The New Roseland Community Hospital

ALLIANCE for HEALTH EQUITY

Hospitals and Communities Improving Health Across Chicago and Cook County

COMMUNITY HEALTH NEEDS ASSESSMENT

FOR CHICAGO AND SUBURBAN COOK COUNTY

2022

Full Report

ILLINOIS PUBLIC HEALTH INSTITUTE

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TABLE OF CONTENTS

Collaborative Community Health Needs Assessment (CHNA) for 34 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
Advent Health Medical Center La Grange
Ascension Alexian Brothers Medical Center, Elk Grove Village
Ascension Holy Family Medical Center
Ascension Resurrection Medical Center
Ascension St. Alexius Medical Center and Alexian Brothers Behavioral Health Hospital
Ascension Saint Francis Hospital
Ascension Saint Joseph Hospital
Ascension Saints Mary and Elizabeth Medical Center
Ann & Robert H. Lurie Children's Hospital of Chicago
Humboldt Park Health
Jackson Park Hospital
The Loretto Hospital
Loyola Medicine- Gottlieb Memorial Hospital
Loyola Medicine- Loyola University Medical Center
Loyola Medicine- MacNeal Hospital
Northwestern Memorial Hospital
Northwestern Palos Community Hospital
OSF Little Company of Mary Medical Center
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 Hospital
University of Illinois Hospital and Health Sciences System

Key Public Sector Partners

Chicago Department of Public Health
Cook County Department of Public Health
Cook County Health

Convening Organization for the Alliance for Health Equity

Illinois Public Health Institute

INTRODUCTION

This collaborative Community Health Needs Assessment (CHNA) for Cook County, Illinois was conducted by the Alliance for Health Equity, a collaborative of 34 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.

This collaborative Community Health Needs Assessment was conducted between May 2021 and March 2022, during a time that communities across our county, country, and globe have been experiencing profound impacts from **the COVID-19 pandemic**. The **health, economic, and social impacts of the pandemic** are strongly present in what we heard from community members and healthcare and public health workers over the course of the assessment.

Collaborative Community Health Needs Assessment (CHNA) in Cook County is an important foundation for the work of the Alliance for Health Equity. The purpose of the Alliance for Health Equity is to improve population and community health by:

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

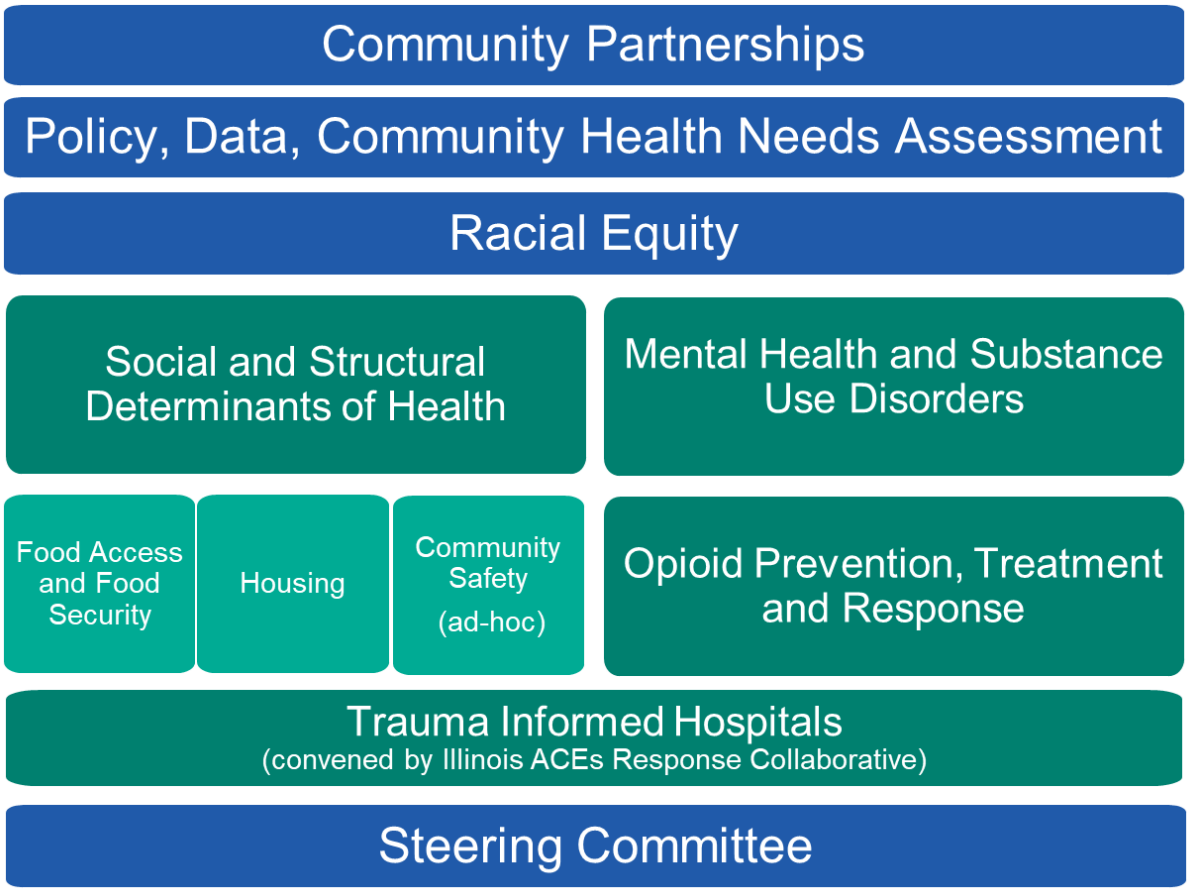
The 2022 Community Health Needs Assessment is the third collaborative CHNA in Cook County, Illinois. The Illinois Public Health Institute (IPHI) acts as the backbone organization for the Alliance for Health Equity. IPHI works closely with the steering committee to design the CHNA to meet regulatory requirements under the Affordable Care Act 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, 2019), Healthy Chicago 2025 (2020), and Suburban Cook County WePLAN (2022, link).** 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)**.

The steering committee is made up of 21 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 monthly and makes decisions by consensus through monthly meetings, designation of ad hoc subcommittees as needed, and through email communications. The CHNA committee provides oversight and assistance with the development of assessments and implementation plans. The Alliance for Health Equity has implementation strategy committees and workgroups that meet bi-monthly or quarterly on Mental Health and Substance Abuse Disorders, Opioid Treatment and Response, Social and Structural Determinants of Health (SDOH), Food Access & Food Security, and Housing. There is also a Trauma-Informed Hospitals Collaborative that is convened, and staffed by the Illinois ACEs Response Collaborative, Health and Medicine Policy Research Group, and CDPH.

Figure 1. Alliance for Health Equity Structure



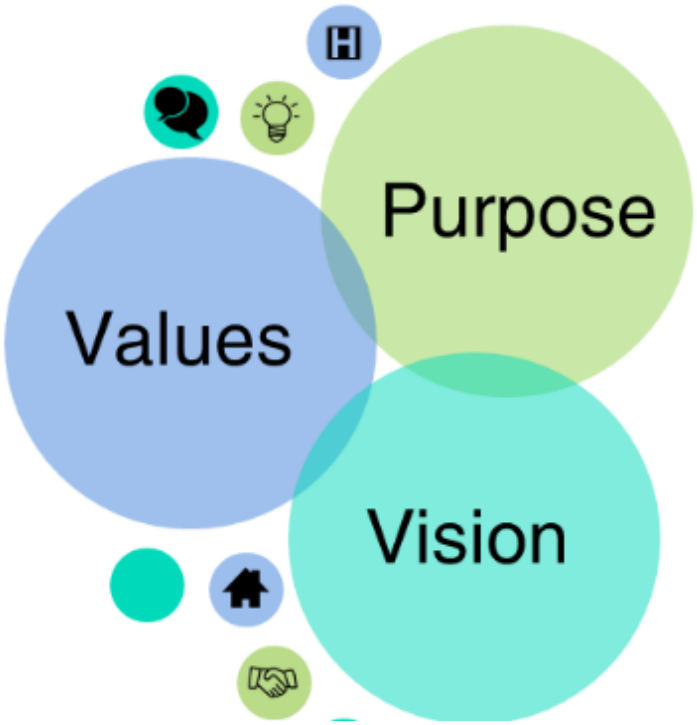
Purpose, Vision, Values

The Alliance for Health Equity's purpose, vision, and values reflect input from hospital partners, health departments, and community partners **(Figure 2)**. The vision and values were first 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

Our Values

1. We believe the highest level of health for all people can only be achieved through the pursuit of **social justice and elimination of health disparities and inequities**.
2. We value having a shared vision and goals with alignment of strategies to achieve **greater collective impact while addressing the unique needs of our individual communities**.
3. Honoring the diversity of our communities, we value and will strive to include all voices through **meaningful community engagement and participatory action**.
4. We are committed to emphasizing assets and strengths and ensuring a process that identifies and **builds on existing community capacity and resources**.
5. We are committed to **data-driven decision making** through implementation of evidence-based practices, measurement and evaluation, and using findings to inform resource allocation and quality improvement.
6. We are committed to building **trust and transparency** through fostering an atmosphere of open dialogue, compromise, and decision making.
7. We are committed to **high quality work to achieve the greatest impact possible**.



