence prevention efforts	SCY led a community-based participatory research process for the Community-Academic Collaboration to Prevent Violence in Chicago (see activity 8.04) and continues to support community partners through trainings and technical assistance. IVDRS convenes an Advisory Committee comprised of community partners, law enforcement, and coroners/medical examiners to provide guidance and expertise on data dissemination, manuscript and data brief development, outreach and capacity building, and other topics of interest for reporting. In 2018, IVDRS expanded the Advisory Committee (AC) to include 6 new members representing an array of expertise including suicide, substance misuse, toxicology and violence research.
8.09	Support community organization and the media	Train community organizations and media around the use of data for reporting and advocacy	The Smith Child Health Research, Outreach and Advocacy Center launched the Evaluation Core in 2017 to provide evaluation support, consultations, trainings, and technical assistance to Smith Child Health and community partners. The Evaluation Core created web-based resources for community organizations interested in program evaluation and facilitated seven in-person trainings attended by over 175 participants on topics related to program evaluation and logic models. In 2019, the Evaluation Core entered into a partnership with the Chicago Department of Public Health to support evaluation of their violence prevention programing. In 2016, SCY received a 3-year grant from the Langeloth Foundation to scale policy efforts and mobilize partners around effective strategies to reduce violence; including the development and implementation of a robust structure to coordinate efforts to advance SCY's policy agenda, facilitate connections among stakeholders, and support partners in using data to inform policy. Over the course of the project, there was substantial improvement in how comprehensively the media cover violence. Results of this project and how to continue to improve media coverage of violence were a focus of SCY's February 2019 quarterly meeting. Additionally, SCY continues to work with Public Narrative to connect community partners and media; and build the capacity of the media to report on violence related topics.

Lurie Children's activities addressing violence:			
8.10	Expand capacity of IVDRS	Increase staff to support data requests from community organizations	IVDRS continues to expand capacity to meet the demand of data collection and has expanded data collection to include opioid-overdose deaths statewide as well. Several new data abstractors and an additional epidemiologist were hired. In 2018, data was collected for over 2,400 violent deaths and opioid-overdose deaths (dates of death occurred in 2016 and 2017). IVDRS has connected with the program officer for a *Partnership for Safe and Peaceful Communities*, a coalition of funders and foundations working to align funding to support proven and promising urgent responses to reducing violence. Based on an initial exploratory meeting, IVDRS is discussing a co-hosted session for coalition members focused on introducing IVDRS as a data source to inform local activities. Follow up discussions are anticipated.
8.11	Explore Lurie Children's role in transition age youth behaviors	Explore opportunities to engage in prevention efforts around emerging adults (transition aged youth) aged 19 to 24 regarding violence-related behaviors	Lurie Children's is engaged in the growing work across the juvenile justice community around brain development and transitional needs. SCY has become significantly involved in policy discussions around how to address the needs of young adults involved in the criminal justice system.

APPENDIX E: SUMMARY OF RESOURCES AVAILABLE TO ADDRESS HEALTH NEEDS

The following is a summary of the resources and assets identified through both Lurie Children's and the Alliance for Health Equity's 2019 community health needs assessment (CHNA) that relate to the community health needs and priority domains—social determinants of health, access to care, chronic health conditions, mental and behavioral health, and unintentional injury and violence.

Social Determinants of Health

EDUCATION, ECONOMIC VITALITY AND WORKFORCE DEVELOPMENT – Key resources to address economic vitality and workforce development include: Chicagoland Healthcare Workforce Collaborative, West Side Anchor Committee / West Side United, Chicago Anchors for a Strong Economy (CASE), Chicagoland Workforce Funder Alliance, Chicago Cook Workforce Partnership, SAFER Foundation, CARA, community colleges in the City and suburban Cook County, community development finance institutions (CDFIs), chambers of commerce, Area Health Education Centers (AHECs), LISC quality of life plans, United Way neighborhood networks, and dozens of workforce development programs and community development corporations (CDCs) across the City and county.

