ALLIANCE for HEALTH EQUITY

Hospitals and Communities Improving Health Across Chicago and Cook County

COMMUNITY HEALTH NEEDS ASSESSMENT

FOR CHICAGO AND SUBURBAN COOK COUNTY

2019

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Hospitals and Communities Improving Health Across Chicago and Cook County

Collaborative Community Health Needs Assessment (CHNA) for 35 Hospitals

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

Key Public Health Partners

- Chicago Department of Public Health
- Cook County Department of Public Health and Cook County Health

Backbone Organization for the Alliance for Health Equity

- Illinois Public Health Institute

ILLINOIS PUBLIC HEALTH INSTITUTE

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Executive Summary

The Alliance for Health Equity is a collaborative of 37 hospitals 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; and
- collaborating on population health policy and advocacy.

The Patient Protection and Affordable Care Act (ACA) requires every non-profit hospital to conduct Community Health Needs Assessments (CHNA) and implement plans that address identified community health needs. 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, 6 local health departments including Chicago Department of Public Health and Cook County Department of Public Health, and nearly 100 community-based organizations are participating in the Alliance for Health Equity **(Figure 1)**. The Illinois Public Health Institute (IPHI) serves as a backbone organization that helps to facilitate the assessment and implementation processes, assists in convening partners across sectors, and provides technical support. The Alliance for Health Equity is comprised of a steering committee and several workgroups and committees working on implementation strategies for several community health priorities **(Figure 2)**.

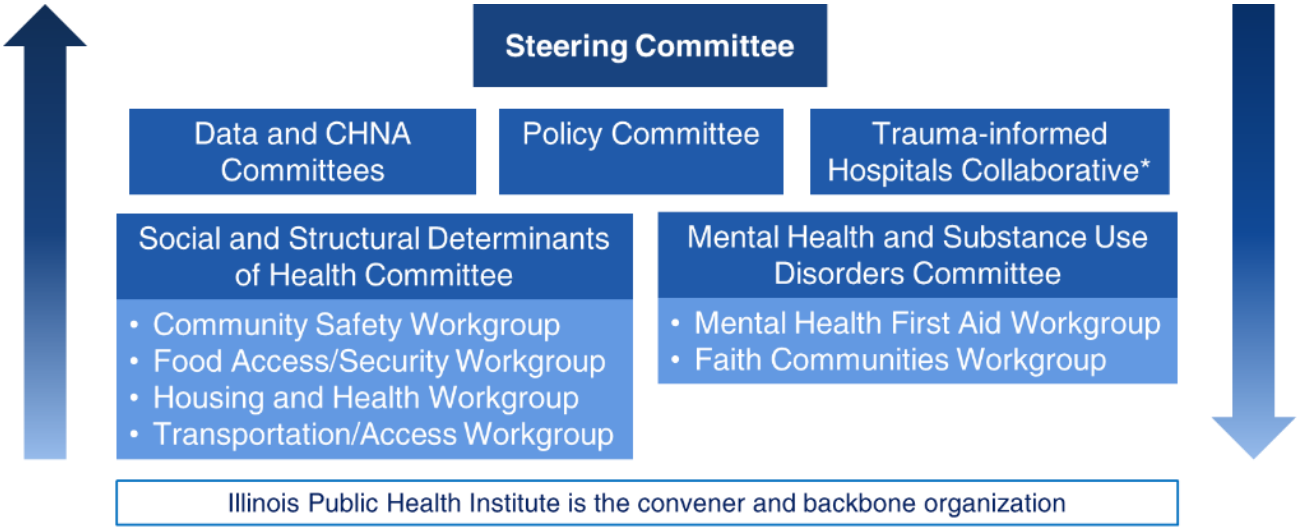
Figure 1. Alliance for Health Equity – Participating hospitals and health departments

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

* Cook County Health is a partner on the Alliance for Health Equity committees, and the Cook County Department of Public Health has been active in the CHNA; however, the hospitals are not required to do a CHNA and have not been part of the collaborative CHNA process.

Two additional health departments—Stickney and Oak Park—have participated with the Alliance for Health Equity on different initiatives but have not been direct partners in this CHNA process.

Figure 2. Alliance for Health Equity structure



* The Trauma-informed Hospitals Collaborative is staffed and led by the Illinois ACEs Response Collaborative and Health and Medicine Policy Research Group

A CHNA summarizes the health needs facing the communities served by hospitals, health departments, and community organizations. Implementation plans serve as a roadmap for how the community health issues identified in the CHNA are addressed. The 2018-2019 CHNA is the second assessment completed by the Alliance for Health Equity.

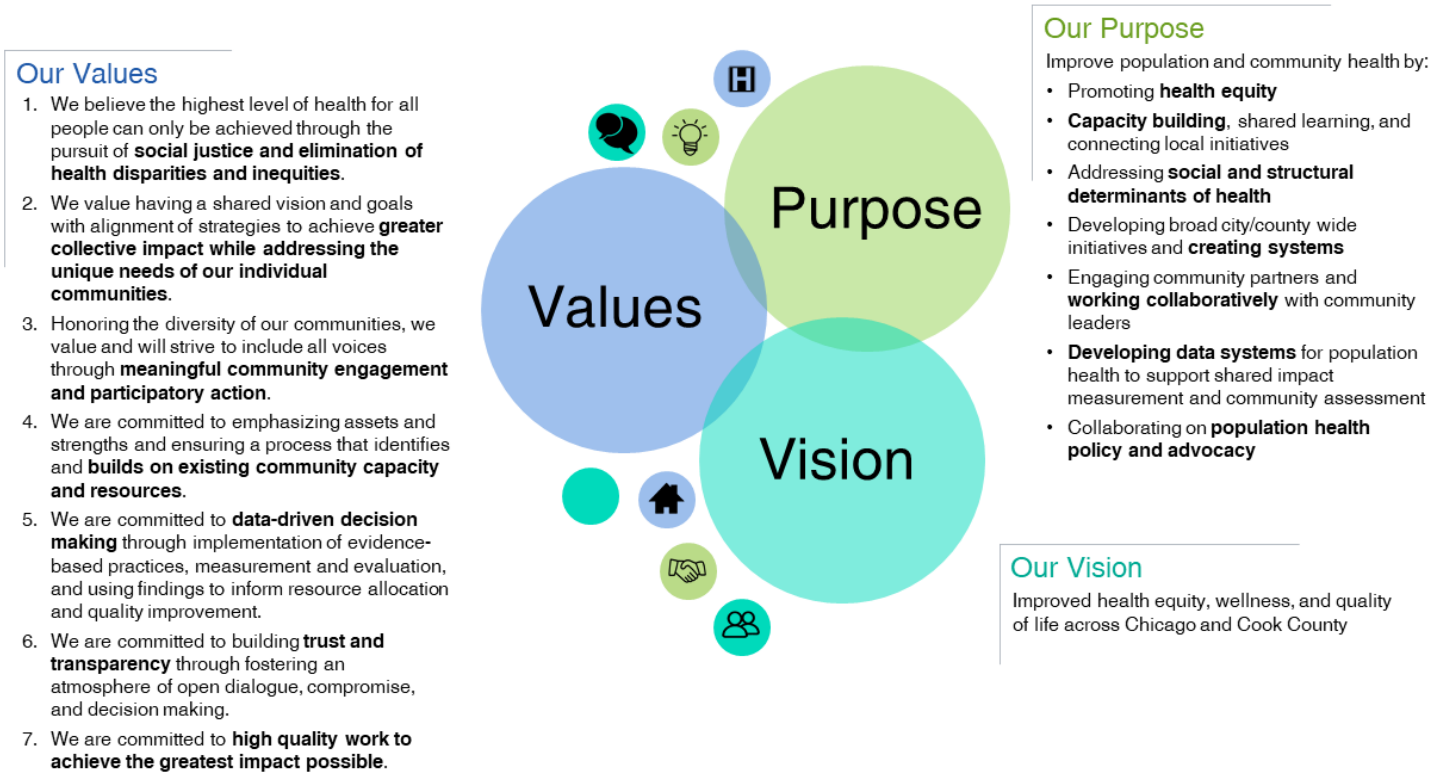
Priority Community Health Issues

Based on the findings from the collaborative assessment methods, the 2019 Alliance for Health Equity CHNA identifies the following community health priorities.

Figure 3. Priority Community Health Issues, Alliance for Health Equity, Chicago and Suburban Cook County, 2019

All assessment and implementation activities are guided by the Alliance's purpose, vision, and values.

Figure 4. Alliance for Health Equity – Purpose, vision, and values



Community Engagement

In alignment with the purpose, vision, and values, the Alliance for Health Equity prioritizes engagement of community members and community-based organizations as a critical component of assessing and addressing community health needs. Community partners have been involved in the assessment and ongoing implementation process in several ways both in providing community input and in decision-making processes **(Figure 5)**.

The community-based organizations engaged in the Alliance for Health Equity represent a broad range of sectors such as workforce development, housing services, food security, community safety, planning, community development, immigrant rights, primary and secondary education, faith communities, behavioral health services, advocacy, policy, transportation, older adult services, health care services, higher education, and many more. All community partners work with or represent communities that are disproportionately affected by health inequities such as communities of color, immigrants, youth, older adults and caregivers, LGBTQ+, individuals experiencing homelessness or housing instability, individuals living with mental illness or substance use disorders, individuals with disabilities, veterans, and unemployed youth and adults.

Figure 5. Alliance for Health Equity community engagement strategies

The Alliance for Health Equity's methods of community engagement for the CHNA and implementation strategies include:

- gathering input from community residents who are underrepresented in traditional assessment and implementation planning processes;
- partnering with community-based organizations for collection of community input through surveys and focus groups;
- engaging community-based organizations and community residents as members of implementation committees and workgroups;
- utilizing the expertise of the members of implementation committees and workgroups in assessment design, data interpretation, and identification of effective implementation strategies and evaluation metrics;
- working with hospital and health department community advisory groups to gather input into the CHNA and implementation strategies; and
- partnering with local coalitions to support and align with existing community-driven efforts.

Assessment Model and Process

The Alliance for Health Equity completed a collaborative CHNA between March 2018 and March 2019. Primary and secondary data from a diverse range of sources were utilized for robust data analysis and to identify community health needs in Chicago and Suburban Cook County. For the 2019 CHNA, the Alliance for Health Equity built on the previous collaborative CHNA work (2016), previous CHNA reports from member hospitals, **Healthy Chicago 2.0** (2016), and **WePLAN 2020** (2016).

The steering committee developed parameters for the 2018-2019 CHNA process that will help drive the Alliance's equity-focused work.

- The CHNA builds on prior CHNAs from 2015 to 2016 as well as other local assessments, regional assessments, and plans. The Alliance will coordinate closely with health department assessment and planning processes.
- The CHNA will provide greater insight into community health needs and strategies for ongoing community health priorities.
- The CHNA leverages expertise of community residents, community partners, and key stakeholders.
- The CHNA provides an overview of community health status and highlights data related to health inequities.
- The CHNA informs strategies related to: population health, connections between community and clinical sectors, anchor institution efforts, policy change, and community partnerships.
- Health inequities and their underlying root causes are highlighted and discussed throughout the assessment.

Primary data collection

Primary data for the CHNA was collected through four methods:

- community input surveys;
- community resident focus groups and learning map sessions;
- health care and social service provider focus groups; and
- two stakeholder assessments led by partner health departments—Forces of Change Assessment and Health Equity Capacity Assessment.

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 with notetaking by IPHI. In addition to the 52 community input sessions, there were also three focus groups with health care and social service providers hosted by Swedish Covenant Hospital, MacNeal Hospital, and South Shore Hospital. Focus group facilitators asked participants about the underlying root causes of health issues that they see in their communities and specific strategies for addressing those health needs.

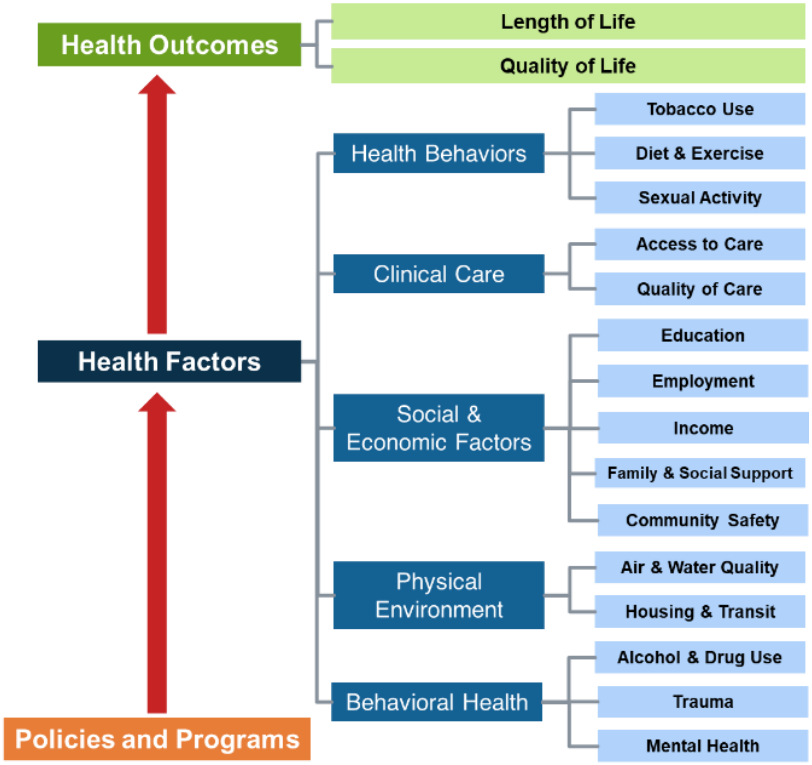
This Forces of Change Assessment collects information on the trends, factors, and events that are currently affecting and/or anticipated to affect the public health system in the near future (3-5 years). CDPH led this assessment in partnership with their Partnership for a Healthy Chicago, and CCDPH.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

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 5-6 questions for each of the Ten 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 collection

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 6)**.

Figure 6. Adapted County Health Rankings and Roadmaps Model



Modified from (County Health Rankings and Roadmaps, 2014)

The CHNA and steering committees also decided to investigate 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; and
- housing.

Secondary data used in the CHNA were compiled from a range of sources **(Figure 7)**.

Figure 7. CHNA data and information sources

Secondary data 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 including Greater Chicago Food Depository and Voices of Child Health in Chicago
- Hospitalization and emergency department rates (COMPdata) 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 Health; Centers for Disease Control and Prevention; 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

Community Description for Cook County

Age and gender

U.S. Census Bureau population estimates for 2017 indicate that approximately 22% of the population in Cook County is under 18 years old and 14% is age 65 or older (U.S. Census Bureau, 2017). The percentage of individuals identifying as male or female in Cook County is approximately equal (U.S. Census Bureau, 2017). Data for the transgender and gender non-conforming populations in Cook County is limited. Based on preliminary analyses of Healthy Chicago Survey data, the Chicago Department of Public Health estimates that 10,500 adults living in Chicago identify as transgender or gender non-conforming.

Race and ethnicity

In 2017, the U.S. Census Bureau estimated that 42% of the population in Cook County identified as non-Hispanic white, 24% identified as non-Hispanic African American/black, 8% identified as non-Hispanic Asian, 2% identified as two or more races, and 26% identified as Hispanic/Latinx (U.S. Census Bureau, 2017).

Immigration

An estimated 21% of Chicago residents and 20% of Suburban Cook County residents are foreign-born (U.S. Census Bureau, American Community Survey, 2012-2016). 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% of immigrants), India (8.1%), Poland (7%), the Philippines (5%), and China (4.3%) (American Immigration Council, 2017).

Population density

The most densely populated communities are on the North, West, Southwest, and Southeast Sides of Chicago and West suburban communities directly adjacent to the city (Cicero, Berwyn, Oak Park, and Elmwood Park).

Population shifts

Since 2000, Cook County as a whole has continued to experience a loss in population. However, the majority of population loss occurred in Chicago, while suburban Cook County's population has grown by almost one percent. While growth has been modest, the racial and ethnic make-up of Cook County has changed drastically. Overall, there has been a 10% decrease in the white population of Cook County. However, the population loss is not consistent across the area. Suburban Cook County had more than double the decrease in non-Hispanic white populations (14%) compared to Chicago (6%). Between 2000 and 2010, the African American/black population in Chicago has decreased by over 15% and increased 18% in Suburban Cook County. Along with most of the nation, Cook County experienced an increase in the Hispanic/Latinx populations between 2000 and 2010. However, the increase was greatest in Suburban Cook County (47%).

Other demographic shifts are not only increasing the size of priority populations in Suburban Cook County, but also shifting the distribution of the social determinants of health geographically. For example, poverty is increasing in the suburbs and decreasing in Chicago. While Chicago saw very little change in poverty and even experienced a 3% decrease in child poverty, Suburban Cook County saw dramatic rises in its poverty levels with child poverty increasing by over 75% between 2000 and 2010.

Additional priority populations

In addition to marginalized racial and ethnic groups, the Alliance has identified several additional priority populations including:

- homeless individuals and families;
- justice-involved youth and adults;
- people living with mental health conditions and/or substance use disorders;

- people living with disabilities;
- older adults;
- immigrants and refugees;
- LGBTQ+;
- unemployed and underemployed;
- uninsured;
- veterans and former military; and
- children, adolescents, and young adults.

Key Assessment Findings

Assessment findings were organized in five areas:

- overview of health inequities;
- social and structural determinants of health;
- mental health and substance use disorders;
- access to quality health care and community resources; and
- chronic conditions – risk factors, prevention, and management.

Health inequities and community input are highlighted throughout the summary of key findings as well as in all of the assessment chapters.

Social and Structural Determinants of Health

Research has long established that socioeconomic inequities are key drivers of health outcomes. For example:

- children born to mothers without a high school education are twice as likely to die before their first birthday than children born to mothers who are college graduates;
- the percentage of individuals reporting poor health increases with decreasing levels of income and education;
- low-income individuals are more likely to have a chronic disease; and
- low-income individuals have higher rates of diabetes and coronary heart disease (Robert Wood Johnson Foundation, 2008).

Poverty

Poverty can create barriers to accessing quality health services, healthy food, recreation opportunities, and other necessities needed for good health status. In addition, it strongly influences housing stability, educational opportunities, living environment, and health behaviors.

Assessment data highlights many of the economic inequities in Chicago and Suburban Cook County. Overall, the percentage of individuals living in poverty in Chicago and Suburban Cook County (16%) is higher than the state (14%) and national averages (15%). However, people of color experience higher rates of poverty than non-Hispanic whites. African Americans experience the highest rate with nearly a third of the population living in poverty. In addition, African Americans and Hispanic/Latinxs have the lowest median household incomes. There are inequities in the geographic distribution of poverty as well. Communities with the highest poverty rates are primarily concentrated in the West and South regions of the city and county. These geographic inequities can be directly linked to long-standing historical discrimination and segregation across Cook County.

Quote from community resident: "On the West Side there isn't much funding to create better opportunities like schools and jobs" (Breakthrough Learning Map Session)

Unemployment and underemployment

Unemployment and underemployment can create financial instability, which influences access to health care services, insurance, healthy foods, stable quality housing, and other basic needs. Unemployment and underemployment in Chicago and Suburban Cook County are often associated with a history of disinvestment

and economic segregation. Currently unemployment rates for adults over age 16 in Cook County (10%) are slightly higher than the state (8%) and national averages (7%) and have shown an overall decline since 2013. However, higher rates of unemployment are concentrated in communities of color in the West and South regions of the city and suburbs. In addition, the rates of unemployment for African American/blacks are more than five times higher than whites in Chicago and more than two times higher than whites in Suburban Cook County.

Community Input: A lack of employment opportunities was one of the most frequently discussed issues among focus group participants. Again, participants living in the West and South regions of the county described having the least number of 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 certain communities, jobs are available, but they are described as part-time, temporary, and/or low-paying. Eighteen percent of community input survey respondents chose "quality job opportunities" as one of the most important factors in a healthy community. Furthermore, survey respondents frequently identified job opportunities as an area for improvement in their community.

Education

Education is an important determinant of health because poverty, unemployment, and underemployment are highest among those with lower levels of educational attainment. 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 Cook County (85%) are comparable to state (88%) and national rates (84%), there are profound differences between racial and ethnic groups. In Chicago and Suburban Cook County, non-Hispanic whites and Asians have the highest rates of high school graduation and the highest rates of educational attainment overall. Hispanic/Latinx adults are least likely to have a high school education with approximately a third of the population being without a high school diploma or equivalent by age 25.

Community Input: More than half of all focus groups discussed education inequities in Cook County. 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 and in the South Suburbs;**
- **limited or nonexistent resources for learning trades;**
- **a lack of support programs such as quality, low-cost tutoring; and**
- **limited adult education programs.**

Community safety and violence

Violence in Chicago and Suburban Cook County is concentrated in low-income communities of color. The root causes of community violence are multifaceted but 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 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.

Community Input: Focus group participants related that the prevalence of violence in their communities has led to health issues such as chronic stress, decreased mental well-being, trauma among children and adults, and decreased physical activity due to a reluctance to exercise in unsafe neighborhoods. Overall, 37% of community survey 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 a community, however, safety and low crime was also the most mentioned area for improvement in communities.

Housing

Poor housing conditions are associated with a wide range of health conditions including respiratory infections, asthma, lead poisoning, injuries, and 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). Existing research has confirmed that there are at least four direct pathways in which housing impacts health: stability, affordability, quality and safety, and neighborhood. (Taylor, 2018).

Assessment findings indicate that:

- Providing individuals and families with stable housing can improve health and reduce health care costs (Taylor, 2018).
- Community-based programs and policy interventions have been shown to be extremely effective in improving health through improvements in the quality and safety of housing.
- Within Cook County there are several regions where more than 40% of households are considered cost-burdened. These regions are primarily concentrated in the far Northwest, West, and South Sides of the city and county. Programs examples from across the country demonstrate that increasing access to affordable housing is associated with improved health outcomes and decreased need for emergency care, increased household discretionary income, increased rates of insurance coverage, decreased personal debt, and increased savings for home ownership and education.
- 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, Mora, Hagan, Rubin, & Karpyn, 2013; Djurhuus, Hansen, Aadahl, & Glümer, 2014; Ou et al., 2016).

Community Input: Major themes that rose to the top of focus group discussions related to housing included: segregation prevents communities from having diverse economics, racial/ethnic groups, and resources; gentrification pushes low-income families out of communities; safe, quality housing is often not affordable and affordable housing is often not safe or good quality; older adults are still struggling to recover from the housing crisis; and oversight of landlords and homeowners is lacking in many communities.

Food Access and Food Security

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:

- the 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 (Weinfield et al., 2014).

Related to food insecurity, access to healthy foods is another important factor needed to support chronic disease prevention. Low-income communities of color 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 (N. Larson, Story, & Nelson, 2009). 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. However, approximately seven percent of households in Cook County overall are below the poverty level and not receiving SNAP benefits. Summer meal programs also play an important role in food access for low-income children and their families during the summer months when schools are closed and access to free or reduced-price meal programs is decreased (Feeding America, 2018). Within Cook County, summer meal sites are widespread, but are most concentrated in communities with high rates of child poverty.

Community Input: Focus group participants on the West and South Sides of the city and county reported a high proportion of fast-food restaurants and limited access to grocery stores selling healthier options. Low-income participants on the North Sides of the city and county reported that there were several grocery stores available but that they often could not afford to shop at them. Community residents living with chronic illnesses such as diabetes reported that difficulty accessing healthy foods and a high prevalence of fast-food options made it more difficult for them to manage their conditions. Approximately 29% of community input survey respondents chose "access to healthy food" as one of the most important factors in their community.

Access to Quality Health Care

Access to health care is broadly defined as the "the timely use of personal health services to achieve the best health outcomes" (Institute of Medicine, 1993). There are several complex factors that further influence access to health care including proximity; affordability; availability, convenience, accommodation, and reliability; quality and acceptability; openness, cultural responsiveness, appropriateness and approachability.

Within Cook County, 11% of the population does not have health insurance coverage which is greater than the statewide average of 9% (U.S. Census Bureau, American Community Survey, 2017b). However, in some Cook County communities, uninsured rates are as high as 30%. In addition, uninsured rates can be even higher among certain population groups such as adults aged 18-64, immigrant households, Hispanic/Latinx communities, children of non-citizen parents, low-income individuals, and the working poor. Recent policies and practices at the federal level have threatened some of the gains in insurance and access that came under the affordable care act particularly for immigrant and LGBTQ+ populations, and data from the American Community Survey shows that the rate of people not insured actually saw a slight increase in the most recent year available (2017). Community input, particularly from immigrant communities and service providers, also emphasized concerns about access to healthcare and other public benefits.

Socioeconomic inequities such as segregation often determine a community's proximity to healthcare services. Previous research has establish that patients living further away from health care facilities have worse health outcomes related to survival rates; length of stay in hospital; non-attendance at follow-up visits; higher rates of asthma deaths; lower than expected five-year survival from cancer; increased overall disease burden; and increased risk of chronic disease-related mortality (Billi, Pai, & Spahlinger, 2007; Campbell et al., 2000; Jones & Bentham, 1997; Kelly, Hulme, Farragher, & Clarke, 2016; Saijo et al., 2018).

Health care quality can vary greatly between communities due to several factors including the geographic proximity of a spectrum of emergency or urgent care services, percentage of the population receiving public benefits, funding for community-based services, education and training levels of health care staff, and localized provider shortages. Race and ethnicity also play a critical role in the quality of health care that patients receive. Perceptions of discrimination in health care have been associated with several outcomes among patients of color including decreased use of preventative health care, delayed use of prescription medication and medical tests, and worse chronic disease management and outcomes (Hausmann, Jeong, Bost, & Ibrahim, 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: Focus group participants that belonged to communities of color 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; and 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.

A 2018, landscape analysis conducted by the School Health Access Collaborative identified several opportunities within the school health services system in Chicago that could increase and expand the positive outcomes of school and health care partnerships.

Mental Health and Substance Use Disorders

The mental health and substance use disorders section of the assessment was used to distill common findings from existing collaborative assessments, secondary data, and primary data. Six key takeaways were developed that describe major problems, their importance for health equity, and opportunities to address them in the near-term.

Overarching need: Quality

NAMI 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 health care" (NAMI Chicago, 2019). For too many, the experience of mental health care does not meet cultural needs, is not incentivized to be high-quality, and is deeply discouraging for the individual, their family, and their community.

Fragmentation of services and integration of care

- A common theme in mental health assessments 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 health care 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.
- Across Cook County, efforts toward integrating primary and mental health care 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.

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 health care settings.
    - Social determinants of health affect communities in the context of social inequities. For example, African Americans in the U.S. are three times more likely to experience homelessness (U.S. Department of Housing and Urban Development, 2010). Failing to embed social needs into health care practice helps reproduce racial inequities by neglecting the root causes of poor health.
    - The level of community awareness and understanding of mental health symptoms and treatment is another part of the social-environmental background for health, and can be impacted through community mental health awareness and Mental Health First Aid trainings.
- Health systems increasingly recognize the role of social determinants of health and the importance of collecting information on social needs (Feinglass, Wein, Teter, Schaeffer, & Rogers, 2018; Rizzo, Rowe, Shier Kricke, Krajci, & Golden, 2016). As assessment of social and structural determinants of

health becomes more routine, the resulting data will assist advocates and policy makers to implement systemic solutions to health inequities.

Trauma and childhood adversity

- Experiences of trauma and adversity in childhood, including abuse and household instability, extreme discrimination and poverty, or the loss of a parent, is widespread, affecting more than half of all adults in Illinois (Stillerman, n.d.-b).
- Research is revealing how exposure to trauma and adversity puts individuals at greater risk for mental illness, substance use disorders, 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).
- Trauma-informed practice protocols are available for health care, schools, law enforcement and corrections, and child welfare systems to mitigate past experiences of stigma and trauma and to prevent further harm (Stillerman, n.d.-a).

Stigma and discrimination

- Assessments of mental health needs in Cook County indicate that stigma and discrimination against people with mental illness and substance use disorder persists in communities, schools, workplaces, and even in health care settings. For older adults, ageism combines with stigma to overshadow mental illness when symptoms are dismissed as part of a normal aging process.
- Stigma deters people from seeking treatment before a crisis, and the experience of discrimination discourages ongoing engagement with treatment.
- Insurance parity laws and Mental Health First Aid training resources create opportunities to reduce stigma and fight discrimination, while the national response to the opioid crisis has increased mainstream attention to individual lived experiences of both substance use and harm reduction.

Workforce Shortages and Gaps in Training

- Any progress in reducing stigma and discrimination is likely to increase demand for services. Yet community residents and referring medical providers already report barriers to access due to mental health professional shortages. Low reimbursement rates stifle the potential for workforce growth.
- A workforce that is linguistically competent and culturally humble is a necessary condition to overcoming the burden of stigma and structural racism. In particular, access to providers of evidence-based practices, such as Assertive Community Treatment, Medication-Assisted Treatment, and peer support, is crucial for people with serious mental illness and opioid use disorders.
- State programs to increase the number of Medication Assisted Treatment (MAT)-certified prescribers and expand reimbursement for telehealth and telepsychiatry, and local initiatives like Geriatric Worker Enhancement Programs, create opportunities to extend the existing workforce to reach more people in need. But Chicago and Cook County need to advocate for higher state reimbursement rates to address the workforce crisis (Illinois Department of Human Services, 2018; Illinois General Assembly, 2019).

Community Input: Input from community resident focus groups and surveys provided strong evidence that mental health and substance use are key health issues across the entire geography of Chicago and Suburban Cook County. Mental health, substance use, stress, and trauma were key topics of discussion in at least 80% 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 from the discussions included:

- **the prevalence of chronic stress among youth and adults in communities;**
- **a 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;**

- **the consequences of untreated conditions; and**
- **the impacts of abuse and other forms of trauma on behavioral health.**

Chronic Conditions: Risk Factors and Prevention

Worldwide and in the United States, chronic diseases are the leading causes of disability and death (Centers for Disease Control and Prevention, 2019b; World Health Organization, n.d.-c). In addition, chronic disease rates are accelerating globally across all socioeconomic classes (World Health Organization, n.d.-c). However, socioeconomic inequities have profound impacts on which populations and communities have the greatest burden of disease. Chronic conditions such as heart disease, stroke, cancer, diabetes, arthritis, asthma, mental illness, and HIV/AIDs account for 90% of the nation's $3.3 trillion in annual health care expenditures (Centers for Disease Control and Prevention, 2019a). Prevention and management of chronic illness can help reduce the costly physical and socioeconomic burden of these diseases for individuals and society as a whole.

Community Input: Focus group participants across the city and county described several issues related to chronic disease and chronic disease management. The major themes that were mentioned by participants included:

- **social determinants of health such as poverty, limited access to healthy foods, exposure to violence, and housing conditions are both underlying root causes of chronic disease and are barriers to the management of chronic disease;**
- **education about preventing chronic disease, risk factors, and when to seek medical help is lacking in communities;**
- **chronic illness such as asthma can be isolating for youth, parents, and adults;**
- **taking care of a child with a life-threatening chronic illness can often cause severe chronic stress; and**
- **community groups that share information about resources and support each other with adjusting to healthier lifestyles would be extremely helpful to communities.**

Forty-three percent of community input survey respondents selected diabetes as the top most important health problem in their communities. Heart disease and cancer were each selected by 27% of respondents as a top 3 health problem.

Asthma and Diabetes

Asthma and diabetes are two conditions that demonstrate major disparities both for race/ethnicity and geography. And, the childhood burden for both conditions is concentrated in low-income communities of color across the county. In addition, disease progression and outcomes for these two conditions are strongly tied to the social determinants of health and have large equity-related gaps between communities.

Sexually Transmitted Infections

The burden of sexually transmitted infections (STIs) falls disproportionately on low-income communities in Cook County. STIs impact the health care system through high costs for screening and treatment as well as the potential for complications. STIs are preventable with access to adequate education and health services (HealthyPeople 2020, n.d.). In Cook County, African American/black and Hispanic/Latinx communities experience the greatest burden of STIs such as HIV and chlamydia. Research indicates that many of the disparities related STI burden can be linked to broader social inequities such as a lack of funding (or availability) for substance use disorder treatment and harm reduction programs; mass incarceration; differential access to preventative and screening services; poor access to preconception, prenatal, and postnatal care; and poor access to comprehensive sexual education resources.

Mortality

In the United States, 60% of adults have a chronic disease and 40% of adults have two or more chronic diseases (Centers for Disease Control and Prevention, 2019b). From 2014 to 2016, 65% of all deaths in

Chicago and Suburban Cook County were attributable to chronic diseases. Inequities in the burden of chronic diseases and chronic disease-related mortality within communities is largely driven by the social determinants of health such access to healthy foods, access to safe exercise spaces, household income, access to quality education, housing stability, access to quality healthcare, community safety, and exposure to trauma. Due to inequities in the social determinants of health and the unjust distribution of resources between communities, chronic disease mortality varies across the county and in different population groups. Age-adjusted mortality rates in 2016 reveal that African American/blacks living in the city and suburbs have the highest rates of heart disease, cancer, diabetes-related, and stroke mortality.

Between 2012 and 2017, age-adjusted mortality trends for chronic conditions remained consistent. However, drug overdose mortality has significantly increased in Chicago and Suburban Cook County over time. The resources to address opioid overdoses are highly concentrated in Chicago and notably less available in suburban areas.

Community Cohesion as an Asset

Community cohesion, also known as social cohesion, refers to the strength of relationships and a sense of solidarity among members of a community (Kawachi & Berkman, 2000). Community cohesion is considered an important social determinant of health and there are numerous examples of how community cohesion can positively impact health.

- Community cohesion can decrease the chances of developing PTSD or reduce the severity of PTSD symptoms among individuals living in neighborhoods with high levels of crime (Gapen et al., 2011).
- A 2004 study found that women living in high-crime neighborhoods who had higher levels of social connection to their neighbors reported better overall health compared to women with lower levels of social connection (Linares, 2004).
- Greater community cohesion is linked to better social and physical outcomes among older adults (Cramm & Nieboer, 2015).
- Community cohesion and collective neighborhood efficacy is a protective factor against poor educational, emotional, and health outcomes among school-aged children in socioeconomically disadvantaged communities (Odgers et al., 2009).
- Community cohesion has been found to strengthen the resilience of community residents in the aftermath of a natural disaster (Hikichi, Aida, Tsuboya, Kondo, & Kawachi, 2016).

Community input collected during the assessment demonstrated that community cohesion is an important asset within the diverse communities of Cook County. Multiple focus groups and 1,779 community survey respondents stated that a shared sense of connection between community members was one of their community's greatest strengths and assets. In addition, several focus groups described community cohesion as an essential component of a healthy community. Focus group participants emphasized that the knowledge and collective power of communities is often an untapped resource that should be solicited, cultivated, and leveraged in order to develop effective solutions to improve the health and well-being of residents.

Introduction

The Alliance for Health Equity is a collaborative of 37 hospitals 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:

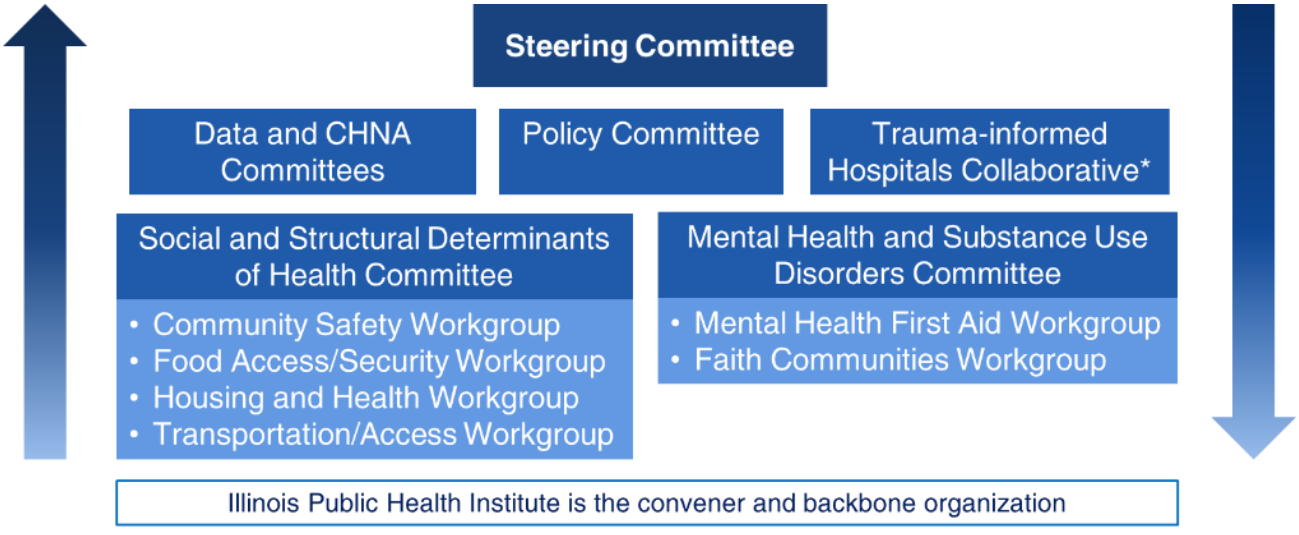
- Promoting health equity
- Supporting capacity building, shared learning, and connecting local initiatives
- Addressing social and structural determinants of health
- Developing broad city and county wide initiatives and creating systems
- Engaging community partners and working collaboratively with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

Collaborative Community Health Needs Assessment (CHNA) in Cook County is an important foundation for the work of the Alliance for Health Equity. The 2019 CHNA is the second consecutive collaborative CHNA in Cook County.[i] The Illinois Public Health Institute (IPHI) acts as the backbone organization for the Alliance for Health Equity. IPHI works closely with the steering committee to design the CHNA to meet regulatory requirements for nonprofit hospitals and to ensure close collaboration with the Chicago Department of Public Health (CDPH) and Cook County Department of Public Health (CCDPH) on their community health assessment and community health improvement planning processes. For this CHNA, the Alliance for Health Equity has taken a very intentional approach to build on the previous **collaborative CHNA work (2016), Healthy Chicago 2.0 (2016), and WePLAN 2020 (2016).** See the collaborative methodology section of this report for more information about the CHNA assessment model and methods.

Alliance for Health Equity Structure and Shared Leadership

The Alliance for Health Equity is comprised of a steering committee and several workgroups and committees working on implementation strategies for several community health priorities **(Figure 1)**.

Figure 1. Alliance for Health Equity Structure



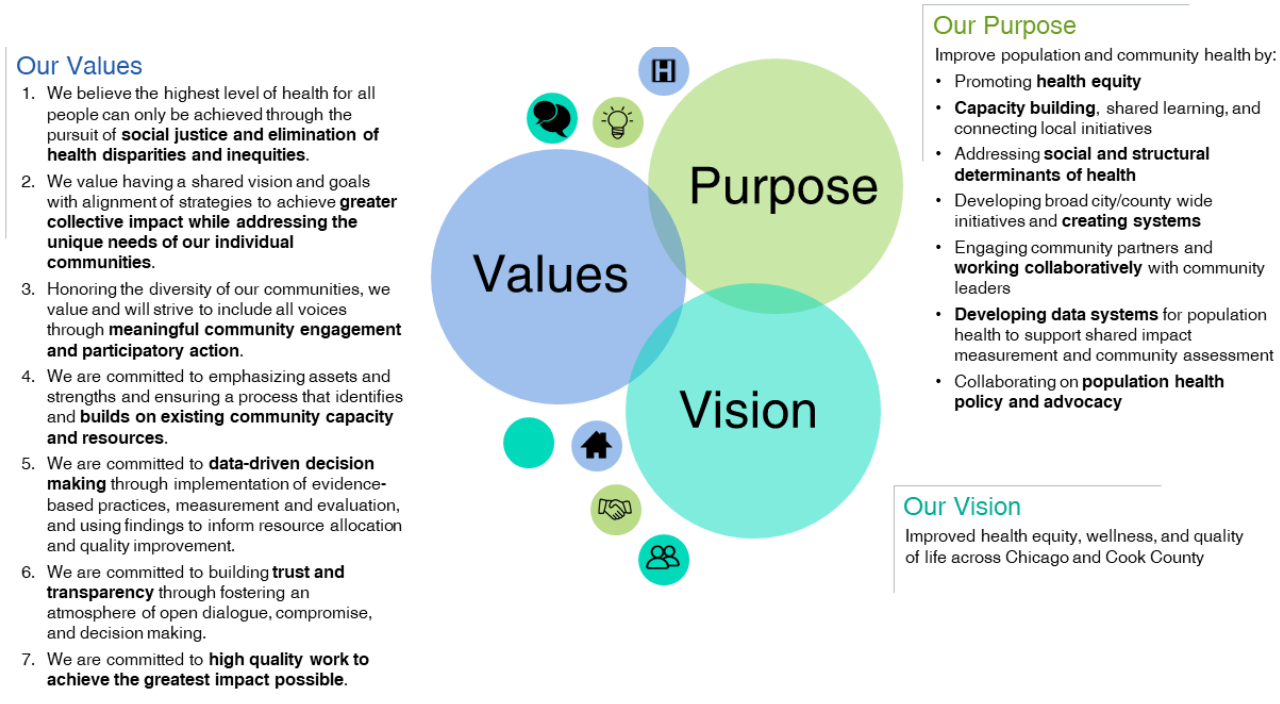
[i] At the time that the 2016 CHNA was produced, the collaborative was operating under the name Health Impact Collaborative of Cook County. The steering committee decided to rename the collaborative as Alliance for Health Equity in June 2017. The steering committee and staffing through the Illinois Public Health Institute have been continuous since the collaborative was formed in February 2015.

The steering committee is made up of 18 leaders and makes decisions about the strategic direction of the Alliance for Health Equity, guides IPHI staff, oversees collective impact strategies, and ensures that all activities align with its purpose, vision, and values. All member health systems and independent hospitals have representation on the steering committee along with CDPH and CCDPH. A list of steering committee members is available in **Appendix B**. The steering committee meets quarterly in person with monthly calls in between and makes all decisions by consensus through monthly meetings, designation of ad hoc subcommittees as needed, and through email communications. The data and policy committees assist other workgroups with projects as needed and develop methods for information sharing and alignment of policy agendas. The CHNA committee provides oversight and assistance with the development of assessments and implementation plans. The Alliance for Health Equity also has two implementation strategy committees that meet quarterly on Mental Health and Substance Abuse Disorders (MH&SUDs) and Social and Structural Determinants of Health (SDOH) to plan and implement collective impact strategies. Several workgroups focused on key implementation priorities related to SDOH and MH&SUDs convene more frequently. These include: Mental Health First Aid, Faith Communities, Community Safety, Food Access/Security, Housing and Health, and Transportation Access. All implementation strategy committees and workgroups include membership from hospitals, health departments, and multi-sectoral community and regional stakeholders. The Trauma-Informed Hospitals Collaborative (co-chaired and staffed by the Illinois ACEs Response Collaborative, Health and Medicine Policy Research Group, and CDPH) also falls under the umbrella of the Alliance for Health Equity and is working to build trauma-informed systems and promote community resilience.

Purpose, Vision, Values

The Alliance for Health Equity's purpose, vision, and values reflect input from hospital partners, health departments, and community stakeholders **(Figure 2)**. The vision and values were developed in collaboration with community partners as part of the 2015-2016 collaborative CHNA. To collaboratively develop the vision and values, IPHI facilitated three in-person workshop sessions with hospitals and community partners from the southern, western, and northern communities of the city and suburbs, and IPHI coordinated follow-up edits over email to ensure the values represented the input of diverse partners across the collaborative. In 2018, two collaboratives merged to form the Alliance for Health Equity. The merged steering committee decided to keep the vision and values collaboratively developed under the 2015-2016 CHNA, as well as develop a statement of collective purpose.

Figure 2. Purpose, Vision, and Values of the Alliance for Health Equity



Community Engagement

In keeping with our purpose, vision, and values, the Alliance for Health Equity prioritizes engagement of community members and community-based organizations as a critical component of assessing and addressing community health needs. Community partners have been involved in the assessment and ongoing implementation process in several ways both in providing community input and in decision-making processes.

The Alliance for Health Equity's methods of community engagement for the CHNA and implementation strategies include:

- Gathering input from community residents who are underrepresented in traditional assessment and implementation planning processes;
- Partnering with community-based organizations for collection of community input through surveys and focus groups;
- Engaging community-based organizations and community residents as members of implementation committees and workgroups;
- Utilizing the expertise of the members of implementation committees and workgroups in assessment design, data interpretation, and identification of effective implementation strategies and evaluation metrics;
- Working with hospital and health department community advisory groups to gather input into the CHNA and implementation strategies; and
- Partnering with local coalitions to support and align with existing community-driven efforts.

The community-based organizations engaged in the Alliance for Health Equity represent a broad range of sectors such as workforce development, housing services, food security, community safety, planning, community development, immigrant rights, primary and secondary education, faith communities, behavioral health services, advocacy, policy, transportation, older adult services, health care services, higher education, and many more. All community partners work with or represent communities that are disproportionately affected by health inequities such as communities of color, immigrants, youth, older adults and caregivers, LGBTQ+, individuals experiencing homelessness or housing instability, individuals living with mental illness or substance use disorders, individuals with disabilities, veterans, and unemployed youth and adults. See **Appendix A** for a list of community partners that have been involved in the Alliance for Health Equity and the CHNA process.

Participating Hospitals and Health Departments

Hospitals and health systems that are members of the Alliance for Health Equity are very active in designing and implementing a collective health equity purpose. For the CHNA, all hospitals and health systems that are a part of the Alliance for Health Equity:

- collaborate with IPHI, health departments, and community organizations to design and implement the CHNA process;
- participate in identifying indicators for data analysis, developing survey questions, and prioritizing focus groups for input;
- share existing data or assessments that are relevant and/or contribute to interpretation of data;
- engage networks of community partners and hospital staff to collect community input, and take that input into account in defining community health priorities for local service areas;
- review assessment data and assist with developing findings and identifying priority strategic issues; and
- designate a steering committee representative to provide strategic guidance to the Alliance for Health Equity and IPHI staff.