Our Vision

Improved health equity, wellness, and quality of life across Chicago and Cook County

Our Purpose

Improve population and community health by:

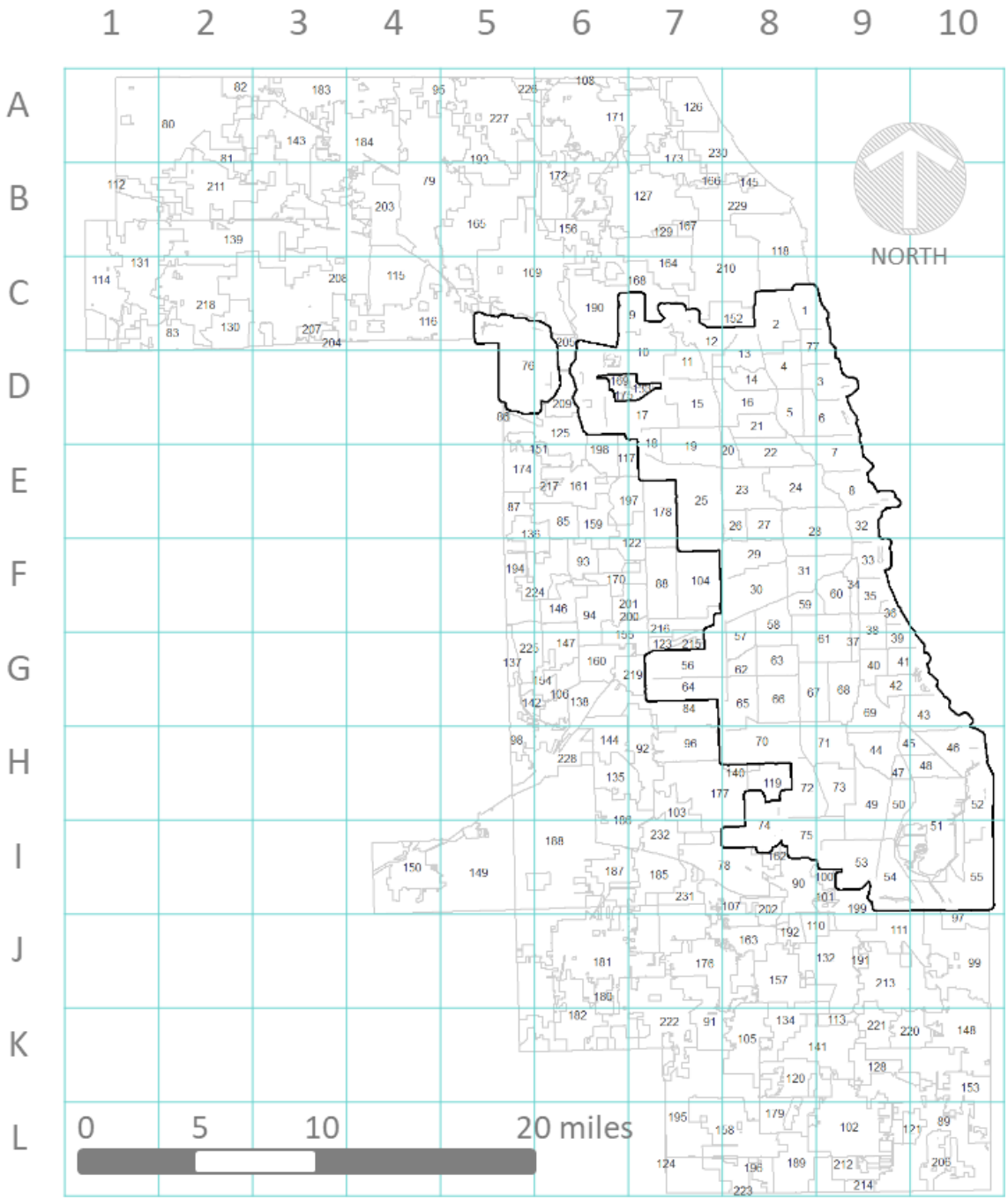
- Promoting **health equity**
- **Capacity building**, shared learning, and connecting local initiatives
- Addressing **social and structural determinants of health**
- Developing broad city/county wide initiatives and **creating systems**
- Engaging community partners and **working collaboratively**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

Community Description for Cook County

Cook County, Illinois, comprises 130 suburban municipalities and 77 Chicago community areas. **Figure 3** can be referenced when viewing maps throughout the CHNA report, and alpha-numeric coordinates allow for localization of individual communities. As of 2020, the estimated population for Cook County is 5,275,541, with 2,746,388 in Chicago and 2,529,153 in Suburban Cook County.
6

Figure 3. 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.



The 232 **Suburban Cook municipalities** (and unincorporated areas) 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.

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

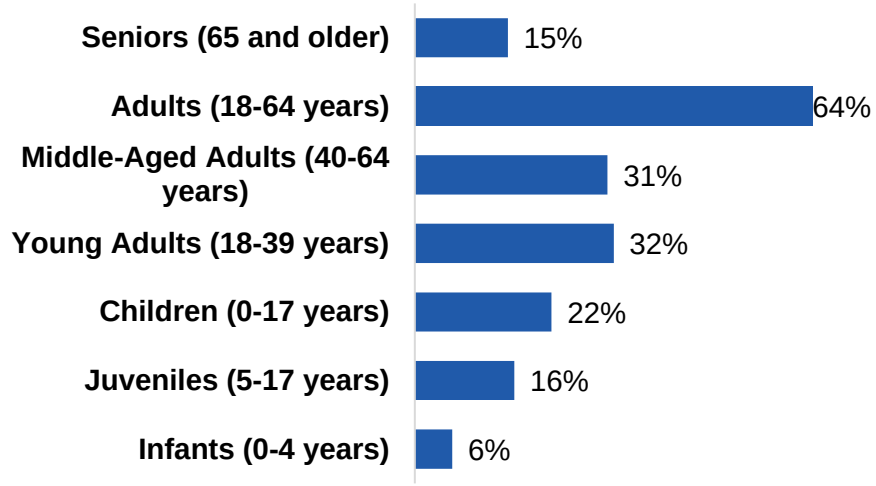
H6 - Willow Springs village, 228
B8 - Wilmette village, 229
A7 - Winnetka village, 230
I7 - Uninc Worth township, 231
I7 - Worth village, 232

Population composition

Age and gender

The U.S. Census Bureau American Community Survey estimates that 22% of the population in Cook County is under the age of 18 and 15% is over the age of 65 (Figure 4). In Cook County, the percentage of people who identify as male or female is approximately equal. Data for the transgender population in Cook County is limited. Based on 2018 data from the Chicago Department of Public Health, approximately 10,500 or 0.5% of the population in Chicago identifies as transgender (Weaver et al., 2018).

Figure 4. Age distribution of population in Cook County, Illinois

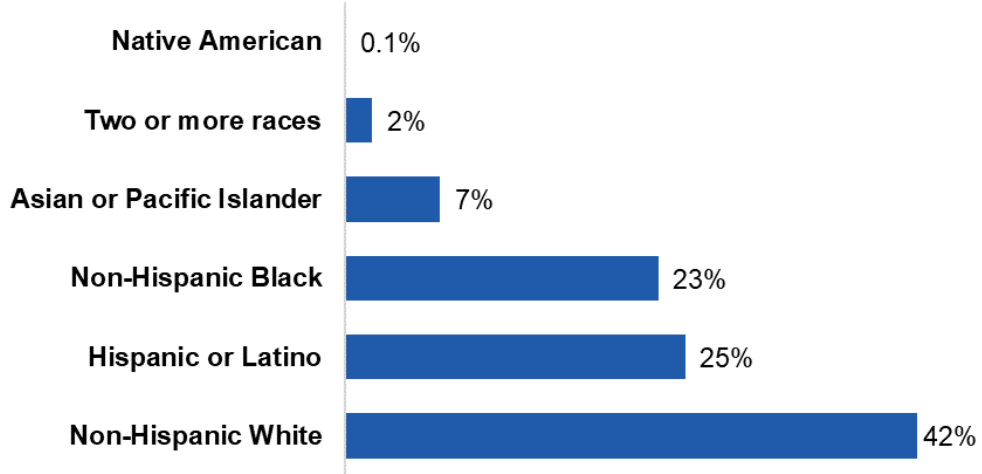


U.S. Census Bureau, American Community Survey, 2016-2020

Race and ethnicity

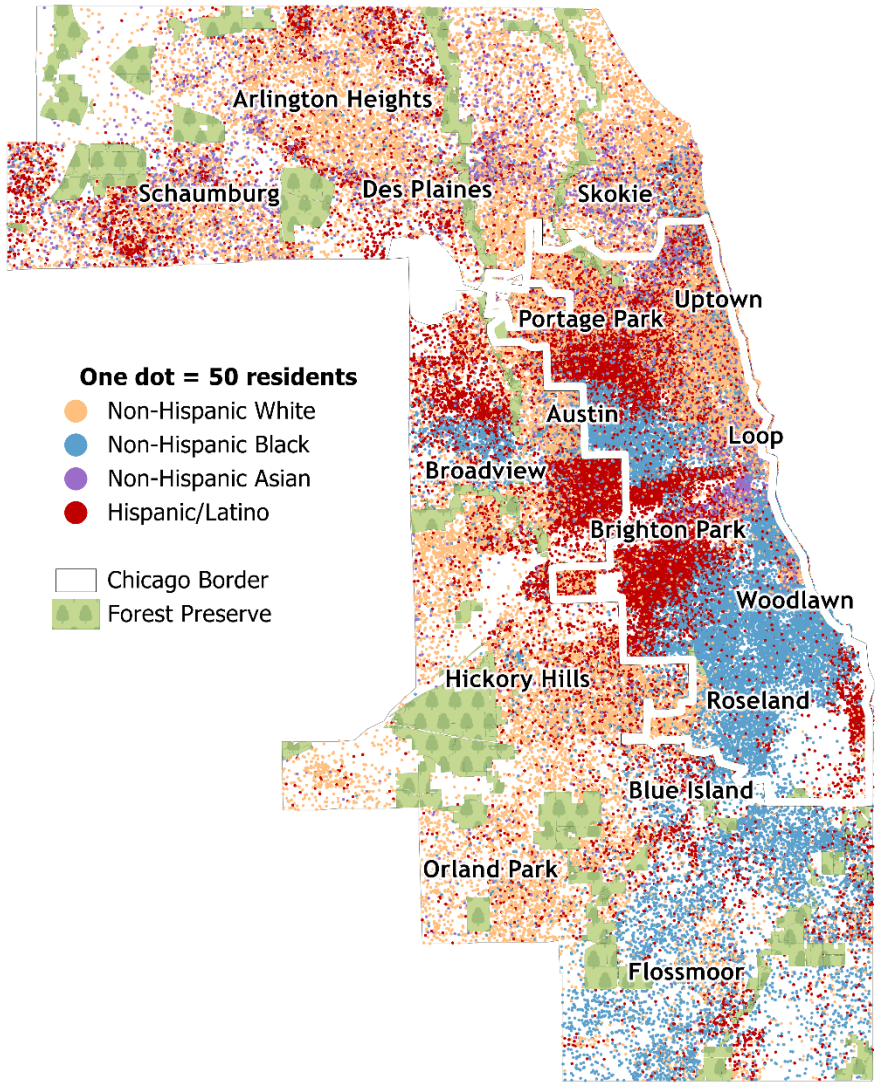
More than half the population in Cook County identifies as a historically marginalized racial or ethnic group (Figure 5). The geographic density of racial and ethnic groups in Cook County is presented in a map in Figure 6. Racial and ethnic segregation in Cook County is well above national median levels (Henricks et al., 2017; Metropolitan Planning Council, 2017). The consequences of this segregation are discussed further in the ***Overview of health inequities*** chapter.