HOUSING, COMMUNITY DEVELOPMENT, AND NEIGHBORHOOD ENVIRONMENT – Key resources to address housing, community development, and the neighborhood environment include: Safe and Healthy Homes Project (lead poisoning prevention), Youth Guidance (Becoming a Man - BAM, Working on Womanhood - WOW, STRIVE, school-based counseling), Chicago Ready to Learn: Birth to Pre-K Programs, Chicago STAR Scholarship (City College of Chicago), Large Lots Program, Habitat for Humanity Chicago, Chicago Complete Streets, Alliance for Health Equity Housing Workgroup, Housing and Health (H2) Strategic Plan and the Center for Housing and Health, governmental housing and planning and transportation agencies, innovative partnership strategies such as the flexible housing pool, Chicago Coalition for the Homeless, All Chicago, Alliance to End Homelessness in Suburban Cook County, Housing Forward, South Suburban PADS, Corporation for Supportive Housing, community development finance institutions (CDFIs), nonprofit affordable housing developers, legal aid organizations focused on housing including medical-legal partnerships, organizations focused on tenants rights and housing quality such as Metropolitan Tenants Organization (MTO), and thought leaders such as Chicago United for Equity (CUE), Metropolitan Planning Council (MPC), Illinois Housing Council, Center for Neighborhood Technology (CNT), Chicagoland Rehab Network, and Elevated, and dozens of community development corporations (CDCs) and supportive housing and homeless services providers across the City and county.

FOOD SECURITY AND FOOD ACCESS – Key resources to address food security and food access include: Greater Chicago Food Depository and its network of hundreds of pantries and soup kitchens across the City and County, Chicago Food Policy Action Council, Advocates for Urban Agriculture, Alliance for Health Equity Food Workgroup; governmental planning, human service and health agencies as well as the recently adopted good food purchasing program (GFPP) in City and County; Windy City Harvest and Veggie Rx, hundreds of community gardens/urban farms and local producers, farmers markets, WIC sites, sub-regional healthy food access initiatives such as Proviso Partners for Health and West Side United and Grow Greater Englewood, local faith-based and community-based initiatives focused on healthy food access, FQHCs working on food security initiatives, coordinated screening and referral initiatives such as West Side ConnectED, and provider organizations working on food as medicine such as ICAAP and IAFP.

MATERNAL AND CHILD HEALTH – Key resources to address maternal and child health include: state and local health departments' maternal and child health (MCH) initiatives, early childhood coalitions like Ever Thrive Illinois, March of Dimes, and the Ounce of Prevention, Illinois Perinatal Quality Collaborative, prenatal and perinatal care partnerships, pilot maternal infant home visiting programs, governmental programs such as WIC and Medicaid Moms & Babies, and community-based organizations such as New Moms.

Access to Care and Community Resources

Key resources to address access to care include: City of Chicago Services (adolescent and school health), No Wrong Door Illinois, Chicago IL Free & Income Based Clinics, City of Chicago Services (Find a Community Health Center), Health Resources and Services Administration (Find a Health Center), partnerships between hundreds of community-based primary clinics including FQHCs, free clinics, community-based behavioral health providers, Heartland Alliance and Protect Our Care Illinois, Alliance for Welcoming Healthcare and related initiatives focused on serving immigrants and refugees with quality, easily accessible, culturally-relevant care; professional provider associations such as the ICAAP, IAFP, Illinois Nurses Association, and Illinois Community Health Worker (CHW) Association; Illinois School Based Health Alliance and the School Health Access Collaborative (SHAC); enrollment for public insurance; coordinated screening and referral for social determinants.