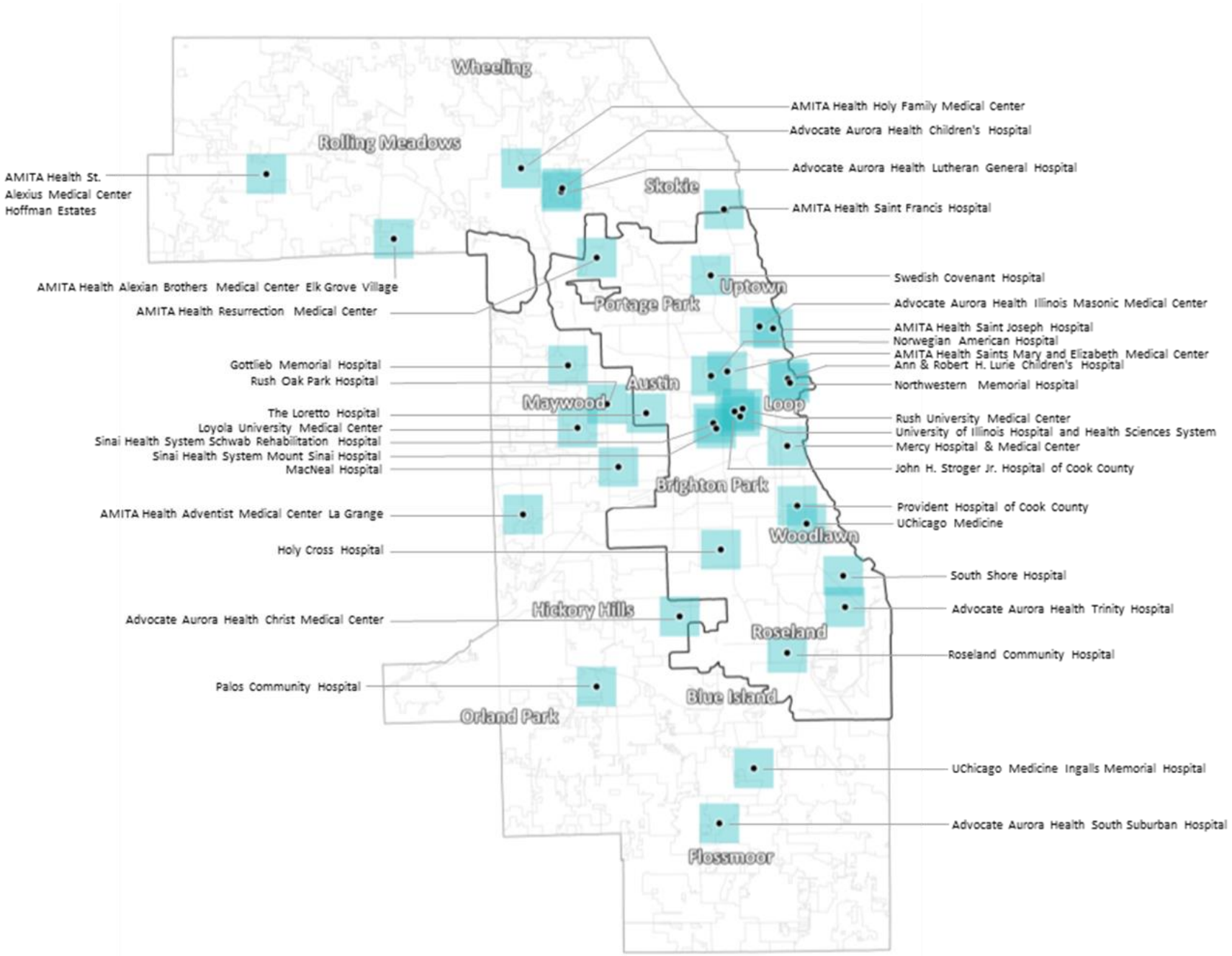
A list of participating hospitals and health departments is presented in **Figure 3**. The locations of hospital partners are displayed in **Figure 4.**

Figure 3. Participating hospitals and health departments in the Alliance for Health Equity

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

[ii] Two additional health departments—Stickney, and Oak Park—have participated with the Alliance for Health Equity on different initiatives but have not been direct partners in this CHNA process.

Figure 5. Hospitals participating in the Alliance for Health Equity



Collaborative Assessment Model and Process

The Alliance for Health Equity completed a collaborative CHNA between March 2018 and March 2019. Primary and secondary data from a diverse range of sources were utilized for robust data analysis and to identify community health needs in Chicago and Suburban Cook County.

IPHI worked with the CHNA committee and steering committee to design and facilitate a collaborative, community-engaged assessment. As with the 2015-2016 collaborative CHNA, this 2019 CHNA process is adapted from the Mobilizing for Action through Planning and Partnerships (MAPP) framework, a community-engaged strategic planning framework that was developed by the National Association for County and City Health Officials (NACCHO) and the Centers for Disease Control and Prevention (CDC).[iii] Both the Chicago and Cook County Departments of Public Health use the MAPP framework for community health assessment and planning. The MAPP framework promotes a system focus, emphasizing the importance of community engagement, partnership development, and the dynamic interplay of factors and forces within the public health system. The Alliance for Health Equity chose this inclusive, community-driven process to leverage and align with health department assessments and to actively engage stakeholders, including community members, in identifying and addressing strategic priorities to advance health equity.

For the 2019 CHNA, the Alliance for Health Equity has taken a very intentional approach to build on the previous collaborative CHNA work (2016), previous CHNA reports from member hospitals, Healthy Chicago 2.0 (2016), and WePLAN 2020 (2016).

From the launch of the CHNA process in mid-2018, the Alliance for Health Equity steering committee defined the following parameters for leveraging this CHNA process to continue collaborative momentum to advance health equity in Chicago and Suburban Cook County:

- The CHNA will build on prior CHNAs from 2015 to 2016 as well as other local or regional assessments and plans, and coordinate closely with health department assessment and planning processes.
- The CHNA will provide greater insight into community health needs and strategies for ongoing community health priorities.
- The CHNA will leverage expertise of community residents, community partners, and key stakeholders.
- The CHNA will provide an overview of community health status and highlight data related to health inequities.
- The CHNA will inform strategies related to: population health, connections between community and clinical sectors, anchor institution efforts, policy change, and community partnerships.

Collaborative Assessment Methodology

Primary Data

Primary data for the CHNA was collected through four methods:

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

[iii] https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/community-health-assessment/mapp

Community Input Survey

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.[iv] 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.

The intention of the community input survey was to complement existing community health surveys distributed throughout Chicago and Suburban Cook County by local health departments. IPHI and the CHNA committee took the following steps to develop the survey tool: (1) IPHI drafted a survey based on review of 13 example community input surveys, (2) CHNA committee members from hospitals and health departments provided input, (3) IPHI incorporated revisions from CHNA committee members and the University of Illinois at Chicago Survey Research Laboratory, (4) IPHI made edits based on a health literacy review, (5) IPHI and two member hospitals piloted the survey at three community-based events, and (6) IPHI made final edits to address minor challenges identified at the pilot events. The final survey tool included 16 questions—three questions related to zip code/community of residence, nine demographic questions, two multi-select questions about health problems and what's needed for a healthy community, and two open-ended questions about community strengths and improvements needed. The Survey Tool is included in **Appendix C**.

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

A map showing the distribution of survey respondents across the city and county is presented in **Figure 5**.

[iv] In addition to English, Spanish, Chinese, and Polish, the survey was also translated into Ukranian, but there were no responses received in Ukranian.

Figure 5. Geographic distribution of community input survey respondents in Cook County

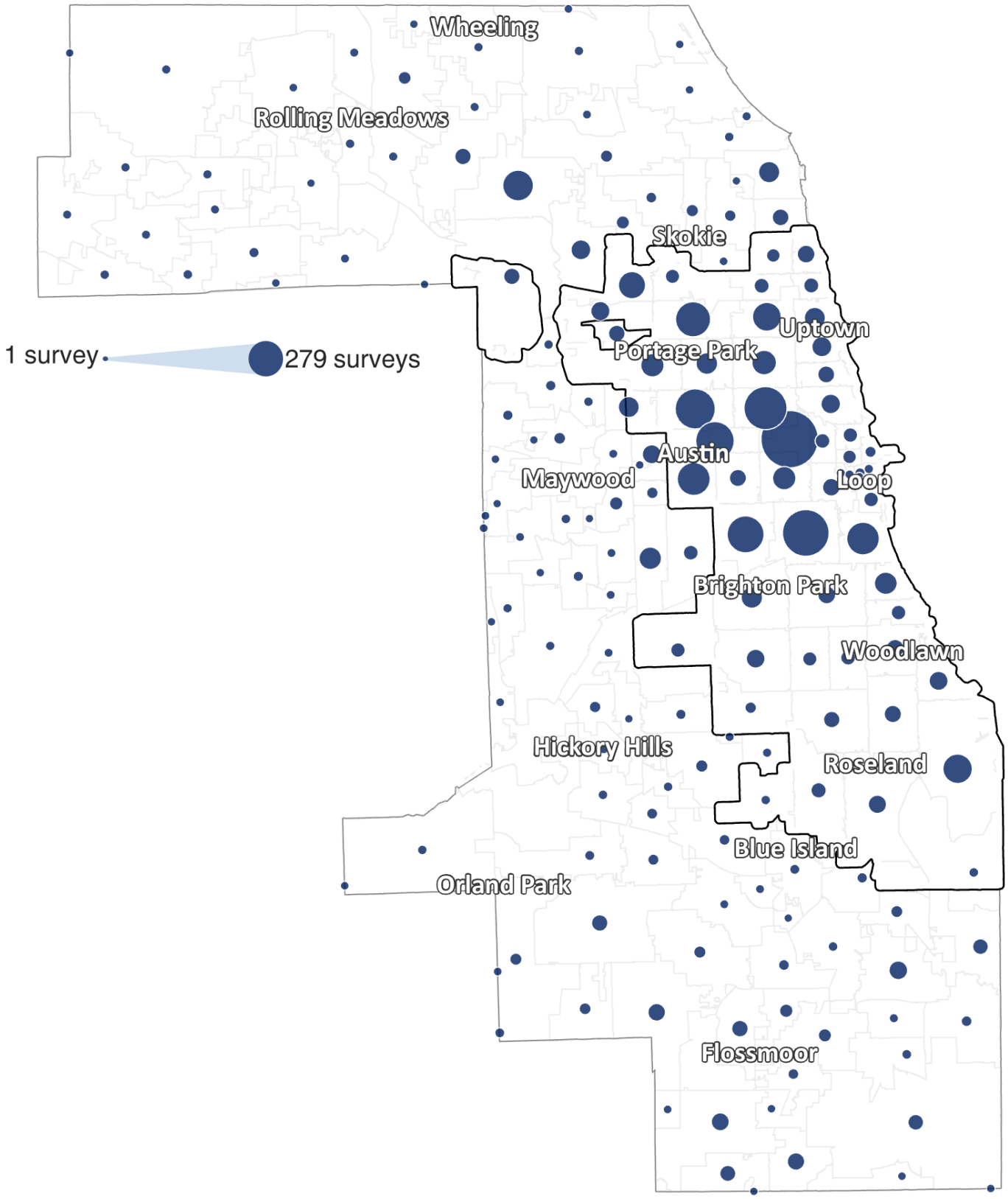


Figure 6. Demographics of Community Input Survey Respondents[v]

Demographics of 5934 Community Input Survey Respondents	
Language (n=5934)	
English	87%
Spanish	10%
Chinese	3%
Polish	1%
Gender Identity (n=5726)	
Female	71%
Male	28%
Non-Binary or Genderqueer	0.4%
Gender Neutral	0.3%
Other	0.3%
Transwoman	0.1%
Transman	0.1%
Sexual Orientation (n=5306)	
Straight	92%
Gay or Lesbian	4%
Bisexual	3%
Other	2%
Age (n=5709)	
18-24	11%
25-34	13%
35-44	13%
45-54	16%
55-64	20%
65-74	16%
75-84	9%
85 or older	3%
Annual Household Income (n=5014)	
Less than $10,000	21%
$10,000 to $19,999	15%
$20,000 to $39,999	19%
$40,000 to $59,999	15%
$60,000 to $79,999	10%
$80,000 to $99,999	7%
Over $100,000	14%

Children in the Household (n=5472)	
No children in my household	62%
Age 0-4	14%
Age 5-12	20%
Age 13-17	17%
Someone in the Household with a Disability (n=5592)	
Yes	28%
No	72%
Race/Ethnicity (n=5528)[v]	
White	31%
African American/black	27%
Hispanic/Latinx	27%
Asian	8%
Multiracial and/or Multiethnic	5%
Middle Eastern/Arab American	1%
Native American	0.3%
Pacific Islander	0.3%
Educational Attainment (n=5652)	
Some or no high school	11%
High school graduate or GED	21%
Vocational or technical school	5%
Some college	23%
College graduate or higher	40%
Household Size (n=5355)	
1	24%
2	28%
3	16%
4	15%
5	9%
6 or more	9%

[v] Some questions were multi-select in which respondents could choose more than one answer, therefore, not all percentages total 100% when summed.

Focus Groups and Learning Map Sessions

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 with notetaking by IPHI. In addition to the 52 community input sessions, there were also five focus groups with health care and social service providers hosted by Swedish Covenant Hospital, MacNeal Hospital, and South Shore Hospital. **Figure 5** lists all of the focus group and learning map session host organizations.

Figure 7. List of Focus Group and Learning Map Session Host Organizations

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

Community leader and provider focus groups

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

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 forty people. Most focus groups were 90 minutes long with an average of 10 participants. A trained facilitator moderated each session and was joined by a notetaker who audio-recorded the session while typing notes and observations on a laptop. Recordings were stored securely on a server at IPHI and not shared due to the use of first names during focus groups. No names were included in any version of the written notes and other potentially identifying details were redacted from the notes. The full-length audio-recordings were reviewed, and codes/sub-codes created. Themes and contrasting thoughts or opinions were highlighted. The software Dedoose 8.1.8 was used to identify and analyze cross-group codes.

Community input from all 52 community input sessions (focus groups and learning map sessions) was combined and included in the assessment, along with input from five provider focus groups.

Forces of Change Assessment

This 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. 122 respondents representing 86 organizations in Chicago and Suburban Cook County responded to an online survey between November 2018 and January 2019. The Healthy Chicago Partnership members discussed and interpreted the survey responses at a February 2019 meeting. The discussion identified the following cross-cutting forces (a more detailed report will be released by CDPH and CCDPH):

Overarching threats:

- Inequities in funding for projects and services in high hardship communities
- Racism: institutional, interpersonal, and internalized
- No/limited trust in all levels of government/system/health care system
- Lack of diversity in representation and decision making
- Policies that penalize lower-income individuals
- Lack of comprehensive, evidence-based systems approach

Overarching strengths/opportunities:

- Opportunity to devise equitable policies
- Interest in collaboration across sectors/services
- Increased awareness about intersection of health and root causes of health, including workforce development, education, built environment
- Leveraging community benefits requirements in other sectors that can be directed to equity and health in high hardship communities
- Increased access to data for use with evidence-based and evidence-informed decisions
- Integration of health and human services care teams
- Increased diversity in organizations

Health Equity Capacity Assessment

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 5-6 questions for each of the Ten 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. (Findings from this assessment will be available later this spring.)

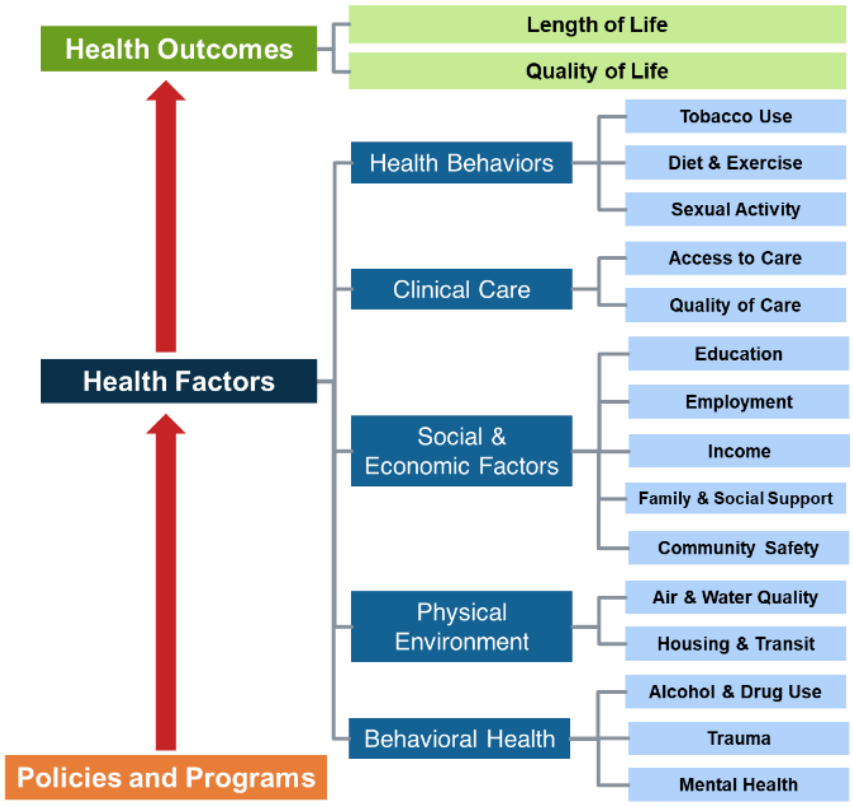
Secondary Data

Epidemiologists from CCDPH and CDPH have been invaluable partners in identifying, compiling, and analyzing secondary data for the CHNA. IPHI and the Alliance for Health Equity steering committee worked with CDPH and CCDPH to select a common set of indicators based on an adapted version of the County Health Rankings and Roadmaps Model **(Figure 8)**:

- Social and Structural Determinants of Health
- Physical Environment
- Health Behaviors
- Health Care and Clinical Care
- Behavioral Health - Mental Health and Substance Use
- Health Outcomes - Birth Outcomes, Morbidity, and Mortality

The Alliance for Health Equity made three main adaptations to the County Health Rankings and Roadmaps model, in keeping with local priorities: (1) including behavioral health as a major category of data, (2) applying a racial equity analysis to data where possible, and (3) including additional child and youth data where available.

Figure 8. Adapted County Health Rankings and Roadmaps Framework



Modified from County Health Rankings and Roadmaps, 2014.

The CHNA and steering committees also decided to investigate 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 CHNA were compiled from a range of sources **(Figure 9)**.

Figure 9. CHNA data and information sources

Secondary data 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 including Greater Chicago Food Depository and Voices of Child Health in Chicago
- Hospitalization and emergency department rates (COMPdata) 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 Health; Centers for Disease Control and Prevention; 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

Data System Needs and Limitations

The Alliance for Health Equity made substantial efforts to comprehensively collect and analyze assessment data. However, there are limitations to consider when reviewing findings.

- Population health and demographic data are often delayed in their release, so data is presented for the most recent years available for any given data source.
- There is variability in the geographic level at which data sets are available ranging from census tract to statewide or national geographies. Whenever possible, the most relevant localized data is reported.
- Due to variations in geographic boundaries, population sizes, and data collection techniques for suburban and city communities, some datasets are not available for the same time spans or at the same level of localization throughout the county.
- There are persistent gaps in data systems for certain community health issues such as mental health and substance use disorders (youth and adults), crime reporting, environmental health, and education outcomes.

Alliance for Health Equity partners are investigating strategies for addressing data system gaps in future implementation and assessment processes, and data systems needs were a priority identified through both the Forces of Change Assessment and the Health Equity Capacity Assessment that were conducted in partnership with local health departments.

Alliance for Health Equity – Implementation Activities and Accomplishments 2016-2018

The Alliance for Health Equity committees and workgroups have initiated a number of collaborative implementation initiatives based on member hospitals' and health departments' 2015 and 2016 CHNA priorities. **Appendix D** provides details on the Alliance for Health Equity's implementation activities and accomplishments for 2016-2018.

Community Description for Cook County

Cook County, Illinois, comprises 130 suburban municipalities and 77 Chicago community areas. **Figures 10a-10b** can be referenced when viewing maps throughout the CHNA report, and alpha-numeric coordinates allow for localization of individual communities. As of 2016, the estimated population for Cook County is 5,211,263, with 2,716,450 in Chicago and 2,494,813 in Suburban Cook County.

Figure 10a. Reference Map

The 232 **Suburban Cook municipalities** and **Chicago Community Areas** included in the CHNA are provided below. These individual geographies can be located on the map using their reference number and alpha-numeric coordinate.

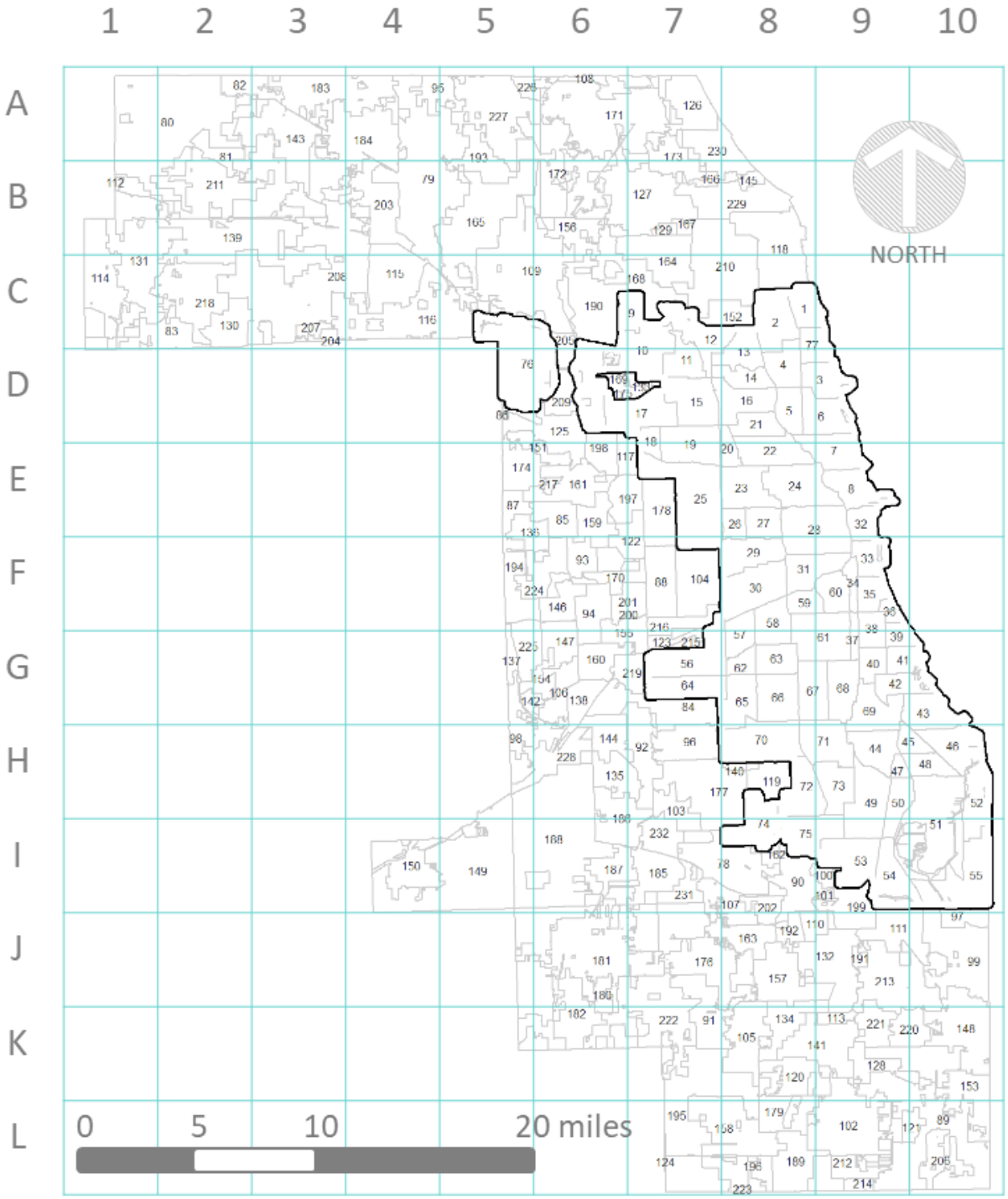


Figure 10b. Reference Map

The 232 **Suburban Cook municipalities** and **Chicago Community Areas** [vi] included in the CHNA are provided below. These individual geographies can be located on the map using their reference number and alpha-numeric coordinate.

D8 - Albany Park, 14
F8 - Archer Heights, 57
F9 - Armour Square, 34
H8 - Ashburn, 70
H9 - Auburn Gresham, 71
E7 - Austin, 25
H9 - Avalon Park, 45
D8 - Avondale, 21
D7 - Belmont Cragin, 19
H8 - Beverly, 72
F9 - Bridgeport, 60
F8 - Brighton Park, 58
H9 - Burnside, 47
H10 - Calumet Heights, 48
H9 - Chatham, 44
G8 - Chicago Lawn, 66
G7 - Clearing, 64
F9 - Douglas, 35
D7 - Dunning, 17
E8 - East Garfield Park, 27
H10 - East Side, 52
C8 - Edgewater, 77
C7 - Edison Park, 9
G9 - Englewood, 68
C7 - Forest Glen, 12
G9 - Fuller Park, 37
G8 - Gage Park, 63
G7 - Garfield Ridge, 56
F9 - Grand Boulevard, 38
G9 - Greater Grand Crossing, 69
I10 - Hegewisch, 55
E8 - Hermosa, 20
E8 - Humboldt Park, 23
G9 - Hyde Park, 41
D8 - Irving Park, 16
D7 - Jefferson Park, 11
G9 - Kenwood, 39
D9 - Lakeview, 6
E9 - Lincoln Park, 7
D8 - Lincoln Square, 4
E8 - Logan Square, 22
E9 - Loop, 32
F8 - Lower West Side, 31
F8 - McKinley Park, 59
D7 - Montclare, 18
I8 - Morgan Park, 75
I8 - Mount Greenwood, 74
E9 - Near North Side, 8
F9 - Near South Side, 33
E8 - Near West Side, 28
G9 - New City, 61
D8 - North Center, 5
F8 - North Lawndale, 29
C8 - North Park, 13
C7 - Norwood Park, 10
F9 - Oakland, 36
D5 - O'Hare, 76
D7 - Portage Park, 15
H9 - Pullman, 50
I9 - Riverdale, 54
C8 - Rogers Park, 1
H9 - Roseland, 49
H10 - South Chicago, 46
I10 - South Deering, 51
F8 - South Lawndale, 30
G10 - South Shore, 43
D9 - Uptown, 3
H9 - Washington Heights, 73
G9 - Washington Park, 40
G8 - West Elsdon, 62
G8 - West Englewood, 67
E8 - West Garfield Park, 26
G8 - West Lawn, 65
I9 - West Pullman, 53
C8 - West Ridge, 2
E8 - West Town, 24
G9 - Woodlawn, 42

I7 - Alsip village, 78
B4 - Arlington Heights village, 79
A2 - Barrington Hills village, 80
A2 - Uninc Barrington township, 81
A2 - Barrington village, 82
C2 - Bartlett village, 83
G7 - Bedford Park village, 84
E6 - Bellwood village, 85
D5 - Bensenville village, 86
E5 - Berkeley village, 87
F7 - Berwyn, 88
L10 - Uninc Bloom township, 89
I8 - Blue Island, 90
K7 - Uninc Bremen township, 91
H7 - Bridgeview village, 92
F6 - Broadview village, 93
F6 - Brookfield village, 94
A4 - Buffalo Grove village, 95
H7 - Burbank, 96
I10 - Burnham village, 97
H5 - Burr Ridge village, 98
J10 - Calumet City, 99
I9 - Calumet Park village, 100
I9 - Uninc Calumet township, 101
L9 - Chicago Heights, 102
H7 - Chicago Ridge village, 103
F7 - Cicero, 104
K8 - Country Club Hills, 105
G6 - Countryside, 106
I8 - Crestwood village, 107
A6 - Deerfield village, 108
C5 - Des Plaines, 109
J8 - Dixmoor village, 110
J9 - Dolton village, 111
B1 - East Dundee village, 112
K9 - East Hazel Crest village, 113
C1 - Elgin, 114
C4 - Uninc Elk Grove township, 115
C4 - Elk Grove Village, 116
E6 - Elmwood Park village, 117
B8 - Evanston, 118
H8 - Evergreen Park village, 119
K8 - Flossmoor village, 120
L9 - Ford Heights village, 121
F6 - Forest Park village, 122
G7 - Forest View village, 123
L7 - Frankfort village, 124
D6 - Franklin Park village, 125
A7 - Glencoe village, 126
B7 - Glenview village, 127
K9 - Glenwood village, 128
B7 - Golf village, 129
C2 - Hanover Park village, 130
C1 - Uninc Hanover township, 131
J9 - Harvey, 132
D7 - Harwood Heights village, 133
K8 - Hazel Crest village, 134
H6 - Hickory Hills, 135
E5 - Hillside village, 136
G5 - Hinsdale village, 137
G6 - Hodgkins village, 138
B2 - Hoffman Estates village, 139
H8 - Hometown, 140
K8 - Homewood village, 141
G5 - Indian Head Park village, 142
A3 - Inverness village, 143
H6 - Justice village, 144
B8 - Kenilworth village, 145
F6 - La Grange Park village, 146
G6 - La Grange village, 147
K10 - Lansing village, 148
I5 - Uninc Lemont township, 149
I4 - Lemont village, 150
E6 - Uninc Leyden township, 151
C8 - Lincolnwood village, 152
K10 - Lynwood village, 153
G6 - Uninc Lyons township, 154
F6 - Lyons village, 155
B6 - Uninc Maine township, 156
J8 - Markham, 157
L7 - Matteson village, 158
E6 - Maywood village, 159
G6 - McCook village, 160
E6 - Melrose Park village, 161
I8 - Merrionette Park village, 162
J8 - Midlothian village, 163
C7 - Morton Grove village, 164
B5 - Mount Prospect village, 165
B7 - Uninc New Trier township, 166
B7 - Uninc Niles township, 167
C7 - Niles village, 168
D6 - Norridge village, 169
F6 - North Riverside village, 170
A6 - Northbrook village, 171
B6 - Uninc Northfield township, 172
A7 - Northfield village, 173
E5 - Northlake, 174
D6 - Uninc Norwood Park township,175
J7 - Oak Forest, 176
H7 - Oak Lawn village, 177
E7 - Oak Park village, 178
L8 - Olympia Fields village, 179
J6 - Orland Hills village, 180
J6 - Orland Park village, 181
K6 – Uninc Orland township, 182
A3 – Uninc Palatine township, 183
A4 - Palatine village, 184
I7 - Palos Heights, 185
H6 - Palos Hills, 186
I6 - Palos Park village, 187
I6 - Uninc Palos township, 188
L7 - Park Forest village, 189
C6 - Park Ridge, 190
J9 - Phoenix village, 191
J8 - Posen village, 192
A5 - Prospect Heights, 193
F5 - Uninc Proviso township, 194
L7 - Uninc Rich township, 195
L8 - Richton Park village, 196
E6 - River Forest village, 197
E6 - River Grove village, 198
I9 - Riverdale village, 199
F6 - Uninc Riverside township, 200
F6 - Riverside village, 201
I8 - Robbins village, 202
B4 - Rolling Meadows, 203
C3 - Roselle village, 204
C6 - Rosemont village, 205
L10 - Sauk Village, 206
C3 - Uninc Schaumburg township, 207
C3 - Schaumburg village, 208
D6 - Schiller Park village, 209
C7 - Skokie village, 210
B2 - South Barrington village, 211
L9 - South Chicago Heights village, 212
J9 - South Holland village, 213
L9 - Steger village, 214
G7 - Uninc Stickney township, 215
F7 - Stickney village, 216
E6 - Stone Park village, 217
C2 - Streamwood village, 218
G7 - Summit village, 219
K9 - Uninc Thornton township, 220
K9 - Thornton village, 221
K7 - Tinley Park village, 222
L8 - University Park village, 223
F5 - Westchester village, 224
G5 - Western Springs village, 225
A5 - Uninc Wheeling township, 226
A5 - Wheeling village, 227
H6 - Willow Springs village, 228
B8 - Wilmette village, 229
A7 - Winnetka village, 230
I7 - Uninc Worth township, 231
I7 - Worth village, 232

[vi] Where data is provided for the O'Hare community area, it represents the approximately 16,000 people who live within that community area to the east of the airport.

Population composition

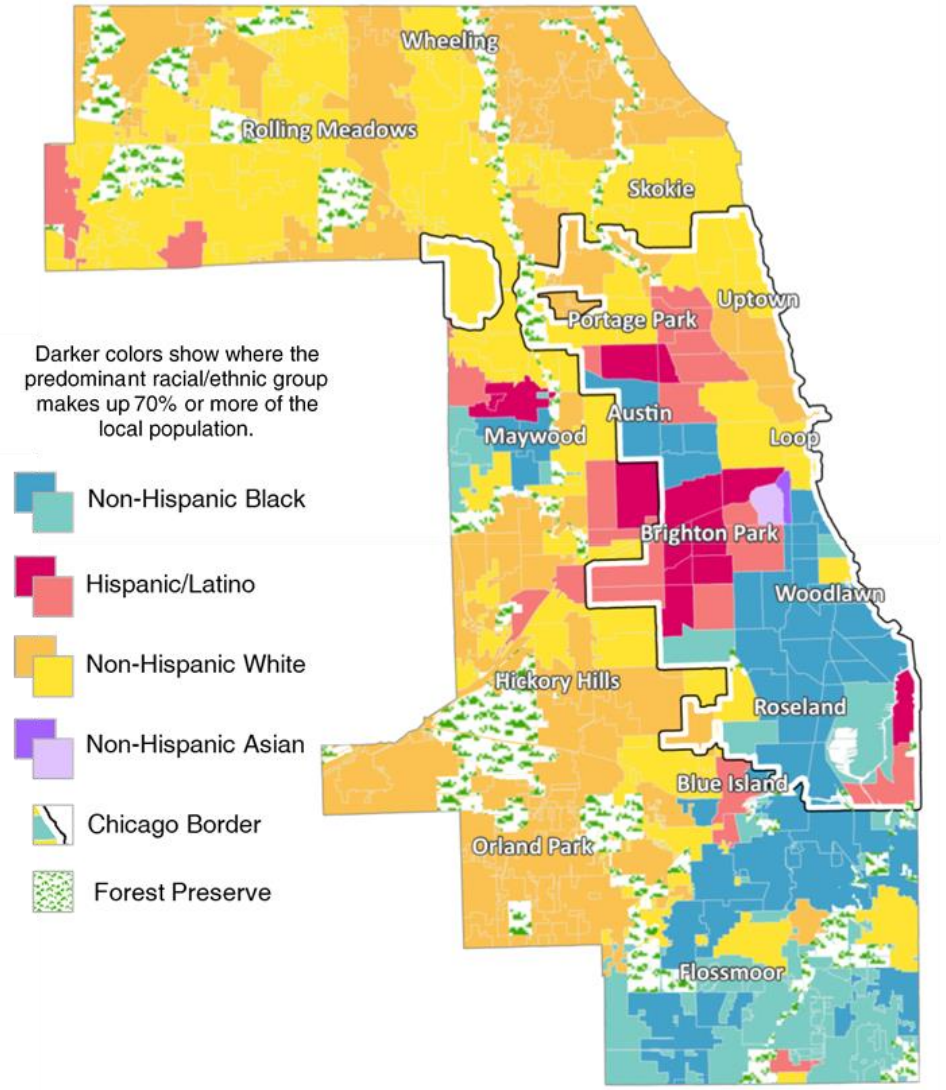
Age and gender

U.S. Census Bureau population estimates for 2016 indicate that approximately 22% of the population in Cook County is under 18 years old and 14% is age 65 or older (U.S. Census Bureau, 2016). The percentage of individuals identifying as male or female in Cook County is approximately equal (U.S. Census Bureau, 2016). Data for the transgender and gender non-conforming populations in Cook County is limited. Based on preliminary analyses of Healthy Chicago Survey data, the Chicago Department of Public Health estimates that 10,500 adults living in Chicago identify as transgender or gender non-conforming.

Race and ethnicity

Figure 11 shows estimates of the predominant racial and ethnic groups within communities across Cook County. In 2017, the U.S. Census Bureau estimated that 42% of the population in Cook County identified as non-Hispanic white, 24% identified as non-Hispanic African American/black, 8% identified as non-Hispanic Asian, 2% identified as two or more races, and 26% identified as Hispanic/Latinx (U.S. Census Bureau, 2017). Racial and ethnic segregation in Cook County is well above national median levels (Metropolitan Planning Council, 2017). The consequences of this segregation are discussed further in the Overview of Health Inequities section.

Figure 11. Predominant racial and ethnic groups in Cook County, Illinois (2016, 5-year estimates)

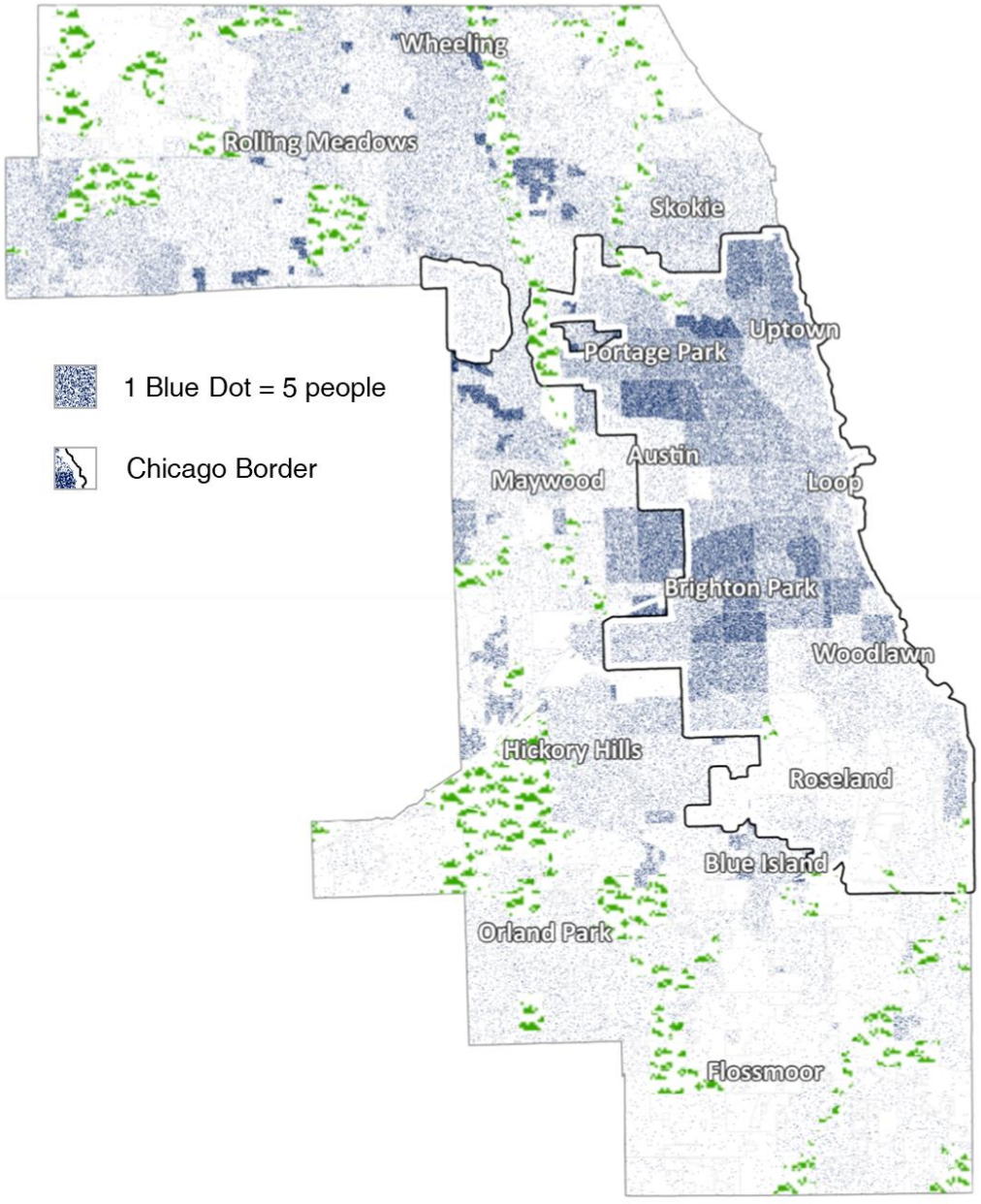


U.S. Census Bureau, American Community Survey, 2016 5-year estimates

Immigration

An estimated 21% of Chicago residents and 20% of Suburban Cook County 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 Cook County, there are several communities with large concentrations of individuals that have limited English Proficiency **(Figure 12)**. 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). In addition, individuals with both limited English proficiency and low health literacy reported the highest prevalence of poor health (45%), followed by limited English proficiency only (41%), low health literacy only (22%), and neither (14%) (Sentell & Braun, 2012). The study indicates that English proficiency has the potential to significantly impact health outcomes within immigrant communities.

Figure 12. Limited English proficiency – number of foreign-born individuals over age 5 that speak English less than "very well" in Cook County, Illinois (2016, ACS 5-Year Estimates)



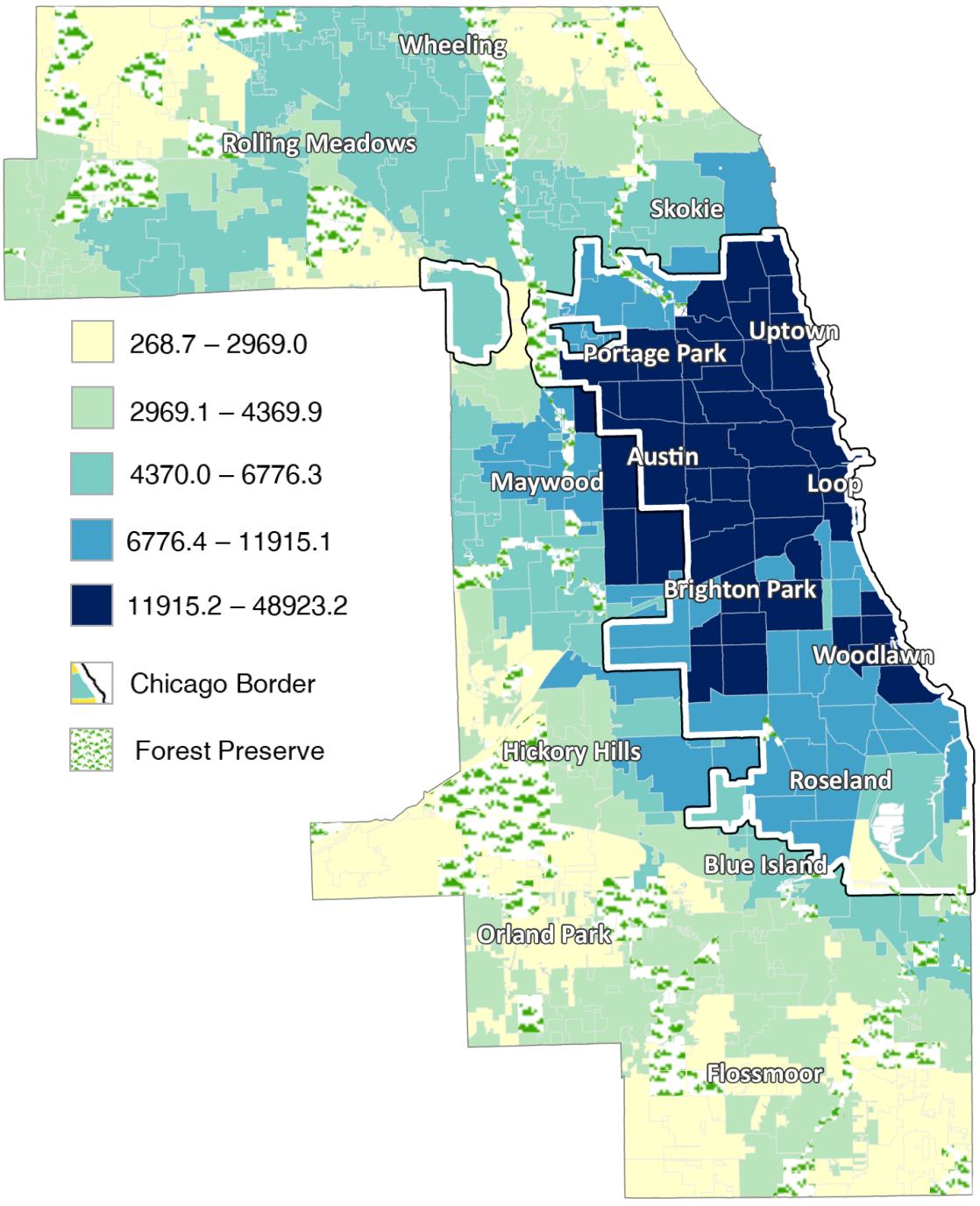
U.S. Census Bureau, American Community Survey, 2016 5-year estimates

Population trends

Population density

Figure 13 shows population density across the county as of 2016. **Figures 14 and 15** show areas of population growth and population loss between 2010 and 2016. The most densely populated communities are on the North, West, Southwest, and Southeast Sides of the City of Chicago and West suburban communities directly adjacent to the city (Cicero, Berwyn, Oak Park, and Elmwood Park).

Figure 13. Population density - persons per square mile, in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2016 5-year estimates

Population shifts

Since 2000, Cook County as a whole has continued to experience a loss in population. However, the majority of population loss occurred in Chicago, while suburban Cook County's population has grown by almost one percent. While growth has been modest, there have been substantial changes in the racial and ethnic make-up of Cook County.

Cook County is experiencing three trends that are also being seen nationally:

- African American/black households moving to suburbs, smaller cities, and/or southern states;
- suburban immigrant destinations; and
- suburbanization of poverty (Lacy, 2016).

Cook County is experiencing what some call "reverse migration" with African American/blacks leaving urban areas for the suburbs. Between 2000-2010, African American/black population in Chicago decreased by over 15% and increased 18% in Suburban Cook County **(Figure 14)**.

Figure 14. Percent change in racial and ethnic composition of Cook County, Illinois (2000-2010)

	Total Population	Non-Hispanic African American/black	Non-Hispanic Asian	Hispanic/Latinx	Non-Hispanic white
Cook County	-3%	-8%	+23%	+16%	-11%
Chicago	-7%	-17%	+15%	+3%	-6%
Suburban Cook County	+1%	+18%	+31%	+47%	-14%

U.S. Census Bureau, 2000-2010

Adding to the reverse migration phenomenon, more white households are moving into urban centers. Overall, there has been a 10% decrease of white populations in Cook County. However, the population loss is not consistent across the area. Suburban Cook County had more than double the decrease in non-Hispanic white populations (14%) compared to Chicago (6%). Along with most of the nation, Cook County experienced an increase in the Hispanic/Latinx populations between 2000 and 2010, and the increase was greatest in Suburban Cook County (47%).

Other demographic shifts are not only increasing the size of priority populations in Suburban Cook County, but also shifting the distribution of the social determinants of health geographically. Between 2000-2010, Chicago saw very little net change in poverty; however, Suburban Cook County saw dramatic rises in its poverty levels with child poverty increasing by over 75% between 2000 and 2010 **(Figure 15)**. Because social determinants of health such as poverty and lack of opportunity drive health outcomes, ongoing population shifts may define future workforce needs and demands for care in priority populations.