Figure 5. Racial and ethnic groups in Cook County, Illinois



U.S. Census Bureau, American Community Survey, 2016-2020

Figure 6. Racial and ethnic demographics in Cook County, Illinois



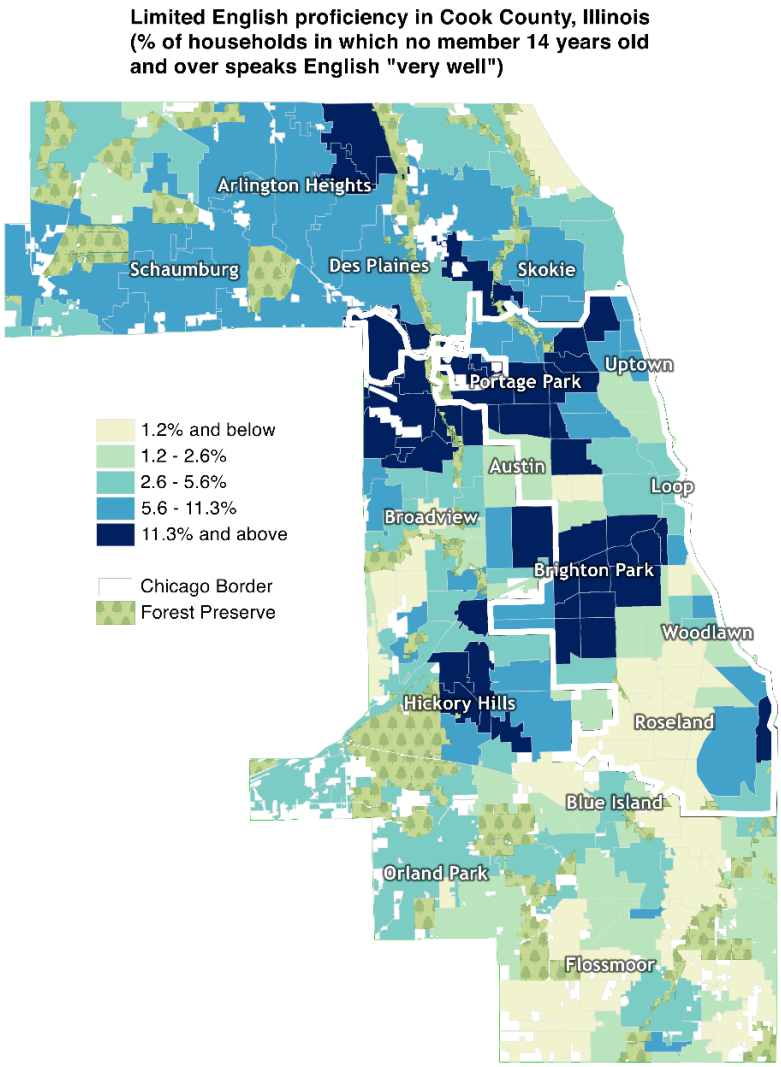
U.S. Census Bureau, 2020

Immigration

Approximately 10% of Cook County residents are non-citizens and 11% are naturalized citizens (U.S. Census Bureau, 2020). In 2018, 1.8 million foreign born individuals comprised 14% of the population in Illinois and 1.7 million native-born people in Illinois (14%) reported at least one immigrant parent (American Immigration Council, 2020). In addition, 395,000 Illinois residents live with at least one undocumented family member and undocumented immigrants composed approximately 22% of the immigrant population in 2016 (American Immigration Council, 2020). In 2018, the leading countries of origin for immigrants in Illinois were Mexico (36%), India (10%), Poland (7%), the Philippines (5%), and China (4%) (American Immigration Council, 2020).

Within Cook County, there are several communities with large concentrations of individuals that have limited English Proficiency (Figure 7). 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 7. Geographic distribution of households with limited English proficiency in Cook County, Illinois



Source: American Community Survey 5-Year Estimates, 2016-2020

Population trends

Cook County Illinois is the second largest county in the U.S. and Chicago is the third most populous city. The population within Cook County has remained somewhat flat since 2005 with a slight population increase between 2010-2020 (Figure 8).

Figure 8. Population trends in Cook County, Illinois

Year	Total Population
2005	5,206,357
2010	5,194,675
2015	5,238,216
2020	5,275,541

U.S. Census Bureau, 2005-2020

Figure 9. Demographic characteristics of assessment priority populations

Priority population	Demographic characteristics
Immigrants and refugees	Approximately 10% of Cook County residents are non-citizens and 11% are naturalized citizens (U.S. Census Bureau, 2020). In 2018, 1.8 million foreign born individuals comprised 14% of the population in Illinois and 1.7 million native-born people in Illinois (14%) reported at least one immigrant parent (American Immigration Council, 2020). In addition, 395,000 Illinois residents live with at least one undocumented family member and undocumented immigrants composed approximately 22% of the immigrant population in 2016 (American Immigration Council, 2020).
Justice-involved	Illinois has an incarceration rate of 497 per 100,000 people (including prisons, jails, immigration detention, and juvenile justice facilities) which is higher rate than almost any other democracy on earth (Prison Policy Initiative, 2018).
People experiencing Homeless	In 2020, the estimated homeless rate in Illinois was 81.1 individuals per 100,000. Approximately 10,431 individuals in Illinois experienced homelessness in 2020 (U.S. Department of Housing and Urban Development, 2020). In 2019, the number of individuals experiencing homelessness in Cook County was estimated at 7,573 (Chicago Metropolitan Agency for Planning, 2021). There are significant racial and ethnic inequities with the majority of the homeless population in Cook County being Black (Chicago Metropolitan Agency for Planning, 2021).
People living with mental health conditions	It is estimated that more than 1 million Illinois residents are living with a mental health condition (Heun-Johnson et al., 2018). Despite this, Illinois's state mental health agency spending per capita on community treatment programs is low in relationship to the U.S. average (Heun-Johnson et al., 2018).
People living with a disability	Approximately 10% of people in Cook County are living with one or more disabilities (U.S. Census Bureau, American Community Survey, 2016-2020).
LGBTQIA+	There are approximately 146,000 adults in Chicago who identify as LGBT, about 7.5% of the city's adult population. Of these, 138,000 identify as LGB (7.1%) and 10,500 identify as transgender (0.5%) (Weaver et al., 2018).
Unemployed	The 5-year estimate (2016-2020) of unemployment in Cook County is 7% (U.S. Census Bureau, American Community Survey). However, there are significant geographic and racial/ethnic inequities in unemployment rates within the county.
Uninsured	Approximately 9% of residents in Cook County are uninsured (U.S. Census Bureau, American Community Survey, 2016-2020). However, Hispanic/Latinx/e and Native American residents have a higher burden of uninsured.
Veterans and former military	An estimated 4% of the population in Cook County are veterans (U.S. Census Bureau, American Community Survey, 2016-2020). The majority of veterans in Cook County are over the age of 65 (U.S. Census Bureau, American Community Survey, 2016-2020).
Youth	Twenty-two percent of the population in Cook County is under 18 years old (U.S. Census Bureau, American Community Survey, 2016-2020).

COLLABORATIVE ASSESSSSMENT MODEL AND PROCESS

The Alliance for Health Equity completed a collaborative CHNA between May 2021 and March 2022. Illinois Public Health Institute (IPHI) worked with the CHNA committee and steering committee to design and facilitate a collaborative, community-engaged assessment. 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.

Overall, the Alliance for Health Equity collaborative 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). The Chicago and Cook County Departments of Public Health, as well as the Illinois Department of Public Health, all 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.

In the context of the COVID-19 pandemic, there were adjustments that were made in the assessment process to accommodate more virtual participation by organizations, healthcare partners, and community members.

For this CHNA, the Alliance for Health Equity has taken a very intentional approach to build on the previous collaborative CHNA work (2016, 2019), Healthy Chicago 2025 (2020), and Suburban Cook County WePLAN.

At the beginning of the CHNA process in mid-2021, 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 2021-2022 CHNA cycle will include a focus on refining strategies for community health improvement to support implementation progress, building on prior CHNAs from 2016 and 2019
- The CHNA will leverage the expertise of community residents, other local assessments, regional assessments, and plans.
- Reports will be developed using a racial equity framework and will have an asset-based perspective.
- Opportunities for addressing racial inequities, inequities experienced by priority populations, as well as geographic inequities will be highlighted throughout the report and in hospital-specific chapters.
- Short- and long-term threats and opportunities related to COVID-19 will be analyzed from a racial equity perspective.
- The CHNA will assist with the identification of policy priorities and opportunities for collective action.

COMMUNITY ENGAGEMENT

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

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.

For the 2022 CHNA, community engagement has been particularly crucial for a couple reasons:

1. **As the Alliance strives to strengthen our work for health and racial equity, community co-design and engagement in decision making is at the core of the work.**
2. **The most up-to-date data and information about health and social well-being and needs comes from community partners and community members, particularly during the current pandemic when conditions on the ground are shifting so fast.**

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 and homeless services, food access and food justice, community safety, planning and community development, immigrant rights, youth development, community organizing, faith communities, mental health services, substance use services, policy and advocacy, 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.

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.

The Chicago Department of Public Health (CDPH) and Cook County Department of Public Health (CCDPH) are founding members of the Alliance for Health Equity and sit on the steering committee. Four other certified health departments in Cook County have also been partners throughout different parts of the assessment and implementation processes.

A list of participating hospitals and health departments is included in the appendices**.**

Primary data

Alliance for Health Equity partners collected primary data through four methods:

- community input surveys;
- community resident focus groups;
- healthcare and social service provider focus groups; and
- regional stakeholder listening sessions.

Community input survey

Between September 2021 and December 2021, Alliance for Health Equity partners collected over 5,400 community input surveys from individuals ten or older living in Chicago and Suburban Cook County. The surveys were available online in English and Spanish. In addition, surveys were collected in paper format at focus groups and select in-person events. The survey asked participants about the health status of their communities, community strengths, opportunities for improvement, priority health needs, and COVID-19 impacts. Hospitals, community-based organizations, and health departments distributed the surveys to gain insight from priority populations that have been historically excluded in assessment processes.

The intention of the community input survey was to complement existing surveys such as the Healthy Chicago Survey and Behavioral Risk Factor Surveillance Survey / CDC PLACES. IPHI and the CHNA planning committee took the following steps to develop the survey tool:

1. IPHI drafted a survey based on a review of six existing survey tools as well as peer-reviewed standards for survey development.
2. CHNA committee members provided feedback on survey questions.

3. IPHI incorporated revisions from the CHNA committee members and partner organizations with survey expertise.
4. A Spanish translation of the survey was created by Heartland Alliance Health's Cross Cultural Interpreting Services.
5. The survey tool was uploaded into the web-based survey platform Alchemer and paper versions were created for in-person events.
6. The online survey was tested on Microsoft Windows and MacOS desktop platforms as well as Android and iOS mobile platforms before public release.

The final survey tool included 24 questions – two multi-select questions about health priorities and needs; five open-ended questions about community strengths, resources, and needs; four questions about COVID-19 impacts, recovery, and vaccine access; one question about access to help; two questions related to zip code and community of residence; and ten demographic questions. The survey tool is included in Appendix C.

Paper surveys were entered into the Alchemer platform by IPHI staff and Alliance hospital partners. Survey data were analyzed with SPSS.