Chronic Health Conditions

Key resources to address chronic conditions include: Lurie Children's specialty clinics, partnerships with associations such as the American Heart Association, American Cancer Society, American Diabetes Association, Academy of Nutrition and Dietetics; partnerships between primary care providers such as FQHCs, pediatricians, and family physicians and other sites of care such as hospitals; governmental agencies such as park districts, forest preserves, planning agencies, and the recently adopted good food purchasing program (GFPP); policy, systems and environmental change initiatives led by coalitions such as Consortium to Lower Obesity in Chicago Children (CLOCC), Proviso Partners for Health, health departments, Active Transportation Alliance, Center for Faith and Community Health Transformation, and ISPAN; and hundreds of culturally-tailored, community-based and school-based chronic disease prevention initiatives across the City and County.

ASTHMA – Key resources to address asthma include: Stroger Hospital Asthma Clinics, Respiratory Health Association, Chicago Asthma Consortium, Sinai Urban Asthma Institute, LaRabida Asthma Clinic, and Chicago Asthma Consortium

COMPLEX CHRONIC CONDITIONS – Key resources to address complex chronic conditions include: The Arc of Illinois, Division of Specialized Care for Children, Maryville Academy, Almost Home Kids, Illinois Mentor, and Aspire

OBESITY, NUTRITION, AND PHYSICAL ACTIVITY – Key resources to address obesity, nutrition, and physical activity include: CLOCC (a program of Lurie Children's), Chicago Department of Public Health, and City of Chicago Services (free exercise classes).

Mental and Behavioral Health and Substance Use Disorders

Key resources to address mental health and substance use disorders include: Lurie Children's Center for Childhood Resilience, Behavioral Health Treatment Services Locator, Substance Abuse and Mental Health Services Administration (SAMHSA) National Helpline, Suicide Prevention Lifeline, Comprehensive Community-Based Youth Services (CCBYS), Statewide Unintentional Drug Overdose Reporting System, Alliance for Health Equity Mental Health Committee, Alliance for Health Equity Hospital Opioid Treatment and Response Learning Collaborative, NAMI Chicago, NAMI Metro Suburban, NAMI South Suburban, Kennedy Forum, Thresholds, professional provider associations such as the Illinois Association for Behavioral Health, Community Behavioral Healthcare Association, and National Association of Social Workers, governmental human service and behavioral health agencies, peer workforce including certified recovery support specialists (CRSS), several learning collaboratives of FQHCs focused on primary care and behavioral health integration, community mental health centers, substance abuse treatment and harm reduction initiatives, and the trauma/resilience, youth development, and housing/homelessness organizations listed above.

Unintentional Injury, Violence, Trauma, and Community Safety

UNINTENTIONAL INJURY – Key resources to address unintentional injury include: Lurie Children's Injury Prevention & Research Center, Safe Kids Chicago, Safe Kids Illinois, Safe Kids Worldwide, Injury Free Coalition for Kids.

CHILD MALTREATMENT – Key resources to address child maltreatment include: Prevent Child Abuse, Chicago Children's Advocacy Center, Lurie Children's Safety and Wellness Clinic, Community Counseling Centers of Chicago.

VIOLENCE, TRAUMA, AND COMMUNITY SAFETY – Key resources to address violence, trauma, and community safety include: Strengthening Chicago's Youth (SCY), Mayor's Commission for a Safer Chicago, City of Chicago /Office of Violence Prevention, Chicago HEAL Initiative, Alliance for Health Equity Trauma-Informed Hospitals Collaborative led by Illinois ACEs Response Collaborative and Health and Medicine Policy Research Group, Communities Partnering for Peace (CP4P), hundreds of youth development initiatives across the City and County including youth-led initiatives like Voices of Youth in Chicago Education (VOYCE), Mikva Challenge and My Block My Hood My City, Lurie Children's Center for Childhood Resilience, READI Chicago, Chicago's Trauma-Informed City initiative, hospital-based violence intervention programs, and local trauma-informed initiatives such as Bright Star Community Outreach, I Am Able, and the Illinois Violent Death Reporting System.