Figure 15. Percent change in poverty within Cook County, Illinois (2000-2010)

	Persons in Poverty	Children in Poverty
Cook County	+20%	+13%
Chicago	+7%	-3%
Suburban Cook County	+66%	+77%

U.S. Census Bureau, 2000-2010

Additional demographic information about priority populations within Cook County is presented in **Figure 16.**

Figure 16. Demographic Characteristics of Priority Populations in Cook County

Priority Population	Demographic Characteristics
Homeless Individuals and Families	In 2018, an estimated 16,626 households entered homelessness in Chicago about 5% of these households had previously been through the Housing Management Information System (HMIS). In 2017, an estimated 2,810 homeless individuals were accessing shelter services in Suburban Cook County (Alliance to End Homelessness in Suburban Cook County, 2019; Corporation for Supportive Housing, 2019)
Justice-Involved	In December 2018, an estimated 39,915 individuals were in Illinois prisons. Since 2015, an estimated 40% of individuals released from prison have returned to the prison system. (Illinois Department of Corrections, 2018)
People Living with Mental Health Conditions	An estimated 16% of Illinois residents are living with a mental illness. (Mental Health America, 2015)
People Living with Disabilities	An estimated 10% Chicago residents are living with a disability. An estimated 10% of Suburban Cook County residents are living with a disability. (U.S. Census Bureau, American Community Survey, 2012-2016)
Older Adults Living with Disabilities	An estimated 39% of Chicago residents over the age of 65 are living with a disability. Additionally, an estimated 33% of Suburban Cook County residents over the age of 65 are living with a disability. (U.S. Census Bureau, American Community Survey, 2012-2016)
Immigrants and Refugees	An estimated 21% of Chicago residents are foreign-born individuals. Moreover, an estimated 20% of Suburban Cook County residents are foreign-born individuals. “Foreign-born individuals” is a term used by the U.S. Census to describe anyone who was not a U.S. citizen at birth. Analysis from 2011 estimated a population of 307,000 undocumented immigrants in Cook County. (U.S. Census Bureau, American Community Survey, 2012-2016)
LGBTQ+	An estimated 8% of Chicago adults identify as on the LGBTQ+ spectrum. Approximately 10,500 adults living in Chicago identify as transgender or gender non-conforming based on data from the Healthy Chicago Survey. In Illinois, approximately 4% of the population identifies as lesbian, gay, bisexual, or transgender. (Movement Advancement Project, n.d.)
Unemployed and Underemployed	In both Chicago and Suburban Cook County, there is a 10% unemployment rate, with much higher rates in some communities. As of 2015, 21,518 youth ages 16-24 in Cook County were out of work, out of school, and without a high school diploma. Additional information about unemployment and underemployment can be found in the social determinants of health section. (U.S. Census Bureau, American Community Survey, 2012-2016)
Uninsured	An estimated 10% of Chicago residents and 12% of Suburban Cook County residents are uninsured, with much higher rates in some communities. Additional information about insurance coverage is included in the Access to Care section. (U.S. Census Bureau, American Community Survey, 2012-2016).
Veterans and Former Military	An estimated 4% of Chicago residents and 5% of Suburban Cook County residents are veterans. (U.S. Census Bureau, American Community Survey, 2012-2016)
Youth	Approximately 22% of the population in Cook County is under 18 years old.

Community Cohesion as an Asset

Community cohesion, also known as social cohesion, refers to the strength of relationships and a sense of solidarity among members of a community (Kawachi & Berkman, 2000). Community cohesion is considered an important social determinant of health and there are numerous examples of how community cohesion can positively impact health.

- Community cohesion can decrease the chances of developing PTSD or reduce the severity of PTSD symptoms among individuals living in neighborhoods with high levels of crime (Gapen et al., 2011).
- A 2004 study found that women living in high-crime neighborhoods who had higher levels of social connection to their neighbors reported better overall health compared to women with lower levels of social connection (Linares, 2004).
- Greater community cohesion is linked to better social and physical outcomes among older adults (Cramm & Nieboer, 2015).
- Community cohesion and collective neighborhood efficacy is a protective factor against poor educational, emotional, and health outcomes among school-aged children in socioeconomically disadvantaged communities (Odgers et al., 2009).
- Community cohesion has been found to strengthen the resilience of community residents in the aftermath of a natural disaster (Hikichi, Aida, Tsuboya, Kondo, & Kawachi, 2016).

Community input collected during the assessment demonstrated that community cohesion is an important asset within the diverse communities of Cook County. Multiple focus groups and 1,779 community survey respondents stated that a shared sense of connection between community members was one of their community's greatest strengths and assets. In addition, several focus groups described community cohesion as an essential component of a healthy community. Focus group participants emphasized that the knowledge and collective power of communities is often an untapped resource that should be solicited, cultivated, and leveraged in order to develop effective solutions to improve the health and well-being of residents.

Priority Community Health Issues

Based on the findings from the collaborative assessment methods, the 2019 Alliance for Health Equity CHNA identifies the following community health priorities.

Figure 17. Priority Community Health Issues, Alliance for Health Equity, Chicago and Suburban Cook County, 2019

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, n.d.-b). 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 health care, 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 government policies such as tax policy, business regulation, public benefits, and health care funding and can, therefore, be addressed through policy interventions; and
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).

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 a*ssigning 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 structures opportunity and assigns value based on how a person looks resulting in conditions that unfairly advantage some and unfairly disadvantage others (American Public Health Association, 2019). 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 several different levels **(Figure 18).**

Figure 18. Levels of individual and systemic racism

INDIVIDUAL-LEVEL RACISM

Internalized Racism lies within individuals. These are our private beliefs and biases about race and racism, influenced by our culture. Internalized racism can take many different forms including racial prejudice toward other people of a different race; internalized oppression, the negative beliefs about oneself by people of color; or internalized privilege, beliefs about superiority or entitlement by white people. An example is a belief that you or others are more or less intelligent, or beautiful, because of your race.	**Interpersonal Racism** occurs between individuals. These are biases that occur when individuals interact with others and their private racial beliefs affect their public interactions. Examples include racial slurs, bigotry, hate crimes, and racial violence.

SYSTEMIC-LEVEL RACISM

Institutional Racism occurs within institutions and systems of power. It is the unfair policies and discriminatory practices of particular institutions (schools, workplaces, etc.) that routinely produce racially inequitable outcomes for people of color and advantages for white people. Individuals within institutions take on power of the institution when they reinforce racial inequities. An example is a school system that concentrates people of color in the most overcrowded schools, the least-challenging classes, and the least-qualified teachers, resulting in higher dropout rates and disciplinary rates compared with that of white students.	**Structural Racism** is racial bias among institutions and across society. It involves the cumulative and compounding effects of an array of societal factors including the history, culture, ideology, and interactions of institutions and policies that systematically privilege white people and disadvantage people of color. An example is the overwhelming depictions of people of color as criminals in mainstream media, which can influence how various institutions and individuals treat people of color with suspicion when they are shopping, traveling, or seeking housing and employment—all of which can result in discriminatory treatment and unequal outcomes.

(Race Forward, 2014)

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 (J. Powell, 2013).

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

Federal and local policies that established racial and ethnic segregation in Chicago and Suburban Cook County 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 metros (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 African Americans (Metropolitan Planning Council, 2017).

The study provided several examples of the impacts that could be achieved by reducing the Chicago region's economic, racial, and ethnic segregation to national median levels:

- incomes for African Americans in the region would rise by an average of $2,982 per person per year, which equates to an overall increase of $4.4 billion in additional income in our region;
- the Chicago region's homicide rate would drop by 30 percent, the equivalent of saving 229 lives in 2016;
- the lives saved by a decrease in homicide rates have a projected earning potential of $170 million over their lifetimes with an estimated savings of $65 million in law enforcement and $228 million in criminal justice costs;
- decreased homicide rates would lead to an estimated $6-billion real estate value increase over the long-term; and
- eighty-three thousand more people in the Chicago region would have bachelor's degrees—in other words, the Chicago region is losing out on some $90 billion in total lifetime earnings as a result of our education gap (Metropolitan Planning Council, 2017).

Achieving Racial Equity

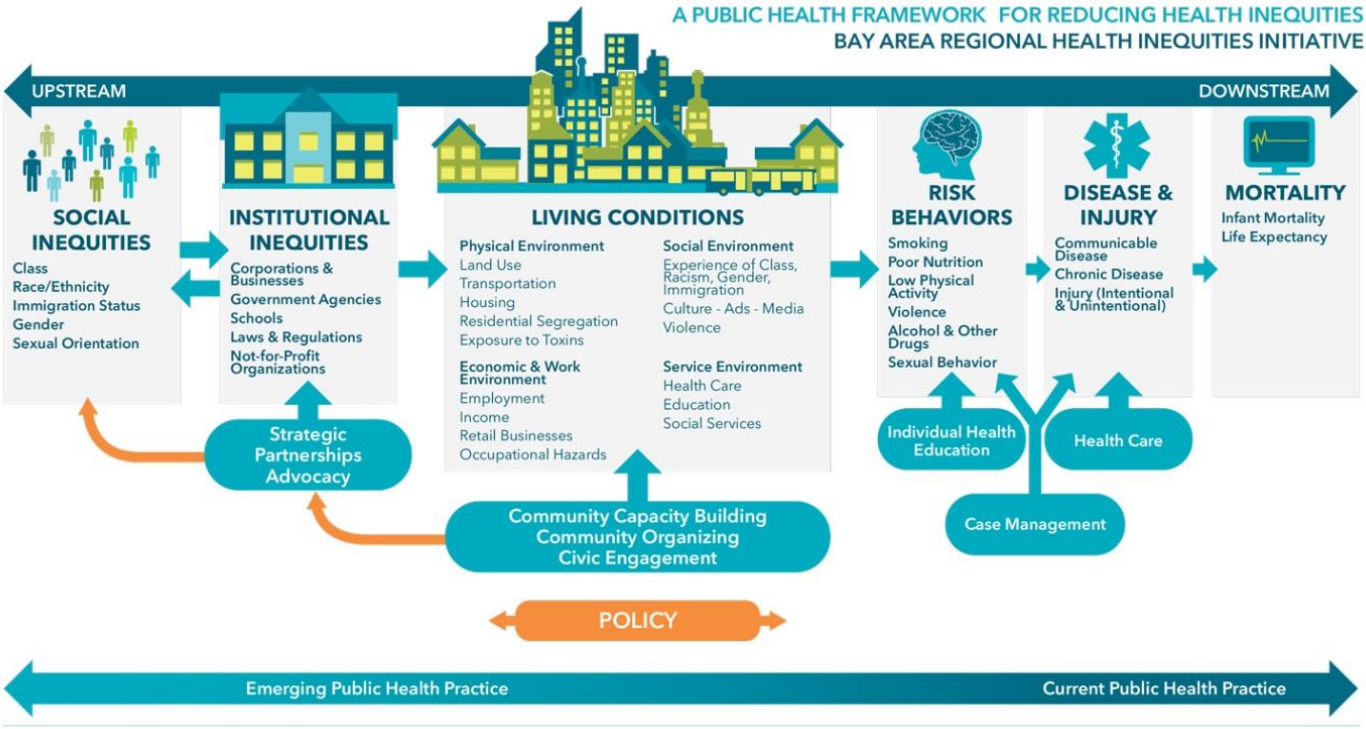
Racial equity is reached when race and ethnicity no longer determine an individual or community's socioeconomic and health outcomes (Center for Social Inclusion, n.d.). Racial equity is achieved when those most impacted by structural and institutional inequity are meaningfully involved in the creation and implementation of institutional policies and practices that impact their lives (Center for Social Inclusion, n.d.). It is important to note that equality and equity are different **(Figure 19)**. Health inequities involve more than unequal access to the resources needed to maintain or improve health (World Health Organization, n.d.-a).

Figure 19. The difference between equality and equity

(TEQuity and Robert Wood Johnson Foundation, 2018)

Figure 20 provides a framework of how addressing social and institutional inequities can lead to differences in the physical and social environments impacting health behavior, disease and injury, and mortality.

Figure 20. A Public Health Framework for Reducing Health Inequities



(BARHII Bay Area Regional Health Inequities Initiative, 2015)

Examples of Health Inequities

As previously mentioned, social determinants of health often vary by geography, sexual orientation, gender identity, age, race, ethnicity, immigration status, disability status, socioeconomic status, education level, and military status. This leads to significant differences in morbidity and mortality between these groups. Many of the inequities leading to differences in health outcomes are more pronounced in Chicago and Suburban Cook County than they are for the nation overall. This section highlights some examples of the geographic and population-specific inequities for communities nationwide and in Cook County.

Inequities in Access to Health Care

Access to health care is a complex and multifaceted concept that includes dimensions of proximity; affordability; availability, convenience, accommodation, and reliability; quality and acceptability; openness, cultural responsiveness, appropriateness and approachability.

One of the strongest and most researched causes of inequities in health care and health outcomes is income inequality. Around the world, wealthy individuals have better health than low-income individuals. However, the United States has one of the world's largest health gaps between its wealthiest and poorest citizens (Hero, Zaslavsky, & Blendon, 2017). In a study of 32 middle- and high-income nations, the United States ranked 30th in health outcome disparities between the richest and poorest with only Chile and Portugal fairing worse (Hero et al., 2017). Low-income communities historically have less physical access to hospitals, clinics, doctor offices, skilled professionals, medical technology, essential medicine, and proper procedures to deal with illness and disease (A. Powell, 2016). Additionally, quality of health care services can vary greatly between communities.

Inequalities in health insurance are another factor leading to significantly worse health outcomes in low-income communities (A. Powell, 2016). Health insurance is the primary way in which individuals access the U.S. health care system, with 53% of Illinois residents receiving coverage through employer sponsored plans. However, one in five low-income Americans still go without care because of cost compared to 1 in 25 high-income Americans (Amadeo, 2019). Many of the working poor do not qualify for Medicaid and are often employed in professions that do not offer employer benefits. In addition, even with health care marketplace and other subsidies, co-pays and deductibles remain cost-prohibitive for low-income families. Other factors, such as having an undocumented status further impact an individual's ability to obtain health care coverage. Delays in seeking needed health care frequently lead to the worsening of health problems and an increased need for expensive emergency care which can further increase poverty rates. A recent study found that medical expenses had pushed 4-million people below the federal poverty line (Christopher, Himmelstein, Woolhandler, & McCormick, 2018). These issues highlight that providing access to private or public health insurance will not completely eliminate disparities in access to health care and health outcomes and that solutions that address the underlying social determinants of access are also needed.

Community Input
Community input gathered through focus groups during the assessment highlighted several inequities in access to health care and health care quality. The most commonly mentioned barriers to accessing health care included:

- provider shortages;
- the 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;
- the high cost of some private insurance plans;
- the high cost of deductibles and co-pays;
- a lack of knowledge about available insurance and benefit options; and
- diminishing access to services that assist individuals with obtaining coverage.

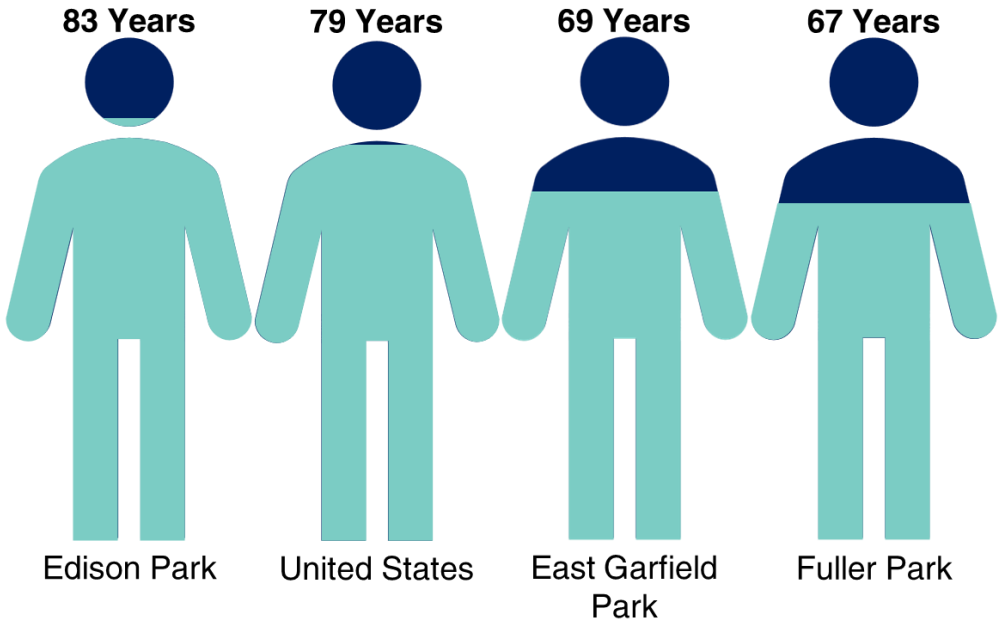
Additional community input related to inequities in health care is presented in the Clinical Care section.

Inequities in Mortality

There are profound differences in life expectancy and mortality between different communities in Chicago and Suburban Cook County.

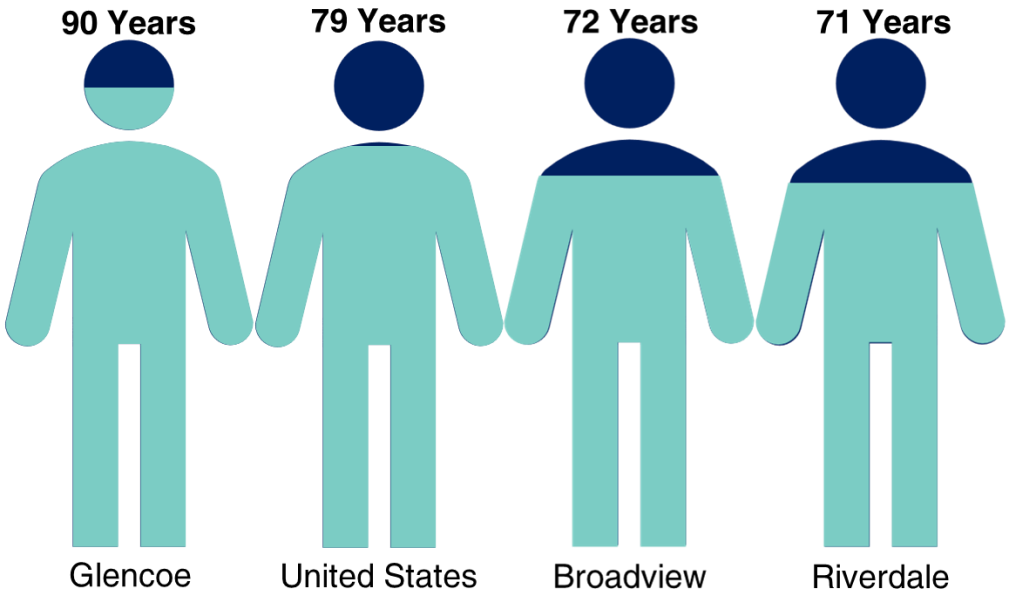
- In 2016, national life expectancy at birth was highest for Hispanic persons at 81.8 years, compared to 78.5 years for non-Hispanic whites and 74.8 for non-Hispanic African American/blacks (National Center for Health Statistics, 2017). In Chicago, the life expectancy for non-Hispanic African American/blacks was the lowest (71.9 years) compared to non-Hispanic whites (80.2 years), Hispanic/Latinx (80.7 years), and Asians (83 years).
- Life expectancy in Chicago and Suburban Cook County has significant geographic variation **(Figures 18-19)**. Communities with lower life expectancies are concentrated in the west and south regions of the county within areas of high poverty **(Figure X)**.
- The gap between Chicago community areas with the highest and lowest life expectancies is 16 years. In Suburban Cook County, the gap between municipalities with the highest and lowest life expectancies is 19 years **(Figures 18-19)**.

Figure 21. Comparisons of life expectancy in Chicago



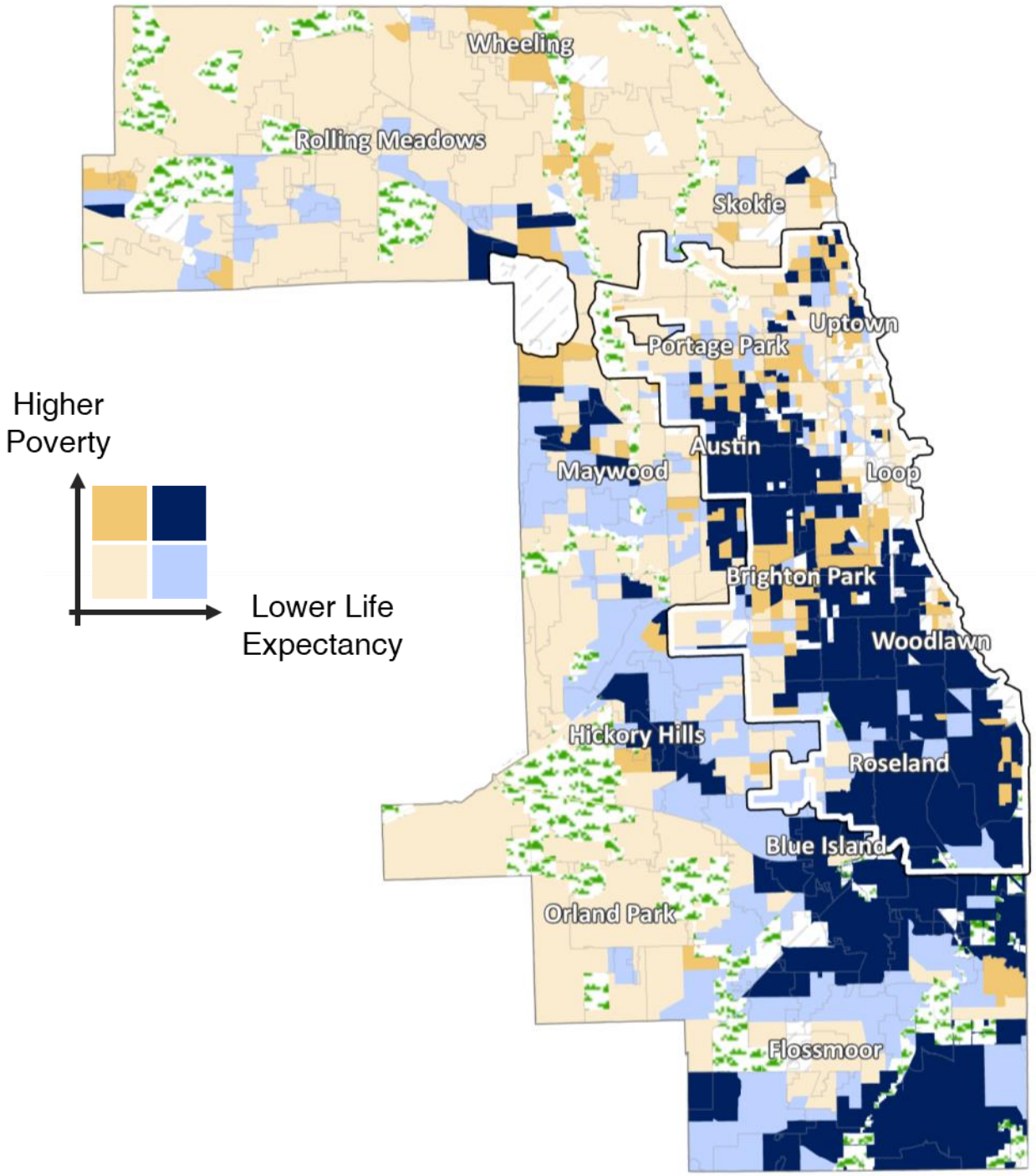
Illinois Department of Public Health, Division of Vital Records, 2012-2016

Figure 22. Comparisons of life expectancy in Suburban Cook County



Illinois Department of Public Health, Division of Vital Records, 2016-2017

Figure 23. Life expectancy at birth vs. neighborhood poverty rate
Life expectancy (2016 estimates) in Cook County ranges from 60 to 90 years. This map 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 lower or higher than 15% of households in a neighborhood being at or below the federal poverty line.

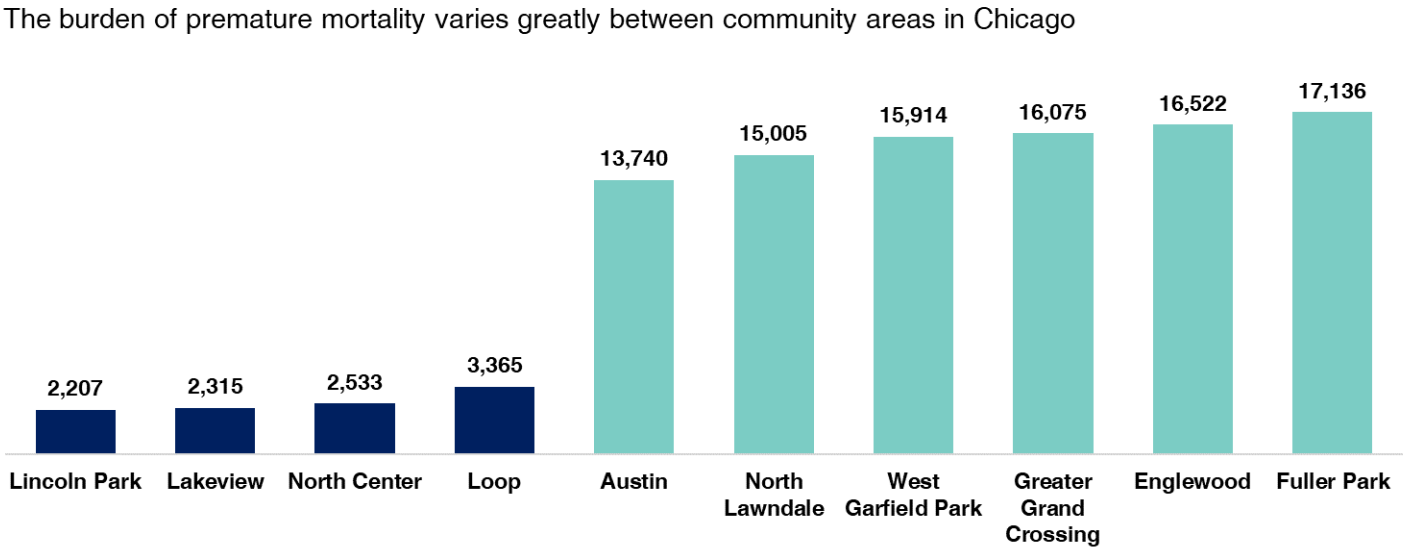


Illinois Department of Public Health, Division of Vital Records, 2016;
U.S. Census Bureau, American Community Survey, 2016 5-year estimates

Inequities in Years of Potential Life Lost (YPLL)

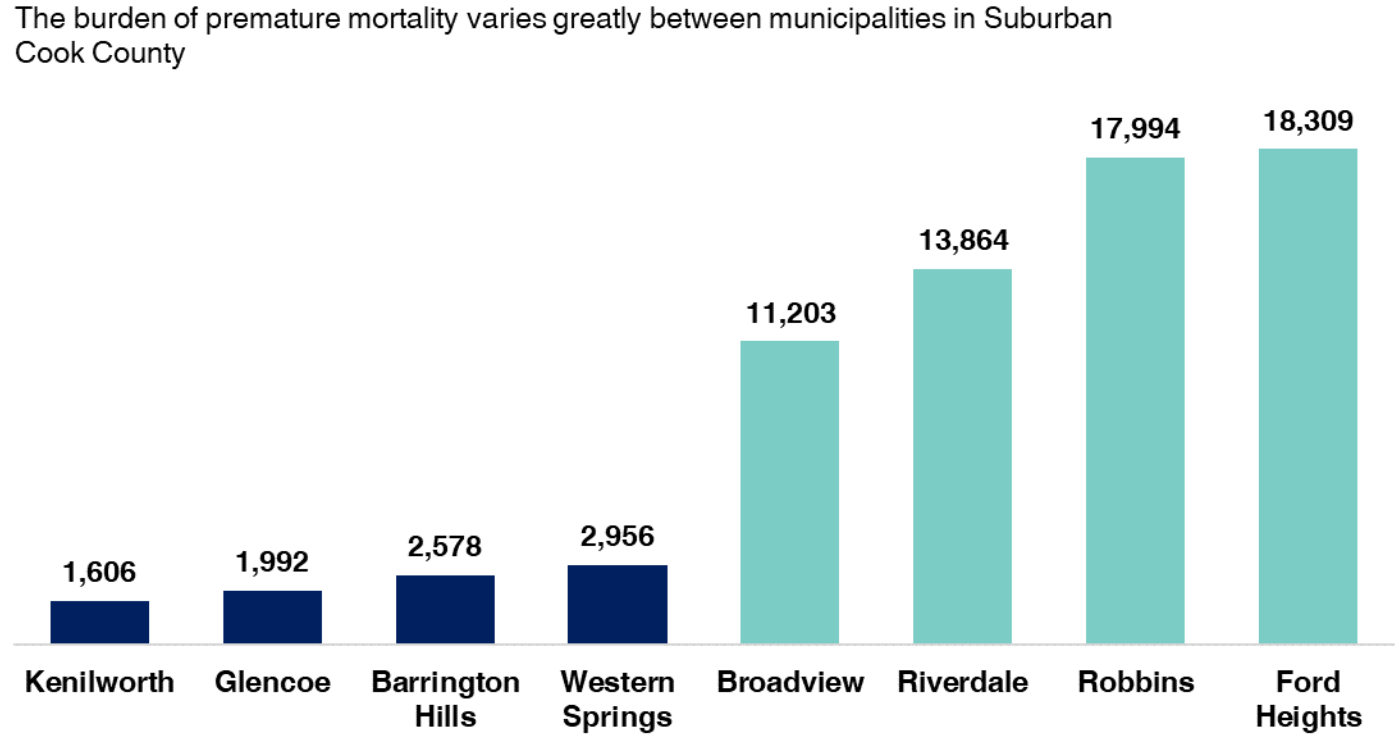
Years of Potential Life Lost (YPLL) is a community-level measure that estimates the time community members would have lived had they not died prematurely (Gardner & Sanborn, 1990). YPLL is used to help quantify social and economic loss due to premature death (Gardner & Sanborn, 1990). Like life expectancy, YPLL varies greatly between communities in Chicago and Suburban Cook County with communities in the south region having the greatest burden of premature mortality **(Figures 24-25)**. Although communities with the highest rates of premature mortality suffer significant social and economic loss, inequities in YPLL diminish the economic and social vitality of the city and county overall.

Figure 24. Years of Potential Life Lost – Comparison of community areas in Chicago



Illinois Department of Public Health, Division of Vital Records, 2012-2016

Figure 25. Years of Potential Life Lost – Comparison of municipalities in Suburban Cook County



Illinois Department of Public Health, Division of Vital Records, 2012-2016

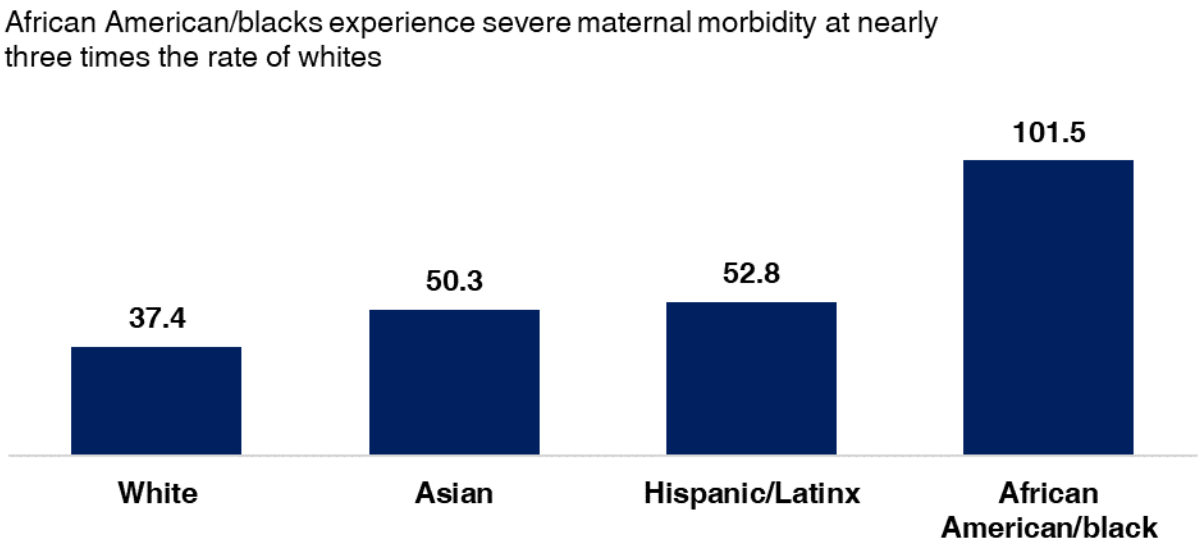
Inequities in Maternal and Child Health

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 health care services (Illinois Department of Public Health, 2018). In addition, pregnancy provides an opportunity to identify, treat, and manage underlying chronic conditions to improve a woman's overall health (Illinois Department of Public Health, 2018).

Severe pregnancy complications (maternal morbidity) and mortality are used on an international level to judge 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, vast 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 health care but include factors such as poverty, quality of education, health literacy, employment, housing, childcare availability, and community safety (Illinois Department of Public Health, 2018). As previously mentioned, 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 health care that certain communities receive (Hoffman, Trawalter, Axt, & Oliver, 2016).

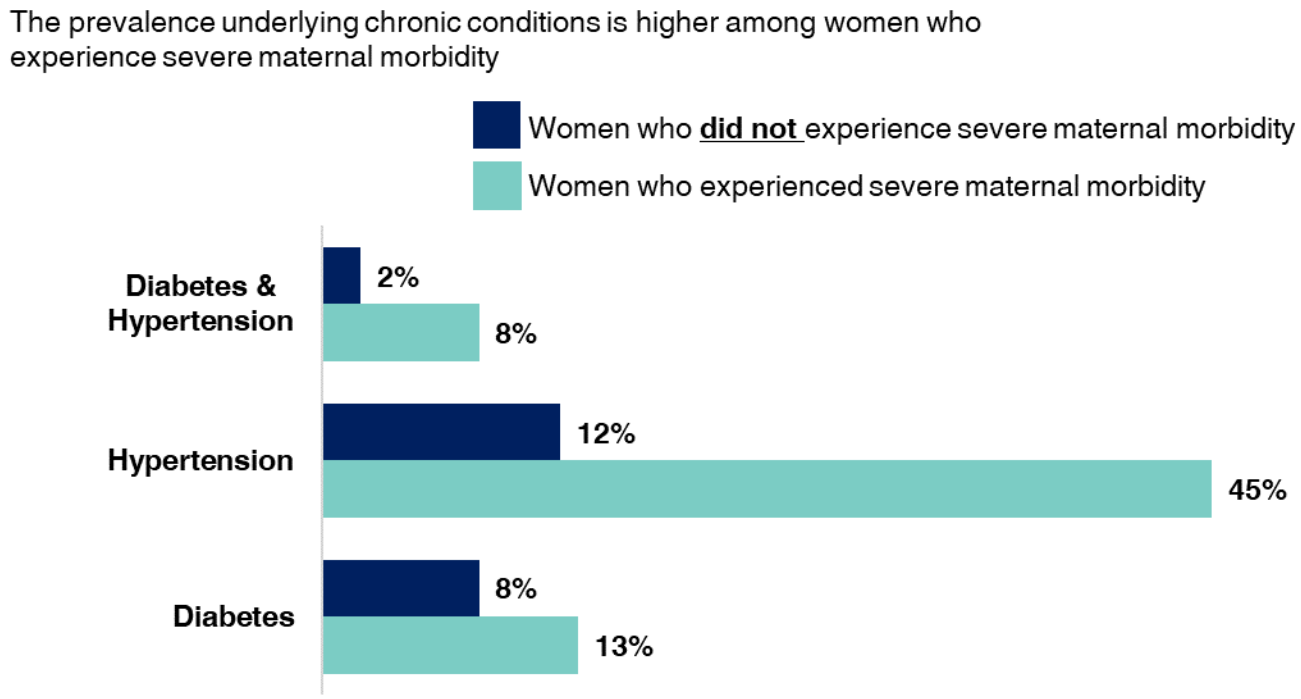
Severe maternal morbidity is a potentially life-threatening condition or complication that occurs during labor and delivery (Illinois Department of Public Health, 2018). African American/black women have rates of severe maternal morbidity that are nearly three times higher than the rate for white women **(Figure X)**. 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). Additionally, severe maternal morbidity frequently occurs in conjunction with common chronic conditions such as diabetes and hypertension **(Figure 26)**.

Figure 26. Severe maternal morbidity by race and ethnicity in Illinois (per 10,000 deliveries)



Illinois Department of Public Health, 2016-2017

Figure 27. Prevalence of chronic conditions among women who experience severe maternal morbidity

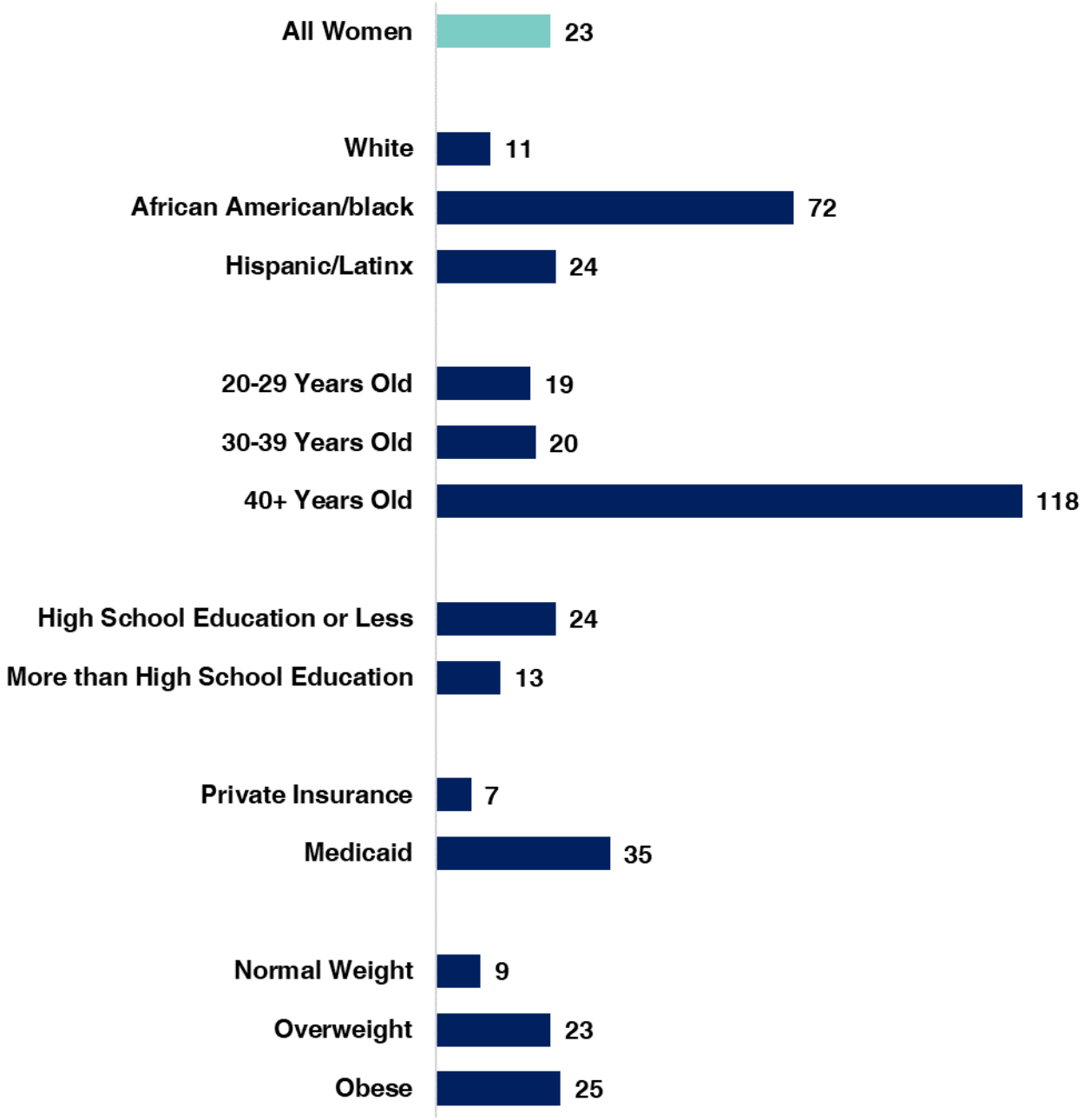


Illinois Department of Public Health, 2016-2017

Pregnancy-related death is the death of a woman during pregnancy or within one year of the end of a pregnancy from a pregnancy complication (CDC Foundation, 2017). The death is due to a chain of events initiated by the pregnancy or the aggravation of an unrelated condition by the physiologic effects of pregnancy (CDC Foundation, 2017). As with severe maternal morbidity, the rate of pregnancy-related deaths is much higher for certain populations compared to others:

- African American/black women were about six times as likely to die from a pregnancy-related cause as white women—Hispanic/Latinx women were about twice as likely as white women to die from a pregnancy-related cause;
- women in their 40s were about six times as likely to die from a pregnancy-related cause as women in their 20s or 30s;
- women with a high school education or less were about twice as likely to die from a pregnancy-related cause as women who had more than a high school education;
- women on Medicaid during pregnancy were nearly five times as likely as women with private insurance to die from a pregnancy-related cause; and
- a higher BMI was related to a higher likelihood of a pregnancy-related death with obese women being more than twice as likely as normal weight women to die from a pregnancy-related cause **(Figure X)** (Illinois Department of Public Health, 2018).

Figure 28. Pregnancy-related mortality rate by demographics in Illinois (per 100,000 live births)*

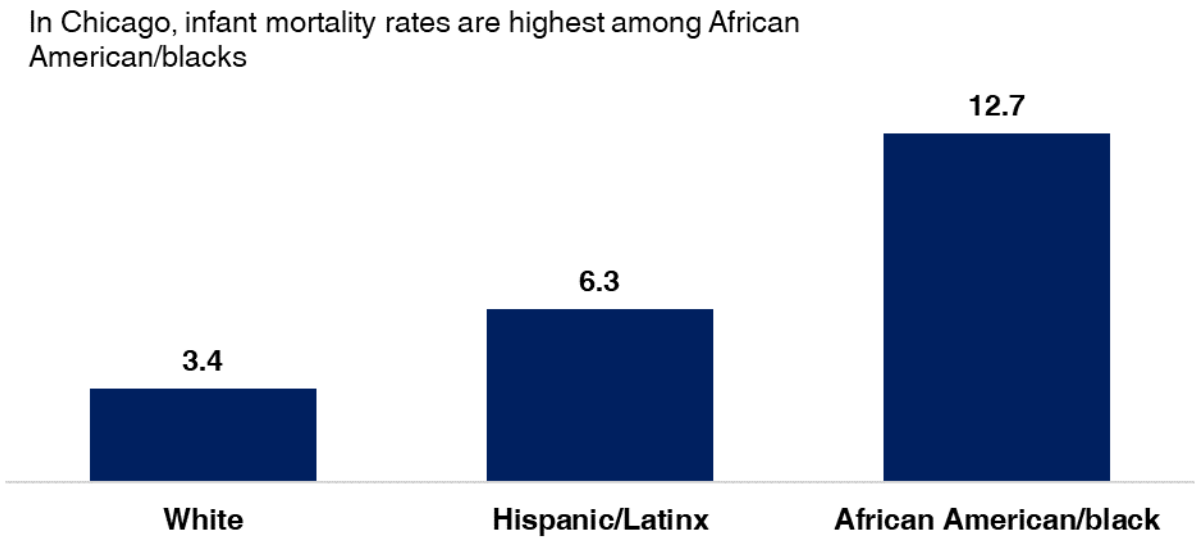


*Mortality rates for additional races suppressed due to insufficient sample size
Illinois Department of Public Health, 2015

Between 2005 and 2015, the national infant mortality rate decreased by 14% from 6.86 to 5.90 deaths per 1,000 live births (National Center for Health Statistics, 2017). However, as with maternal health, racial and ethnic disparities persist.

- In Illinois, the infant mortality rate per 1,000 live births was 4.4 for whites, 12.6 for African American/blacks, and 5.5 for Hispanic/Latinxs.
- In Chicago, infant mortality rates per 1,000 live births ranged from 3.4 for whites to 12.7 for African American/blacks **(Figure 22)**.
- In Suburban Cook County, infant mortality rates per 1,000 live births ranged from 4.3 for Asians to 12.7 for African American/blacks **(Figure 23).**

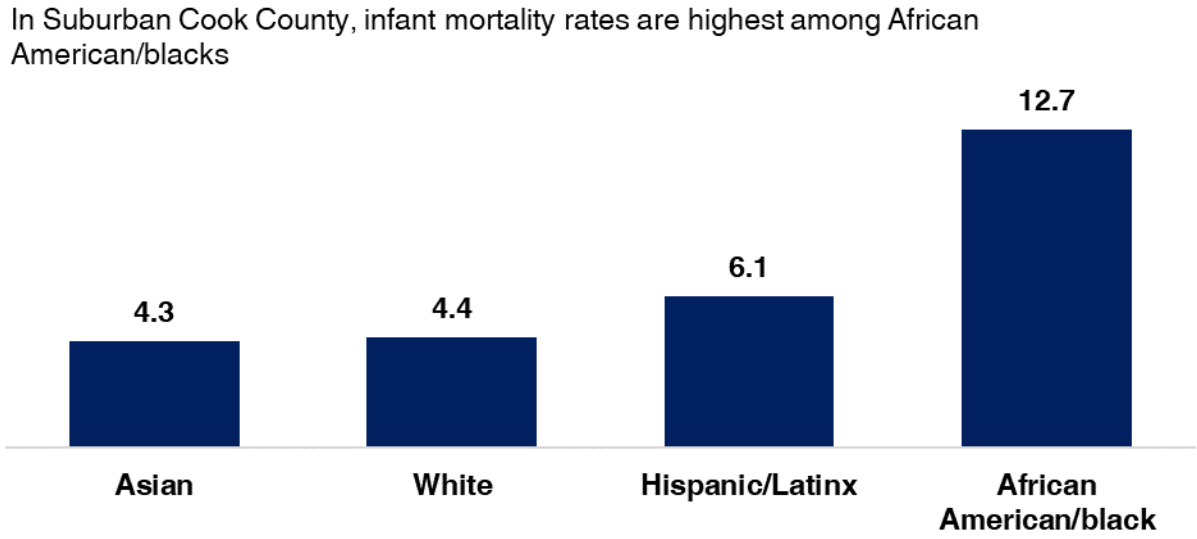
Figure 29. Infant mortality rates per 1,000 live births in Chicago by race and ethnicity*



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

Illinois Department of Public Health, Division of Vital Records, 2012-2016

Figure 30. Infant mortality rates per 1,000 live births in Suburban Cook County by race and ethnicity



Illinois Department of Public Health, Division of Vital Records, 2012-2016

Similar to infant mortality, there are racial and ethnic differences in low birth weight infants, preterm births, and teen birth rates **(Figures 31-32)**.

Figure 31. Select maternal and child health indicators for Chicago by race and ethnicity

	Percent of low birth weight infants	Percent of preterm births	Teen Birth Rate (per 1,000 population)
African American/black	15%	15%	32.0
Asian	8%	9%	3.2
Hispanic/Latinx	8%	9%	28.4
White	6%	9%	5.1

Illinois Department of Public Health, Vital Statistics, 2012-2016

Figure 32. Select maternal and child health indicators for Suburban Cook County by race and ethnicity

	Percent of low birth weight infants	Percent of preterm births	Teen Birth Rate (per 1,000 population)
African American/black	10%	14%	10.3
Asian	7%	9%	0.4
Hispanic/Latinx	6%	9%	8.7
White	4%	9%	1.5

Illinois Department of Public Health, Division of Vital Records, 2012-2016

As previously mentioned, differences in maternal and child health outcomes can be linked to multiple social and structural determinants of health. For example:

- children born to mothers without a high school education are twice as likely to die before their first birthday than children born to mothers who are college graduates;
- access to quality preconception, prenatal, and postnatal health care 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; and
- maternal poverty has consistently been found to be a significant determinant of delayed cognitive development and poor school performance in children (Kay Johnson et al., 2006; C. P. Larson, 2007; Robert Wood Johnson Foundation, 2009).