Figure 10 shows the demographics of survey respondents across Cook County. In order to emphasize the input and voice of priority populations, the Alliance for Health Equity partnered with one of our members, Sinai Urban Health Institute, to apply additional subgroup analyses of the survey data by self-reported race/ethnicity, age, LGBTQIA+ identity, presence of children/youth in the home, disability status, and educational attainment.

Figure 10. Survey Respondent Demographics

DEMOGRAPHICS - COMMUNITY INPUT SURVEY RESPONDENTS		
Years Lived in Community (N=5,095)*	**N**	**Percent**
0 to <2 Years	315	6.2
3 to <5 Years	741	14.5
5 to <10 Years	743	14.6
10 to <20 Years	1112	21.8
20 Years or More	2184	42.9
**310 (5.7% of 5,405 total sample) did not respond or provided a number >85 years and are not included in table.*		

Respondent Identified as LGBTQ+* (N=4,816)**	**N**	**Percent**
No	4305	89.4
Yes	511	10.6
**Includes individuals who identified as transgender female, transgender male, non-binary, or another gender*		
**589 (10.9% of 5,405 total sample) excluded because responses were missing or they selected prefer not to*		

Race/Ethnicity (N=5,044)*	**N**	**Percent**
White Only	3030	60.1
African American/Black Only	673	13.3
Latino(a)/Hispanic Only	642	12.7
Asian Only	274	5.4
American Indian or Alaskan Native Only	8	0.2
Middle Eastern, Arab American, or Persian Only	103	2.0
Pacific Islander or Hawaiian Native Only	10	0.2
Other Only**	15	0.3
Two or More Race/Ethnicities	289	5.7
**361 (6.7% of 5,405 total sample) did not respond or said prefer not to answer and are not included in table.*		
***Examples of other responses included: Jewish, North African, East African, West Indian*		

Educational Attainment (N=5,256)*	**N**	**Percent**
Less than High School	189	3.6
High School Diploma or Equivalent	322	6.1
Some College**	843	16.0
College Graduate or Higher	3,902	74.2
**149 (2.8% of 5,405 total sample) did not respond or said prefer not to answer and are not included in table.*		
***Includes those who attended vocational or technical school.*		

Annual Household Income (N=4,028)*	**N**	**Percent**
Less than $20,000	379	9.4
$20,000 to $39,999	438	10.9
$40,000 to $59,999	456	11.3
$60,000 to $79,999	452	11.2
$80,000 to $99,999	458	11.4
$100,000 to $199,999	1,069	26.5
Over $200,000	776	19.3
**1,377 (25.5% of 5,405 total sample) did not respond or said prefer not to answer and are not included in table.*		

Age of Respondents (N=5,278)*	**N**	**Percent**
Younger than 18 years	98	1.9
18 to 24	162	3.1
25 to 34	651	12.3
35 to 44	812	15.4
45 to 54	837	15.9
55 to 64	979	18.6
65 to 74	1116	21.1
75 and older	623	11.8
**127 (2.4% of 5,405 total sample) did not respond or said prefer not to answer and are not included in table.*		

Household includes Children (Aged <18 Years) (N=5,405)*	**N**	**Percent**
No	4033	74.6
Yes	1372	25.4
**If respondent did not respond, it was assumed that there were no children in the house*		

Household includes Young Adults (Aged 18-24 Years) (N=5,405)*	**N**	**Percent**
No	4643	85.9
Yes	762	14.1
**If respondent did not respond, it was assumed that there were no children in the house*		

Household includes Individual with a Disability (N=5,086)*	**N**	**Percent**
No	4,170	82.0
Yes	916	18.0
**319 (5.9% of 5,405 total sample) did not respond or said prefer not to answer and are not included in table.*		

Focus groups

Between September 2021 and April 2022, IPHI worked with Alliance for Health Equity partners to complete 43 focus groups with community members throughout Chicago and Suburban Cook County in partnership with West Side United and Rush University Medical Center. Alliance for Health Equity partners focused on gathering input from communities that are historically marginalized and systemically excluded from assessment and decision-making processes. These communities face an unequal burden of health inequities. Participants were 14 years old or older and represented a diverse range of ethnic, racial, religious, and socioeconomic backgrounds

Examples of the communities and populations that participated in focus groups

Focus group facilitators asked participants about community strengths, community health needs, the underlying root causes of health needs, COVID-19 impacts, needs related to pandemic recovery, solutions to identified health needs, and communication strategies. IPHI developed the focus group questions using resources from existing CHNA toolkits and peer-reviewed studies, in consultation with the CHNA committee and colleagues. Most focus groups were 90 minutes long with an average of 10 participants. Thirteen groups were conducted virtually using the Zoom platform and 30 groups were conducted in-person. A trained facilitator moderated each session and was joined by a notetaker who 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. Dedoose software was used to identify and analyze cross-group codes. The focus group guide is included as Appendix E.

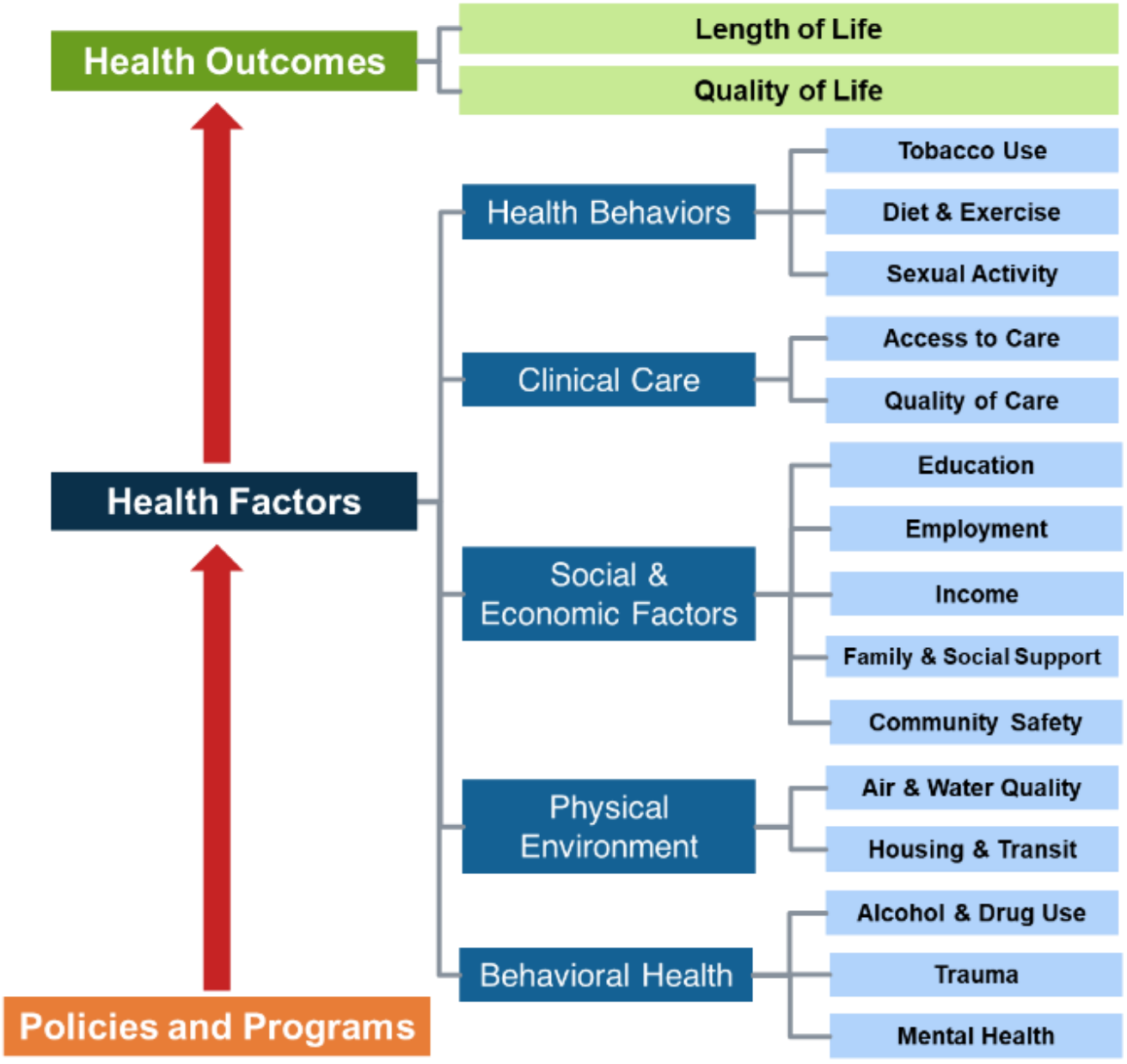
Secondary Data

Epidemiologists from CCDPH and CDPH and Metopio are 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 refine a common set of indicators that has been used in our previous collaborative CHNAs - based on an adapted version of the County Health Rankings and Roadmaps Model **(Figure 11)**:

- Social and Structural Determinants of Health
- Health Care Delivery System and Clinical Care
- Health Behaviors
- Behavioral Health - Mental Health and Substance Use
- Maternal and Child Health
- 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 11. Adapted County Health Rankings and Roadmaps Framework



Modified from County Health Rankings and Roadmaps

Secondary data used in the CHNA were compiled by IPHI and by Metopio from a range of sources

- Peer-reviewed literature and white papers
- Existing assessments and plans focused on key topic areas
- Chicago Department of Public Health and Cook County Department of Public Health
- Healthy Chicago Survey
- Local data compiled by additional agencies including Chicago Metropolitan Agency for Planning, Chicago Department of Family and Support Services, Chicago Department of Planning and Development, Housing Authority of Cook County, and local police departments
- Local data compiled by community-based organizations including Greater Chicago Food Depository and Feeding America, Voices of Child Health in Chicago, Healthy Chicago Equity Zones, and the Mapping COVID-19 Recovery initiative
- Hospitalization and emergency department rates (COMPdata) reported by Illinois Health and Hospital Association
- Data compiled by state agencies including 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 PLACES project; 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

Forces of Change Assessment – Key System Opportunities and Barriers

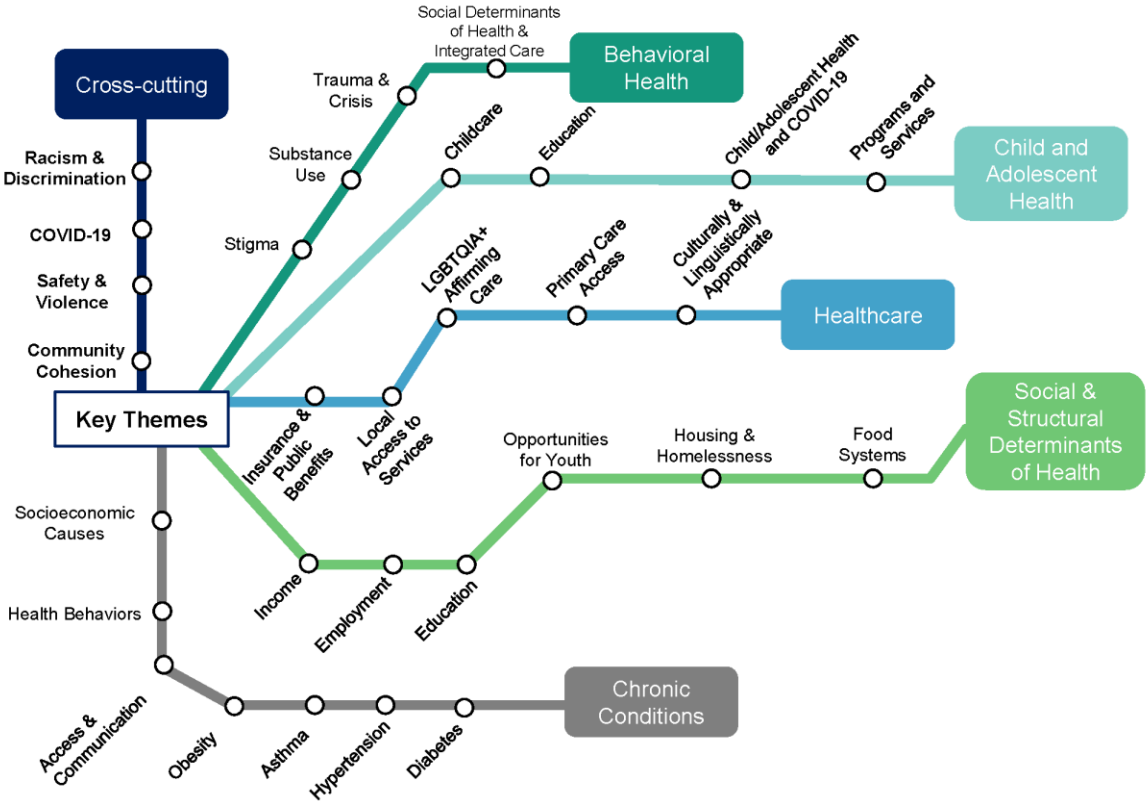
To identify key system opportunities and barriers, the Alliance for Health Equity compiles key issues and themes from forces of change assessments led by CDPH, CCDPH, and IDPH. Then, members (healthcare and community organizations) of the Alliance committees and workgroups discussed opportunities and barriers related to the key issues that are related to their topical focuses.

The Forces of Change Assessment collects information on the trends, factors, and events that are currently affecting and/or anticipated to affect the public health system in the near future (3-5 years). IDPH has most recently conducted a forces of change assessment (between October 2021-January 2022), while CDPH and CCDPH conducted their forces of change just prior to COVID. IDPH invited seven experts to each present and facilitate discussion about forces related to the following seven topics: policy, data, public health workforce, public health issues, equity, housing and homelessness, and economic justice/poverty. In order to best capture current forces at this stage of the pandemic, the Alliance for Health Equity started with the IDPH forces of change findings and added key equity-focused forces that persist based on CDPH and CCDPH assessments.

KEY TAKEAWAYS FROM COMMUNITY INPUT

Community input is the most important data input into the Alliance for Health Equity Community Health Needs Assessment. Particularly in the context of the current COVID-19 pandemic, first-hand information from communities most impacted by inequities is the most up-to-date data we have available about priority community health needs.

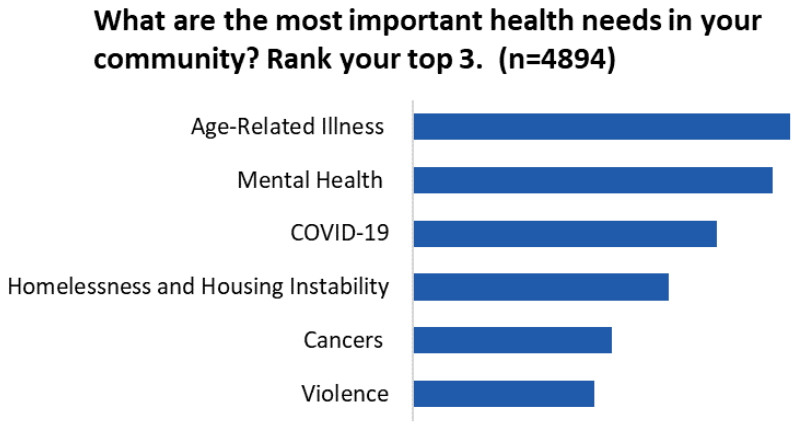
Figure 12. Key themes identified from focus group input



Community Input Survey

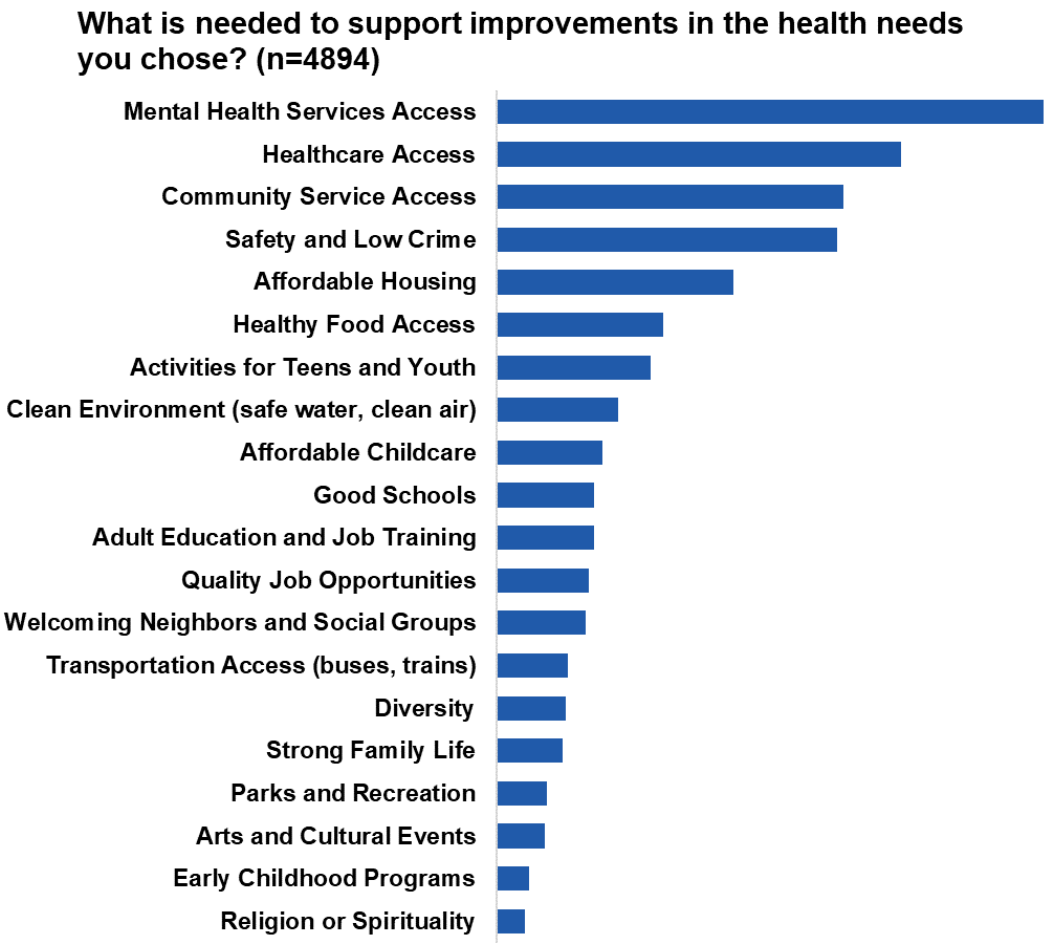
Among community input survey respondents countywide, the top six most important health needs identified were age-related illness, mental health, COVID-19, homelessness and housing instability, cancer, and violence. (Figure 13)

Figure 13. Community Survey Responses – Most Important Health Needs



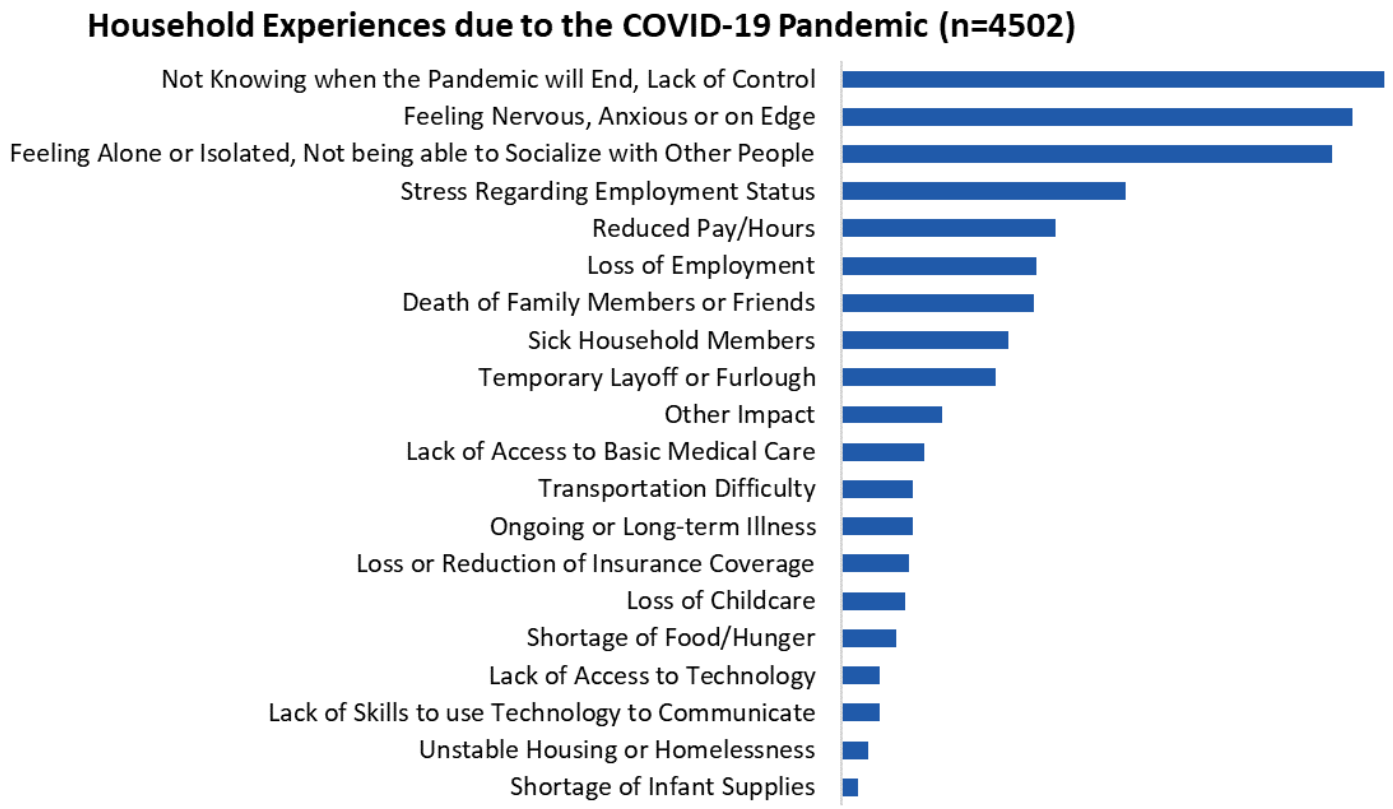
Among respondents countywide, the most important needed improvements identified were access to mental health services, access to health care, access to community services, safety and low crime, affordable housing, access to healthy food, and activities for teens and youth. (Figure 14)