Inequities in Education

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). A study completed by Stanford University in 2016 found additional trends in school performance related to socioeconomic inequities:

- the most and least socioeconomically advantaged school districts nationwide have average performance levels more than four grade levels apart;
- average test scores of black students are roughly two grade levels lower than those of white students in the same district—the Hispanic-white difference is roughly 1.5 grade levels;

- achievement gaps are larger in districts where black and Hispanic students attend higher poverty schools than their white peers and where large racial/ethnic gaps exist in parents' educational attainment; and
- the size of education gaps have little or no association with average class size, a district's per capita student spending, or charter school enrollment (Rabinovitz, 2016).

As previously mentioned, a study of segregation in the Chicago metro area projected that the region is losing $90 billion in total lifetime earnings as a result of its education gaps (Metropolitan Planning Council, 2017).

Inequities in Community Safety and Violence

Although violence occurs in all communities, it is concentrated in low-income communities of color. The root causes of community violence are multifaceted but 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 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.

Not only does exposure to violence directly impact health, but it has socioeconomic effects that can further widen health disparities. For example:

- violence has been associated with less investment in community resources such as parks, recreation facilities, and parks 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, Zenk, & Mason, 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, Lynch, Gurvis, Mohr, & Bai, 2017); and
- high rates of gun violence are associated with lower home values, credit scores, and home ownership rates (Irvin-Erickson et al., 2017).

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 but 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.

Inequities in Additional Priority Populations

As previously discussed, the unequal distribution of resources in communities leads to an inequitable burden of disease within certain communities. Differences in the social determinants of health are both underlying root

causes and outcomes of inequities in morbidity and mortality. There are numerous examples of how different sub-populations are impacted by inequities.

- The prevalence of adult diabetes is higher among non-Hispanic blacks, Hispanic/Latinx, and those of mixed races than among Asians and non-Hispanic whites (Centers for Disease Control and Prevention, 2013). In Chicago and Suburban Cook County, diabetes mortality rates are highest among African American/blacks at 84.7 and 74.9 per 100,000 total population, respectively.
- Research indicates that issues such as poverty, limited access to health care, 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 low-income communities of color (Williams, Sternthal, & Wright, 2009a).
- Individuals with disabilities are more likely to report being in fair or poor health, to use tobacco, to forgo physical activity, and to be overweight or obese (Lezzoni, 2011).
- Nationwide, suicide rates are highest among American Indian/Alaskan Natives and non-Hispanic whites for both men and women (Centers for Disease Control and Prevention, 2013). Suicide mortality rates for men and women are highest among non-Hispanic whites in Chicago and Suburban Cook County. The rates for American/Indians and Alaskan Natives in Chicago and Suburban Cook County are unknown due to sample size.
- Discrimination against LGBTQ+ individuals has been associated with higher rates of psychiatric disorders, substance abuse, and suicide (U.S. Department of Health and Human Services, 2019a).
- Nearly three-quarters of LGBTQ+ students are verbally bullied and 36% are physically bullied because of their sexual orientation (Gay, Lesbian, and Straight Education Network, 2013). Fifty-five percent of LGBTQ+ students are verbally bullied and 23% are physically bullied because of their gender expression (Gay, Lesbian, and Straight Education Network, 2013). Bullying increases a student's risk for emotional distress, self-harm, depression, anxiety, sleep difficulties, and death (Ladd, Ettekal, & Kochenderfer-Ladd, 2017; National Center for Education Statistics, 2016).
- Seventeen percent of immigrants and 39% of undocumented immigrants are uninsured, compared to less than 10% of U.S. born and naturalized citizens (Kaiser Family Foundation, 2017).

Community Input

Discussions about inequities occurred in focus groups across the county. Participants highlighted inequities in social and structural determinants of health, access to health care, and health care quality in particular. Communities of color, older adults, 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)

[Referring to Harvey, Illinois] “They forgot about this place. There are broken down houses, burned houses, abandoned houses, ugly streets, litter, littered parks.” (Restoration Ministries Youth)

“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)

“Health care 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)

“With my grandma, she tried to go to the hospital, and she didn't have papers, so they didn't help her out like they were supposed to. She didn't get medicine or treatment, they just gave her pills to calm the pain down.” (Restoration Ministries)

“How would they handle a sighted person in the ER? Would they just dismiss them?” (Friedman Place)

“It took me years to go to a medical professional that would look past my mental illness diagnosis.” (NAMI Chicago - Individuals)

Implications

Given the wide-reaching effects that health inequities are having on the well-being of communities in Chicago and Suburban Cook County, the Alliance for Health Equity has made preventing and reducing health disparities its primary focus since its inception. As a result, this assessment focused on identifying, naming, and building strategies to address the underlying root causes of inequities such as racism, discrimination, trauma, and the unjust distribution of resources.

Social and Structural Determinants of Health

Research has long established that socioeconomic inequities are key drivers of health outcomes. For example:

- children born to mothers without a high school education are twice as likely to die before their first birthday than children born to mothers who are college graduates;
- the percentage of individuals reporting poor health increases with decreasing levels of income and education;
- low-income individuals are more likely to have a chronic disease; and
- low-income individuals have higher rates of diabetes and coronary heart disease (Robert Wood Johnson Foundation, 2008).

Poverty

Poverty can create barriers to accessing quality health services, healthy food, recreation opportunities, and other necessities needed for good health status. In addition, it strongly influences housing stability, educational opportunities, living environment, and health behaviors.

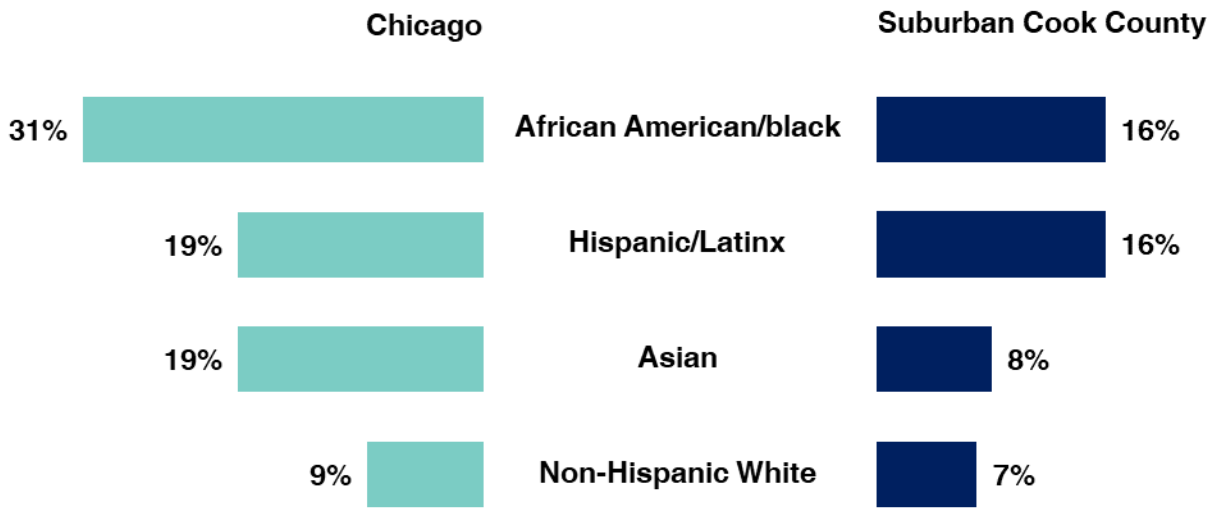
Examples of how poverty shapes and impacts communities:

- 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 or more (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 of color 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, 2018; Yu, Peterson, Sheffer, Reid, & Schneider, 2010).
- Low-income communities of color 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).
- Environmental risk factors are higher in low-income communities. 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. Children can have increased chronic stress, food insecurity, and more frequent infectious diseases (Jensen & Nelson, n.d.).
- In Illinois, white and African American residents in the lowest income group had the highest prevalence of reporting four or more adverse childhood experiences (Health & Medicine Policy Research Group, 2013).

Assessment data highlights many of the economic inequities in Chicago and Suburban Cook County. Overall, the percentage of individuals living in poverty in Chicago and Suburban Cook County (16%) is higher than the state (14%) and national averages (15%). However, people of color experience higher rates of poverty than non-Hispanic whites **(Figure 33)**. African Americans experience the highest rate with nearly a third of the population living in poverty. In addition, African Americans and Hispanic/Latinxs have the lowest median household incomes. There are inequities in the geographic distribution of poverty as well. Communities with the highest poverty rates are primarily concentrated in the West and South regions of the city and county **(Figure 34)**. These geographic inequities can be directly linked to long-standing historical discrimination and segregation across Cook County.

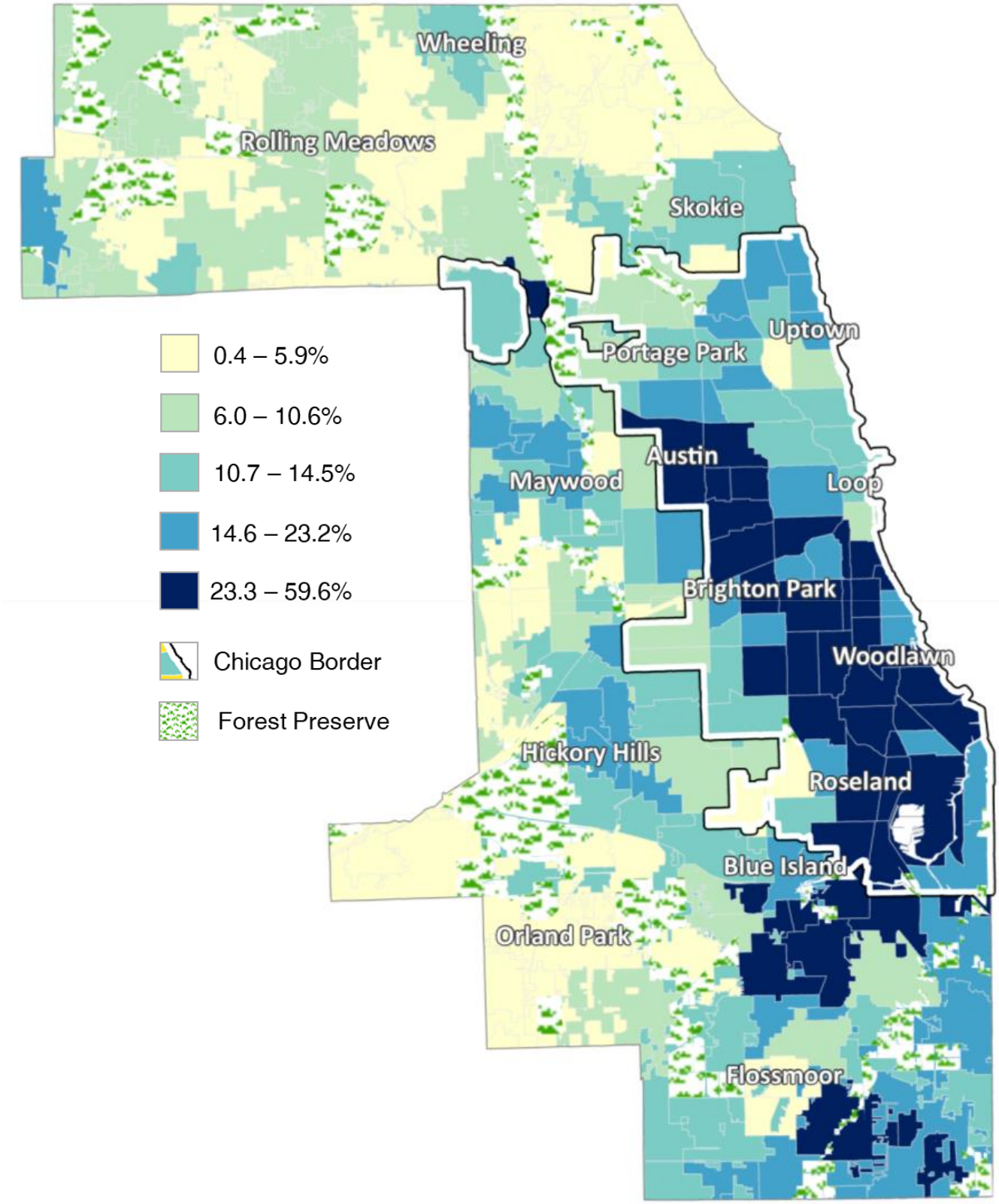
Figure 33. Percentage of people living in poverty by race and ethnicity in Chicago and Suburban Cook County

People of color experience higher rates of poverty than non-Hispanic whites in Chicago and Suburban Cook County.



U.S. Census Bureau, American Community Survey, 2012-2016

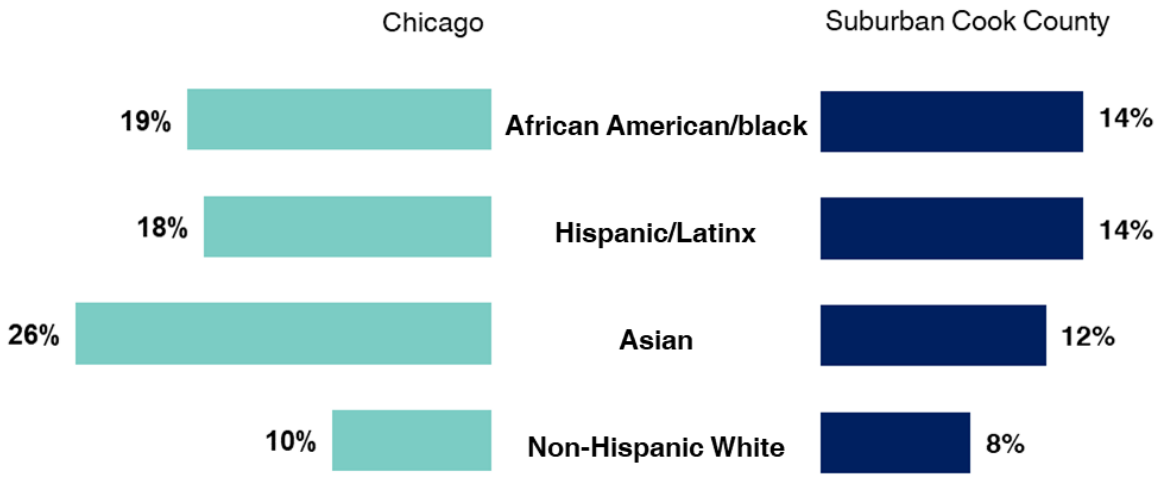
Figure 34. Geographic distribution of households living at or below the 100% Federal Poverty Level in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016

Poverty trends are even more pronounced among children under age 18. Twenty-three percent of the children in Cook County are living in poverty. Children of color have much higher rates of poverty than their white counterparts. In Chicago, more than four out of ten African American children and nearly three out of ten Hispanic/Latinx children live in poverty, compared to less than one in ten white children **(Figure 36)**. Another important indicator that demonstrates the differences in socioeconomic conditions for children across communities is the Child Opportunity Index **(Figure 37)**. The Childhood Opportunity Index is based on several indicators in each of the following categories: demographics and diversity; early childhood education; residential and school segregation; maternal and child health; neighborhood characteristics of children; and child poverty. Children that live in areas of low opportunity have an increased risk for a variety of negative health indicators such as premature mortality, are more likely to be exposed to serious psychological distress, and are more likely to have poor school performance (Ferguson, Bovaird, & Mueller, 2007).

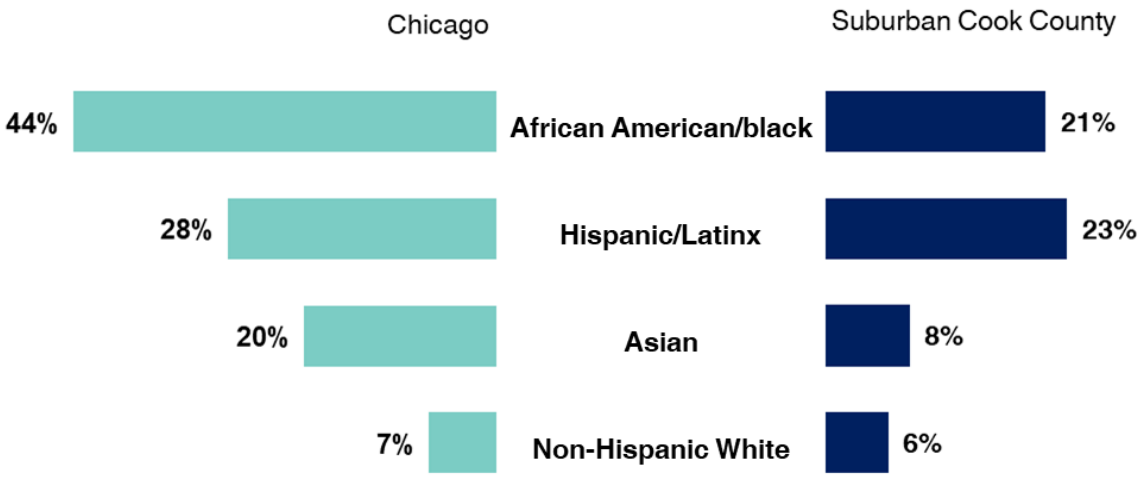
Figure 35. Percentage of older adults living in poverty by race and ethnicity in Chicago and Suburban Cook County



U.S. Census Bureau, American Community Survey, 2012-2016

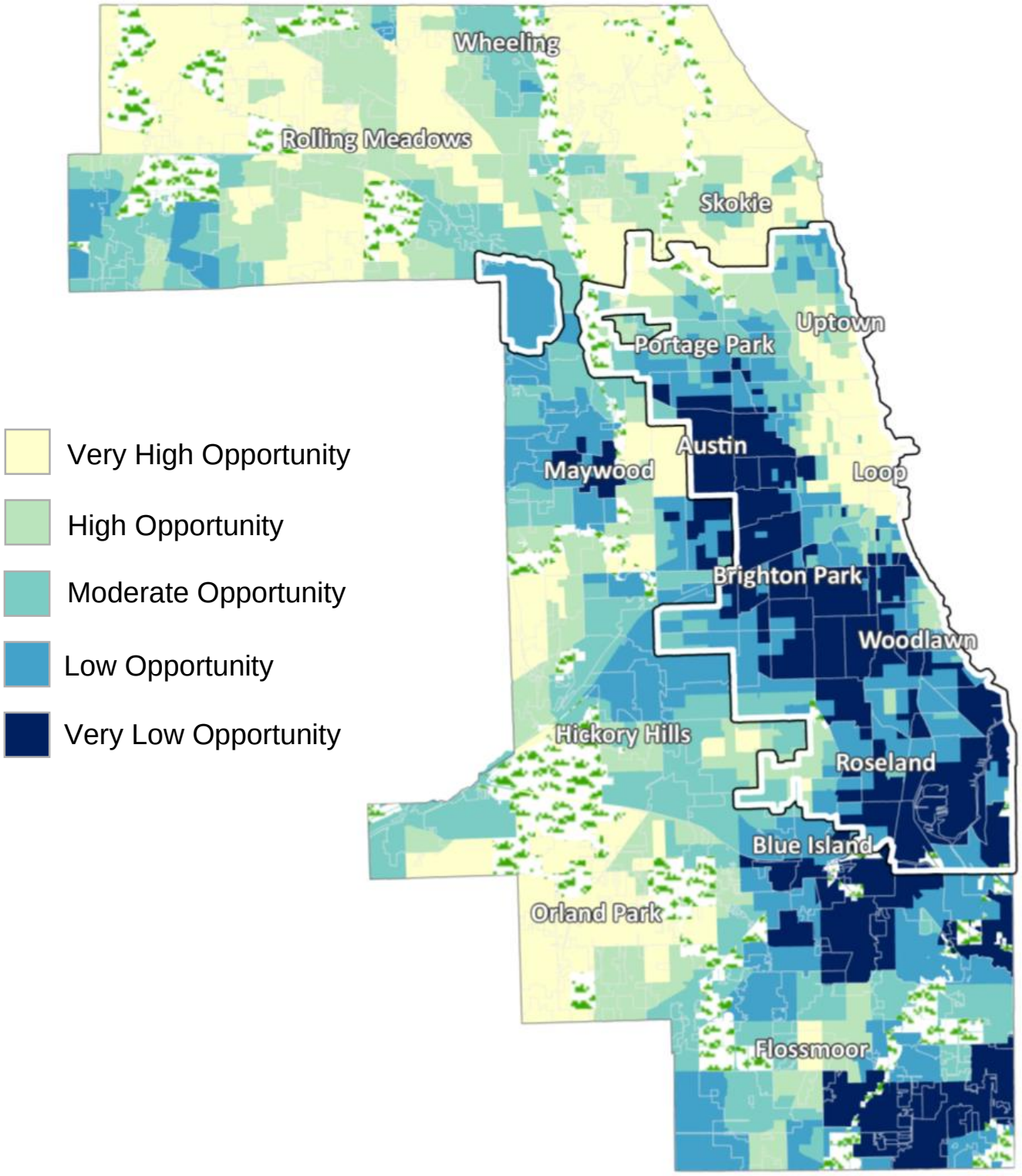
Figure 36. Percentage of children living in poverty by race and ethnicity in Chicago and Suburban Cook County

Children of color experience higher rates of poverty than non-Hispanic white children in Chicago and Suburban Cook County.



U.S. Census Bureau, American Community Survey, 2012-2016

Figure 37. Child Opportunity Index for Cook County, Illinois (2007-2013)



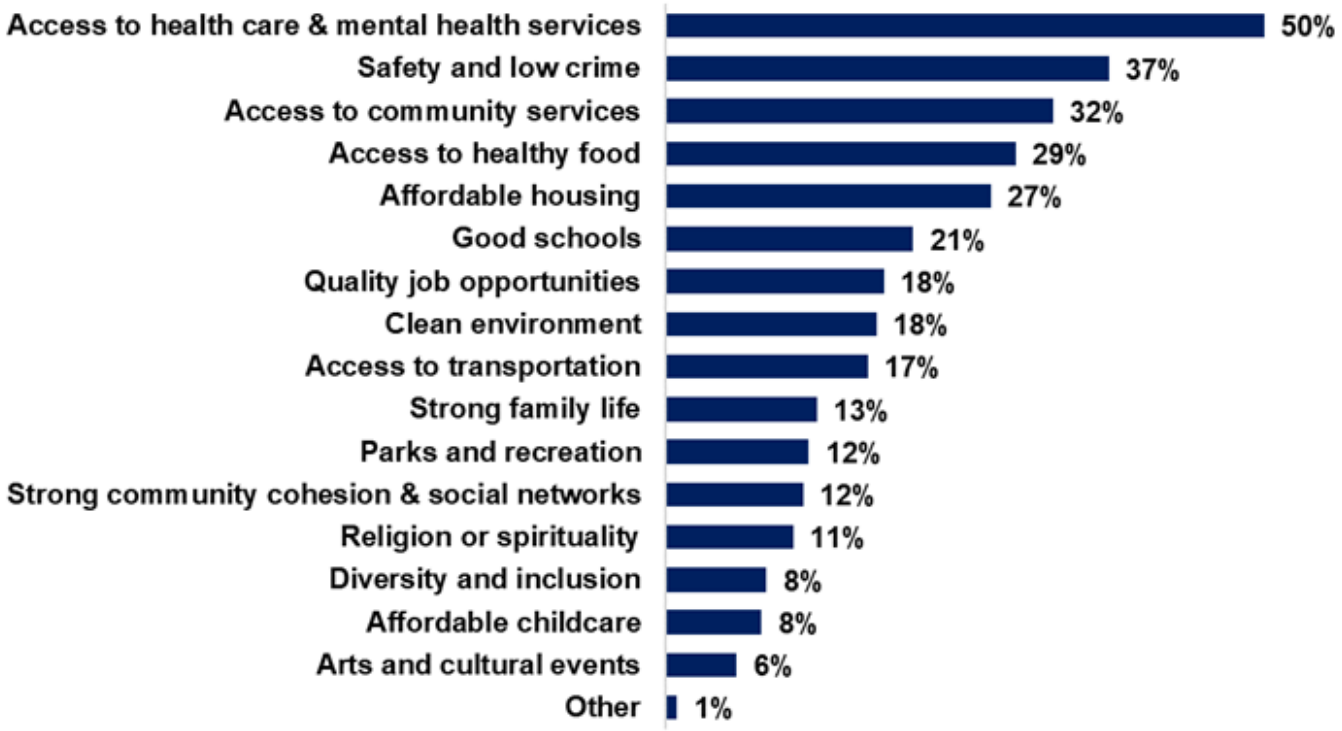
Sources: U.S. Census Bureau: Decennial Census 2010, American Community Survey 2007-2011, Zip Business Patterns 2009; State Department of Education 2010-2011; National Center for Education Statistics, Common Core of Data 2010-2011; diversitydatakids.org Early Childhood Database (State Early Childhood Care and Education Licensing Database 2012 and 2013, National Center for Education Statistics, Common Core of Data 2009-2010, National Association for the Education of Young Children Accredited Program Database, 2012 and 2013); ESRI Business Analyst 2011; Department of Housing and Urban Development, Neighborhood Stabilization Program 2010; Environmental Protection Agency, Toxic Release Inventory Program 2010
Retrieved From: http://www.diversitydatakids.org/data/childopportunitymap/3310/chicago-joliet-naperville

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 and county highlighted disparities in resource distribution, with the North region having the most access to economic opportunities and community resources. Focus group participants attributed the lack of business investment and economic resources in the West and South regions to underlying factors such as long-term divestment 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.

Community input survey respondents were asked to choose options from a multi-select question "What do you think are the three most important things necessary for a 'Healthy Community'?" Community members prioritized several factors including access to health care and mental health services, safety and low crime, access to community services, access to healthy food, affordable housing, and good schools. **(Figure 38)**

Figure 38. Community Input Survey: "What do you think are the three most important things necessary for a 'Healthy Community"? (N=5717)



Unemployment and Underemployment

Unemployment and underemployment can create financial instability, which influences access to health care services, insurance, healthy foods, stable quality housing, and other basic needs. Unemployment and underemployment in Chicago and Suburban Cook County are often associated with a history of disinvestment and economic segregation. In the mid to late 20th century, much of the southern and western regions 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 and Suburban Cook County created a gap in employment opportunities that still has not been closed (Henricks, Lewis, Arenas, & Lewis, 2017). Currently unemployment rates for adults over age 16 in Cook County (10%) are slightly higher than the state (8%) and national averages (7%) and have shown an overall decline since 2013.

Furthermore, the economic segregation in Chicago is apparent. In 2015, Chicago was ranked one of the most economically segregated metros in the United States (Florida & Mellander, 2015). The majority of job opportunities are available in the Loop and northwest region (Great Cities Institute, 2017). If the level of economic segregation between white and African American residents decreased, Chicago's gross domestic product would increase by $8 billion (Metropolitan Planning Council, 2017). For residents living in the South and West regions of the city getting to the available jobs can be an additional barrier. High rates of unemployment are concentrated in communities of color in the West and South regions of the city and suburbs **(Figures 23-24)**. There are significant differences in unemployment across racial and ethnic groups. Chicago has the greatest racial disparities in young adult employment in the nation (Svajlenka, 2016). In 2016, the employment rate among African Americans aged 20-24 was 47%, the lowest in the nation, and the rate for whites in the same age group was 73%, 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% of the overall population have employer-sponsored health insurance, only 35% of people in households making less than 250% of the federal poverty level have employer-sponsored health insurance (Kaiser Family Foundation, 2018b). Health insurance gaps can lead to a decrease in utilization of preventative health care services. Additionally, underemployed individuals have reported more depression, alcohol abuse, and poorer physical health (America's Health Rankings, n.d.)

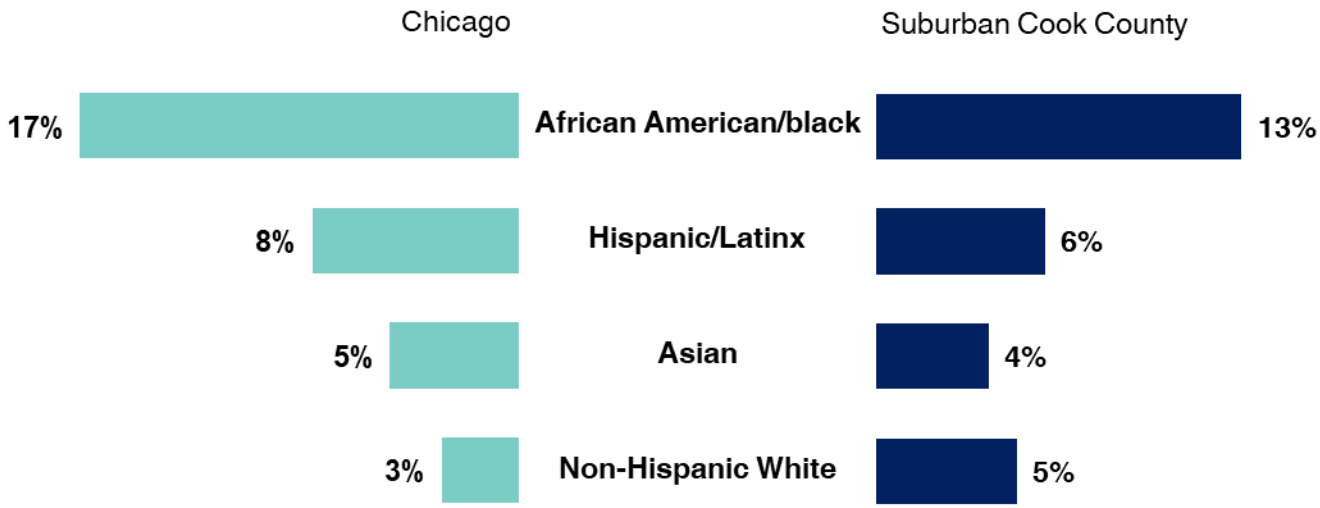
Community Input

A lack of employment opportunities was one of the most frequently discussed issues among focus group participants. Again, participants living in the West and South regions of the county described having the least number of 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 certain communities, jobs are available, but they are described as part-time, temporary, and/or low-paying.

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

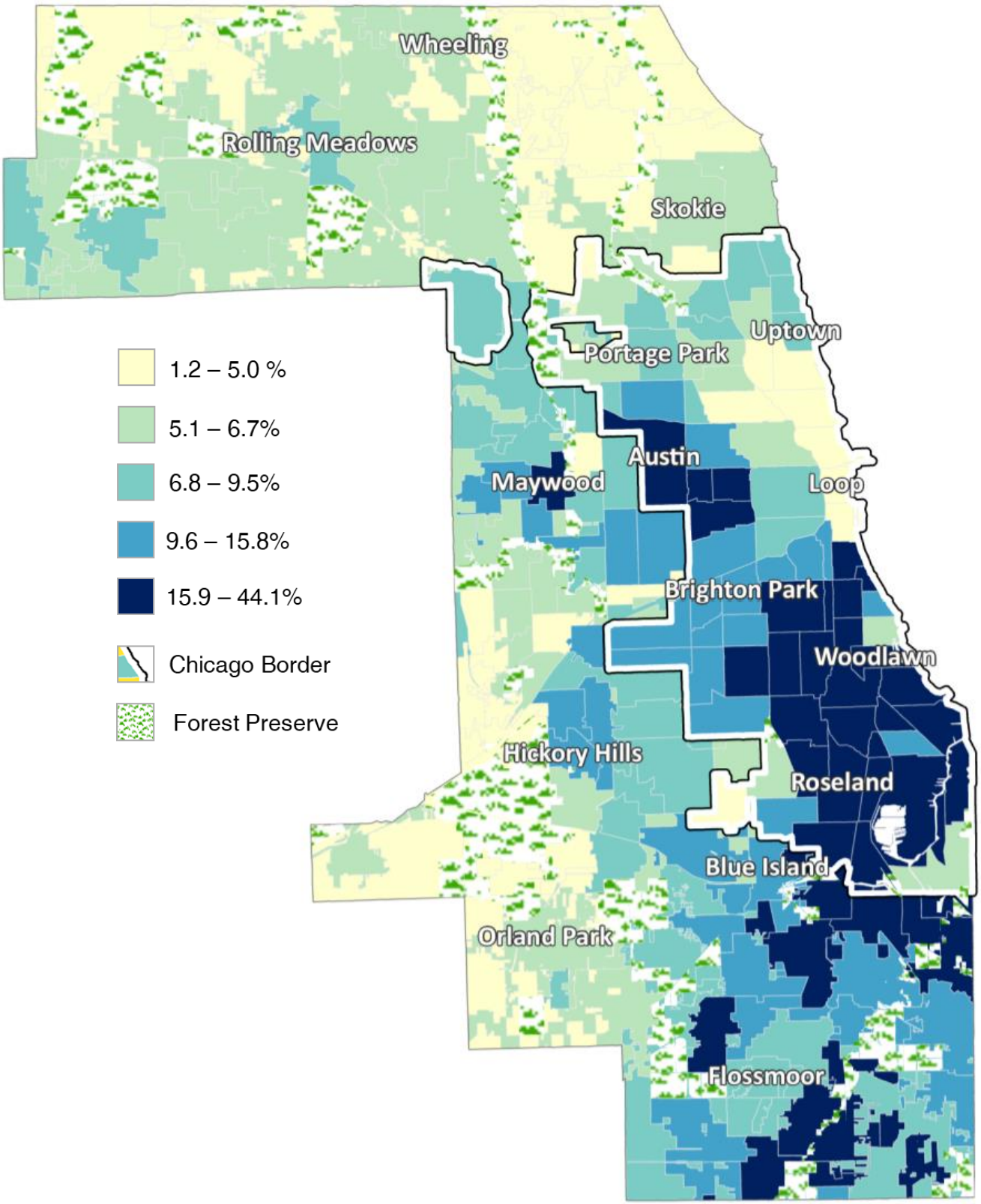
Figure 39. Racial and ethnic disparities in unemployment among individuals aged 16 or older in Chicago and Suburban Cook County

African American/black residents in both Chicago and Suburban Cook County are more than twice as likely to be unemployed compared to all other racial/ethnic groups.



U.S. Census Bureau, American Community Survey, 2012-2016

Figure 40. Geographic distribution of unemployment among individuals aged 16 or older in Cook County, Illinois (2016, ACS 5-Year Estimates)

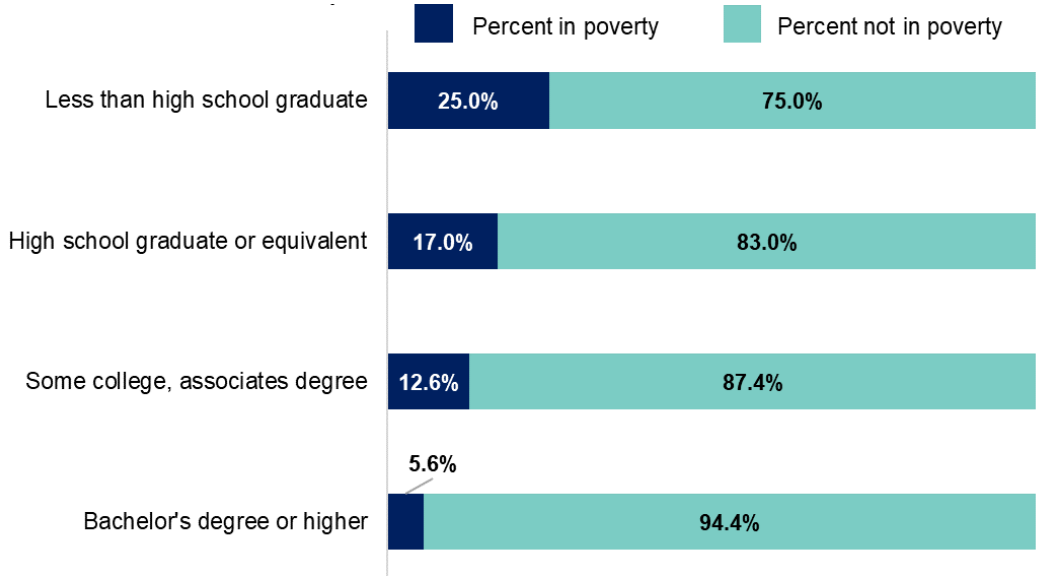


U.S. Census Bureau, American Community Survey, 2012-2016

Education

Education is an important determinant of health because poverty, unemployment, and underemployment are highest among those with lower levels of educational attainment **(Figure 41)**. In addition, as mentioned previously, rates of self-reported poor health, infant mortality, and chronic disease are often higher among individuals with lower levels of educational attainment.

Figure 41. Poverty status and educational attainment for adults 25 and older in Cook County



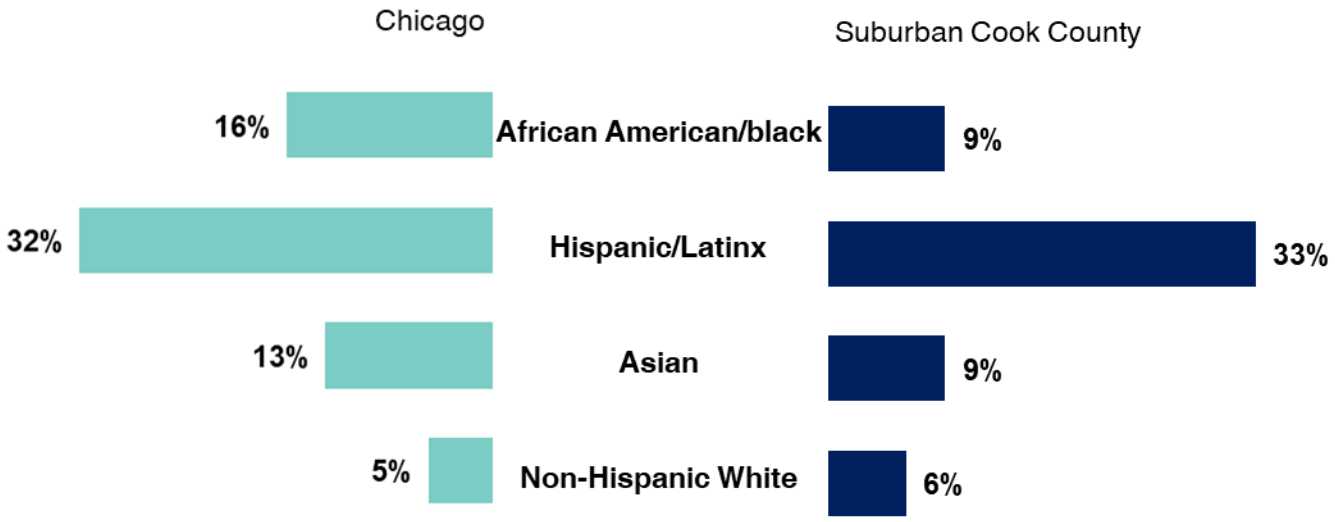
U.S. Census Bureau, American Community Survey, 2012-2016

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 Cook County (85%) are comparable to state (88%) and national rates (84%), there are profound differences between racial and ethnic groups. In Chicago and Suburban Cook County, non-Hispanic whites and Asians have the highest rates of high school graduation and the highest rates of educational attainment overall **(Figures 42-43)**.

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).

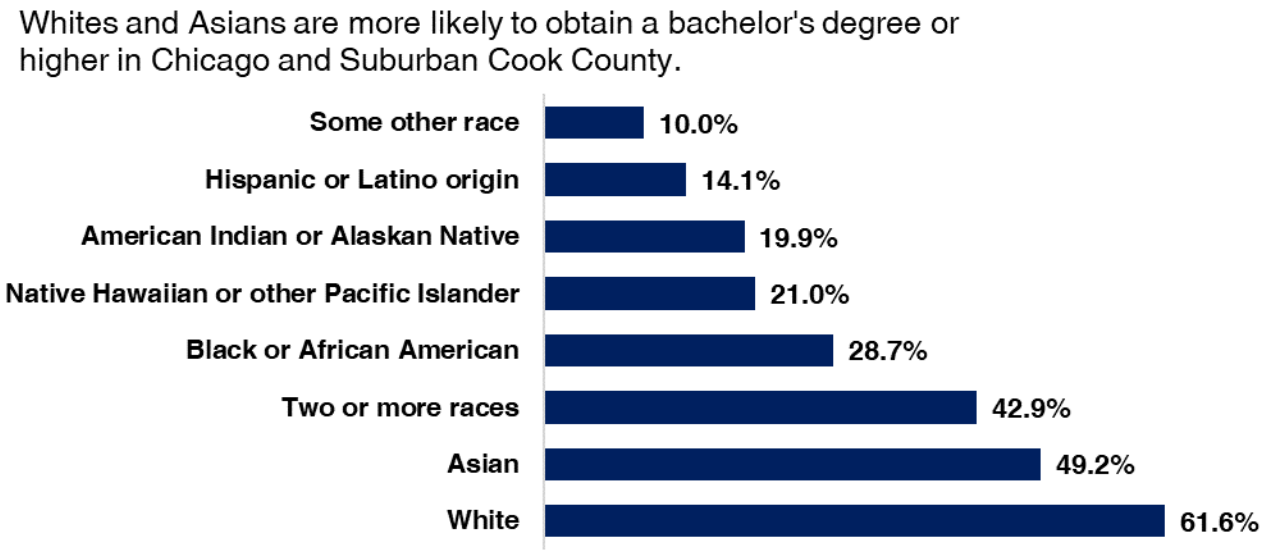
Figure 42. Differences in educational attainment among adults 25 and older in Chicago and Suburban Cook County

Hispanic/Latinx adults over 25 are least likely to have a high school education.



U.S. Census Bureau, American Community Survey, 2012-2016

Figure 43. Racial and ethnic differences in post-secondary education attainment in Chicago and Suburban Cook County



U.S. Census Bureau, American Community Survey, 2012-2016

Community Input
At least 19 different focus groups discussed education inequities in Cook County. 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 and in the South Suburbs;
- limited or nonexistent resources for learning trades;
- a lack of support programs such as quality, low-cost tutoring; and
- 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 throughout Cook County.

In addition to poverty, there are other factors that can significantly influence levels of educational attainment and student success such as bullying. More information and data about bullying is included in the Community Safety and Violence section.

Food Access and Food 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:

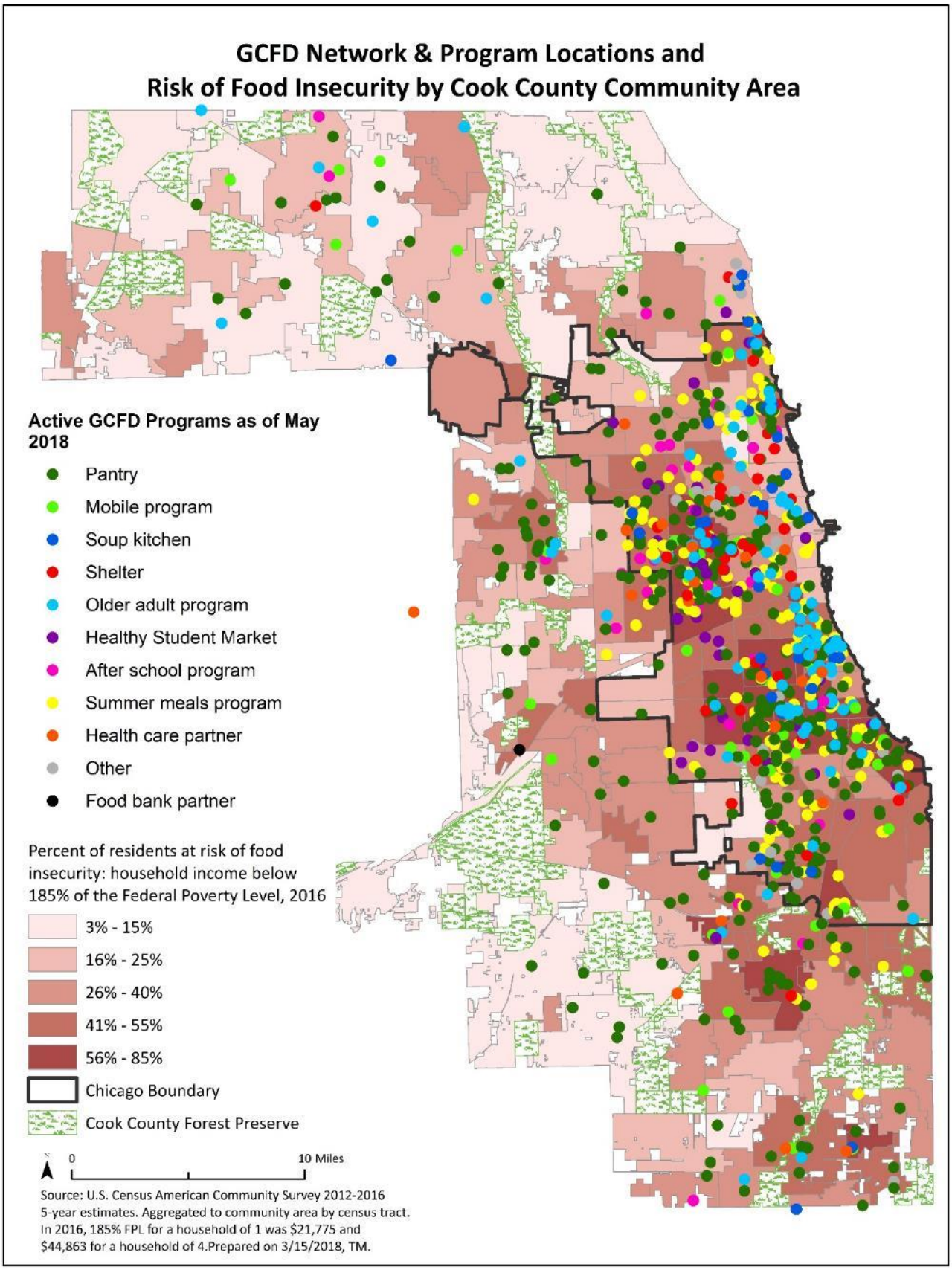
- the combination of stress and poor nutrition can make individuals more susceptible to developing chronic diseases and make management of chronic diseases more difficult;
- worsening health problems and the associated medical care puts additional strain on household budgets and leaves less money for essential nutrition and other basic needs;
- chronic disease can lead to decreased employability and lower overall household income (Weinfield et al., 2014).

Many communities in Chicago and Suburban Cook County are at risk for food insecurity **(Figure 44)**.

Community Input
Focus group participants across the city and county reported difficulty accessing healthy foods. Participants on the West and South Sides of the city and county reported a high proportion of fast-food restaurants and limited access to grocery stores selling healthier options. Low-income participants on the North Sides of the city and county reported that there were several grocery stores available but that they often could not afford to shop at them. Community residents living with chronic illnesses such as diabetes reported that difficulty accessing healthy foods and a high prevalence of fast-food options made it more difficult for them to manage their conditions.

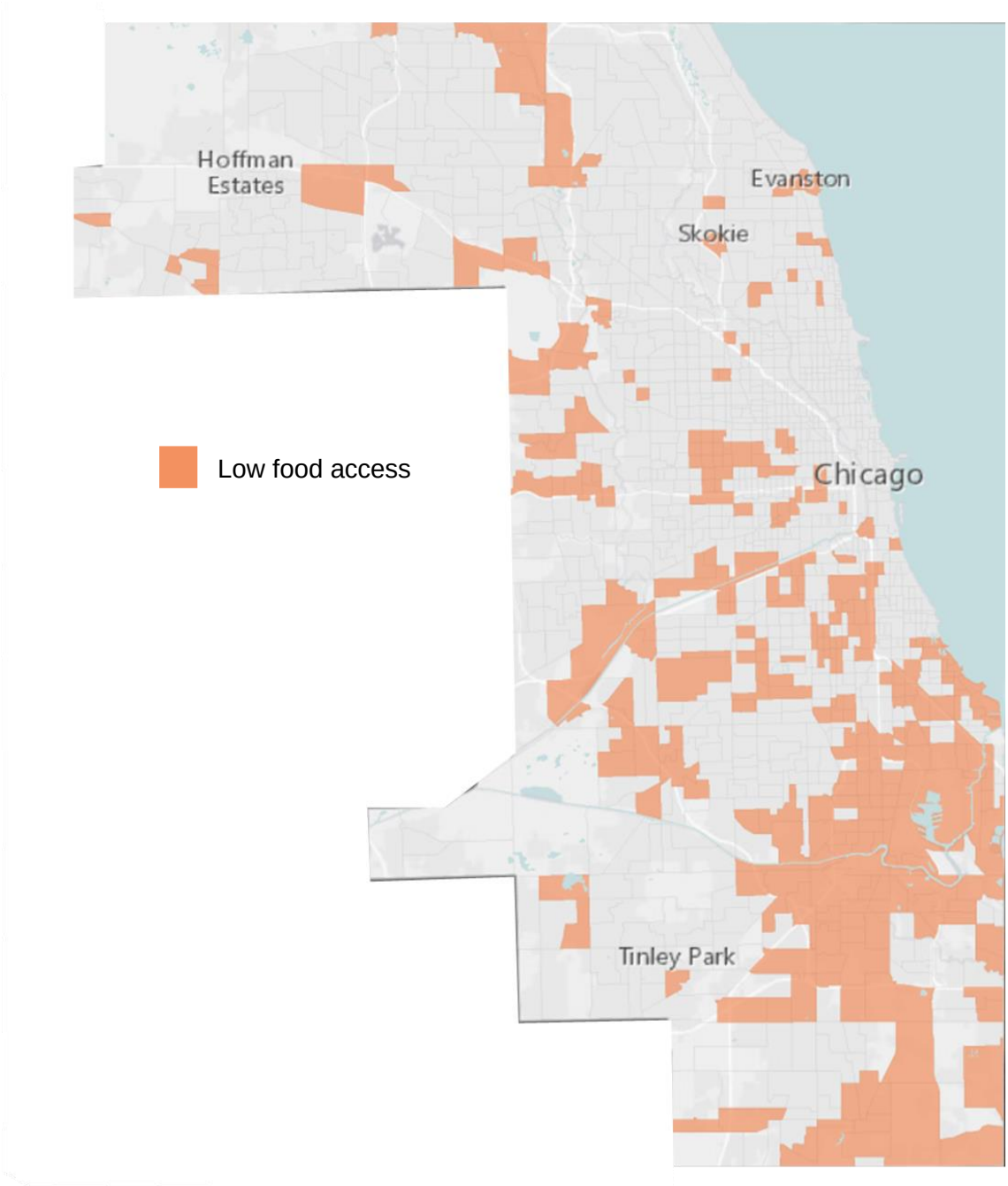
Approximately 29% of community input survey respondents chose “access to healthy food” as one of the most important factors in their community. Respondents expanded upon food accessibility in their responses to the question related to areas for improvement in the community. Frequently, respondents mentioned a need for a grocery store in their community and increased access to healthy, affordable foods.

Figure 44. Greater Chicago Food Depository Network and Program Locations and Risk of Food Insecurity in Cook County, Illinois



Related to food insecurity, access to healthy foods is another important factor needed to support chronic disease prevention. Research indicates that communities with better access to healthy foods and limited access to convenience stores have healthier diets and lower rates of obesity (N. Larson et al., 2009). Low-income communities of color 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 leading to food deserts where it is difficult to buy affordable or good-quality food **(Figure 45)** (N. Larson et al., 2009).

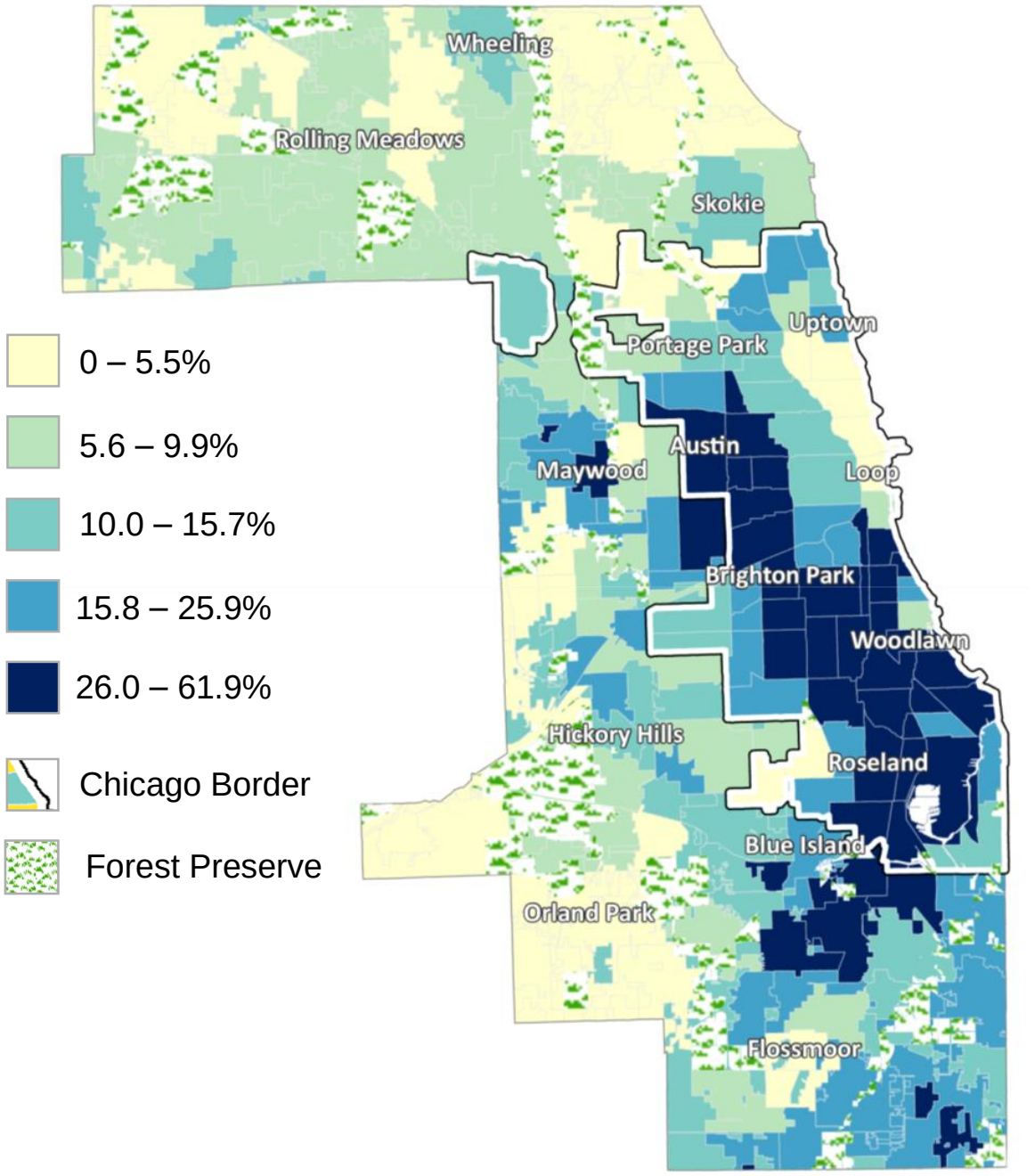
Figure 45. Low food access in Cook County, 2015



US Department of Agriculture, Economic Research Service, USDA - Food Access Research Atlas: 2015
Map Source: CARES Engagement Network

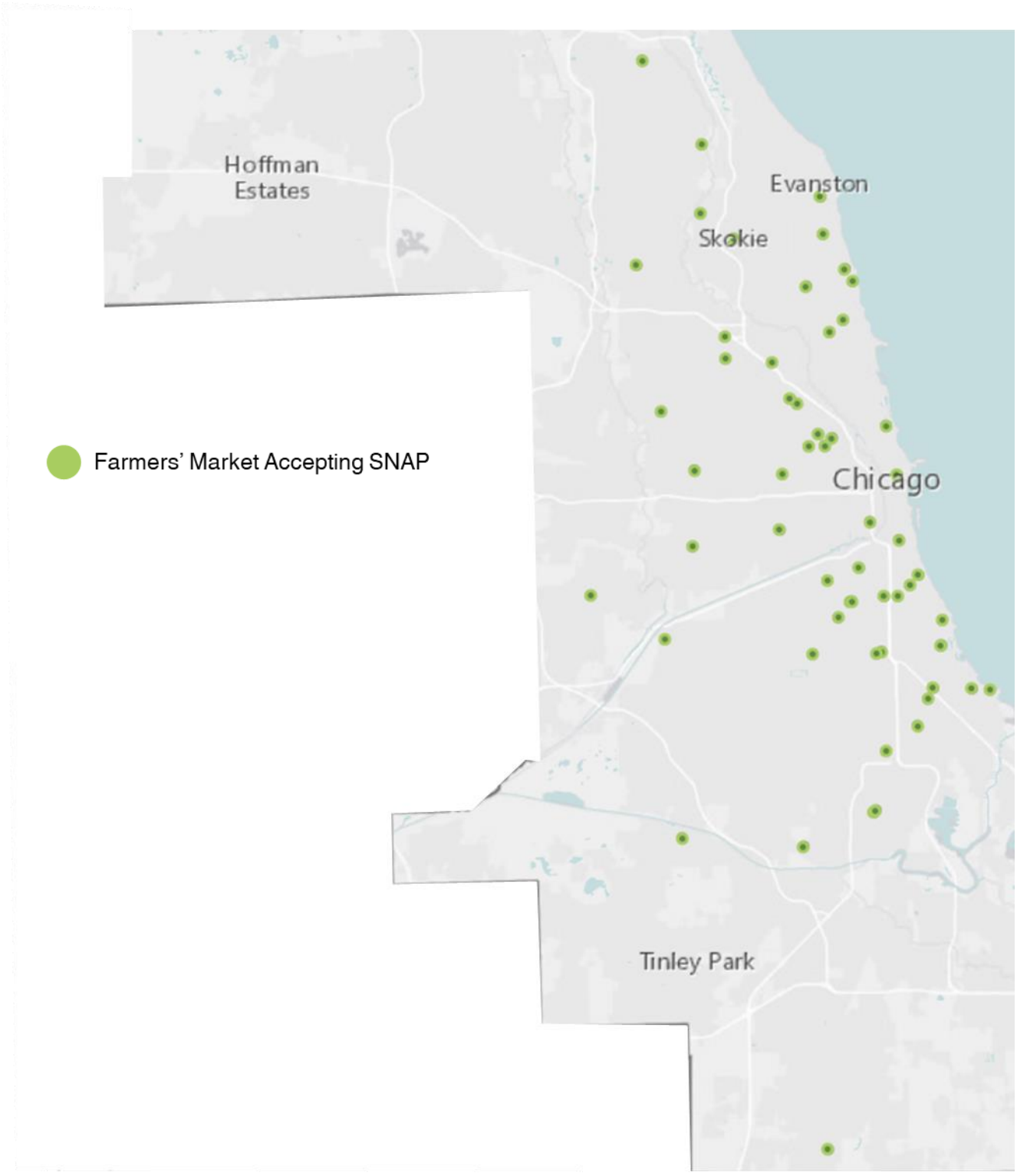
Programs such as the Supplemental Nutrition Assistance Program (SNAP), local food pantries, summer meal programs, after school programs, shelters, and food banks provide important assistance to low-income individuals and families that struggle to access adequate nutrition **(Figure 46)**. In addition, farmers' markets that accept SNAP benefits have the potential to improve access to healthy fruits and vegetables within low-income communities with high rates of food insecurity **(Figure 47)**.

Figure 46. Geographic distribution of households receiving SNAP benefits in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016

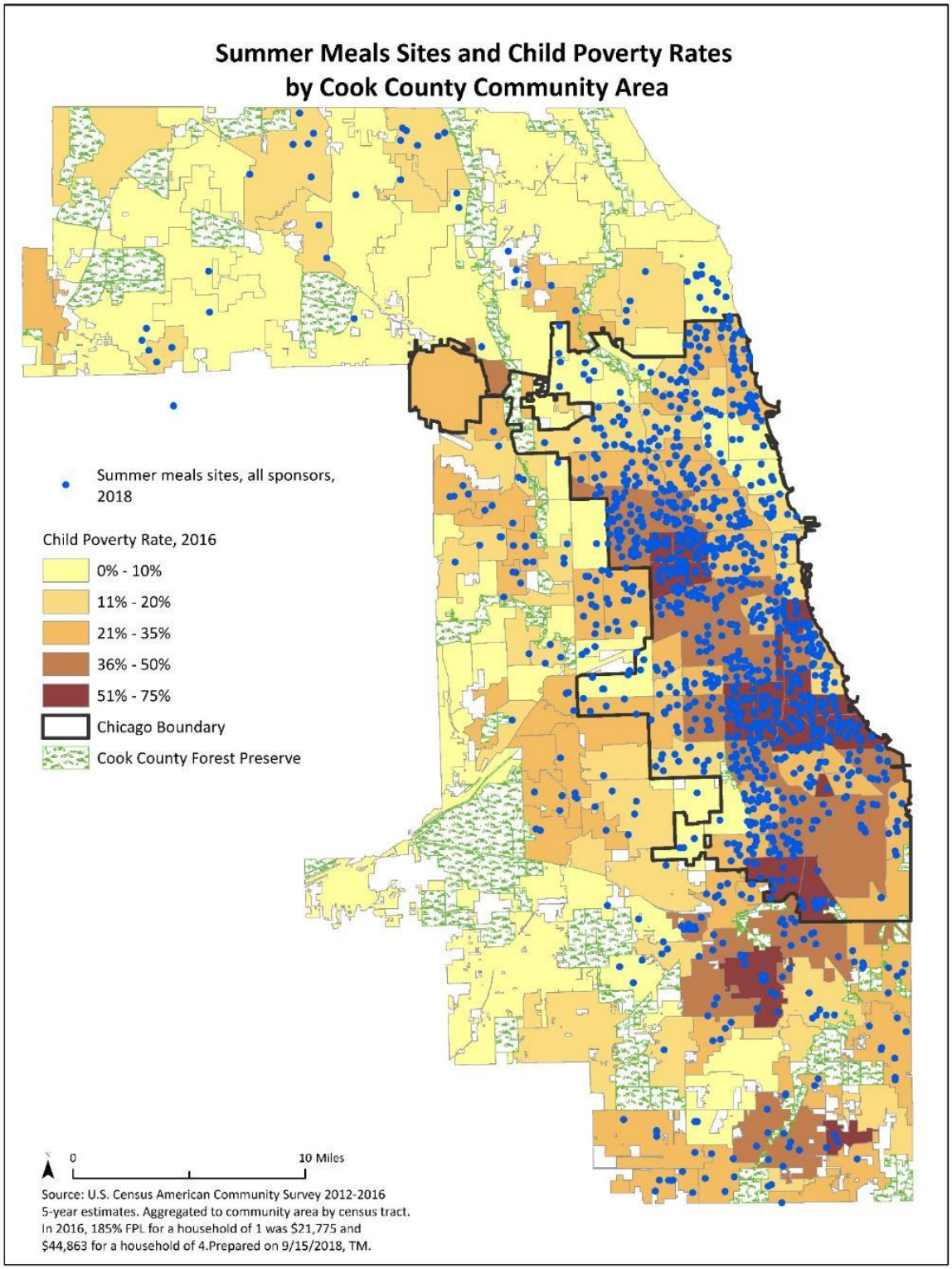
Figure 47. Farmers' Markets Accepting SNAP, 2017



US Department of Agriculture, USDA - Agriculture Marketing Service: 2017
Map Source: CARES Engagement Network

Summer meal programs also play an important role in food access for low-income children and their families during the summer months when schools are closed and access to free or reduced-price meal programs is decreased (Feeding America, 2018). In Cook County, summer meal sites are widespread, but are most concentrated in Chicago within communities that have high rates of child poverty **(Figure 48)**.

Figure 48. Summer meal sites and child poverty rates in Cook County, Illinois



As previously mentioned, research indicates that communities with better access to healthy foods and limited access to convenience stores have healthier diets and lower rates of obesity (N. Larson et al., 2009). Urban agricultural and community gardens provide a cost-effective opportunity to improve access to healthy foods for farmers and their communities. Urban agriculture and community garden sites have proliferated in Cook County over the last several years **(Figure 49)**. However, the highest concentration of sites occurs within the city of Chicago indicating an opportunity to expand these resources further into Suburban Cook County.

Figure 49. Urban Agriculture and Community Garden Sites

Chicago Urban Agriculture Mapping Project, 2019

Housing

Poor housing conditions are associated with a wide range of health conditions including respiratory infections, asthma, lead poisoning, injuries, and 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). Existing research has confirmed that there are at least four direct pathways in which housing impacts health **(Figure 50)**:

- **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 (Taylor, 2018).

Figure 50. Four pathways connecting housing and health

(Taylor, 2018)

Stability and Affordability

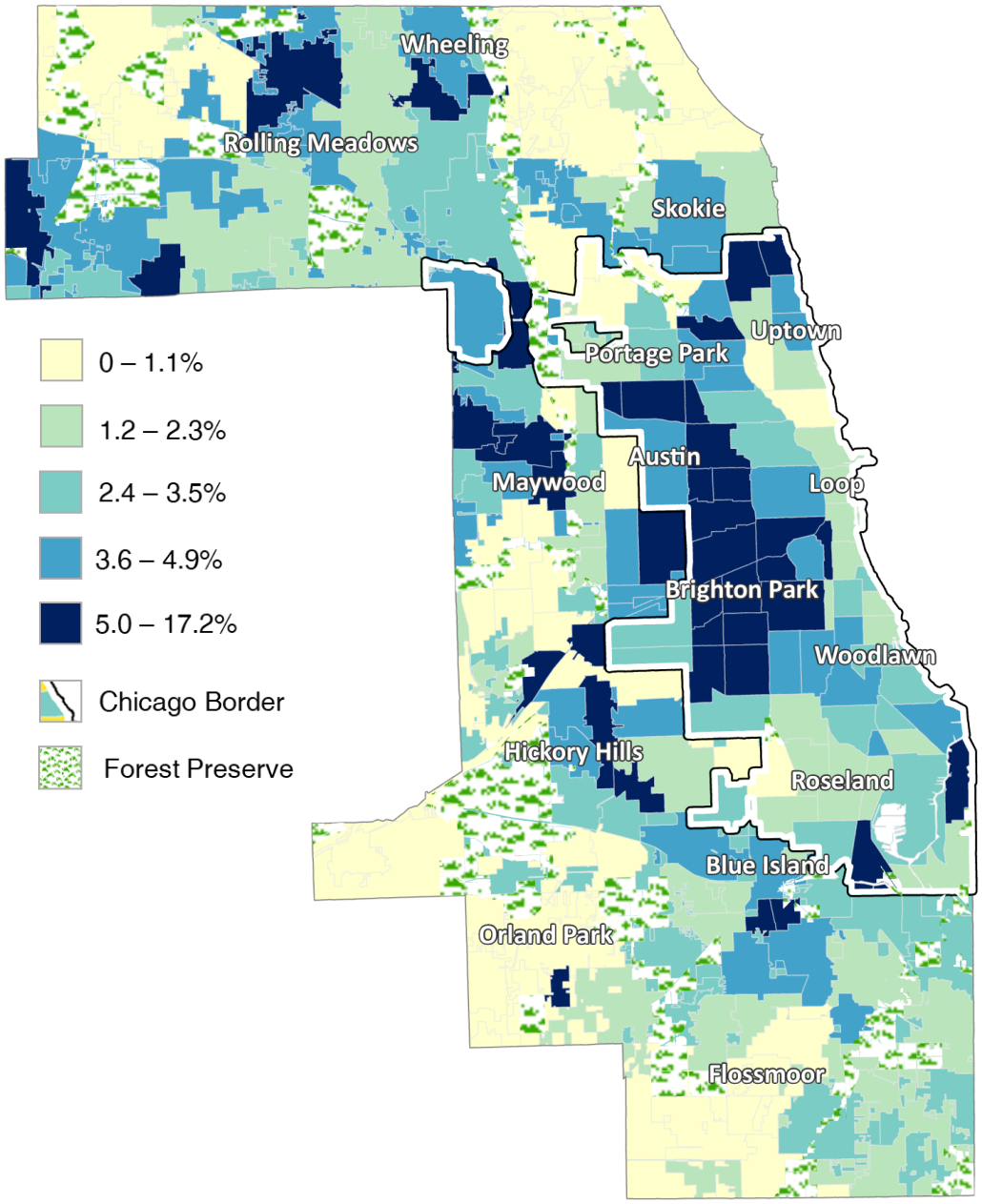
Homelessness and housing instability can have profound effects on health throughout the lifespan. Individuals who are homeless are more likely to become ill, have greater hospitalization rates, and have an increased burden of premature mortality (Maness & Khan, 2014). Caregivers of children aged 0 to 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 health care by making the proper storage of medications difficult or impossible (Maqbool, Viveiros, & Ault, 2015).

Providing individuals and families with stable housing can improve health and reduce health care costs (Taylor, 2018). In Oregon, the provision of affordable housing to housing unstable residents reduced Medicaid expenditures by 12%, use of primary care increased by 20%, and emergency department use decreased by 18% within the housed population (Center for Outcomes Research and Education, 2016). Programs aimed at stabilizing housing such as HUD assistance programs have been shown to decrease uninsured rates and lower rates of unmet medical needs due to cost (Simon, Fenelon, Helms, Lloyd, & Rossen, 2017). In addition, receipt of foreclosure assistance has been linked with improved physical and mental health outcomes (Tsai, 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, 2018b). 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). Insufficient heating and cooling is associated with higher blood pressure and increased risk of cardiovascular events particularly among older adults (Saeki, Obayashi, & Kurumatani, 2015). 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, 2017a). Crowded housing has been found to have negative impacts on a child's school achievement, behavior, and physical health (Solari & Mare, 2012). Throughout Chicago and Suburban Cook County, there are several communities in which 5% or more of households are considered overcrowded **(Figure 51)**.

Figure 51. Geographic distribution of crowded housing in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016

Community-based programs and policy interventions have been shown to be extremely effective in improving health through improvements in 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 health care costs for both children and adults (Bhaumik et al., 2013; "Green and Healthy Homes Initiative," n.d.). A 2006 study found that children of families in an energy assistance program had healthier weight and were at less nutritional risk compared to those not enrolled in the program (Frank et al., 2006). Another community-based program in which occupational therapists assisted with home modifications reduced falls among older adults by 39 percent (Clemson, Mackenzie, Ballinger, Close, & Cumming, 2008). In a 2012 study, severely asthmatic adults that received legal assistance forcing their landlords to improve environmental conditions experienced reduced emergency department visits, reductions in the need for steroid treatment, reductions in the dose and/or number of medications needed, and an overall reduction in the severity rating of their asthma (O'Sullivan et al., 2012). 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 an individual or family's ability to access food, health care, 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 mortgage 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 individuals and families that had affordable rent payments as a result of low-income housing credits increased their discretionary income by 77%, 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 Cook County, there were approximately 493 assisted housing properties in 2016 that were primarily concentrated within the City of Chicago (U.S. Department of Housing and Development, 2016).

A household is considered cost-burdened when 35% or more of its monthly gross income is dedicated to housing. Severely cost-burdened households have 50% or more their monthly gross income dedicated to housing. Within Cook County there are several regions where more than 40% of households are considered cost-burdened **(Figure 52).** These regions are primarily concentrated in the far Northwest, West, and South sides of the city and county.

Neighborhoods

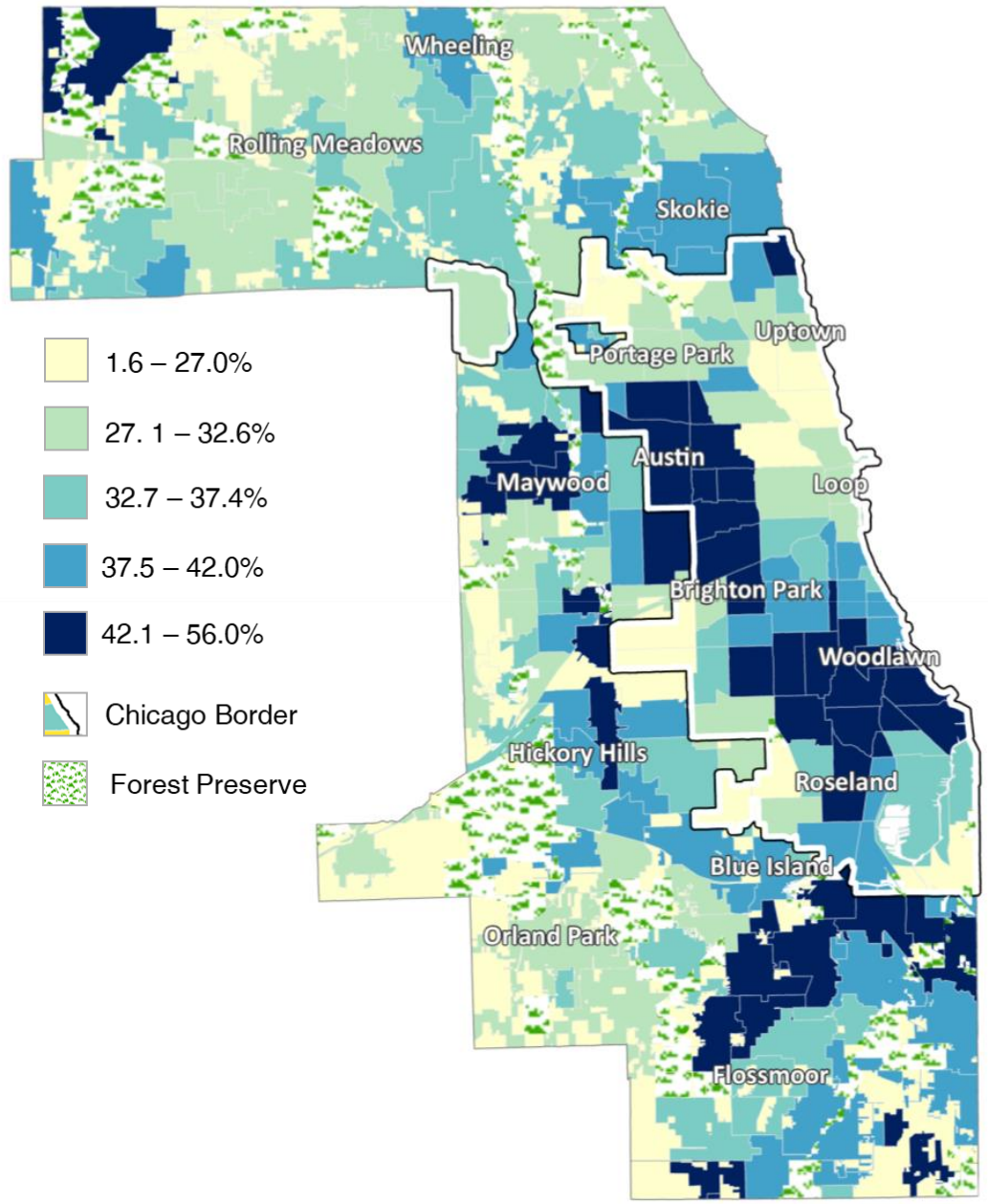
There has been extensive research on the impacts that physical surroundings have on health. Access to public transportation, proximity to grocery stores with healthy foods, and safe spaces to exercise have all been correlated with reduced chronic disease and improved health outcomes (Bell et al., 2013; 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). As mentioned in the health inequities section, structural issues such as neighborhood segregation have been associated with a number of adverse health outcomes and has been shown to widen health disparities by determining access to resources such as quality schools, jobs, and health care.

Community Input
Major themes that rose to the top of focus group discussions related to housing included:

- segregation prevents communities from having diverse economics, racial/ethnic groups, and resources;
- gentrification pushes low-income families out of communities;
- safe, quality housing is often not affordable and affordable housing is often not safe or good quality;
- older adults are still struggling to recover from the housing crisis; and
- oversight of landlords and homeowners is lacking in many communities.

Figure 52. Geographic distribution of cost burdened households in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016

Environmental Health

Ensuring environmental health requires a focus on the prevention of illness and injury and the promotion of well-being by identifying and evaluating hazardous agents and limiting exposures to hazardous physical, chemical, and biological agents in air, water, soil, food, and other environmental media or settings that may adversely affect human health (National Environmental Health Association, 2013). As with other social determinants of health, safe, hazard free environments are not equally distributed throughout Cook County. The West and South regions of the city and suburbs have the highest burden of vulnerabilities to environmental pollution (Geertsma, 2018). There are city and suburban communities located adjacent to O'Hare airport that have a high burden of vulnerability to environmental pollution as well (Geertsma, 2018).

Outdoor air pollution – particulate matter

Particulate matter is a proxy indicator for air pollution and it affects more people than any other pollutant (World Health Organization, 2018a). The major components of particulate matter pollution are sulfate, nitrates, ammonia, sodium chloride, black carbon, mineral dust, and water (World Health Organization, 2018a). The smallest particles measure 2.5 microns ($PM_{2.5}$) or less and are the most damaging to health (World Health Organization, 2018a). These particles can penetrate and lodge deeply in the lungs and can penetrate the lung barrier to enter the blood system (World Health Organization, 2018a). There is a dose-response relationship between exposure to $PM_{2.5}$ and premature mortality due to cardiovascular disease, respiratory disease, and cancers (World Health Organization, 2018a). **Figure 53** highlights the communities with the highest risk of exposure to $PM_{2.5}$ in Cook County. Risk of exposure is based on national percentiles. The areas of high exposure are concentrated in primarily non-white, low income communities. As shown in **Figures 74 and 82-83**, many of these same communities have a disproportionate burden of chronic disease mortality and asthma morbidity.

Hazardous waste proximity

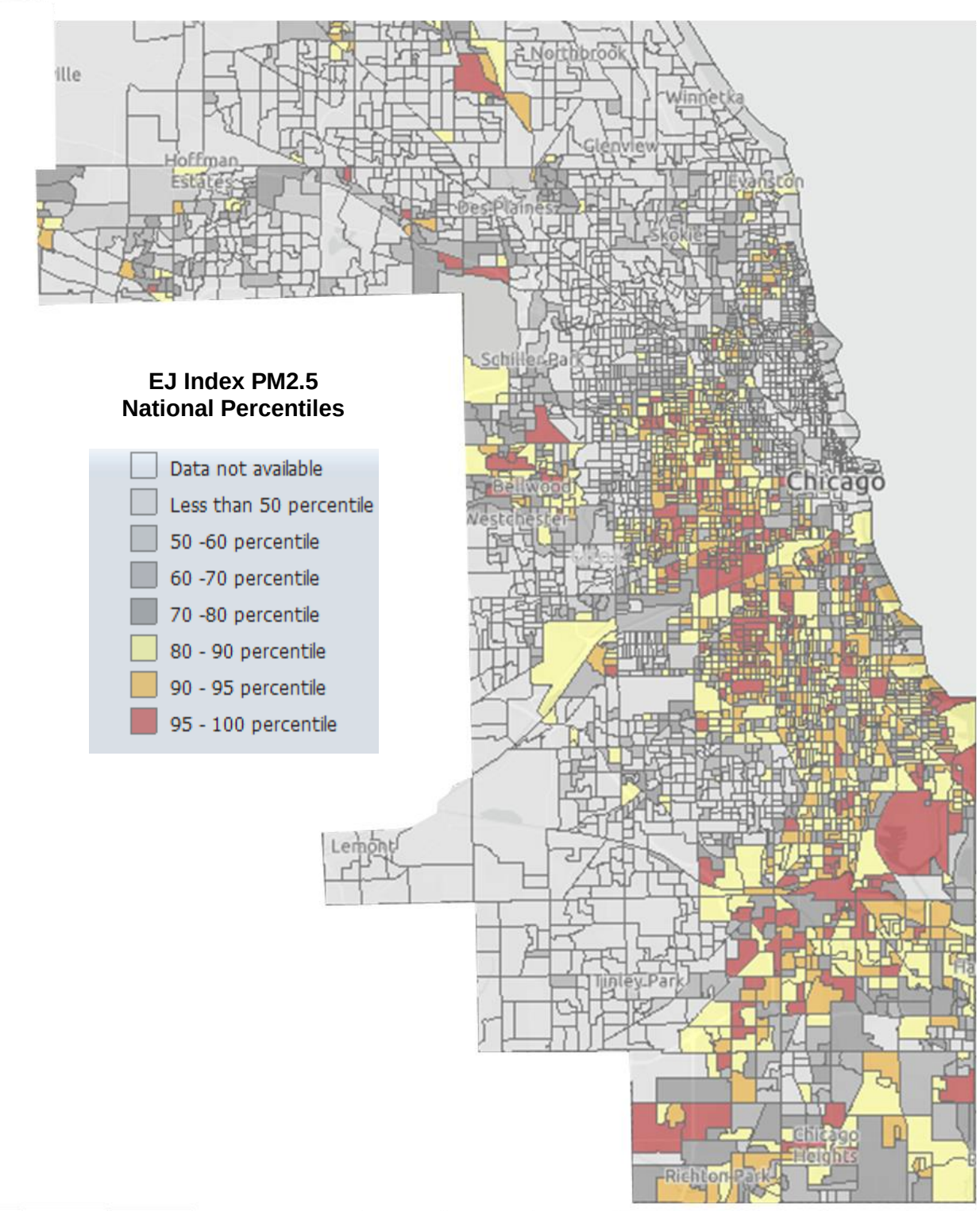
Hazardous waste is a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment (U.S. Environmental Protection Agency, 2015). A review of previous research found that there is evidence of a causal relationship between residential proximity to hazardous waste sites and negative health outcomes including liver, bladder, breast and testis cancers; non-Hodgkin lymphoma; asthma; congenital anomalies overall and anomalies of the neural tube, urogenital, connective and musculoskeletal systems; low birth weight; and pre-term birth (Fazzo et al., 2017). **Figure 54** demonstrates that like $PM_{2.5}$, the risk of proximity to hazardous waste sites is not equally distributed across the city and county.

The importance of environmental health

Inequities in environmental health extend beyond risk of exposure to particulate matter and proximity to hazardous waste. For example, a study conducted in Chicago found that non-whites and low-income residents were more likely to live in zones near toxic release sites (Wang & Feliberty, 2010). Proximity to sites where releases of toxic substances have been reported has been linked to a higher risk of health conditions such as lymphoma (Bulka et al., 2016). In addition, people living within poor housing infrastructure or experiencing housing instability are more likely to have environmental diseases and injuries (Jacobs, 2011). Data clearly indicate that addressing environmental health inequities and environmental injustices such as these are an important component to improving health equity.

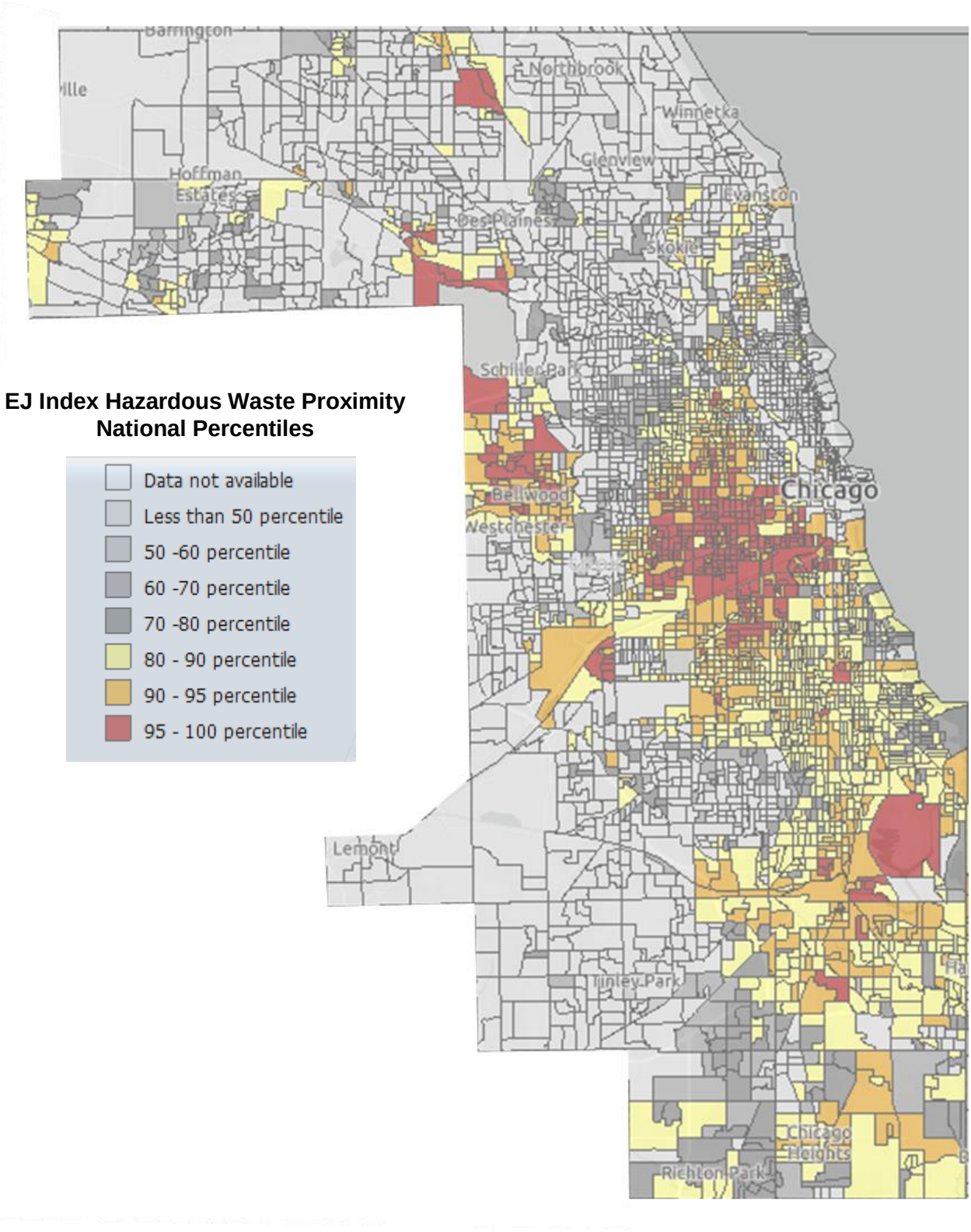
And, health stakeholders also have an important role to play in adapting and responding to climate change through emergency response, sustainability initiatives, and partnering to ensure our local communities have the resources needed for climate resilience.

Figure 53. Environmental Justice Index $PM_{2.5}$, Cook County, Illinois (2014)



U.S. Environmental Protection Agency, Office of Air and Radiation, 2014
Map Source: EJ Screen: EPA's Environmental Justice Screening and Mapping Tool (Version 2018)

Figure 54. Environmental Justice Index Hazardous Waste Proximity, Cook County, Illinois (2014)



U.S. Environmental Protection Agency, RCRAInfo database, (2018)
U.S. Environmental Protection Agency, LQG data calculated from the Biennial Hazardous Waste Report, 2017
Map Source: EJ Screen: EPA's Environmental Justice Screening and Mapping Tool (Version 2018)

Community Safety and Violence

As previously mentioned, although violence occurs in all communities, it is concentrated in low-income communities of color. The root causes of community violence are multifaceted but 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 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 that 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, 2011b).
- Thirty-five percent of urban youth exposed to community violence develop PTSD compared to 20% 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:

- Adults with asthma who are exposed to community violence have increased rates of hospitalizations and emergency department visits for asthma (Apter et al., 2010).
- Children of mothers experiencing chronic intimate partner violence have twice the 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; Centers for Disease Control and Prevention (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).
- Women who perceive their neighborhoods to be unsafe are 25% more likely to be obese (Boynton-Jarrett, Fargnoli, Suglia, Zuckerman, & Wright, 2010).
- 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).

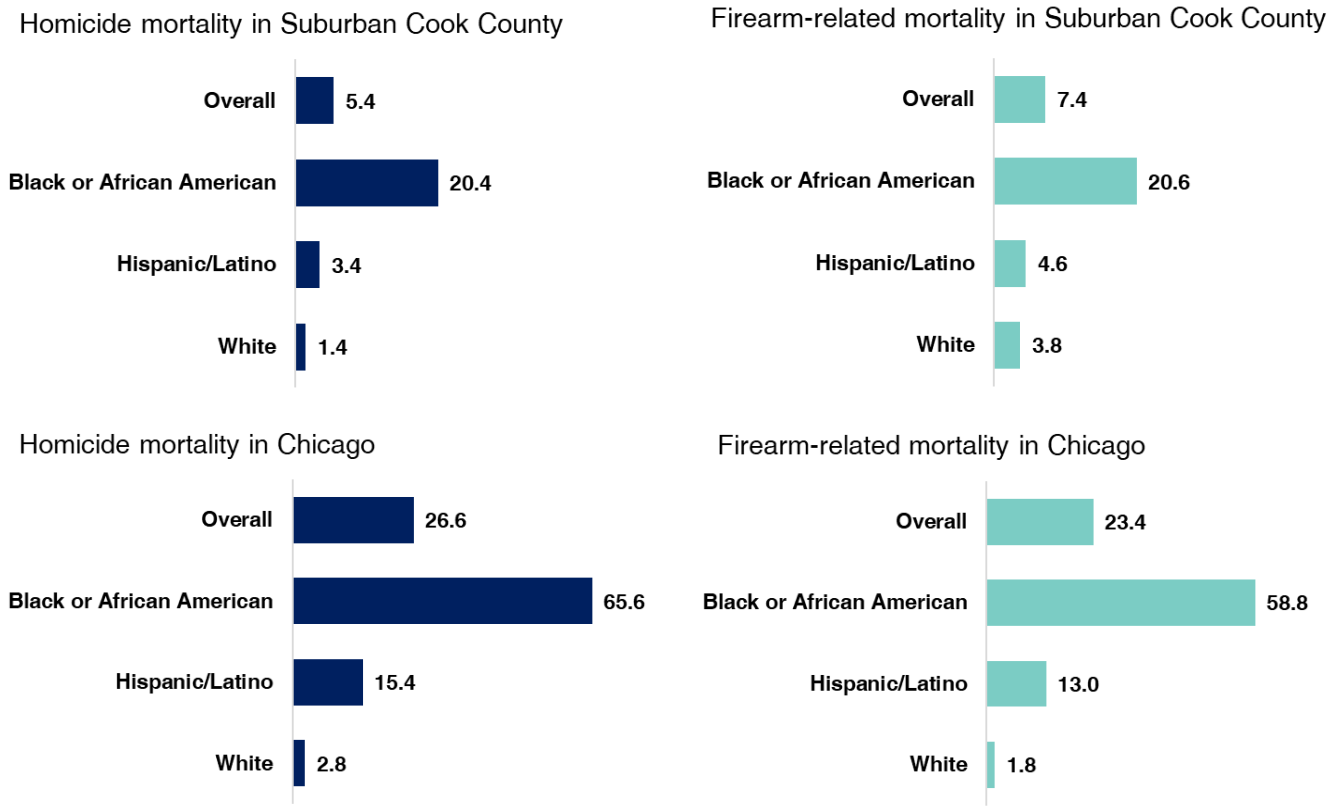
Community Input
At least twenty focus groups discussed the importance of safety in creating healthy communities and the detrimental effects that violence can have on individuals and the community overall. The mostly commonly mentioned safety issues included gun violence, gang activity, drug-related activities, burglaries, and armed robberies. Gun violence was mentioned as an issue across the city and county; however, it was most often mentioned by participants living in the West and South regions. The same geographic trend occurred in discussions about gang and drug-related activity. Burglaries and armed robberies were reported by focus group participants predominately in the City of Chicago, but it was spread 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, decreased mental well-being, trauma among children and adults, and decreased physical activity due to a reluctance to exercise in unsafe neighborhoods.

Within community input surveys, respondents shared the importance of safety and low crime in their communities. Overall, 37% 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.

Although violence occurs in all communities, it is concentrated in low-income communities of color. African American residents in both Chicago and Suburban Cook County have the highest burden of homicide and firearm-related mortality **(Figure 55)**.

The Voices of Child Health in Chicago initiative reports that Chicago parents that responded to the 2017-18 Healthy Chicago Jr. survey identified gun violence, bullying, poverty, and racism/discrimination as four of the top five social issues facing children in the city. Moreover, respondents identified child abuse and neglect as one of the top three health problems for youth. (Voices of Child Health, 2018-2019)

Figure 55. Age-adjusted rates of homicide and firearm-related mortality per 100,000 in Chicago and Suburban Cook County



IDPH, Division of Vital Records, 2016 (Chicago), 2012-2016 (Suburban Cook County)

Historically, violent crime data in the Unites States has 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 **(Figure 56)**. It is clear that there are substantial geographic differences in violent crime rates between community areas with the West and South sides of the city having the greatest burden of violent crime. These geographic comparisons are currently not possible for Suburban Cook County due to the structure of its numerous independent police jurisdictions that often do not share uniform policies for data collection and reporting.

Figure 56. Community areas with the highest and lowest violent crime rates* in Chicago, 2016

Highest	Crude Rate (per 100,000 population)	Lowest	Crude Rate (per 100,000 population)
Fuller Park	16237.8	**Forest Glen**	1086.0
West Garfield Park	13904.8	**North Center**	1292.9
East Garfield Park	13103.5	**Edison Park**	1340.8
North Lawndale	12714.4	**Mount Greenwood**	1456.0
Riverdale	12511.6	**Lincoln Park**	1531.6
Washington Park	12127.7	**Norwood Park**	1680.0
Englewood	11173.1	**Clearing**	1776.2
Greater Grand Crossing	10680.3	**Beverly**	1796.9
West Englewood	10133.8	**Dunning**	1845.8
Chatham	9417.3	**Jefferson Park**	1945.1

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

Chicago Police Department Research and Development Division, 2016; U.S. Census Bureau 2010 Census Community areas with high rates of violent crime also rank high on the Social Vulnerability Index. The index is comprised of four measures: percent of households below the poverty level; percent of persons age 25 years or older without a high school diploma; unemployment rate for persons in the labor force age 16 or older; and the homicide rate per 100,000 residents. In addition, these communities share the greatest number of years of potential life lost from gun deaths (Chicago HEAL Initiative, 2018; University of Chicago Crime Lab, n.d.). As a result, Alliance hospitals that are participating in the **Chicago HEAL Initiative** have chosen to focus on violence reduction and health improvement efforts in the 16 Chicago community areas with the highest social vulnerability, highest rates of violent crime, and highest burden of gun deaths.