Figure 14. Community Survey Responses – Needed Improvements



Among respondents countywide, the most common effects of the COVID pandemic that were reported were: Lack of control, anxiety, isolation, stress regarding employment status and/or loss of employment, and death of family members or friends. (Figure 15)

Figure 15. Community Survey Responses – Household Experiences in the COVID-19 Pandemic



Focus Groups

** Focus group quotes are highlighted throughout this report in blue text boxes. **

Overall themes – Focus groups

Focus group participants identified nine major areas that were impacting community health the most (**Figure 6** above):

- Mental health and substance use disorders (behavioral health);
- Child and adolescent health;
- Access to healthcare;
- Social and structural determinants of health;
- Chronic diseases

<u>Cross-cutting issues that affect all other areas of health and wellbeing:</u>

- Racism and discrimination;
- COVID-19, community safety / violence;
- Community cohesion

A detailed summary of focus group findings can be found in the Focus Group Summary Report.

Cross-cutting themes – Focus groups

Racism, community safety, community cohesion, and COVID-19 were major topics discussed in several different contexts among participants. Racism and discrimination were identified as underlying root causes of social, economic, and health-related inequities. Violence was identified as a direct consequence of socio-economic inequities that has profound impacts on health throughout the lifespan. Community cohesion was often described as one of the greatest strengths within communities. The impacts of racism and COVID-19 are mentioned throughout the summary while there are sections dedicated to the topics of community safety and community cohesion.

Mental health and substance use disorders (behavioral health)

Mental health and substance use (behavioral health) were two of the most discussed topics within focus groups. Communities highlighted the need for wholistic integrated care options and improved access to treatment. In addition, multiple groups expressed the need for information on how to address mental health crises and where to get appropriate health during a mental health emergency as well as the need to reduce stigma among community members, healthcare professionals, and emergency response personnel.

Participants frequently linked socioeconomic stressors such as unemployment to poor mental health. Other social determinants of health such as intergenerational trauma and access to early childhood education were identified as additional important factors in mental wellbeing. Across most focus groups, COVID-19 was seen as having a negative impact on mental health both directly through issues such as chronic stress and indirectly through its impacts on the social and structural determinants of health.

Social and structural determinants of health

Social and economic factors are important drivers of health outcomes. Communities highlighted the many ways in which the social and structural determinants of health such as access to healthy foods, housing, quality education, economic opportunity, infrastructure, and environmental health are impacting health outcomes.

Community safety

Focus group participants identified community violence as both a cause and outcome of social and economic inequities. For example, community members in focus groups linked limited programs and educational opportunities for youth with higher rates of violence, substance use disorders, and mental illness; affordable housing is scarce in communities with lower crime rates; safety concerns restrict community access to safe spaces for exercise; and a lack of economic opportunities for returning citizens/formerly incarcerated make transition difficult.

Healthcare

Access to needed healthcare and community resources are critical components to achieving the best health outcomes. However, many communities still lack geographic and financial access to health care services. Issues like a lack of reliable transportation, limited insurance coverage, poor access to public benefits, a lack of culturally and linguistically appropriate services, limited affirmative care options, and racism among healthcare providers make it even harder to access needed care and resources.

Chronic conditions

Issues like poverty, limited access to healthy foods, the high cost of care and medications, and unstable housing can cause chronic diseases and make them harder to manage. Factors like access to emergency food services, educational classes, access to safe exercise spaces, and improved communication about existing resources could make it easier for communities to be healthy.

Child and adolescent health

Child and adolescents were highlighted by most focus groups as a priority population even within focus groups that did not include families with young children or youth participants. Participants emphasized that addressing child/adolescent health needs and the needs of their parents is important for addressing health inequities and improving overall community health.

Community cohesion, leadership, and communications

A shared sense of connection between community members is often reported as one of a community's greatest strengths. In addition, community cohesion was described as an essential component of a healthy community. The knowledge and collective power of communities is often an untapped resource that should be sought out and cultivated to develop and expand effective solutions to improve the health and wellbeing of residents. Effective communications with communities are an essential component of implementing community-driven solutions, ensuring community leadership in decision-making, and building trust. In addition to providing examples of the roles that communities have in improving heath, communities provided several examples of how to build trust and improve communications between Alliance partners and community members.

Forces of Change Assessment – Key System Barriers and Opportunities

- Social and structural determinants of health, and advancing racial equity are important foci due to the impact on health and wellbeing of community members, made more evident by COVID-19.
- Many existing policies and systems maintain inequities.
- There is a need to increase communication and coordination across sectors to encourage collaboration, improve existing work, and achieve systems change.
- There are a number of opportunities and barriers with respect to the public health and health care workforce. Opportunities: existing expertise, increased representation, funding for professional development, new policies and funding to open doors for expanded roles for fields like community health workers, doulas, community organizers. Barriers: lack of representation and diversity among the workforce, burnout (due to COVID pandemic and in general), workforce shortages, hiring difficulties.
- There are also a number of needs related to mental health, trauma, and social isolation. In particular, there is a striking and widespread need for more youth mental health support, increased and improved more mental health workers and substance use treatment and prevention workers trained in providing support, more parity in funding and pay for mental health and substance use services, more culturally and linguistically appropriate and inclusive practices, reduction in stigma related to mental and behavioral health.
- Increased funding brings opportunities and threats – there is a need to de-silo funding, identify and eliminate inequities in funding, and establish sustainable funding mechanism for the future.
- There is an opportunity and need for data modernization – the public health and community healthcare systems are behind in data technology, lack data standards, lack data sharing agreements across sectors, and need user-friendly governance.

Key initiatives for alignment

- Chicago HEAL Initiative
- Chicagoland Healthcare Workforce Collaborative
- Chicagoland Vaccine Partnership
- Cook County Department of Public Health (CCDPH) WePLAN 2025
- CCDPH Suburban Cook County Healthcare Collaborative
- Cook County Equity Task Force
- Healthcare Anchor Network
- Healthcare Transformation Collaboratives
- Healthy Chicago 2025
- Healthy Chicago Equity Zones and Ecosystem
- Racial Equity Progress Report (Illinois Health and Hospital Association – IHA)
- State Health Improvement Plan (SHIP)
- United Way+City+County 211 buildout
- West Side United

Priority Community Health Issues, 2022 CHNA

Figure 16. Alliance for Health Equity, Priority Community Health Issues, 2022

OVERVIEW OF HEALTH INEQUITIES

Health inequities can be defined as differences in the burden of disease, mortality, or distribution of health determinants between different population groups (Centers for Disease Control and Prevention, 2022a; Weinstein et al., 2017). Health inequities can exist across many dimensions such as race, ethnicity, gender, sexual orientation, age, disability status, socioeconomic status, geographic location, and military status (Centers for Disease Control and Prevention, 2022a; Weinstein et al., 2017).

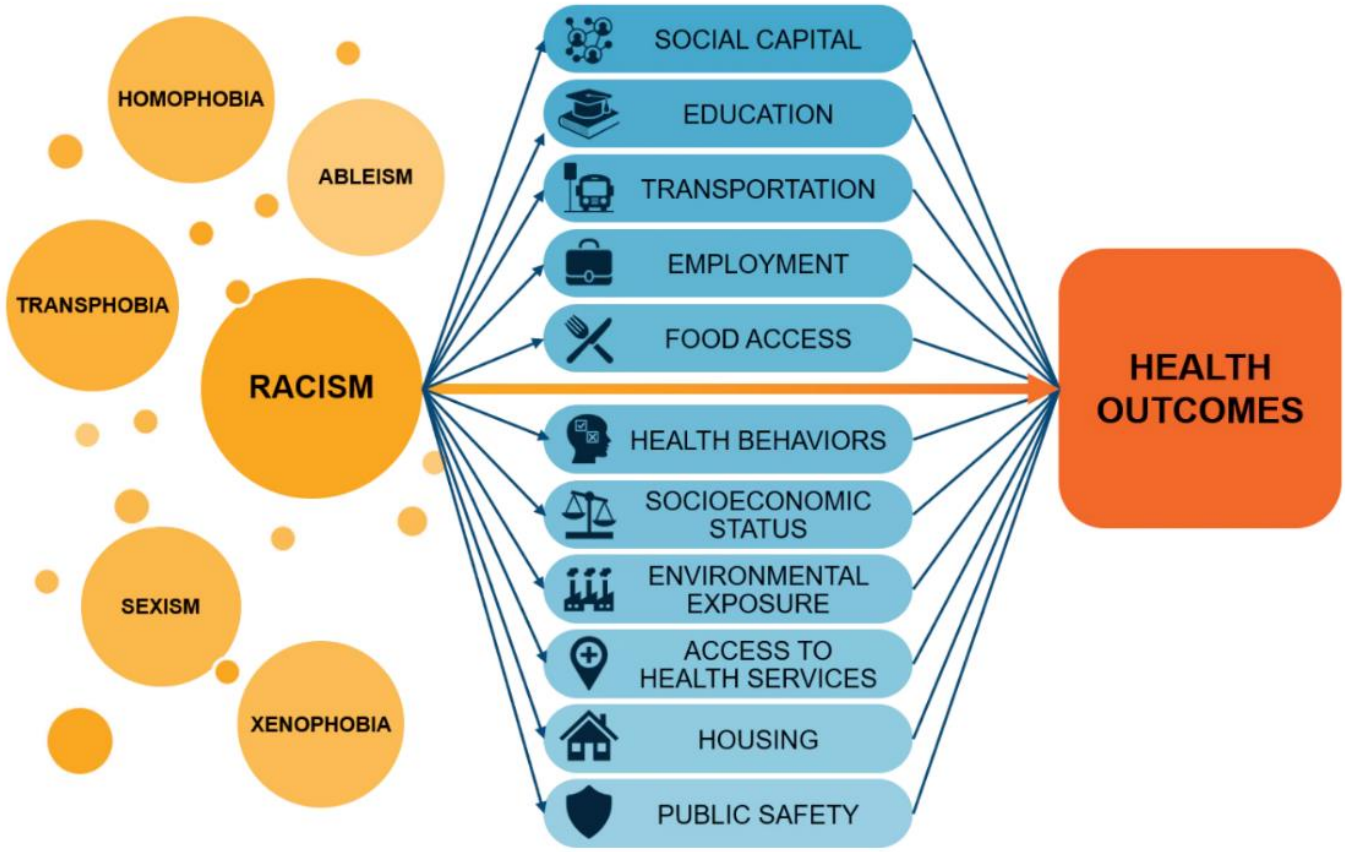
There are four overarching concepts that demonstrate the necessity of addressing health inequities:

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 healthcare funding and can therefore be addressed through policy interventions.
4. **Interventions to reduce health inequities are cost-effective.** Evidence-based public health programs to reduce or prevent health inequities can be extremely cost effect particularly when compared to the financial burden of persistent disparities. (Centers for Disease Control and Prevention, 2022a; Metropolitan Planning Council, 2017; Weinstein et al., 2017).

Structural racism

Race and ethnicity are socially constructed categories that have profound effects on the lives of individuals and communities. Racial and ethnic health inequities are the most persistent inequities in health over time in the United States (Weinstein et al., 2017). Racial and ethnic inequities in health are directly linked to racism (Figure 17).

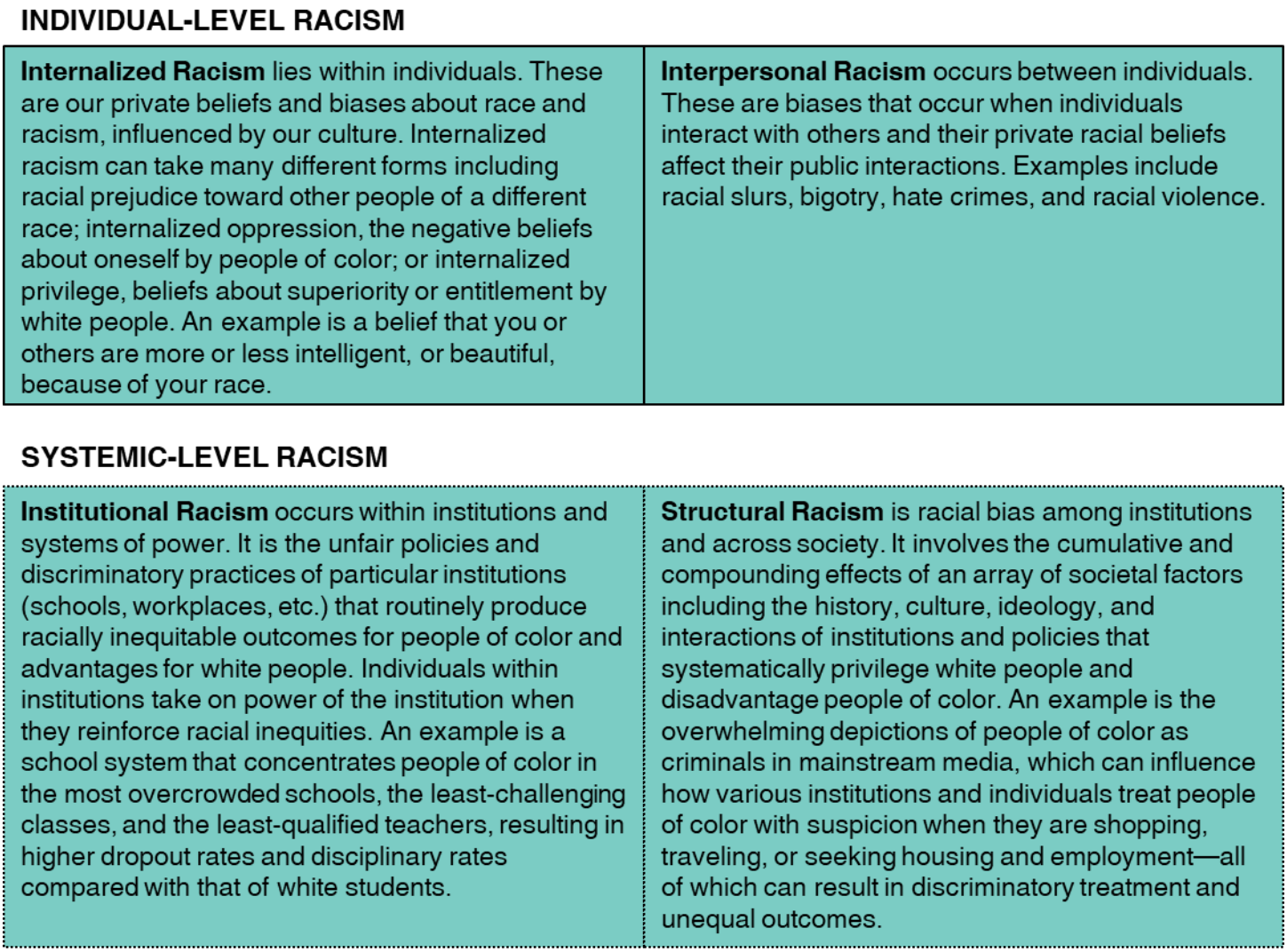
Figure 17. Differences in health outcomes among racial and ethnic groups are directly linked to racism



Source: Boston Public Health Commission's Racial Justice and Health Equity Initiative; available: http://www.bphc.org/whatwedo/health-equity-social-justice/racial-justice-health-equity-initiative/Documents/RJHEI%202015%20Overview%20FINAL.pdf

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 denying 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 racism



(Race Forward, 2014)

There is a common misconception that racism is a rare problem of isolated individuals attitudes and actions or that racism is a thing of the past (Race Forward, 2014). While individual racism is important to address, there are other less obvious yet ultimately more destructive forms of racism (P. A. Braveman et al., 2022; Race Forward, 2014). Systemic and structural racism are forms of racism that are deeply embedded in systems, laws, written or unwritten policies, and entrenched practices and beliefs that produce, condone, and perpetuate widespread unfair treatment and oppression of people of color, with adverse health consequences (P. A. Braveman et al., 2022). Examples of systemic and structural racism include residential segregation, unfair lending practices, school dependence on property taxes, environmental injustice, biased policing and sentencing of people of color, and voter suppression policies (P. A. Braveman et al., 2022).

> "Systemic racism is so embedded in systems that it often is assumed to reflect the natural, inevitable order of things."
>
> (Braveman et al., 2022)

Structural and systemic racism in Chicago and Suburban Cook County

There is a thirty-year life expectancy gap between Black and white Chicagoans depending on zip code (Gross, 2021). Disparities in life expectancies are directly rooted in government-sanctioned policies that intentionally and systematically extracted wealth from black communities and eroded the health of generations (Gross, 2021). There are numerous examples of how historical marginalization and systemic exclusion based on race is continuing to impact communities in Chicago.

- Homelessness disproportionately affects the Black population. While roughly 30% of Chicago's population is Black, over 70% of people experiencing homelessness are Black (All Chicago, n.d.).
- Violence in communities is strongly tied to the concentration of poverty that results from segregation and economic inequities (Fredrick, 2018). Structural barriers to rental agreements and home ownership led to the concentration of poverty in Black communities and as a result the majority of violence occurs in economically challenged communities of color in Cook County (Fredrick, 2018).
- In Chicago's poorest and most violent neighborhoods, 15-20% of mothers have low birth rate babies; rates that rival that of the world's poorest nations, including Ethiopia (20%), Chad (20%), Nigeria (15%), and Benin (15%) (Fredrick, 2018).
- The unemployment rate for Non-Hispanic Blacks in Cook County is 15% compared to four percent for Non-Hispanic whites (U.S. Census Bureau, American Community Survey, 2016-2020). Lower-incomes and high unemployment impacts access to insurance, access to healthcare, access to mental health services, access to college education, and contributes to chronic stress and poor health.
- Segregation in Cook County significantly diminishes the region's overall economic performance and hinders future economic opportunity and growth (Metropolitan Planning Council, 2017).

Advancing racial equity

Racial equity is reached when race and ethnicity no longer determine an individual or community's socioeconomic and health outcomes (P. A. Braveman et al., 2022). It is important to note that equality and equity are different (Figure 18). Health inequities involve more than simply unequal access to the resources needed to maintain or improve health (P. Braveman, 2014; P. A. Braveman et al., 2022; Centers for Disease Control and Prevention, 2022a).

Figure 18. Health equity involves more than providing equal access to resources needed to maintain or improve health

(Robert Wood Johnson Foundation, 2018)

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 health care

"The more money you have, the easier it is to get help"
NAMI Chicago focus group participant

Access to healthcare is complex and influenced by several factors including provider availability, convenience, accommodation, reliability, quality and acceptability, 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. The United States has one of the world's largest health gaps between its wealthiest and poorest citizens (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 (Powell, 2016). In addition, heath care service quality can vary greatly between communities.

"There are health centers, etc. but it's hard to get help. Most people just don't have insurance"
UCAN focus group participant

Health insurance is the primary way that individuals access the health care system in the United States with 56% of Cook County residents receiving coverage through employer-based plans (2016-2020 five-year estimates by the American Community Survey). However, the COVID-19 pandemic has changed the insurance landscape with over 3 million workers estimated to have lost employer-based coverage in the U.S. in 2020 alone (Bivens & Zipperer, 2020). Eighteen percent of community input survey respondents reported a loss of employment because of the pandemic, six percent reported a loss or reduction in insurance coverage, and a further seven percent reported a lack of access to basic medical care (n=5117).