Bullying

Bullying is a form of 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 education 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). Bullying is common with approximately 20% of students between sixth and twelfth 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+ **(Figure 57)**. Given the high prevalence of bullying and the profound effects it can have on health, educational outcomes, and educational attainment the Centers for Disease Control and Prevention recommends that evidence-based bullying prevention interventions be implemented in all schools (National Center for Injury Prevention and Control, 2018). Tailored interventions may be needed to address the high rates of bullying for certain student sub-populations.

Figure 57. 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 • **19.0%** 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)

Access to Quality Health Care

Access to health care 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 health care services:

- gaining entry into the health care system;
- accessing a location where needed health care services are provided; and
- finding a health care provider whom the patient trusts and can communicate with (U.S. Department of Health and Human Services, 2019b).

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

Health care coverage

Entry into the health care system is usually gained through health care coverage which includes private and public insurance benefits (U.S. Department of Health and Human Services, 2019b). Fifty-three percent of Illinois residents receive insurance coverage through employer-sponsored plans. The 2014 coverage expansions that occurred as a result of the Affordable Care Act have allowed more people in Illinois to obtain health insurance and better afford the health care they need. In 2018:

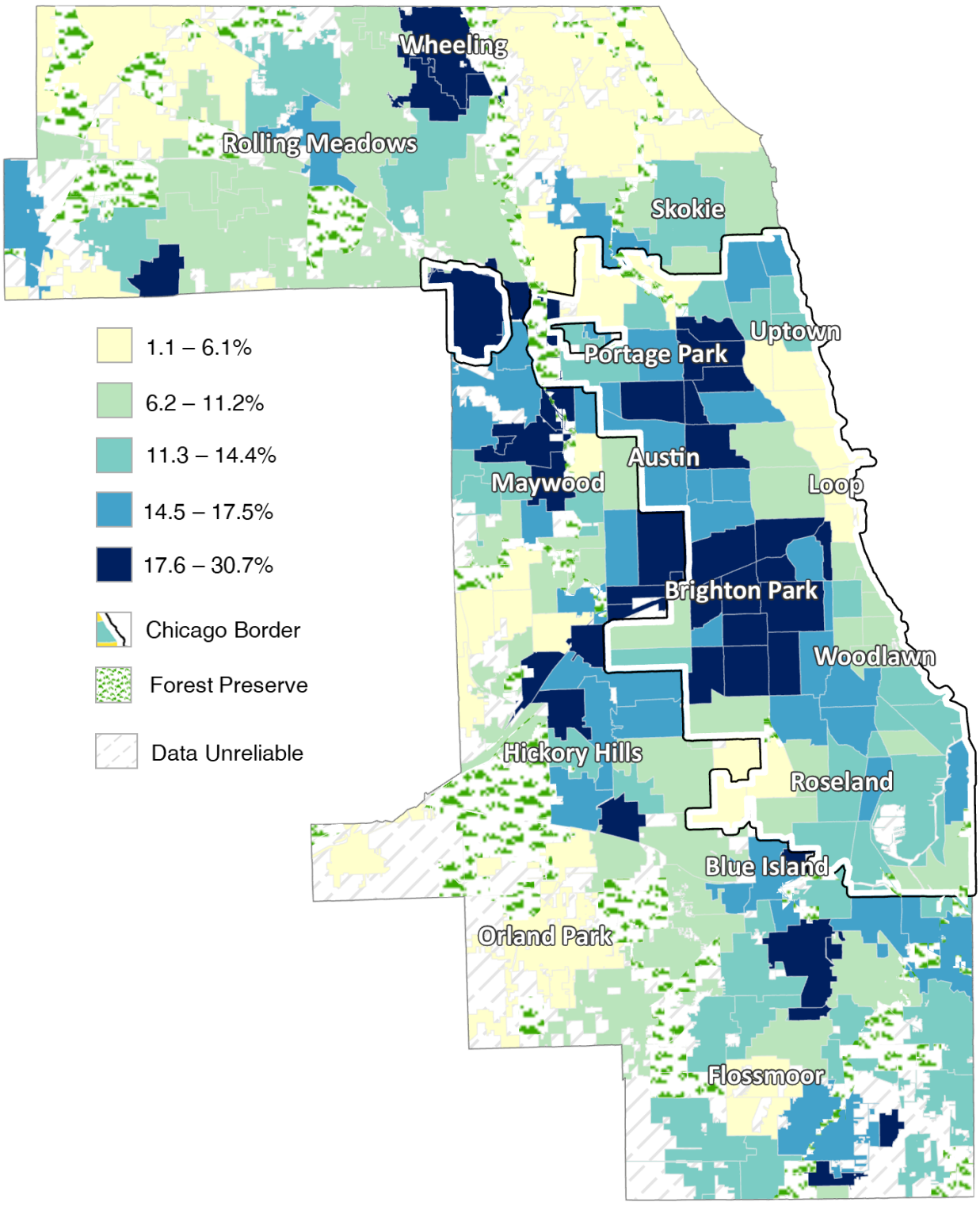
- 334,979 Illinois residents had insurance coverage through a HealthCare Marketplace plan;
- 82% of those covered under HealthCare Marketplace plans received financial assistance (premium tax credits) to purchase coverage; and
- 2,955,463 children and adults in Illinois (18%) were enrolled in Medicaid and the Children's Health Insurance Program (CHIP) (The Commonwealth Fund, 2018).

Within Cook County, 11% of the population does not have health insurance coverage which is greater than the statewide average of 9% (U.S. Census Bureau, American Community Survey, 2017b). However, uninsured rates can be even higher among certain population groups. For example:

- in Cook County, uninsured rates are highest among the population aged 18-64 (16%) compared to children under 18 (4%) and adults over age 65 (2%);
- **in Cook County, uninsured rates among the Hispanic/Latinx population (20%) are more than double those of the non-Hispanic/Latinx population (8%)**;
- in the U.S., among the non-elderly population, 23% of lawfully present immigrants and 45% of undocumented immigrants are uninsured compared to 8% 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% vs 4%);
- one in five low-income Americans still go without care because of cost compared to 1 in 25 high-income Americans; and
- many of the working poor do not qualify for Medicaid and are often employed in professions that do not offer employer benefits (Amadeo, 2019; Kaiser Family Foundation, 2019; U.S. Census Bureau, American Community Survey, 2017b; Williamson, Antonisse, Tolbert, & Garfield, 2016).

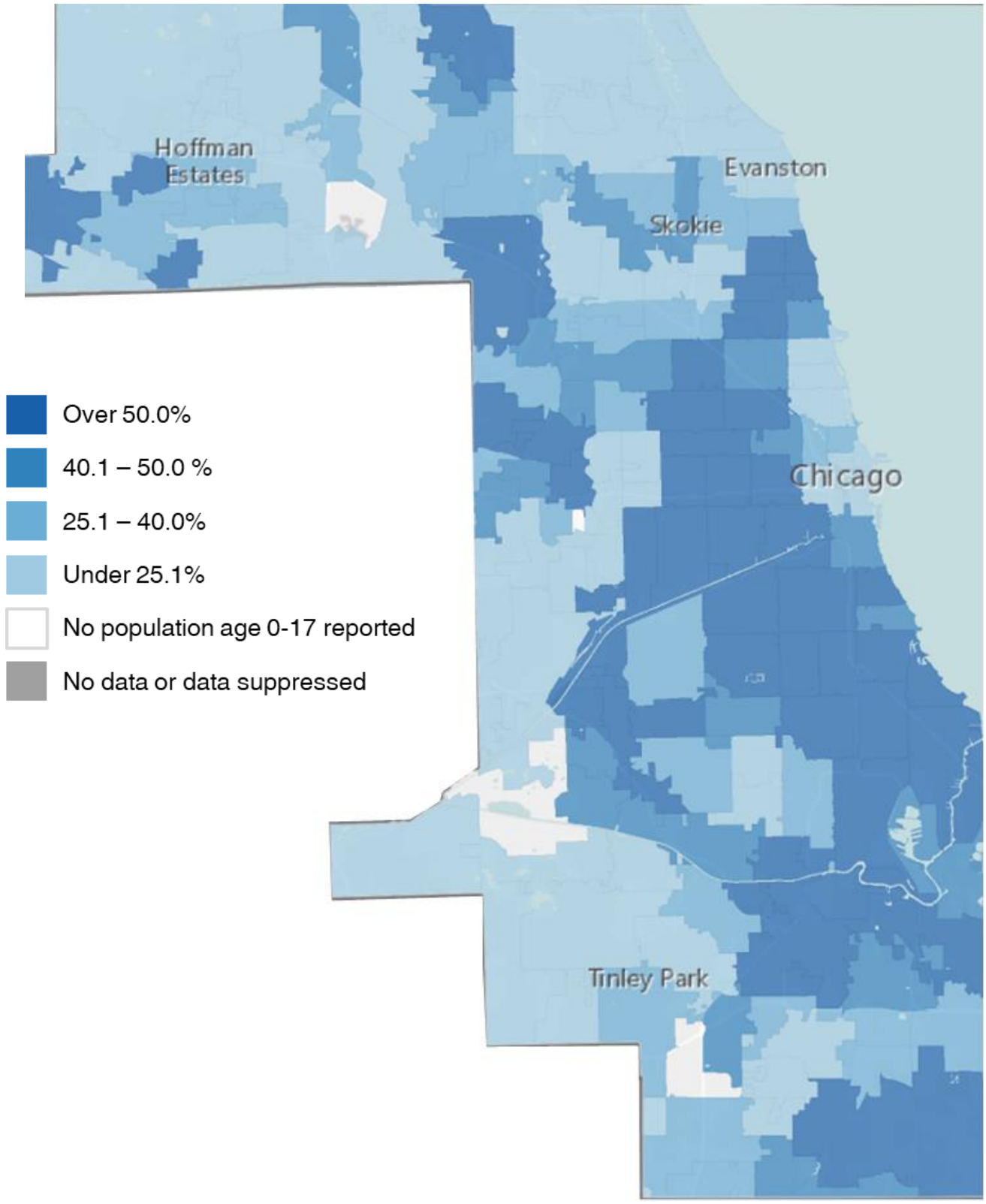
The geographic distribution of uninsured individuals in Cook County is presented in **Figure 58**. In some communities, uninsured rates are as high as 30%. Uninsured individuals are significantly less likely to access needed health care services. Nationwide, only 38% of uninsured adults visited a doctor in 2018 compared to 70% of those privately insured, and 74% of those with Medicaid coverage (Kaiser Family Foundation, 2018a). Medicaid coverage rates for children age 0-17 are presented in **Figure 59**.

Figure 58. Geographic distribution of uninsured individuals in Cook County, Illinois (2016, ACS 5-Year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016

Figure 59. Geographic distribution of children receiving Medicaid coverage in Cook County, Illinois (2016, ACS 5-year Estimates)



U.S. Census Bureau, American Community Survey, 2012-2016
Map source: CARES Engagement Network

Community Input
Focus group participants mentioned several common barriers that prevent them from accessing the health care system:

- the 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;
- the high cost of some private insurance plans;
- a lack of knowledge about available insurance and benefit options;
- diminishing access to services that assist individuals with obtaining coverage;
- logistical issues related to making health care appointments and arranging needed transportation;
- provider shortages particularly for specialists; and
- structural racism and discrimination that lead to differences in the quality and availability of health care services between communities.

Focus group participants stated that lacking health care 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 health care services

Previous research has established that patients living further away from health care 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). Similar studies in the United Kingdom have found additional poor health outcomes related to greater distance from health care services including a higher rate of asthma deaths and lower than expected five-year survival from cancer (Campbell et al., 2000; Jones & Bentham, 1997). Additional studies have found that increased travel time to primary care facilities or physicians increased disease burden and increased the risk of some types of chronic disease related mortality (Billi et al., 2007; Saijo et al., 2018).

Socioeconomic inequities play a role in geographic proximity to health care services. For example, one study found that walk-in clinics and primary care physician offices are less concentrated in geographic areas containing low-income communities (Chen, Revere, & Ramphul, 2016). A study in Texas found that African American communities had a significantly lower density of physician's offices (Anderson, 2018). A study based in Washington D.C. found that there were racial and socioeconomic disparities in pediatric provider density despite a citywide overabundance of pediatric primary care providers (Guagliardo, Ronzio, Cheung, Chacko, & Joseph, 2004). Residential segregation of racial and ethnic minorities can both cause and exacerbate these geographic inequities in health care access (White, Haas, & Williams, 2012).

The Health Resources and Services Administration designates Health Professional Shortage Areas for primary care, dental health, and mental health. Shortage areas are either due to geography (shortage of providers for the entire population within a defined geographic area) or are population specific for low-income residents in an area. Health Professional Shortage Areas for primary care and mental health in Cook County are shown in **Figures 60-61**.

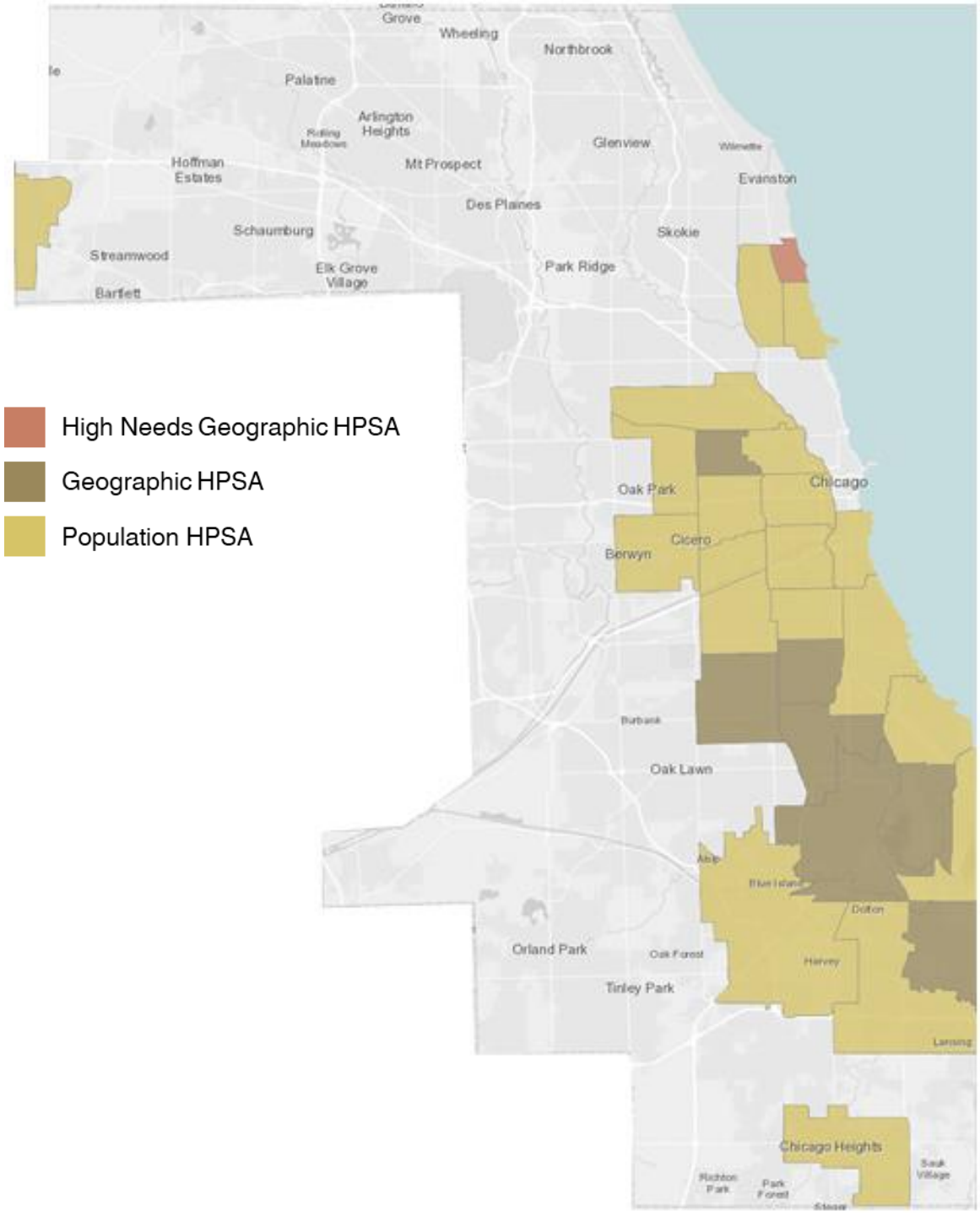
Federally Qualified Health Centers (FQHCs) have an important role in eliminating disparities in access to health care. For example, nationwide, most FQHC patients have low-incomes with 93% falling below the 200% Federal Poverty Level (FPL) and 72% below the 100% FPL (National Association of Community Health Centers, 2015). Besides primary and preventative care, most FQHCs provide behavioral, oral, vision, and pharmacy services (National Association of Community Health Centers, 2015). By law FQHCs must:

- 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% FPL, and charge uninsured and underinsured individuals between 101% - 200% FPL based on a sliding fee scale; and
- provide non-clinical enabling services to increase access to care, such as transportation, translation, and case management (National Association of Community Health Centers, 2015).

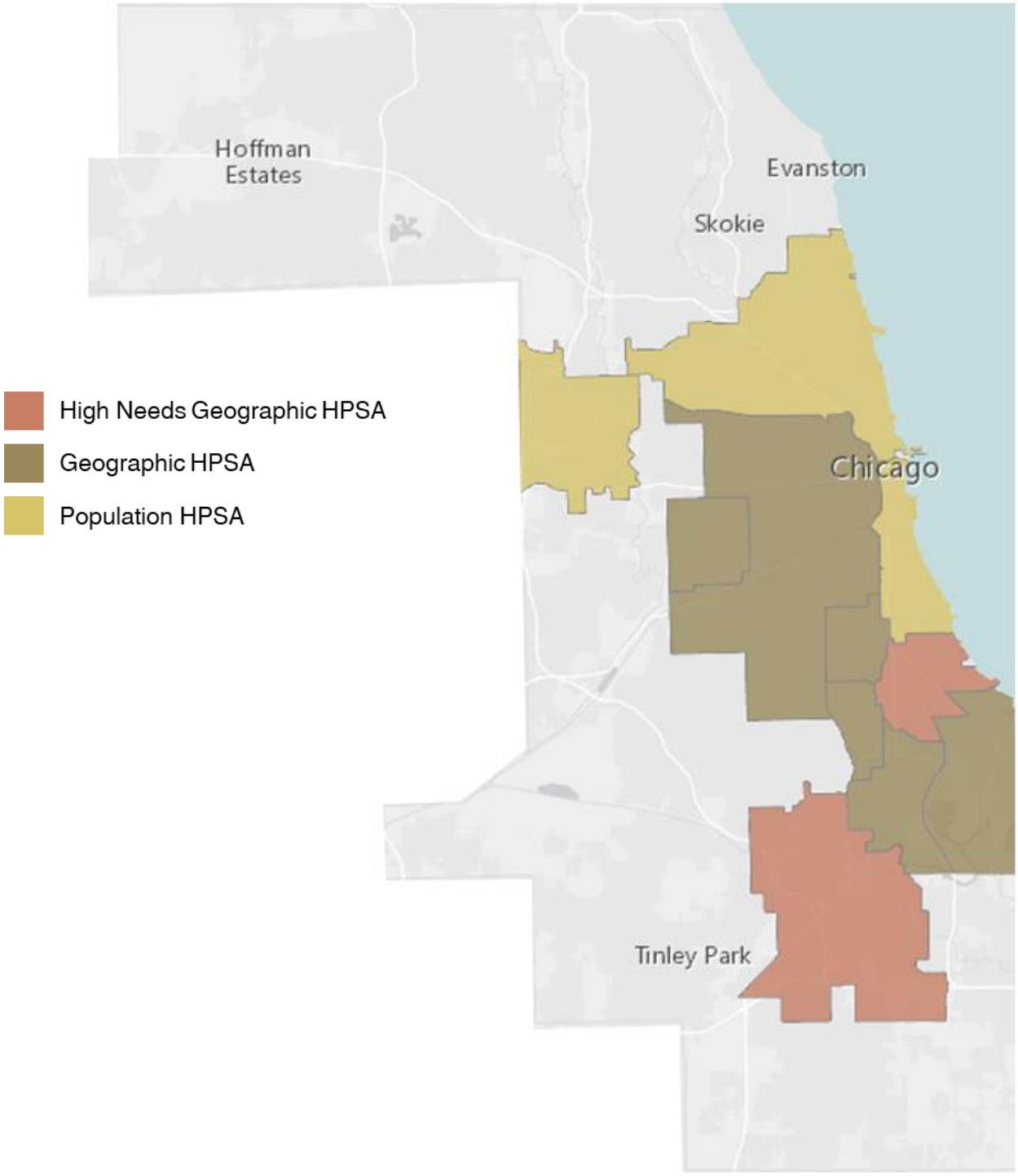
The geographic distribution of FQHCs is shown in **Figure 62**, indicating that FQHCs are heavily concentrated within Chicago, potentially leaving suburban areas under-resourced.

Figure 60. Health Professional Shortage Areas in Cook County, Illinois – Primary Care (2019)



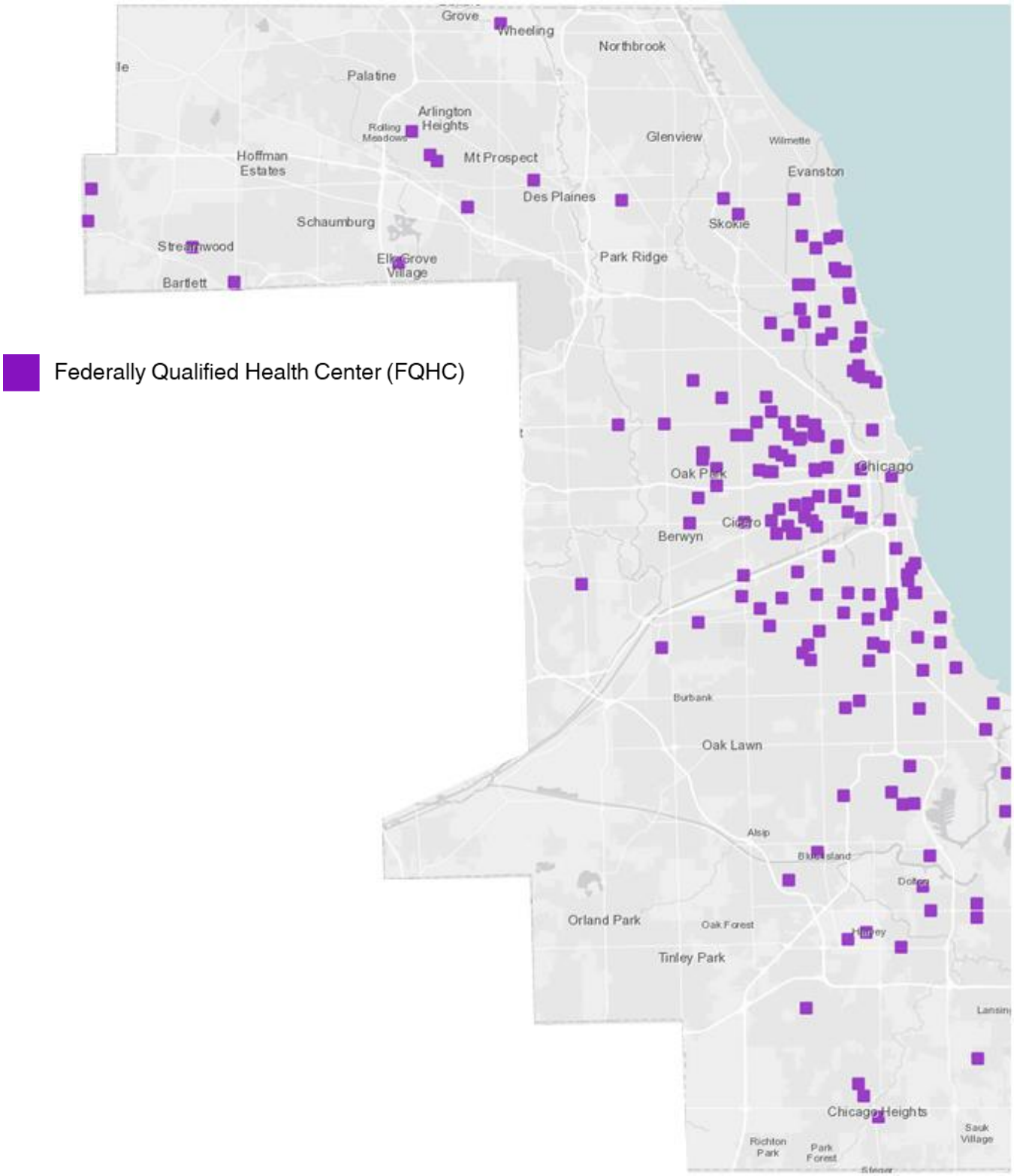
Health Resources and Services Administration, 2019
Map source: CARES Engagement Network

Figure 61. Health Professional Shortage Areas in Cook County, Illinois – Mental Health Care (2019)



Health Resources and Services Administration, 2019
Map source: CARES Engagement Network

Figure 62. Geographic distribution of Federally Qualified Health Centers in Cook County, Illinois (2018)



CMS Providers of Service (POS) database, 2018
Map source: CARES Engagement Network

Community Input
The majority of focus groups that discussed health care access gave examples of the difficulties they encountered when trying to access a location where needed health care services are provided including a lack of reliable transportation services, limited availability of local providers accepting public benefits, and overall provider shortages.

Direct quotes from community residents:

- "Patients need to have access to health care 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)

Health care quality

Health care quality can vary greatly between communities due to several factors including the geographic proximity of a spectrum of emergency or urgent care services, percentage of the population receiving public benefits, funding for community-based services, education and training levels of health care staff, and localized provider shortages. Race and ethnicity also play a critical role in the quality of health care that patients receive.

Previous studies have established that racial and ethnic disparities in health care 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 health care received (Institute of Medicine (US) Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, 2003). For example,

- In an equal-access military health care system in California, African American and whites had similar postoperative outcomes. However, when compared to the civilian health care system within the state, racial disparities in outcomes were evident, especially among those without private insurance (Schoenfeld et al., 2017).
- A study of patient weight, race, and provider communication quality found that overweight/obese African American patients and healthy weight Hispanic patients experienced disparities in provider communication quality (Wong, Gudzune, & Bleich, 2015).
- In a study of providers, physicians were more likely to rate their African American patients as less educated, less intelligent, more likely to abuse drugs and alcohol, and less likely to adhere to treatment regimens (van Ryn & Burke, 2000). The differences in perceptions persisted even after controlling for confounding variables (van Ryn & Burke, 2000).

Perceptions of discrimination in health care have been associated with several outcomes among patients of color including decreased use of preventative health care, 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
Focus group participants that belonged to communities of color 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; and 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 health care resource for young people in communities. 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;
- 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; and
- reduced violence (American Public Health Association, 2018).

School Health Access Collaborative – Summary of 2018 Landscape Analysis

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 health care 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 health care 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 in general. The resources needed range from additional school staff or providers to funding for additional services. The need is so great that even schools that have school-based health centers or established relationships with mobile providers and partners don't have enough to match the need for services. Furthermore, there is a need for consistent services throughout the year. Frequent staff turnover creates a moving target on who school contacts are to coordinate health care services. Also, students need services during the summer, but most schools are not open.

Mental and Behavioral Health
There are gaps in mental health services on the South and West Sides of Chicago. Students that experience ongoing stress and trauma need ongoing support. Often there is only one social worker for the entire student population. 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 for students. Moreover, there are schools and community areas that may be overlooked because they don't fall within certain data markers, which can result in certain communities being oversaturated and others not receiving services.

Data Sharing
The opportunities emerged for more effective and efficient school-based health: data collection, data analysis, and data sharing. Currently, the barriers to data collection and sharing are HIPAA, 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. A system that maintains all student health records could reduce redundancies and point out gaps in student health care needs.

Coordination of Services
Health care 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 health care partners and advocating for school-based health programs.

Addressing the gaps identified by the analysis will provide opportunities to increase the positive outcomes of school and health care partnerships.

Mental Health and Substance Use Disorders

Key Takeaways

This section summarizes the mental health needs facing Chicago and Suburban Cook County communities. In surveys and focus groups, community residents in Cook County identified access to health care services in general and to mental health services in particular as major concerns. Perhaps responding to the sense of urgency among communities, several collaborative projects have emerged among providers and advocates to address mental health needs in Cook County and in Illinois. We have distilled common findings from existing collaborative assessments, secondary data, and primary data collected through this CHNA process into six key takeaways related to mental health and substance use disorders that describe major problems, their importance for health equity, and opportunities to address them in the near-term.

Overarching need: Quality

NAMI 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 health care" (NAMI Chicago, 2019). The tendency to regard mental health as something distinct from overall wellness and as a special concern for an unfortunate segment of the general population is subtle, but widespread and pernicious. It shows itself in the separation of mental health from general health providers and state agencies, and in our everyday language, in which "mental health" is detached from a general concept of wellness in a way that "cardiac health," for example, is not. As a result, mental health services are provided in a distinct, stigmatized silo that is not subject to the same demand for quality as most other health care sectors. Validated symptom rating scales for monitoring outcomes of mental health interventions, for example, are rarely used, and incentives for implementing such measurement-based care practices are missing (The Kennedy Forum, 2015). Reliable, actionable quality measures for mental health and substance use disorder outcomes are woefully lacking, and process measures that track encounters—such as 7-day follow-up appointments after a hospitalization—do not monitor compliance with evidence-based practices during the encounter (Lloyd, 2015). For too many, the experience of mental health care does not meet cultural needs, is not incentivized to be high-quality, and is deeply discouraging for the individual, their family, and their community.

Fragmentation of services and integration of care

- A common theme in mental health assessments 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 health care 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.
- Across Cook County, efforts toward integrating primary and mental health care 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.

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 health care settings.
- Social determinants of health affect communities in the context of social inequities. For example, African Americans in the U.S. are three times more likely to experience homelessness (U.S. Department of Housing and Urban Development, 2010). Failing to embed social needs into health care practice helps reproduce racial inequities by neglecting the root causes of poor health.

- The level of community awareness and understanding of mental health symptoms and treatment is another part of the social-environmental background for health and can be impacted through community mental health awareness and Mental Health First Aid trainings.
- 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). As assessment of social and structural determinants of health becomes more routine, the resulting data will assist advocates and policy makers to implement systemic solutions to health inequities.

Trauma and childhood adversity

- Experiences of trauma and adversity in childhood, including abuse and household instability, extreme discrimination and poverty, or the loss of a parent, is widespread, affecting more than half of all adults in Illinois (Stillerman, n.d.-b).
- 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).
- Trauma-informed practice protocols are available for health care, schools, law enforcement and corrections, and child welfare systems to mitigate past experiences of stigma and trauma and to prevent further harm (Stillerman, n.d.-a).

Stigma and discrimination

- Assessments of mental health needs in Cook County indicate that stigma and discrimination against people with mental illness and substance use disorder persists in communities, schools, workplaces, and even in health care settings. For older adults, ageism combines with stigma to overshadow mental illness when symptoms are dismissed as part of a normal aging process.
- Stigma deters people from seeking treatment before a crisis, and the experience of discrimination discourages ongoing engagement with treatment.
- Insurance parity laws and Mental Health First Aid training resources create opportunities to reduce stigma and fight discrimination, while the national response to the opioid crisis has increased mainstream attention to individual lived experiences of both substance use and harm reduction.

Workforce shortages and gaps in training

- Any progress in reducing stigma and discrimination is likely to increase demand for services. Yet community residents and referring medical providers already report barriers to access due to mental health professional shortages. Low reimbursement rates stifle the potential for workforce growth.
- A workforce that is linguistically competent and culturally humble is a necessary condition to overcoming the burden of stigma and structural racism. In particular, access to providers of evidence-based practices, such as Assertive Community Treatment, Medication-Assisted Treatment, and peer support, is crucial for people with serious mental illness and opioid use disorders.
- State programs to increase the number of Medication Assisted Treatment (MAT)-certified prescribers and expand reimbursement for telehealth and telepsychiatry, and local initiatives like Geriatric Worker Enhancement Programs, create opportunities to extend the existing workforce to reach more people in need. But Chicago and Cook County need to advocate for higher state reimbursement rates to address the workforce crisis (Illinois Department of Human Services, 2018; Illinois General Assembly, 2019).

Overview

The Alliance for Health Equity recognizes that health is more than the absence or successful management of disease, but that it includes overall mental and social well-being as well. While affirming the fundamental unity of physical and mental health, it is important to acknowledge that existing inequities demand a special focus on mental illness and substance use disorder. In a seminal text on the topic of mental health disparities, Joseph

Parks and colleagues reported that people with serious mental illness die on average 25 years earlier than the general population and that 60% of those premature deaths are due to physical health conditions such as cardiovascular and infectious diseases (Mauer, 2006). Mental health disparities research continues to explore this issue and to search for potential solutions. One 2017 study found that the mortality rate for opioid use disorder patients in a large university health system was 10 times higher than the rate for the general patient population (Hser et al., 2017). Again, cardiovascular and infectious disease were among the leading causes of death, contributing more to excess mortality than overdose deaths. Both of these studies pointed to **integrated care as a step to eliminate these alarming disparities in longevity for people with mental illness and substance use disorders.**

Providers and policy makers increasingly recognize the necessity of an integrated approach to physical, mental health, and social services. The Agency for Healthcare Research and Quality assembled a panel to develop a consensus definition of behavioral health-primary care integration:

> "The care that results from a practice team of primary care and behavioral health clinicians, working together with patients and families, using a systematic and cost-effective approach to provide patient-centered care for a defined population. This care may address mental health and substance abuse conditions, health behaviors (including their contribution to chronic medical illnesses), life stressors and crises, stress-related physical symptoms, and ineffective patterns of health care utilization" (Peek & The National Integration Academy Council, 2013).

Research has demonstrated that integrating primary and mental health care 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 engagement with treatment plans, but most integration models are provider-centric, with a starting point of a physician's office or a mental health clinic. Ideally integrated providers intersect with communities that invest in the overall well-being of their residents, so that health care interventions reinforce stabilizing elements already present in homes and communities. Well-being models supply a framework for the community-side of this formula.

Well-being models identify essential community conditions that are necessary not only to prevent or manage illness, but also to support the best possible overall quality of life for community members (Larry Cohen, Rachel Davis, Larissa Estes, Leslie Mikkelsen, & Sheila Savannah, 2017). These conditions include the quality of housing and the built environment, education and employment, opportunities for civic engagement, and access to quality health care services. The Full Frame Initiative outlines five domains of well-being: **social connectedness** in a supportive, accepting community; **stability** to withstand adversity; **safety** to express one's identity without fear of harm; **mastery** to feel empowered to influence the events that impact one's life; and **meaningful access** to relevant resources "to meet basic needs without shame, danger or great difficulty" ("The Full Frame Approach and The Five Domains of Wellbeing," n.d.). These often-intangible qualities of communities contribute to health and are essential to convert detrimental determinants such as stigma, racism and homophobia, isolation and disempowerment, that are such powerful barriers to mental health and well-being, into protective and nurturing elements of strong communities (Larry Cohen et al., 2017).

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 and Cook County 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. In the community input survey and focus groups, community members reported difficulty accessing services and described mental health center closures in Chicago and an overall shortage of providers, especially on the South Side of Chicago and south Suburban Cook County. But building more workforce "pipelines" into a system that does not effectively deploy team-based integrated care cannot sustainably improve access. Without changes to financing from state and national policy, attrition from turnover and burnout will limit the reach of evidence-based treatment. Evaluations of integrated care have highlighted the role of financing structures in building effective, sustainable integrated practices. Core components of integration models, such as outreach and engagement and communication between providers, is 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).

Finally, integrated approaches to health and well-being must include housing needs. Housing instability is a stressor on many Cook County residents, as reflected in focus group responses, and it is especially damaging to people managing mental health conditions. Stable housing with wraparound services can be a platform for recovery and wellness, and meaningful de-institutionalization is impossible without investing in supportive housing (Illinois Housing Task Force, 2017).

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 whose needs are distinct from adults and require specific systems to support their mental health in their homes, schools, and communities
- 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 health care 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 adversity who are 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 or by individuals that do not implement trauma-informed approaches (National Council for Behavioral Health, n.d.; Stillerman, n.d.-b)
- Children and adults with intellectual or developmental disabilities who have a higher prevalence of mental health disorders
- One in three veterans returning from Iraq and Afghanistan have mental health conditions related to their military service, but only about half receive treatment.

Community Input

Input from community resident focus groups and surveys provided strong evidence that mental health and substance use are key health issues across the entire geography of Chicago and Suburban Cook County.

Mental health, substance use, stress, and trauma were key topics of discussion in at least 80% 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 from the discussions included:

- the prevalence of chronic stress among youth and adults in communities;
- a 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;
- the consequences of untreated conditions; and
- the 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 Cook County 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

The mental health crisis that the U.S. is currently undergoing is hitting emergency departments particularly hard in part due to the fact that EDs are one of the last remaining safety nets in communities (Laderman, Dasgupta, Henderson, & Waghray, 2018). One in eight ED visits in the U.S. is related to mental health or a substance use issue, a number that has increased every year in the past decade (Laderman et al., 2018). EDs are traditionally not equipped to cope with behavioral health needs and combined with the increasing demand for services this has contributed to poor health outcomes in patients, traumatization and stigmatization, poor connection to follow-up care, and repeat ED visits (Laderman et al., 2018; Niedzwiecki, Sharma, Kanzaria, McConville, & Hsia, 2018). Previous research on ED utilization patterns has found that 50% of frequent ED users have a mental health diagnosis and that usage increases with the severity of that mental health diagnosis (Hunt, Weber, Showstack, Colby, & Callaham, 2006; Niedzwiecki et al., 2018). In addition, frequent ED users are often dealing with other factors such as homelessness, food insecurity, and addiction which have historically been viewed as non-medical problems (Kushel, Perry, Bangsberg, Clark, & Moss, 2002).

Mental health-related ED visit rates for adults in Cook County communities range from 21 per 10,000 to 661 per 10,000 illustrating that the need for quality community-based and preventative behavioral health treatment is very high in some communities **(Figure 63)**. Although mental health related ED visit rates are lower for youth in Cook County, large disparities are still apparent **(Figure 64)**. 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 health care.

Suicide and intentional injury

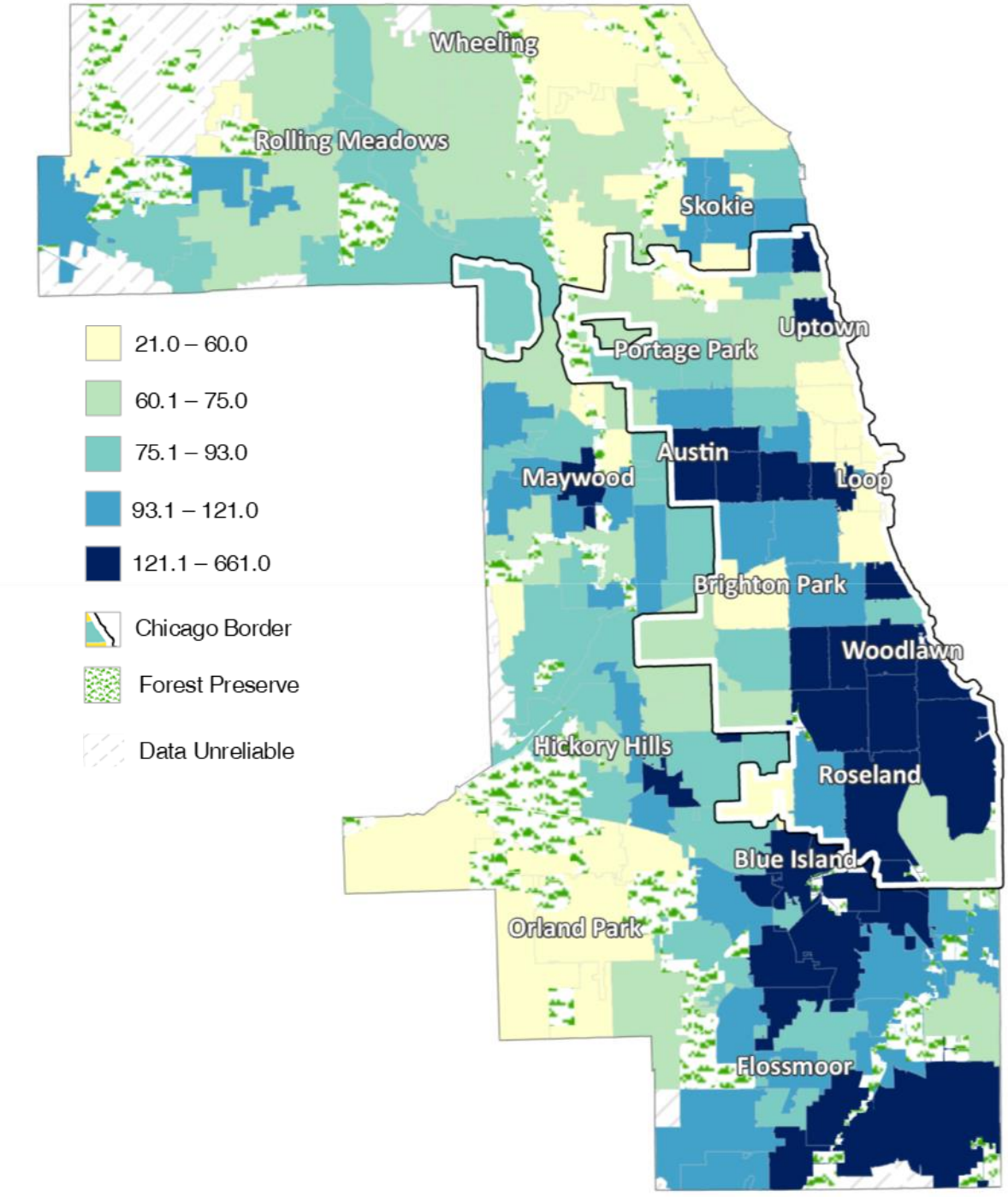
Not only do ED visits for suicide and intentional injury indicate a failure of the behavioral health system to provide adequate community-based treatment and prevention, but they also indicate a future risk for suicide or self-harm (Suicide Prevention Resource Center, n.d.). The risk of suicide attempt or death is highest within 30 days of discharge from an ED or inpatient psychiatric unit (Knesper, 2011). Compounding this problem is the fact that up to 70% of patients who leave the ED after a suicide attempt never attend their first outpatient appointment (Knesper, 2011). Patients without behavioral health diagnoses could also benefit from improved ED interventions. For example, one study found that approximately 37% of individuals without a mental health or substance use disorder diagnosis who die by suicide make an ED visit within a year of their death (Ahmedani et al., 2014). Although high ED rates indicate a need for system-level changes, ED visits present a unique opportunity to screen, provide brief intervention, and better connect individuals to ongoing care (Suicide Prevention Resource Center, n.d.).

In Cook County, adult and child ED rates for suicide and intentional injury are typically higher in communities with higher rates of ED visits for mental illness. ED admission rates range from 7 per 10,000 to 279 per 10,000 among Cook County adults and range from 11 per 10,000 to 135 per 10,000 for children aged 10-17 **(Figures 65-66)**.

Substance use disorders

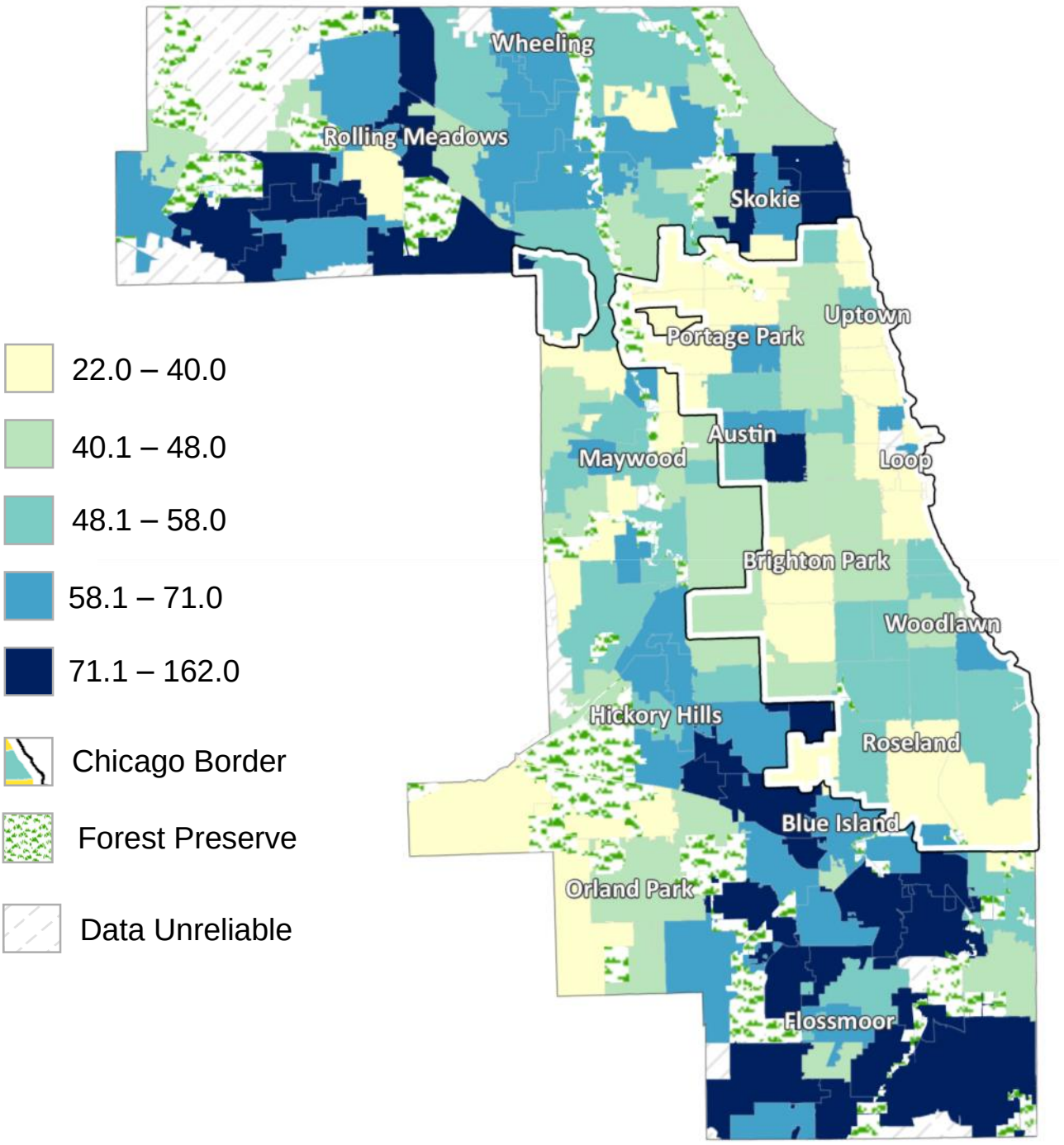
As detailed in the mortality section of the Chronic Disease chapter, drug overdose deaths are on the rise in Chicago and Suburban Cook County. In addition, there have been dramatic increases in opioid overdose deaths within the county since 2015. EDs provide unique opportunities to screen patients, initiate evidence-based treatment, provide overdose prevention, and connect patients to ongoing community-based care. ED admission rates for substance use disorders and alcohol use in Cook County **(Figures 67-68)** combined with the drug and opioid overdose data presented in the Chronic Disease chapter indicate a need for enhanced approaches to substance use treatment in several communities.

Figure 63. Age-adjusted mental health emergency department visit rates per 10,000 in Cook County, Illinois (Adults)



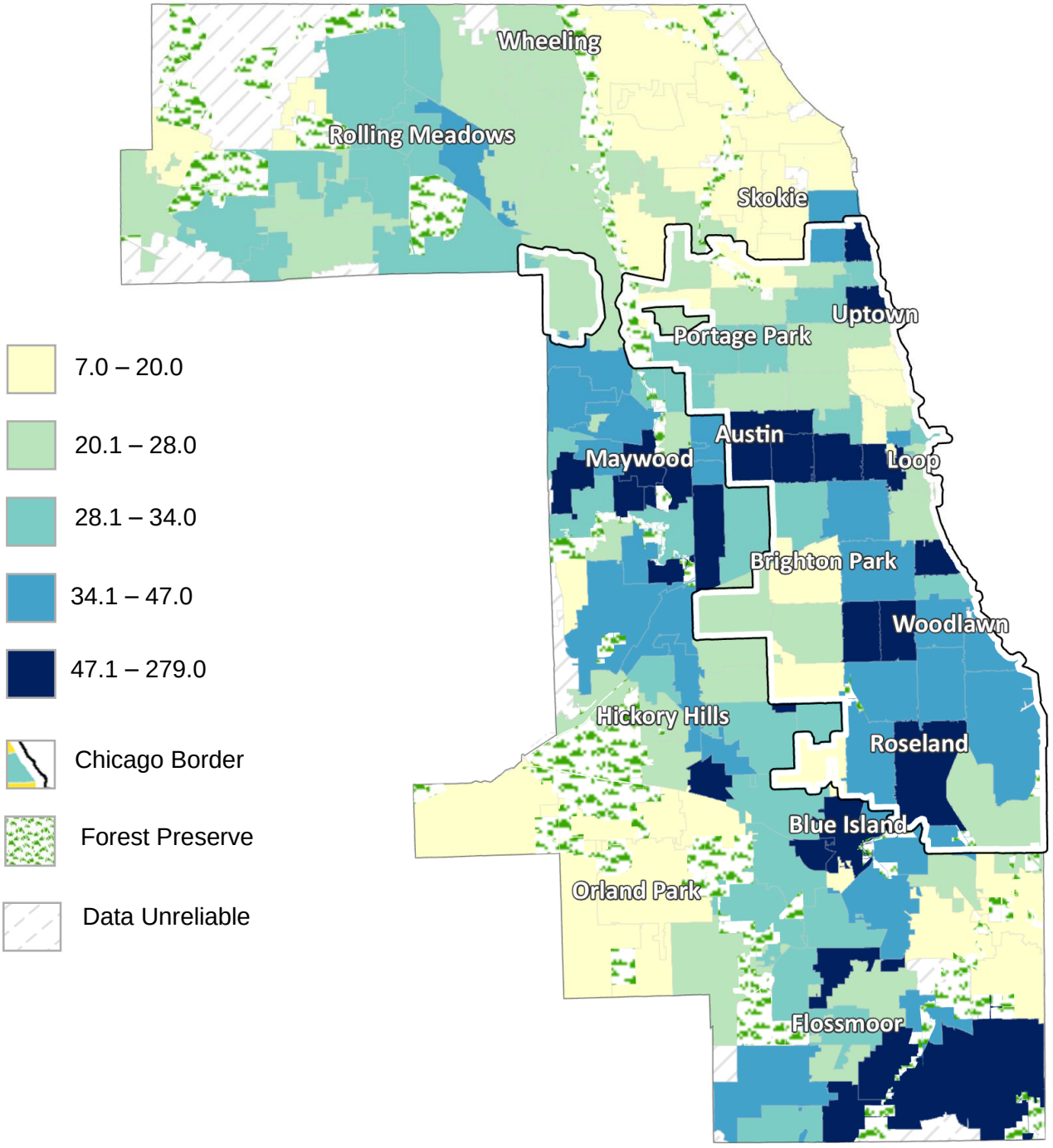
Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 64. Age-adjusted mental health emergency department visit rates per 10,000 in Cook County, Illinois (Children under 18)



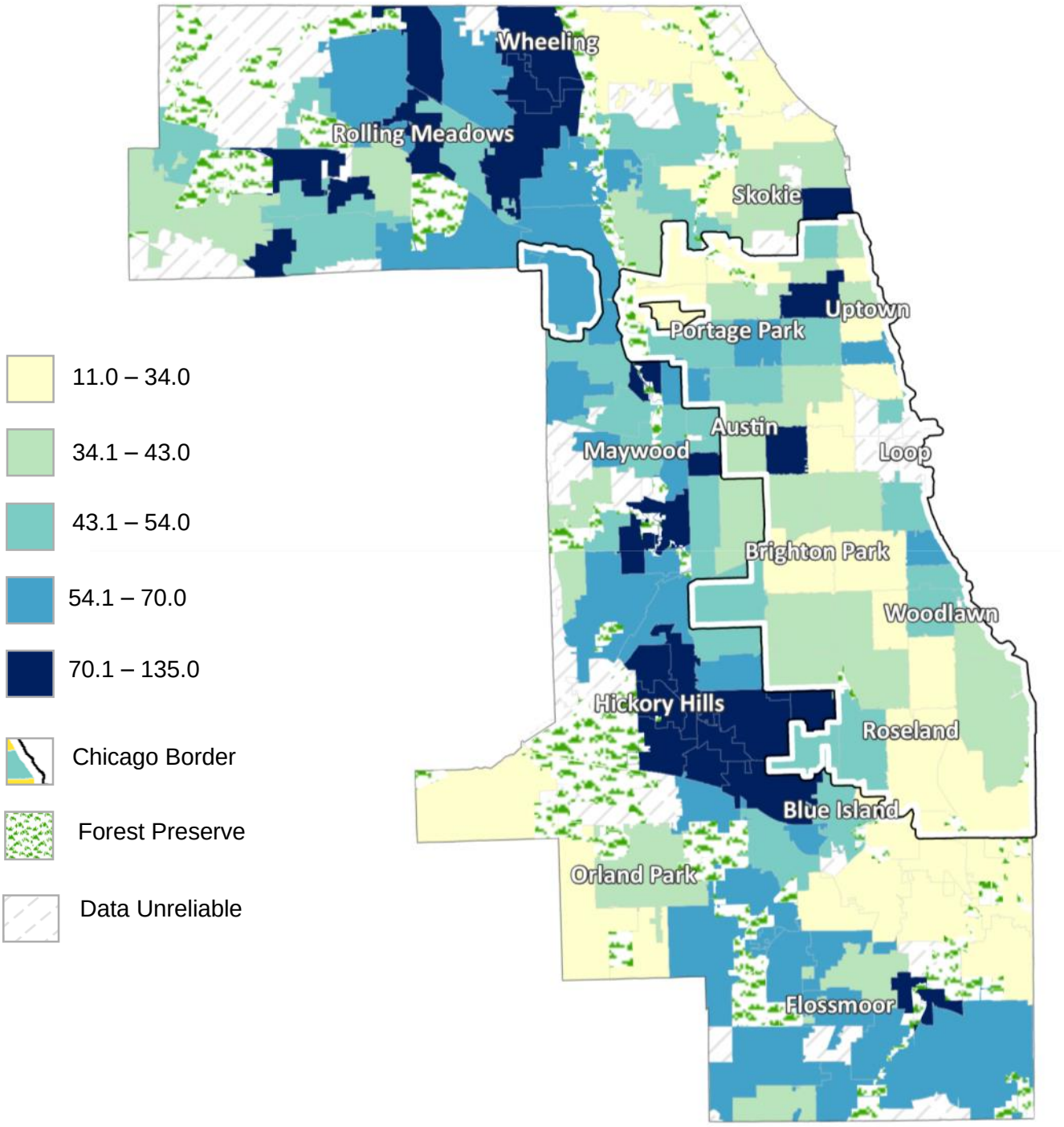
Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 65. Age-adjusted suicide/self-inflicted injury emergency department visit rates per 10,000 in Cook County, Illinois (Adults)



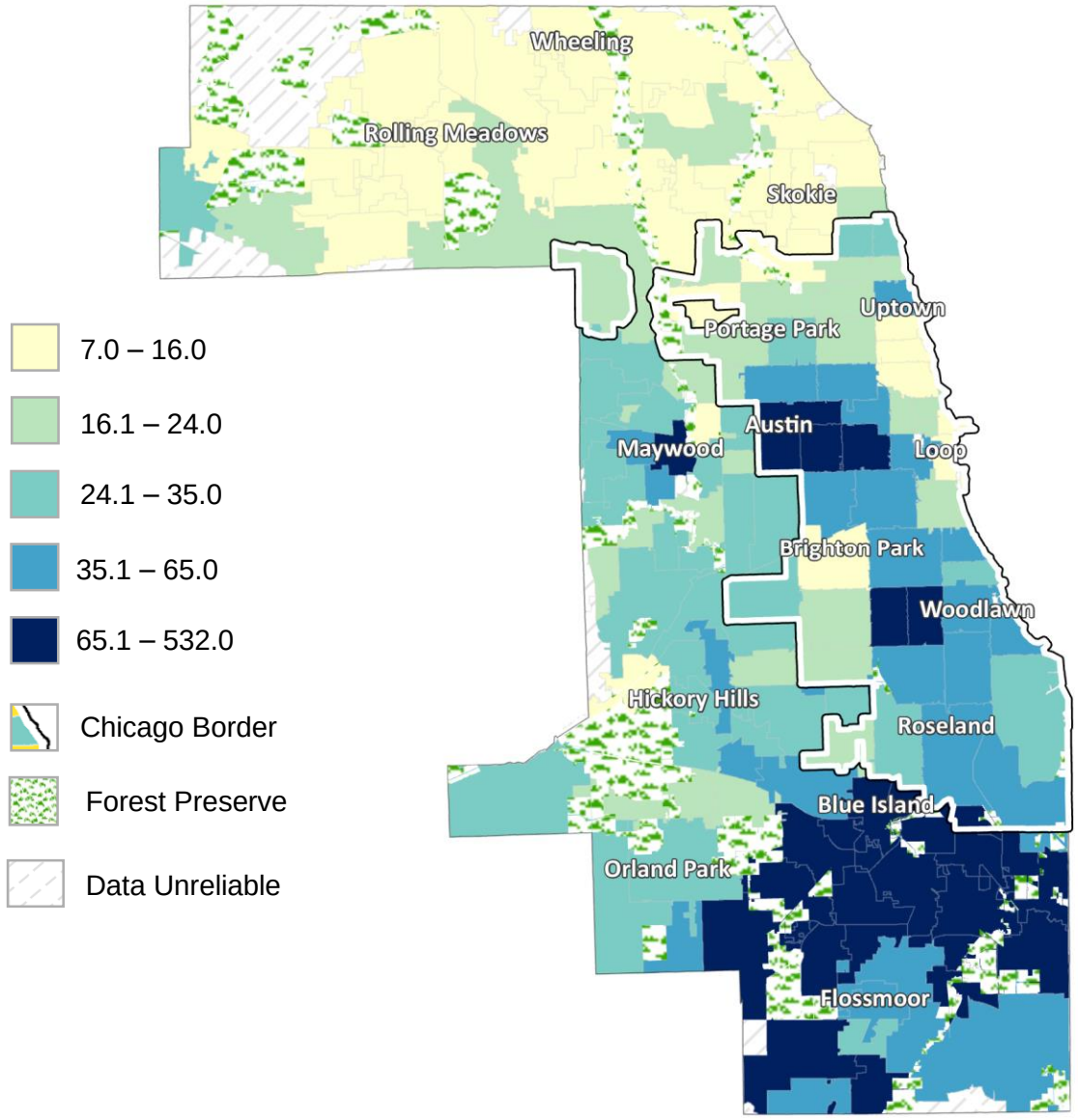
Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 66. Age-adjusted suicide/self-inflicted injury emergency department visit rates per 10,000 in Cook County, Illinois (Children 10- to 17-years old)



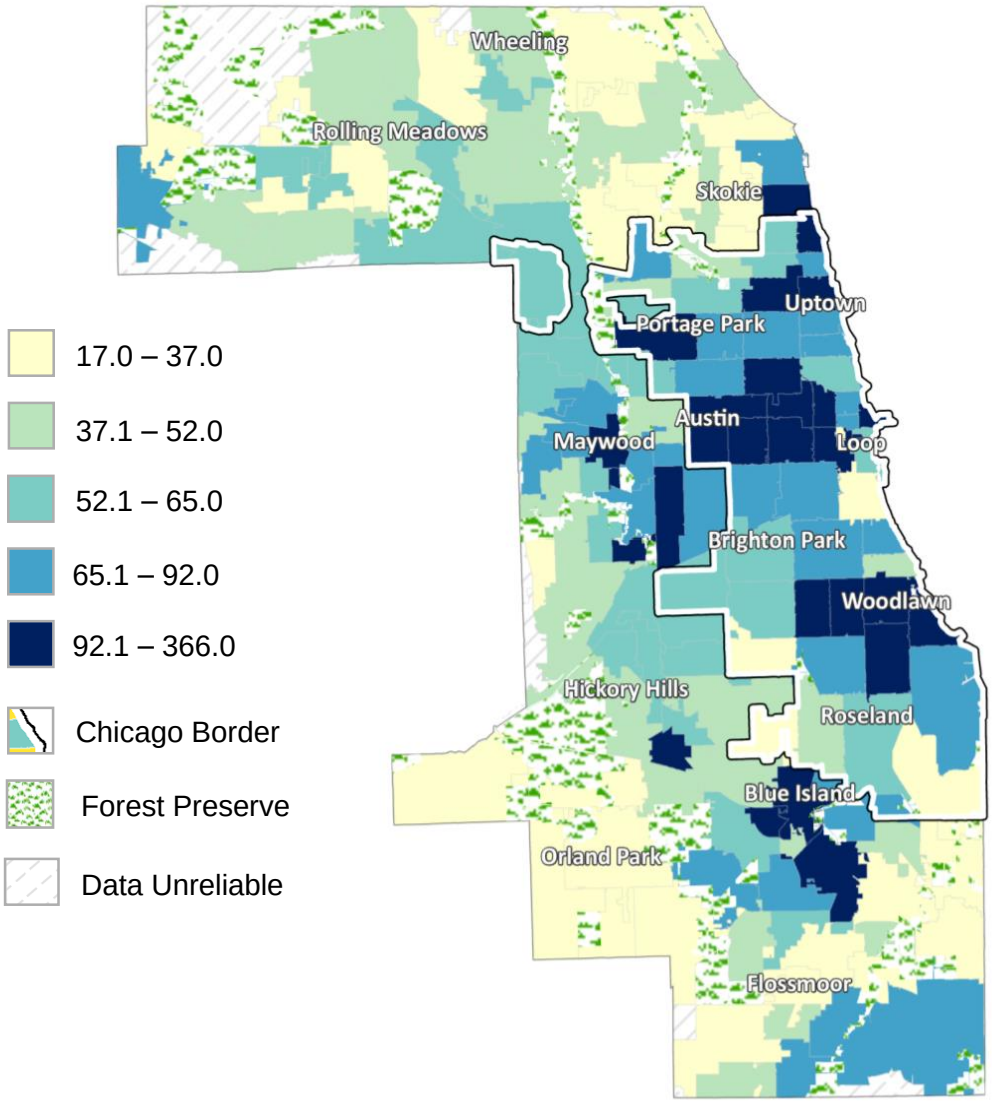
Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 67. Age-adjusted substance use emergency department visit rates per 10,000 in Cook County, Illinois (Youth under 18)



Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 68. Age-adjusted alcohol use emergency department visit rates per 10,000 in Cook County, Illinois (Adults)



Illinois COMPdata, 2015-2017, Analysis Conducted by Healthy Communities Institute

Another important emergency room utilization concern related to substance use disorders is **opioid overdose**. Data on opioid-related mortality and a map of opioid overdose is in the mortality section of this report on page 117.

Other Recent Assessments

Mental health has received more attention amidst the opioid crisis affecting the entire nation. Expansion of Medicaid under the ACA brought greater access to mental health and substance use services, but also concern about the cost and quality of treatment provided through public funds. These drivers of heightened interest have produced new resources for assessing the mental health needs of Illinois' communities from a variety of perspectives. Statewide organizations with strong connections to Cook County have produced assessments of needs and opportunities to build a mental health system that can both respond to the current opioid crisis and invest in prevention and early treatment. Cook County Health formed a Behavioral Health Consortium as part of its strategic plan, NAMI Chicago assembled a "Roadmap" for mental health, and Chicago-based nonprofit Health & Medicine Policy Research Group led a Behavioral Health-Primary Care Integration Learning Collaborative. Each of these initiatives sought to assess and respond to mental health needs in Cook County and statewide.

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

Conclusions – Mental Health and Substance Use

Community input, public health data, and findings from other assessments produce a compelling narrative that can guide mental health system improvements in Cook County: Cook County's communities need a mental health system that aligns programs, public agencies, and funding to provide accessible, affordable, culturally competent, and trauma-informed prevention and early treatment services as well as crisis intervention through partnerships that include schools and the justice system. Building and maintaining that system will require investments in housing, workforce development, data-sharing infrastructure, payment reform, and eliminating stigma.

Many of the assessments conducted by learning collaboratives and provider coalitions were primarily focused on the Medicaid program, which accounts for 25% of total national spending on mental health services and 21% of substance use disorder spending. However, it is clear from focus group responses that Cook County community residents remain anxious about access to insurance and about limited coverage of services in public and private insurance plans. Therefore, the circumstances of people who are uninsured and people covered by private insurance, Medicare, or Veterans benefits must also be considered when responding to Cook County communities' mental health needs.

Moreover, just as various state agencies involved in mental health could be better coordinated with local governments and providers, so too can public and private insurers become more aligned to smooth out disruptions from "churn" between Medicaid and private insurance from the Health Insurance Marketplace and employer-sponsored insurance. The key issues identified in all the assessments of the mental health system are immensely challenging—providing housing, fine-tuning payments to produce better outcomes, expanding the pool of highly-sophisticated professionals for integrated care teams, and eliminating stigma. The multiplicity of learning collaboratives may carry its own lesson; that solutions to these problems will require deep and sustained cooperation and sharing of knowledge and resources across traditional divisions in the health care and social service delivery system.

Chronic 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:

- complex causality with multiple factors leading to onset including socioeconomic determinants of health and health behaviors;
- a long development period;
- a prolonged course of illness that often requires ongoing medical attention;
- are non-communicable; and
- cause functional impairment in daily activities or disability (Australian Institute of Health and Welfare, 2016; Bernell & Howard, 2016; Centers for Disease Control and Prevention, 2019b; World Health Organization, n.d.-c).

Worldwide and in the United States, chronic diseases are the leading causes of disability and death (Centers for Disease Control and Prevention, 2019b; World Health Organization, n.d.-c). In addition, chronic disease rates are accelerating globally across all socioeconomic classes (World Health Organization, n.d.-c). 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 chapters on. As a result, this chapter will primarily focus on examining the burden of chronic diseases within Cook County communities.

Prevention

Chronic conditions such as heart disease, stroke, cancer, diabetes, arthritis, asthma, mental illness, and HIV/AIDs account for 90% of the nation's $3.3 trillion in annual health care expenditures (Centers for Disease Control and Prevention, 2019a). Prevention and management of chronic illness can help reduce the costly physical and socioeconomic burden of these diseases for individuals and society as a whole. The Centers for Disease Control and Prevention have identified four domains of chronic disease prevention **(Figure 69)**.

Figure 69. Four domains of chronic disease prevention

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. Health care 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

The four domains defined by the Centers for Disease Control and Prevention focus on strategies that:

- collectively address the behaviors and other risk factors that can cause chronic diseases;
- work to simultaneously prevent and control multiple diseases and conditions;
- reach more people by strengthening systems and environments to support health; and
- link community and health care efforts to prevent and control disease.

(Centers for Disease Control and Prevention, 2012)

Both current and future implementation strategies developed by the Alliance focus on the four domains and are strongly guided by available data and input from communities on the best approaches for preventing and addressing chronic disease.

Risk Factors for Chronic Disease

A small number of common risk factors contribute to most of the main chronic diseases:

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

(World Health Organization, n.d.; Egger & Dixon, 2014; Illinois Department of Public Health, n.d.)

Figure 70. Self-reported risk factors, adults, 2017

	Chicago (2017)	Suburban Cook County (2017)	Illinois (2017)	United States (2017)
Adults that report eating vegetables LESS than one time daily	25%	22%	21%	19%
No leisure-time physical activity	23%	22%	24%	27%
Smoker - current	15%	15%	15%	17%
E-Cigarettes or other vaping products	2.6% (current) 16% (ever)	3.2% (current) 18% (ever)	4.4% (current) 20% (ever)	4.6% (current) 20% (ever)
At least one mentally unhealthy day in past month	40%	35%	38%	35%
Obesity	30%	30%	31%	30%

(Behavioral Risk Factor Surveillance Survey (BRFSS), 2017; Healthy Chicago Survey, 2017)

Figure 71. Self-reported risk factors, adolescents, 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	6.0%	7.6%	8.8%
E-Cigarettes or other vaping products *	6.6% (current) 37% (ever)	13% (current) 41% (ever)	13% (current) 42% (ever)
Attempted suicide	12%	10%	7%

(Youth Risk Surveillance Survey (YRBS), 2017)

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

- Thirty percent of adults and nearly 30% of adolescents identified as obese (self-reported height and weight) in Chicago and Suburban Cook County in 2017.
- Nearly a quarter of adults in suburban Cook County (22%) and Chicago (25%) report eating vegetables less than daily. Only 30% of adults in Chicago report consuming the recommended 5 servings of fruits and vegetables a day, and the rate varies greatly across communities (from less than 15% to nearly 50%).
- Nearly a quarter of adults in suburban Cook County (22%) and Chicago (23%) report not engaging in physical activity during leisure time.
- Over three-quarters of youth report not engaging in physical activity at all in the previous seven days
- Rates of E-cigarette and vaping product use are increasing in Chicago and Cook County, particularly among adolescents and young adults.

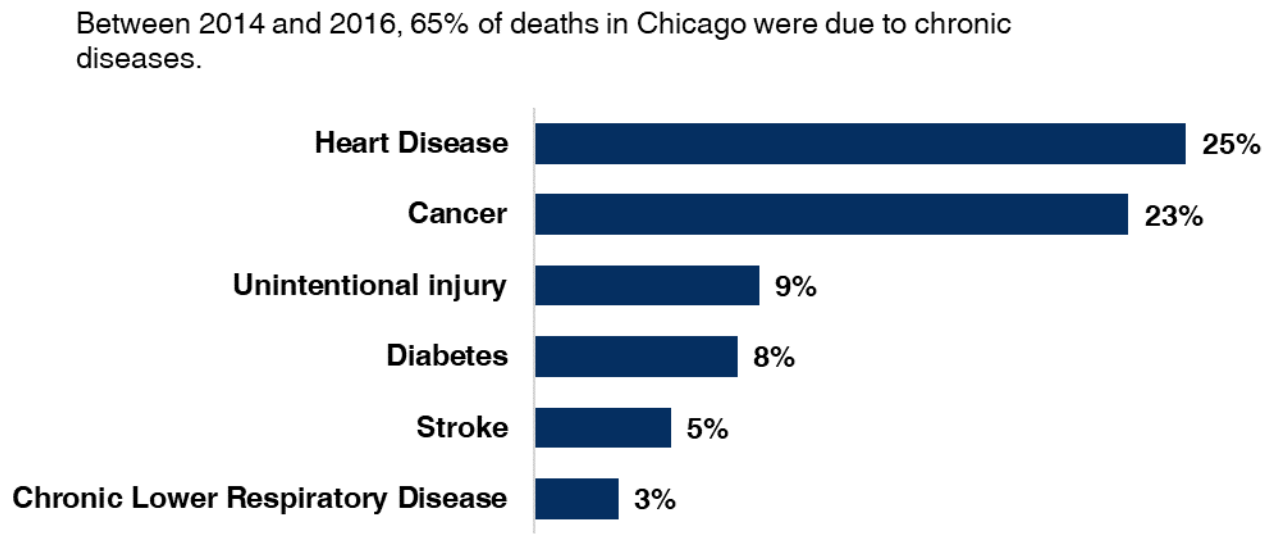
The Voices of Child Health in Chicago initiative reports that adult survey respondents in 2018 identified childhood obesity as the second biggest health concern for children (62%) alongside drug abuse, child abuse, stress, and depression.

More data and information about risk factors related to food access, healthy communities, and social and structural determinants is included in the social and structural determinants chapter of this report.

Mortality

In the United States, 60% of adults have a chronic disease and 40% of adults have two or more chronic diseases (Centers for Disease Control and Prevention, 2019b). Chronic diseases such as heart disease, cancer, and diabetes are the leading causes of death and disability in the United States and are a leading driver of healthcare costs (Centers for Disease Control and Prevention, 2019b). From 2014 to 2016, 65% of all deaths in Chicago were attributable to chronic diseases **(Figure 72)**.

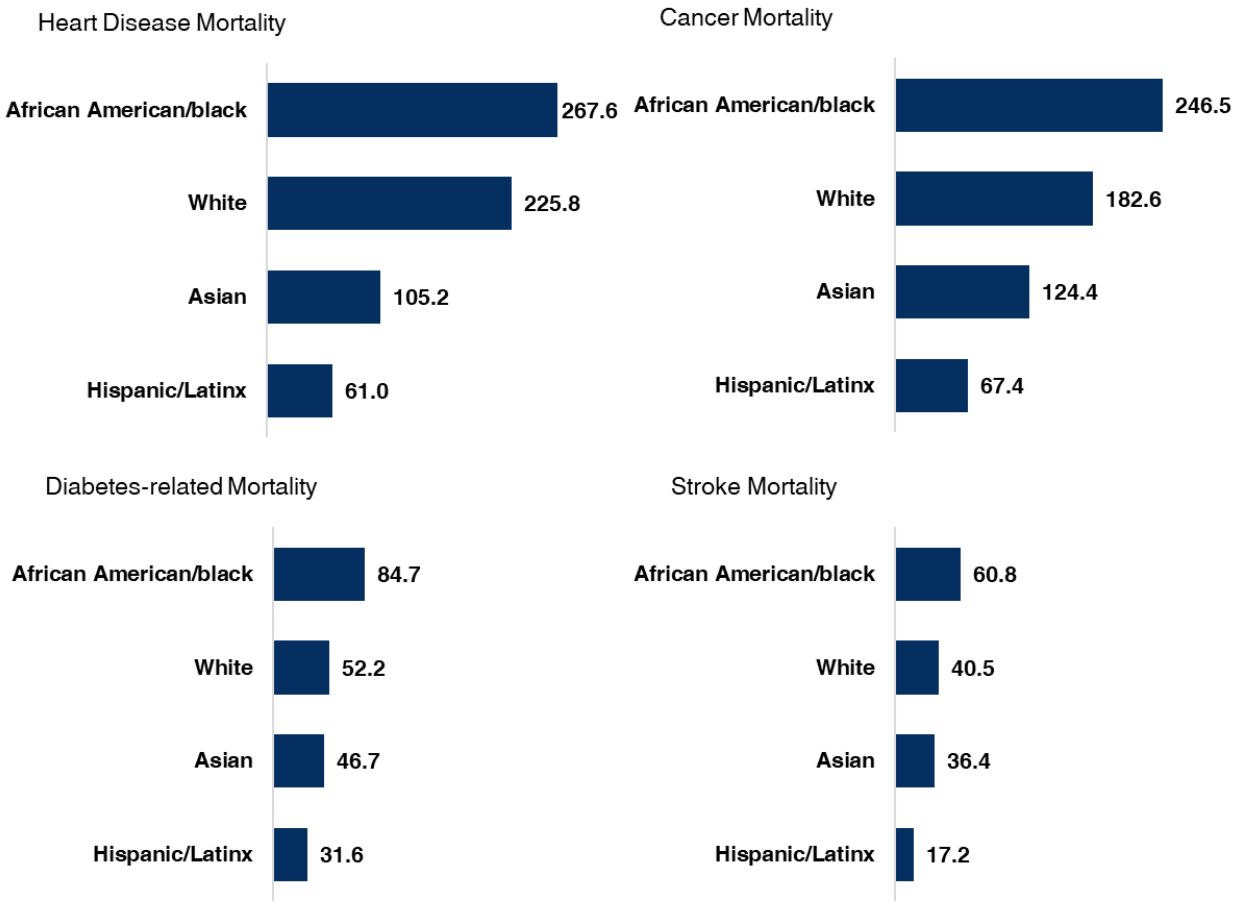
Figure 72. Leading causes of death in Chicago, 2014-2016



Illinois Department of Public Health, Division of Vital Records, 2014-2016

Age-adjusted mortality rates in 2016, reveal significant racial disparities in chronic disease mortality within Chicago **(Figure 73)**. African American/blacks have the highest rates of mortality for heart disease, cancer, diabetes, and stroke.

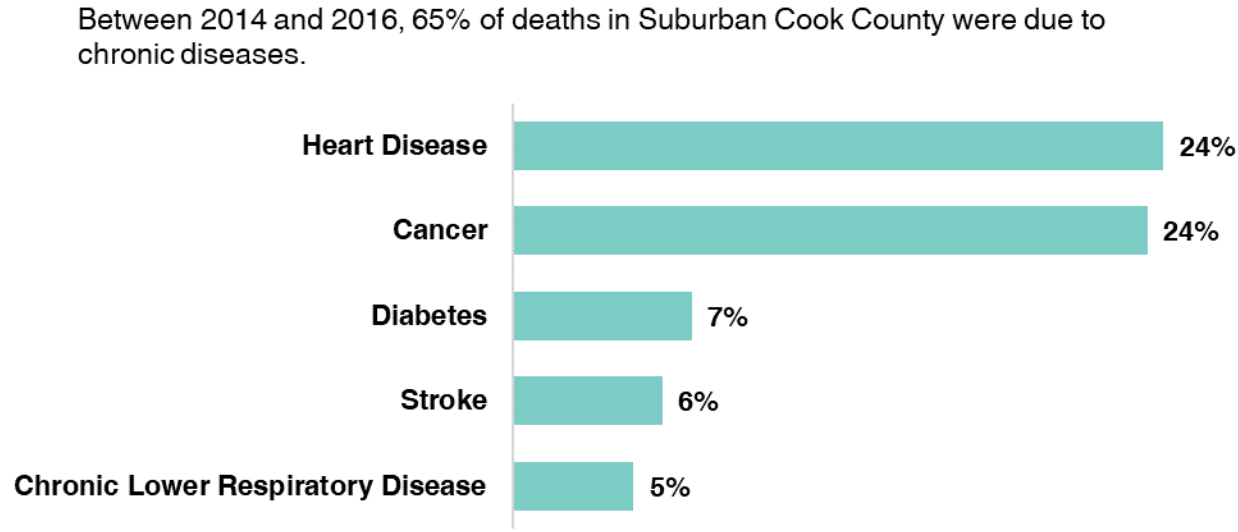
Figure 73. Age-adjusted mortality rates per 100,000 population in Chicago by race and ethnicity



Illinois Department of Public Health, Division of Vital Records, 2016

From 2014 to 2016, the same trends in the leading causes of death were observed in Suburban Cook County with 65% of all deaths being attributed to chronic disease **(Figure 74)**.

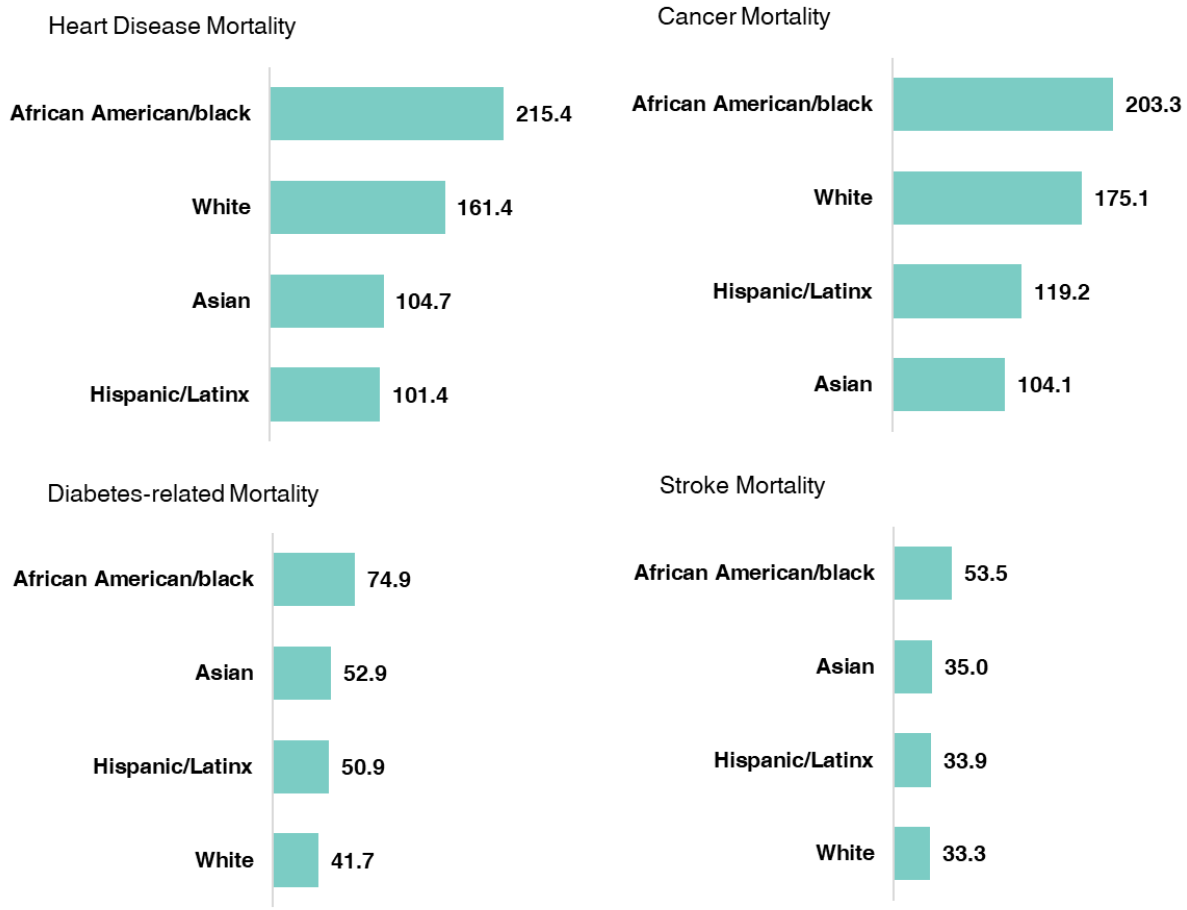
Figure 74. Leading causes of death in Suburban Cook County, 2014-2016



Illinois Department of Public Health, Division of Vital Records, 2014-2016

Age-adjusted mortality rates in 2016, reveal that significant racial disparities in mortality are present in Suburban Cook County as well **(Figure 75)**. African American/blacks living in the suburbs have the highest rates of heart disease, cancer, diabetes-related, and stroke mortality.

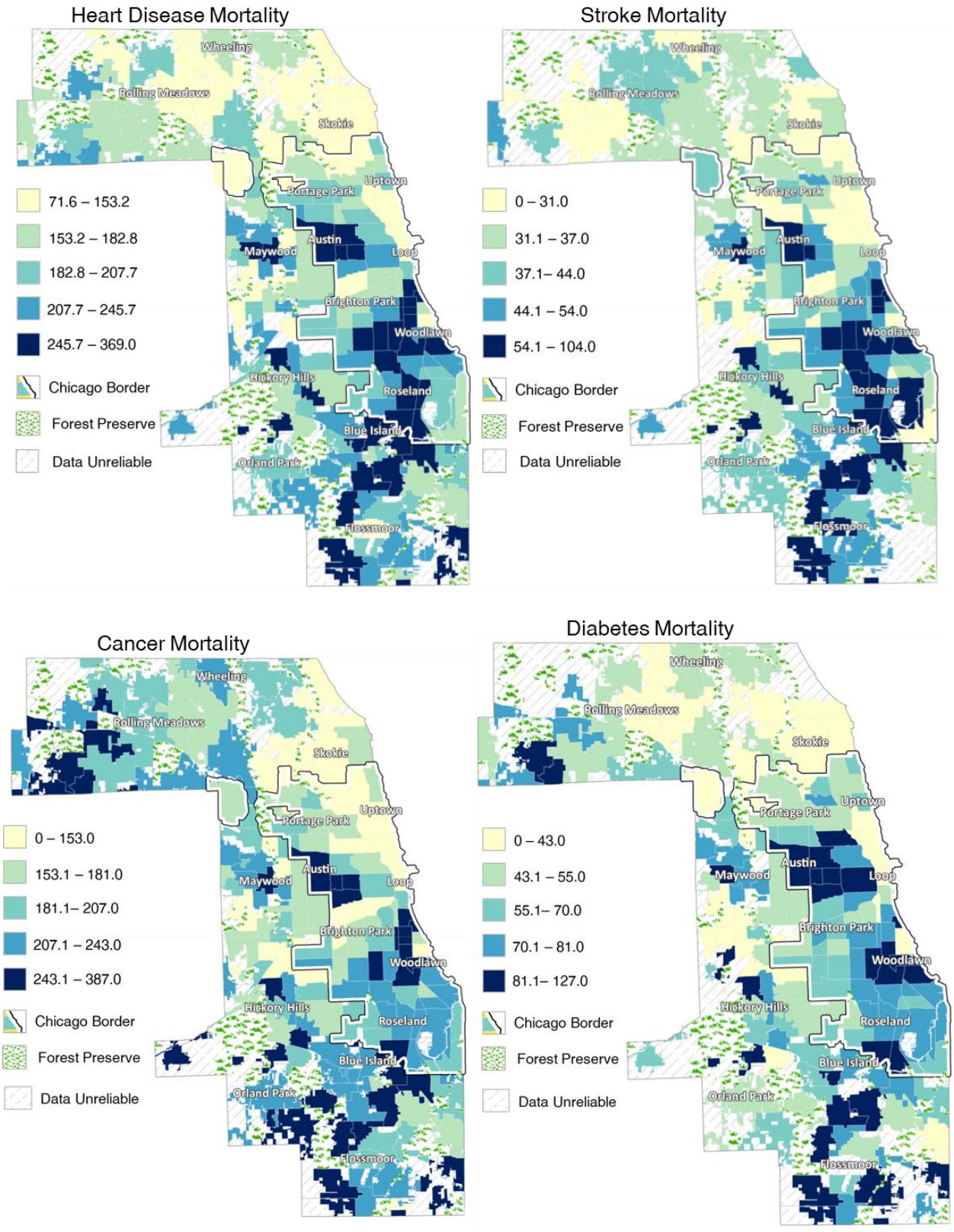
Figure 75. Age-adjusted mortality rates per 100,000 population in Suburban Cook County by race and ethnicity



Illinois Department of Public Health, Division of Vital Records, 2012-2016

Inequities in the burden of chronic diseases and chronic disease-related mortality within communities is largely driven by the social determinants of health such access to healthy foods, access to safe exercise spaces, household income, access to quality education, housing stability, access to quality healthcare, community safety, and exposure to trauma. Due to inequities in the social determinants of health and the unjust distribution of resources between communities, chronic disease mortality varies across the county **(Figure 76)**.

Figure 76. Age-adjusted chronic disease-related mortality rates per 100,000 in Cook County



Illinois Department of Public Health, Division of Vital Records, 2012-2016

Mortality Trends

Between 2012 and 2017, age-adjusted mortality trends for chronic conditions remained consistent **(Figures 77-78)**. However, drug overdose mortality has increased in Chicago and Suburban Cook County over time **(Figures 79-80)**. Opioid overdose deaths have increased over time in county as well, however, the burden of opioid-related mortality is unevenly distributed across communities **(Figure 80)**. In addition, the resources to address opioid overdoses are highly concentrated in Chicago and notably less available in suburban areas.

Figure 77. Trends in age-adjusted chronic disease-related mortality rates per 100,000 in Chicago

	2012	2013	2014	2015	2016	2017
Diabetes-related	65.1	64.5	64.8	64.6	63.4	59.5
Stroke	39.1	40.7	41.4	45.4	46.0	51.7
Cancer	186.1	190.0	186.4	190.4	185.9	179.2
Heart Disease	210.5	207.5	204.8	207.4	207.1	201.3

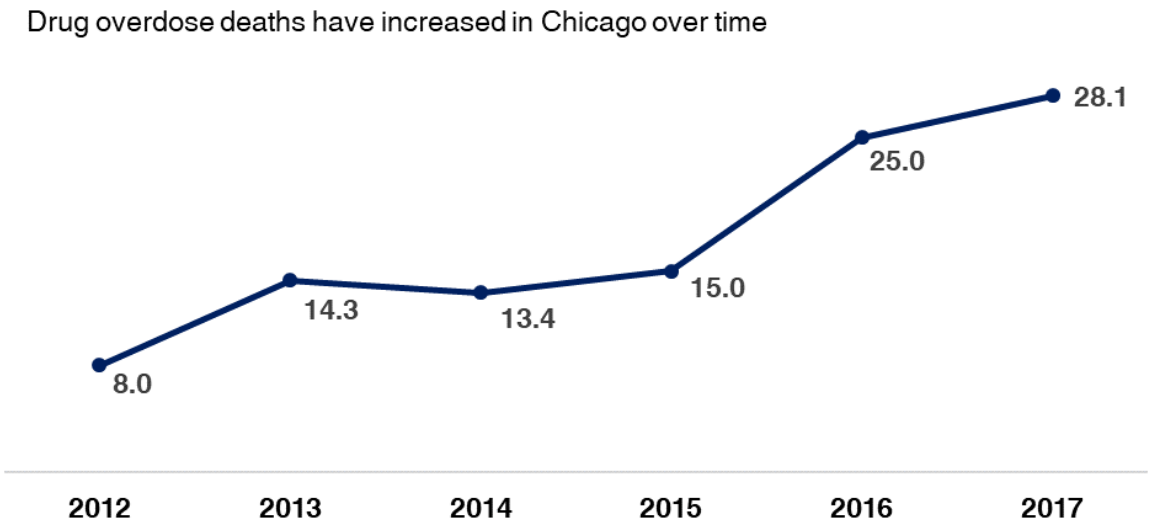
Illinois Department of Public Health, Division of Vital Records, 2012-2017

Figure 78. Trends in age-adjusted chronic disease-related mortality rates per 100,000 in Suburban Cook County

	2012	2013	2014	2015	2016	2017
Diabetes-related	49.8	44.2	50.4	48.8	39.4	40.0
Stroke	36.3	33.4	36.9	36.7	35.6	40.3
Cancer	173.6	168.9	168.1	168.9	161.2	163.3
Heart Disease	165.0	164.0	164.8	164.4	149.5	158.9

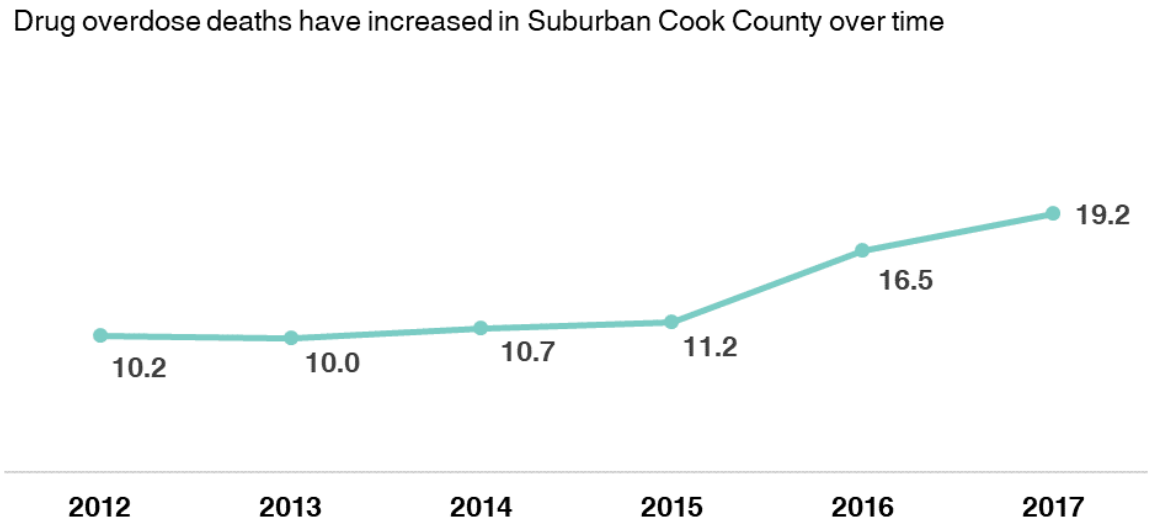
Illinois Department of Public Health, Division of Vital Records, 2012-2017

Figure 79. Trends in age-adjusted drug overdose mortality rates per 100,000 in Chicago



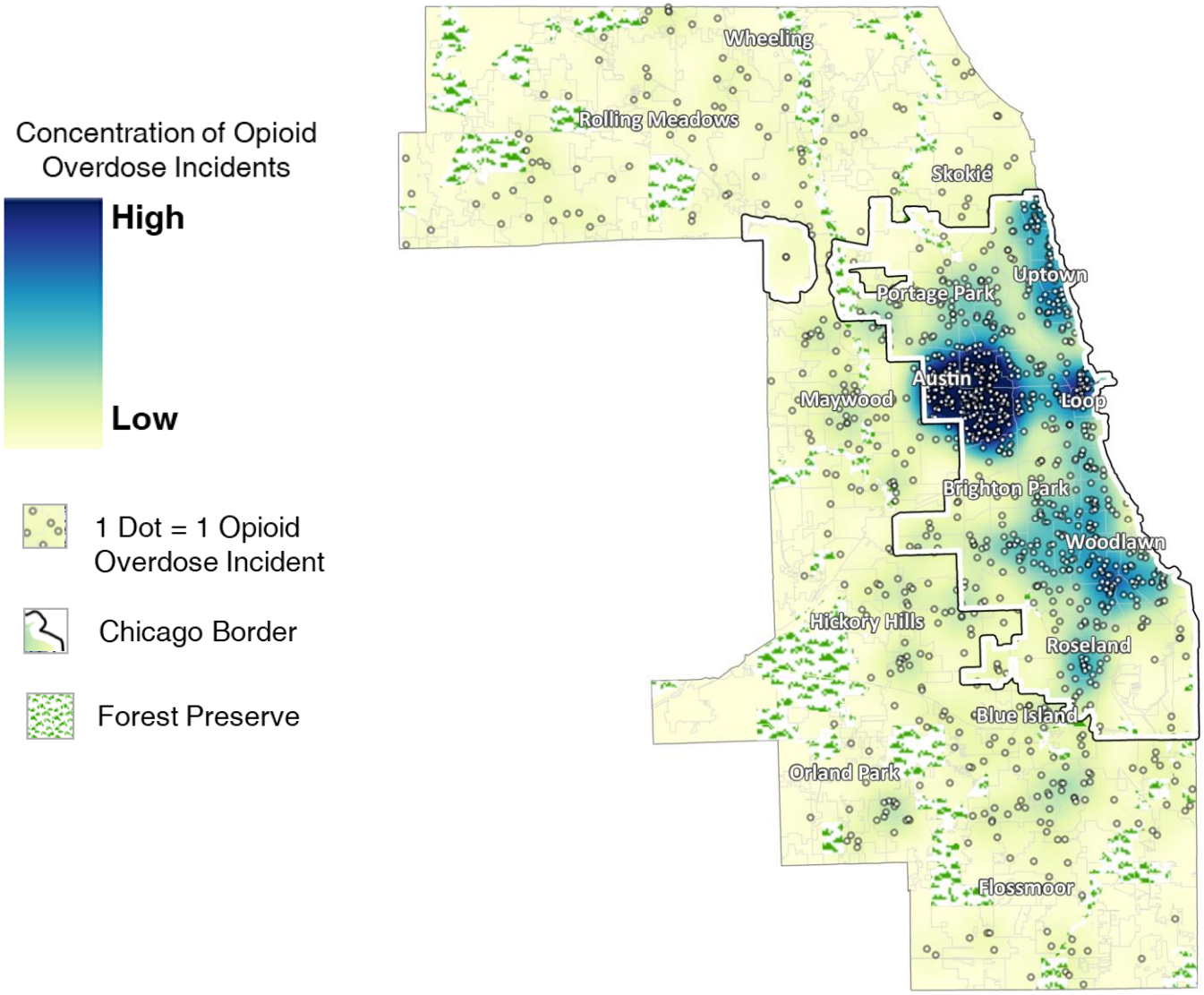
Illinois Department of Public Health, Division of Vital Records, 2012-2017

Figure 80. Trends in age-adjusted drug overdose mortality rates per 100,000 in Suburban Cook County



Illinois Department of Public Health, Division of Vital Records, 2012-2017

Figure 81. Incidence of opioid overdoses in Cook County, Illinois (2017)



Cook County Medical Examiner's Office via Chicago Department of Public Health, 2017

Asthma and diabetes

The 2016 CHNA established asthma and diabetes as priority health conditions for several communities throughout the county. As a result, several hospital and health department partners have coalesced around these issues. In addition, development, progression, and outcomes for these two diseases are strongly tied to the social determinants of health and have large equity-related gaps between communities. As a result, two sections specifically related to asthma and diabetes were added to the assessment.

Diabetes

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

There are several examples of factors that can influence an individual's risk for development of diabetes and their ability to manage the disease.

- Acute and chronic stress can cause hormonal changes that have a direct impact on blood glucose levels in healthy individuals and those with type 1 and type 2 diabetes (Harris et al., 2017; Marcovecchio & Chiarelli, 2012). In addition, stress can impact patient behaviors related to treatment, monitoring, meal planning, and exercising (Marcovecchio & Chiarelli, 2012).
- Concentrated poverty within a neighborhood is associated with an increased prevalence of diabetes, particularly for communities of color (Gaskin et al., 2014). Concentrated poverty influences disease burden by determining access to reasonably priced fruits and vegetables, access to recreational facilities, access to health care services, crime rates, and levels of exposure to environmental toxins (Gaskin et al., 2014).
- Unstable housing is associated with a significantly increased risk of diabetes-related emergency department visits and inpatient stays (Berkowitz, Kalkhoran, Edwards, Essien, & Baggett, 2018).

Diabetes-related ED visits for adults are shown in **Figure 82**. ED visits for diabetes are heavily concentrated in the West and South Sides of Chicago and the southern region of Suburban Cook County. The areas with high rates of ED visits largely overlap with communities with high rates of poverty, unemployment, and cost-burdened households.

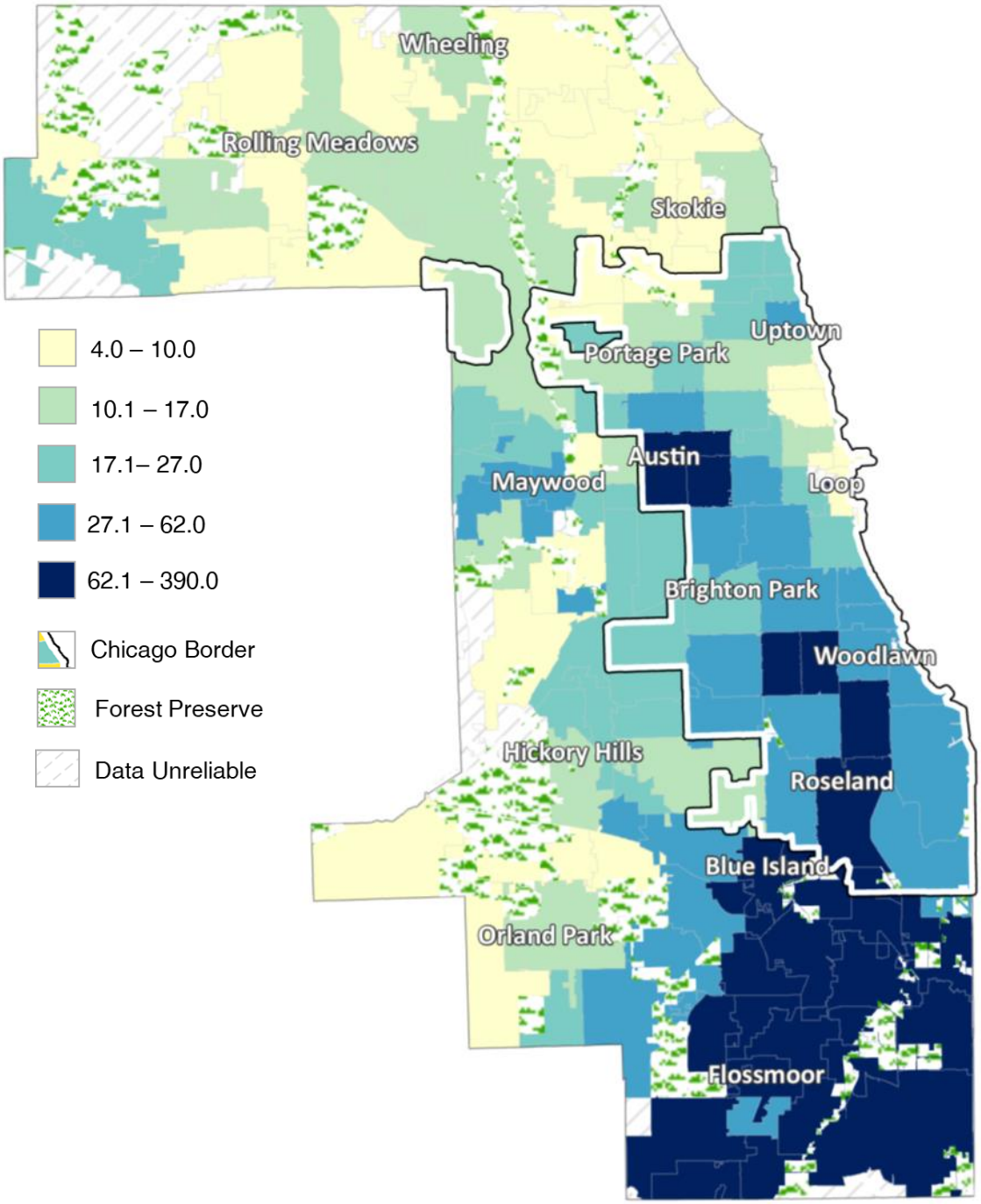
Community Input

Several focus groups mentioned diabetes as a major health concern in their communities and two focus groups were composed entirely of adults living with diabetes. Adults living with diabetes all agreed that they understood the importance of healthy diet and physical activity in controlling their conditions, but they mentioned several barriers that made it difficult to engage in healthy behaviors:

- chronic stress in everyday life makes it difficult to manage diabetes;
- limited access to grocery stores and easy access to fast food can make it difficult to choose healthy food options, particularly for individuals and parents who are busy and work long hours;
- the affordability of healthy foods;
- safety concerns that limit outdoor activities;
- physical activity routines can be difficult to begin by yourself;
- not everyone knows how to prepare healthy meals;
- resistance from non-diabetic family members, other household members, and friends to changes in diet; and
- lack of knowledge about community resources that may help with disease management.

Community input survey respondents selected diabetes as the top most important health problem, with 43% of respondents selecting diabetes among their top three most important health problems. Both African American/black and Hispanic/Latinx respondents selected diabetes as the top issue, whereas diabetes ranked 6th among white respondents.

Figure 82. Age-adjusted diabetes emergency department visit rates per 10,000 in Cook County, Illinois (Adults)

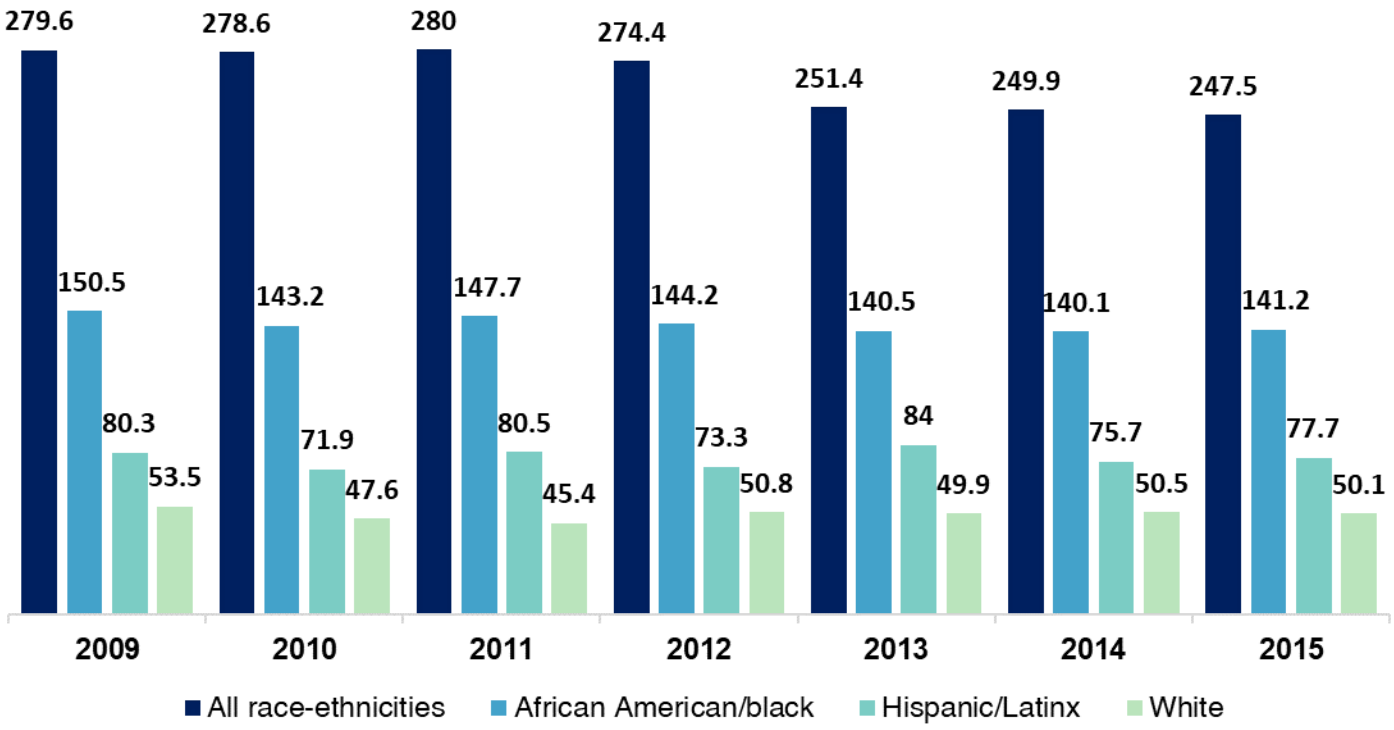


Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Asthma

Although asthma occurs in all racial and ethnic groups, low-income and communities of color share a disproportionate burden of asthma morbidity and mortality (Forno & Celedón, 2012). In the City of Chicago, non-Hispanic African American/black children and adolescents are five times more likely to visit the emergency department for an asthma-related condition than white children and adolescents **(Figure 83)**. 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).

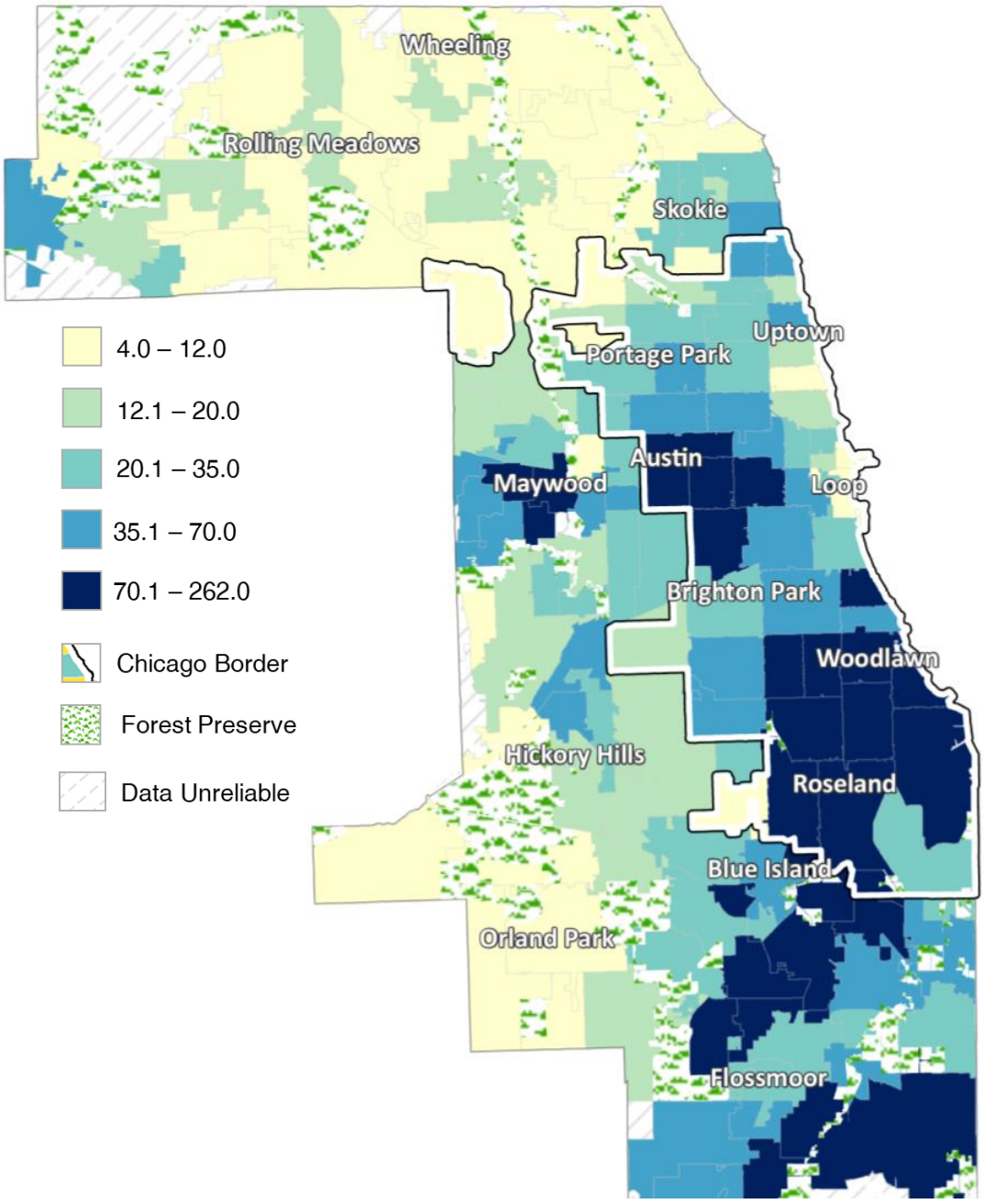
Figure 83. Racial and ethnic disparities in asthma ED visits, age-adjusted rates for Chicago children aged 0-17, 2009-2015



(Respiratory Health Association, 2018)

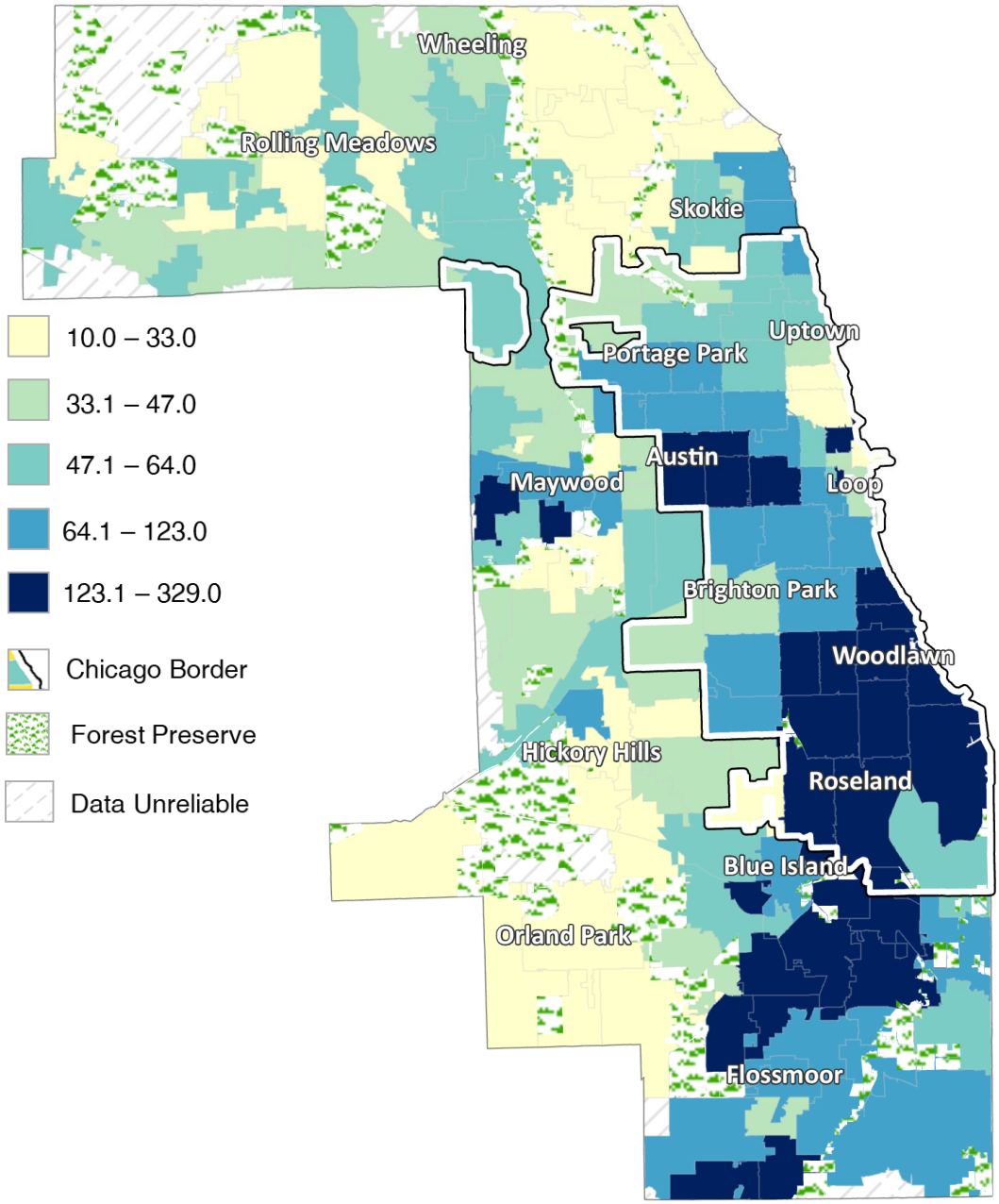
The inequities related to asthma outcomes are evident when viewing maps of ED visits for adults and children. Similar to diabetes, asthma-related emergencies are concentrated in low-income communities of color in the west and south regions of the city and county **(Figures 84-85)**.

Figure 84. Age-adjusted asthma emergency department visit rates per 10,000 in Cook County, Illinois (Adults)



Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Figure 85. Age-adjusted asthma emergency department visit rates per 10,000 in Cook County, Illinois (Children under 18)



Illinois COMPdata, 2015-2017, Analysis conducted by Conduent Healthy Communities Institute

Community Input
Direct quotes from community residents that participated in focus groups demonstrate the tremendous toll that asthma is having of 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."

Sexually Transmitted Infections

The burden of sexually transmitted infections (STIs) in Cook County is disproportionately high in communities of color. Higher STI rates are not caused by ethnicity or heritage, but are due to socioeconomic inequities such as poverty, large income gaps, fewer jobs, and low education levels (Centers for Disease Control and Prevention, 2019e; Gonzalez, Hendriksen, Collins, Durán, & Safren, 2009). For example:

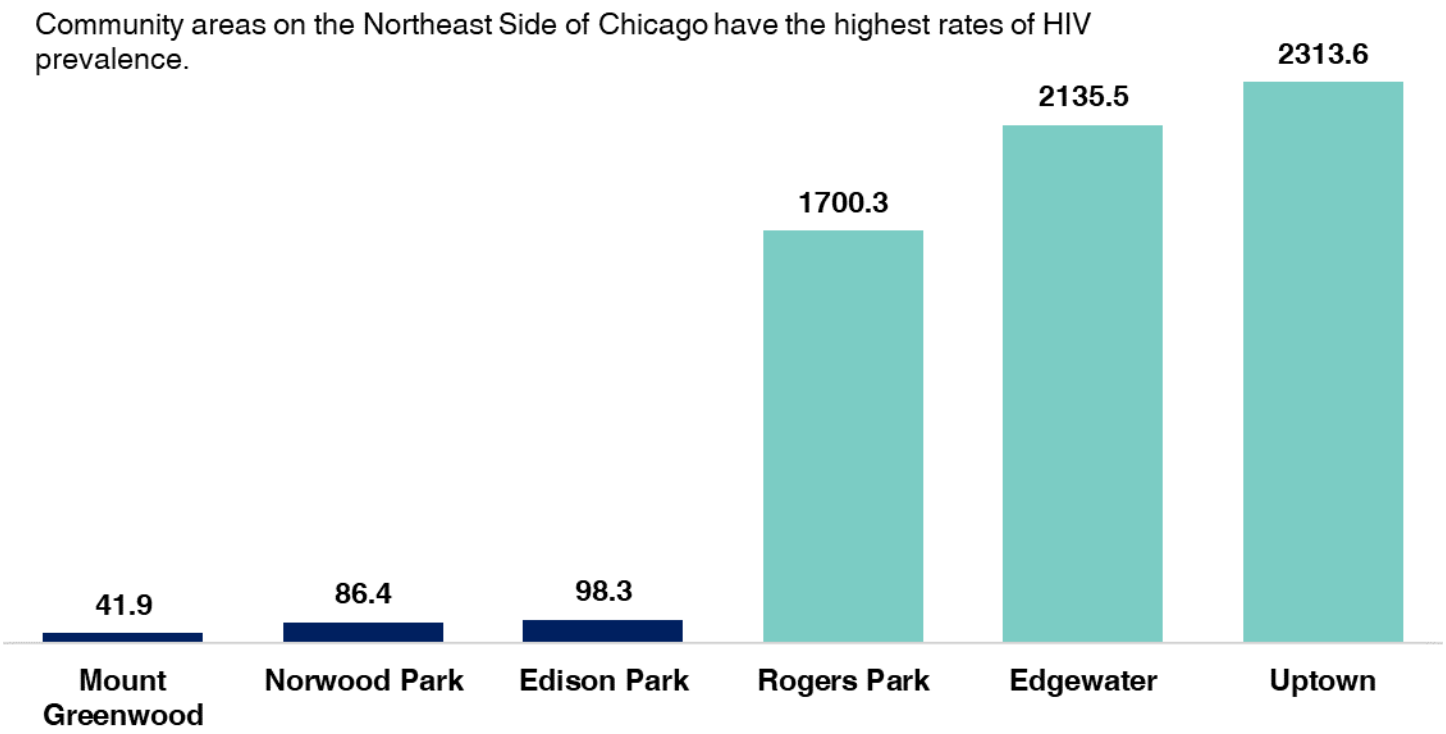
- STI risk decreases with increasing income and this association is strongest for non-whites;
- uninsured and underinsured individuals carry a higher burden of STIs;
- residential segregation and concentration of poverty lead to higher rates of intravenous drug use and sexual exploitation for money which are both significant risk factors for STIs;
- many people of color distrust the health care system, fearing or previously experiencing discrimination from health care providers, which could decrease rates of screening and treatment for STIs;
- lack of access to treatment for depression and substance use disorders contributes to a higher risk for STIs among certain communities of color;
- homelessness and housing instability have been associated with increased risk for most health conditions including STIs; and
- current incarceration and recent incarceration are significant risk factors for STIs and African American/blacks and Hispanic/Latinxs have been disproportionately impacted by mass incarceration policies (Adimora & Schoenbach, 2005; Centers for Disease Control and Prevention, 2019e; Gonzalez et al., 2009; Harling, Subramanian, Bärnighausen, & Kawachi, 2013; Nijhawan, 2016).

STIs impact the health care system through high costs for screening and treatment as well as the potential for complications. STIs are preventable with access to adequate education and health services (HealthyPeople 2020, n.d.). Detailed STI surveillance is available through CDPH and CCDPH. Data for Human Immunodeficiency Virus (HIV), chlamydia, syphilis, and gonorrhea are included below.

HIV prevalence and incidence

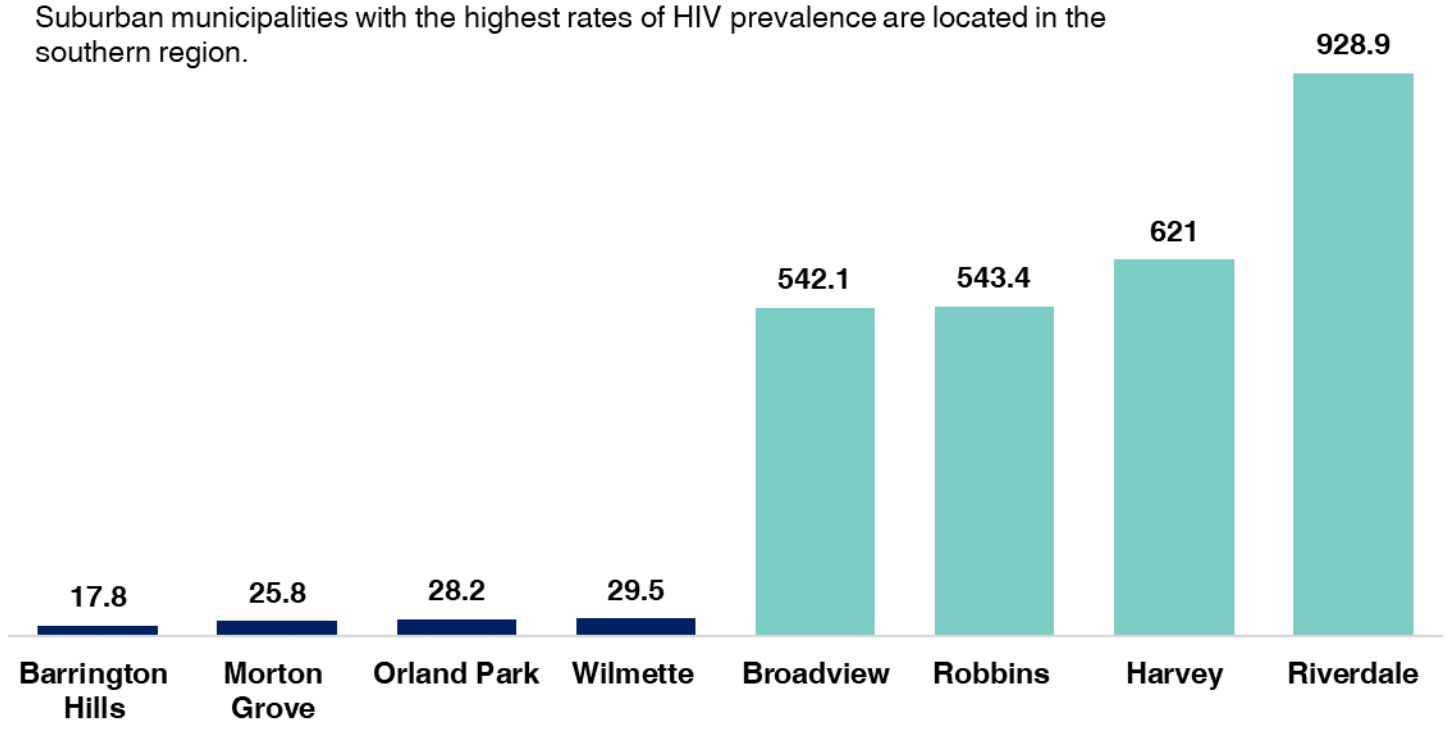
HIV prevalence is the number of existing HIV cases at a given time per 100,000 people. Not only does the number of people living with HIV vary significantly by race and ethnicity, but it also varies geographically. Communities on the Northeast Side of Chicago have the highest rates of HIV prevalence **(Figure 86)**. The suburban communities with the highest prevalence of HIV are located in the southern region **(Figure 87)**.

Figure 86. Comparison of HIV prevalence rates per 100,000 population in Chicago community areas, 2016



(Chicago Department of Public Health, 2016)

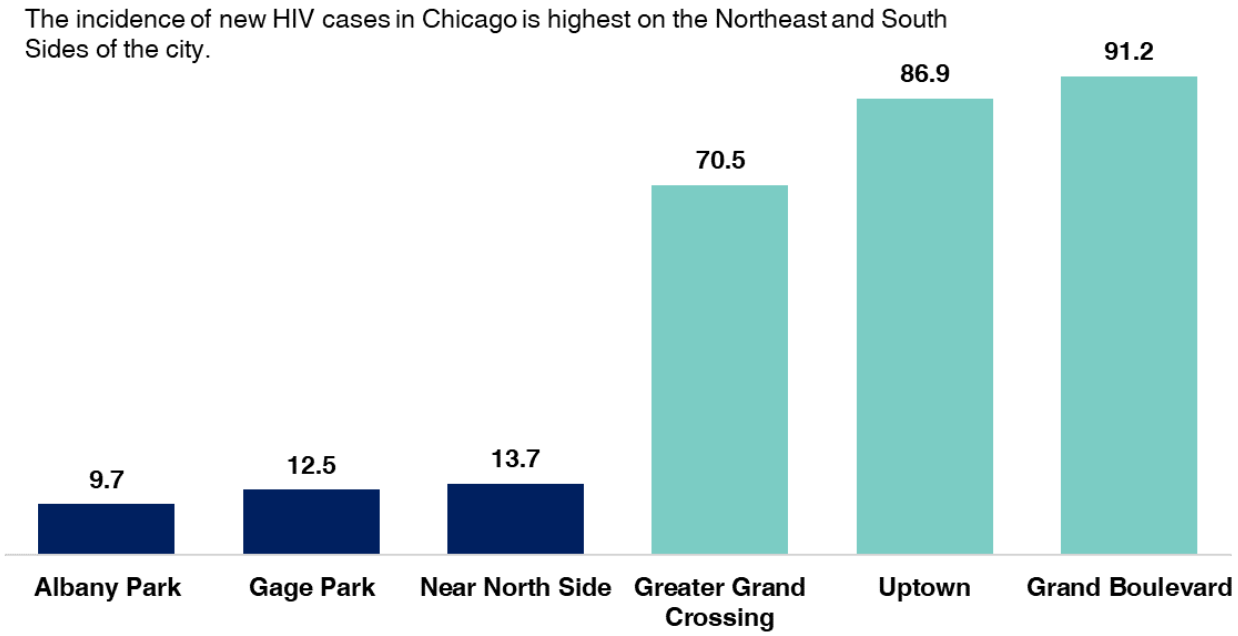
Figure 87. Comparison of HIV prevalence rates per 100,000 population in Suburban Cook County municipalities, 2012-2016



Cook County Department of Public Health, 2012-2016

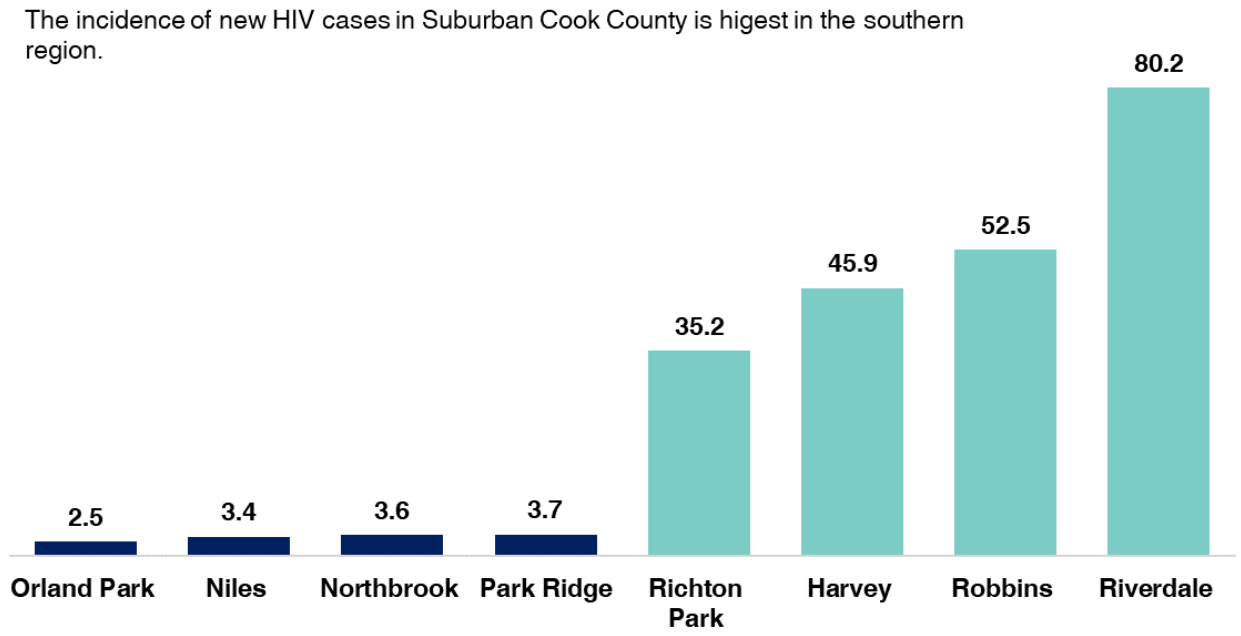
HIV incidence is the rate of new HIV cases per 100,000 people. Overall, HIV incidence rates have declined substantially over the past 10 years in Chicago and Suburban Cook County. However, there are disparities between populations and geographies. In Chicago, men who have sex with men accounted for the majority of new HIV cases in 2015 (76%) (Chicago Department of Public Health, 2016). The community areas with the highest incidence of HIV cases from 2014-2015 were located on the Northeast and South Sides of Chicago **(Figure 88)**. In Suburban Cook County, the highest rates of new HIV diagnoses occurred in the southern region **(Figure 89)**.

Figure 88. Comparison of HIV incidence rates per 100,000 population in Chicago community areas, 2016



(Chicago Department of Public Health, 2016)

Figure 89. Comparison of HIV incidence rates per 100,000 population in Suburban Cook County municipalities, 2012-2016

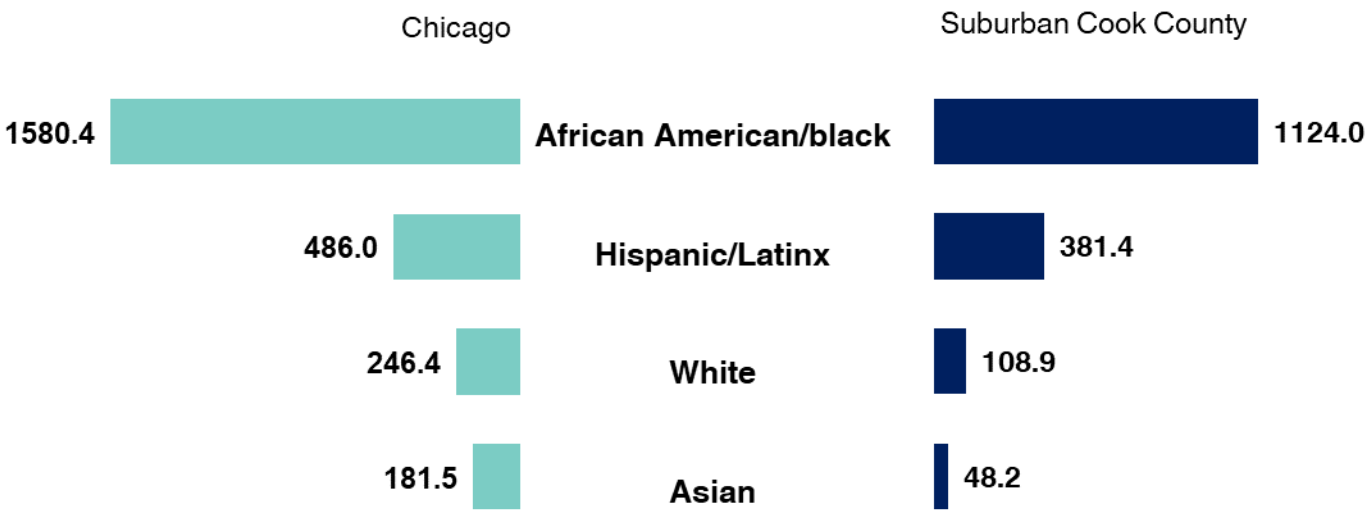


Cook County Department of Public Health, 2012-2016

Chlamydia incidence

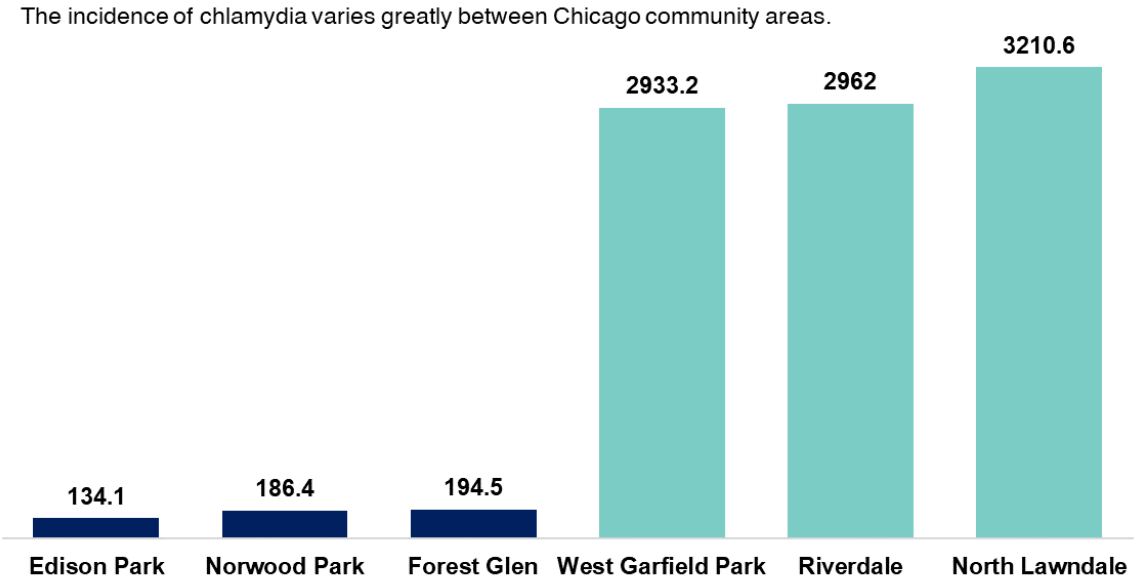
Chlamydia incidence is the number of new cases of chlamydia per 100,000 people. As **Figure 90** reflects, the incidence of chlamydia is highest for African American/black residents in Chicago and Suburban Cook County. Like HIV, chlamydia incidence rates vary dramatically in Cook County by geographic location. The highest incidence rates in Chicago occur on the West and South Sides **(Figure 91)**. The highest incidence rates occur in the southern region of Suburban Cook County **(Figure 92)**. As previously mentioned, these racial, ethnic, and geographic differences are largely due to socioeconomic inequities such as poor access to health care, segregation, poverty, discrimination, unemployment, and poor access to quality education.

Figure 90. Chlamydia incidence rates per 100,000 in Chicago and Suburban Cook County by race and ethnicity



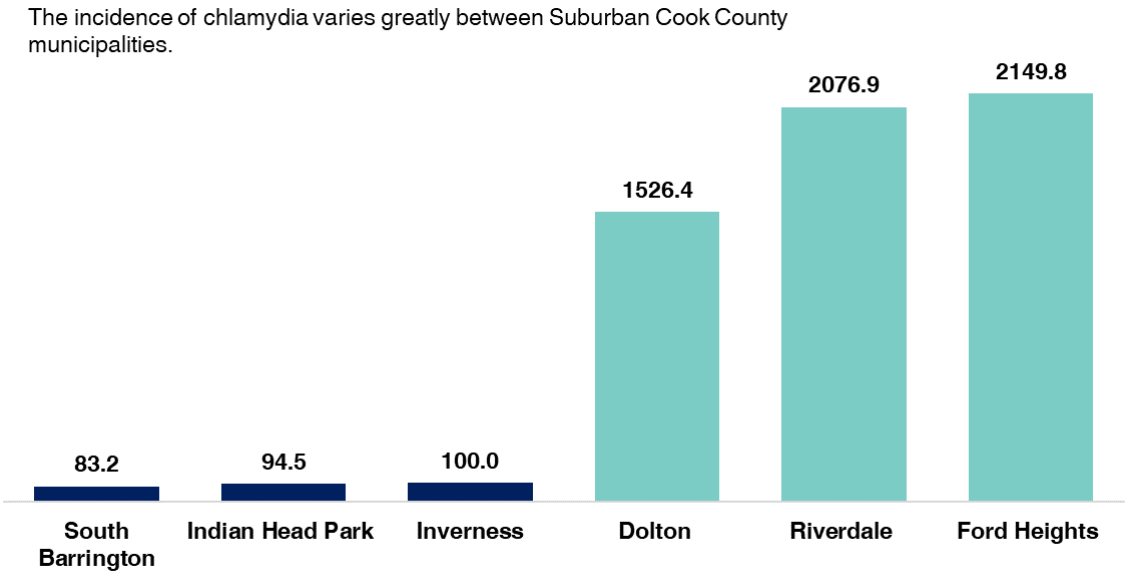
Chicago Department of Public Health, 2015; Cook County Department of Public Health, 2012-2016

Figure 91. Comparison of chlamydia incidence rates per 100,000 population in Chicago community areas, 2016



(Chicago Department of Public Health, 2016)

Figure 92. Comparison of chlamydia incidence rates per 100,000 population in Suburban Cook County municipalities, 2012-2016



(Cook County Department of Public Health, 2016)

Primary, Secondary, and Congenital Syphilis

Primary and secondary syphilis infections follow the same patterns as chlamydia and HIV with the majority of new cases reported in non-Hispanic African American/blacks. Incidence rates are again highest in communities on the Northeast and South Sides of the city and in the southern region of the suburbs.

Congenital syphilis is transmitted from mother to baby during pregnancy. Across the nation, there has been a dramatic increase in congenital syphilis cases among newborns (Centers for Disease Control and Prevention, 2018). Between 2013 and 2017, the rates of congenital syphilis in the U.S. more than doubled (362 in 2013 to 918 in 2017), outpacing overall increases in STIs nationwide (Centers for Disease Control and Prevention, 2018). Congenital syphilis can cause miscarriage, stillbirth, prematurity, low birth weight, or death shortly after birth (Centers for Disease Control and Prevention, 2019c). For babies born with congenital syphilis, the disease can cause deformed bones, severe anemia, enlarged liver and spleen, jaundice, brain and nerve problems like blindness or deafness, meningitis, and skin rashes (Centers for Disease Control and Prevention, 2019c). In 2015, Chicago experienced the highest number of cases in the past five years (Chicago Department of Public Health, 2016). Between 2014 and 2016, rates of congenital syphilis in Suburban Cook County have remained fairly consistent and lower than the rates for Chicago (Cook County Department of Public Health, 2018).

Gonorrhea

Gonorrhea is the second most commonly reported STI. Gonorrhea infection is a major cause of pelvic inflammatory disease in women (Centers for Disease Control and Prevention, 2019d). Complications that can be caused by untreated gonorrhea include the formation of scar tissue blocking the fallopian tubes, ectopic pregnancy, infertility, and long-term pelvic/abdominal pain (Centers for Disease Control and Prevention, 2019d). Potential complications for men include chronic pain and infertility (Centers for Disease Control and Prevention, 2019d). Antibiotic resistant gonorrhea is a growing concern among providers (Centers for Disease Control and Prevention, 2019d). Increased emergence of additional strains of antibiotic resistant gonorrhea would significantly complicate the ability of providers to treat the disease successfully (Centers for Disease Control and Prevention, 2019d).

Gonorrhea incidence is highest among communities on the South Side of Chicago and in the southern region of Suburban Cook County (Chicago Department of Public Health, 2016; Cook County Department of Public Health, 2018). Gonorrhea incidence follows the same trends as other STIs with African American/blacks having the highest burden of disease in the city and suburbs.

Conclusion

The Alliance for Health Equity collaborative Community Health Needs Assessment (CHNA) combined robust public health data, community input, existing research, existing plans, and existing assessments to document the health status of communities within Chicago and Suburban Cook County and to highlight systemic inequities that are negatively impacting 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. Based on the information provided in the CHNA, input from Alliance for Health Equity stakeholders, and community feedback, six major focus areas were identified for implementation:

- **addressing the social and structural determinants of health** including addressing structural racism, advancing policies that promote health equity, creating environments that support healthy eating and active living, and advancing community-driven decision making;
- **improving access to care and community resources** through interventions, programs, and policy and systems improvements;
- **improving mental health and reducing substance use disorders**;
- **addressing the risk factors, prevention, and management of chronic conditions**;
- **improving maternal and child health** including reducing maternal and infant mortality; and
- **preventing overall injury and violence-related injury**

By implementing strategies and supporting existing work within the six focus area domains, Alliance for Health Equity partners seek to increase health equity, improve physical and mental health, improve quality of life, and increase life expectancy for all community members. To be successful, the Alliance will continue to partner with health departments, community-based organizations, and community residents to adopt shared and aligned strategies while leveraging shared resources to increase collective impact.

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