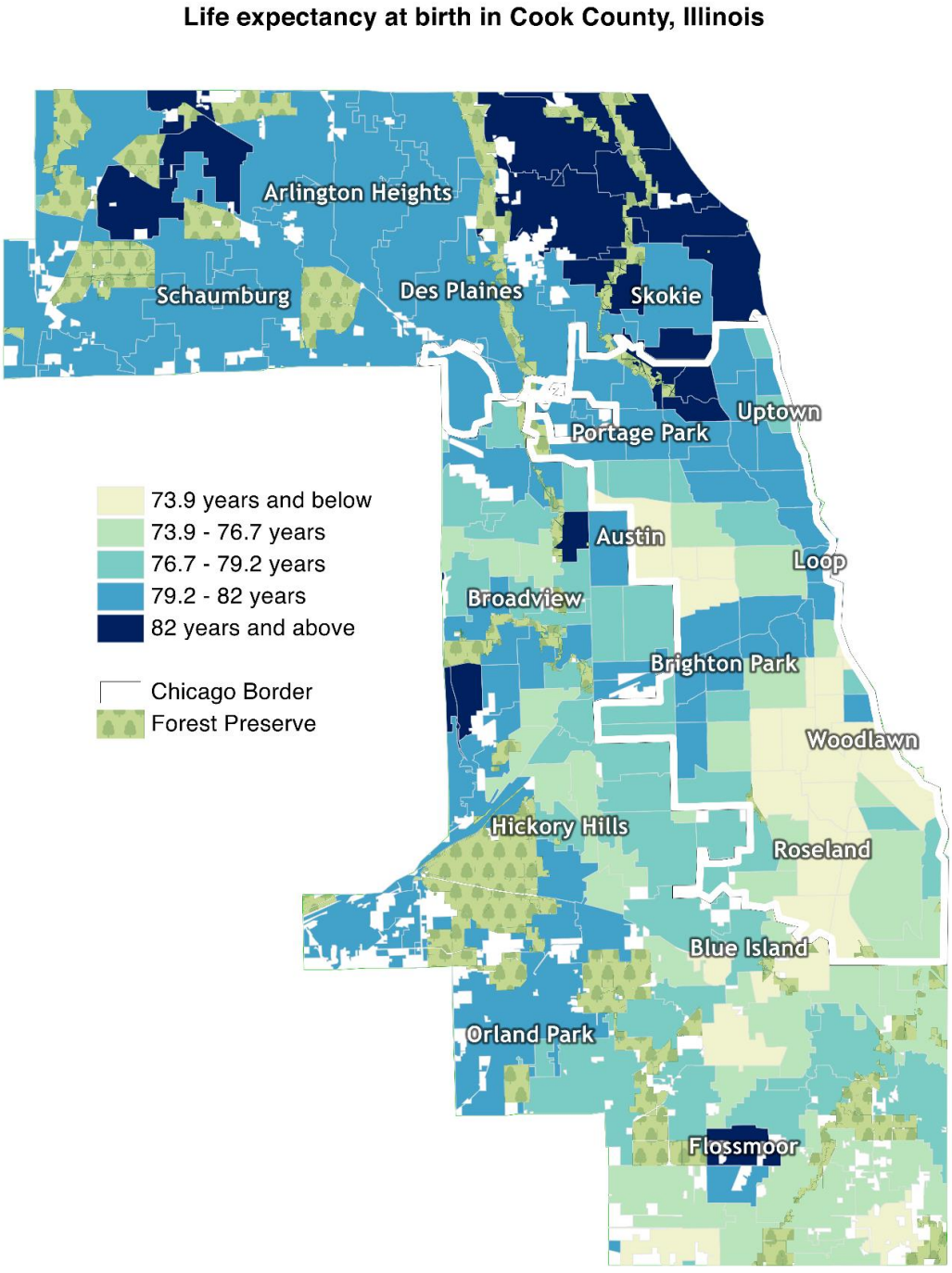
"Immigrants are taking expired medication they brought from home because they cannot access medical care"
AHS Family Health Center focus group participant

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. 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 addressing the underlying social determinants of access are needed.

Inequities in mortality

As previously mentioned, there are profound differences in life expectancy between communities in Chicago and Suburban Cook County that are the direct result of systemic and structural racism. The greatest number of communities with lower life expectancy are found on the West and South sides of the city and county (Figure 19). Provision data from 2020 estimates overall life expectancy in the U.S. at 77.3 years (Arias et al., 2021). However, life expectancy for Blacks was only 71.8 years compared to 77.6 years for whites and 78.8 years for Hispanic/Latinx/e (Arias et al., 2021). Black male life expectancy was even lower at only 68 years (Arias et al., 2021).

Figure 19. Geographic inequities in life expectancy at birth in Cook County, Illinois



Source: National Center for Health Statistics (USALEEP), 2015

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, 2021). 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, 2021). 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, 2021).

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, 2021). Since the year 2000, maternal mortality rates in the United States have been increasing even though the global trend has been the opposite (MacDorman et al., 2016). In addition, vast maternal health disparities exist between racial and ethnic groups (Illinois Department of Public Health, 2021). 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, 2021). As previously mentioned, racism is a driving force of these social determinants.

In a 2021 report, a Maternal Mortality Review Committee found that in Illinois between 2016-2017, Black women were three times more likely to die of pregnancy-related conditions that their white counterparts (Illinois Department of Public Health, 2021). The report also found that the gap in pregnancy-related deaths between Black and white women has narrowed, but not due to improved health outcomes for Black women (Illinois Department of Public Health, 2021). Instead, it is an effect of worsening conditions for white women, especially due to mental health conditions, including substance use disorder and suicide (Illinois Department of Public Health, 2021). Nationally and statewide in Illinois, between 2011 and 2013, Black women experienced infant mortality at nearly two times the rate as white, Asian, and Hispanic/Latinx/e women. The trend is more pronounced in Cook County, IL including Chicago where women of color experience infant mortality as high as four times the rate of white women.

More in-depth assessment of maternal and infant health inequities is presented in the report chapter on Healthcare Delivery System and Access to Care.

Inequities in education

"We have one charter school only, and that school is leading in expulsions and suspension. Some schools do whatever they want to keep their scores high"
MAAFA focus group participant

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). There are numerous other examples of how structural racism has contributed to inequities in education for students of color.

- School revenue based on tax structures favors and stabilizes funding in wealthier predominately white school districts while other communities must rely on more volatile state revenues (Chatterji, 2020). Predominately non-white school districts across the U.S. receive 23 billion dollars less annually than their predominately white counterparts (Chatterji, 2020).

- Students of color attend schools that are statistically more likely to be under-resourced, outdated, and in many cases contain infrastructure-related hazards to their health (Chatterji, 2020).
- The most and least socioeconomically advantaged school districts nationwide have average performance levels more than four grade levels apart (Rabinovitz, 2016).
- Black, Hispanic/Latinx/e male, and Native American students face a higher burden of school disciplinary action than their white counterparts (U.S. Department of Education, 2016). Although school suspensions have decreased over time, referral to law enforcement and arrest on school grounds has increased with Black students and students with disabilities sharing a disproportionate burden of referrals and arrests (U.S. Department of Education, 2016).
- 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).

The COVID-19 pandemic worsened existing opportunity and achievement gaps in education with historically marginalized students being hit the hardest (Dorn et al., 2021). High schoolers were more likely to drop out during the pandemic and high school seniors from low-income families were much less likely to attend post-secondary education (Dorn et al., 2021). Additionally, 14% of parents in a 2020 study reported worsening mental health for their children (Vanderbilt University Medical Center, 2020).

Inequities in community safety

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 have been associated with risky health behaviors, chronic health conditions, low life potential, and early death (Centers for Disease Control and Prevention, 2022a).

"Violence… people feel they got to do whatever it takes to survive"
MAAFA focus group participant

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

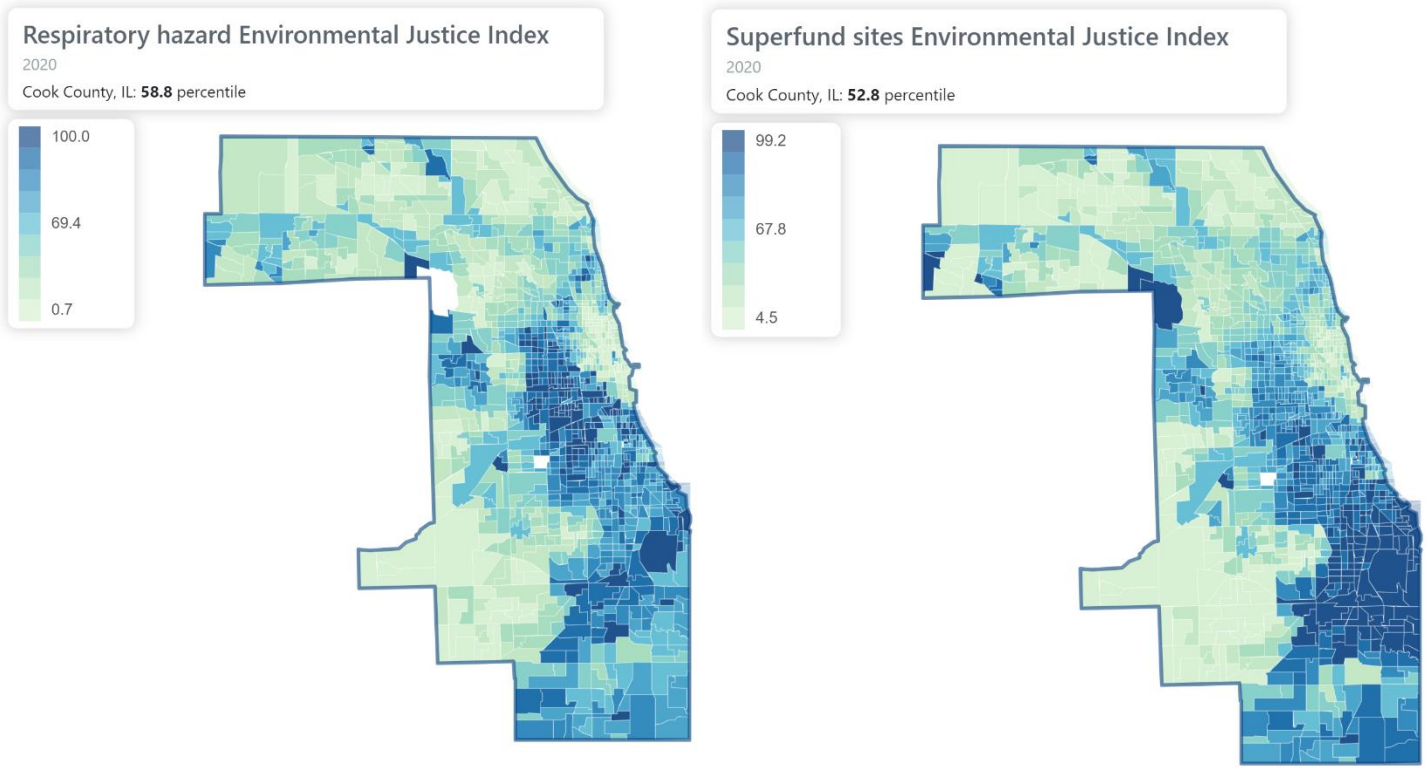
- Violence has been associated with less investment in community resources such as parks, recreation facilities, and parks that promote healthy activity (Prevention Institute, 2011).
- Food resources such as supermarkets are more reluctant to enter communities of color with higher rates of violence further reducing access to healthy foods (Odoms-Young, 2018; 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)
- High rates of gun violence are associated with lower home values, credit scores, and home ownership rates (Irvin-Erickson et al., 2017).
- Unintentional and violence-related injuries were estimated to cost the U.S. $4.2 trillion in 2019 alone (Peterson, 2021).
- Healthcare costs for those experiencing intimate partner violence are over 40% higher than those not experiencing abuse (McLean & Bocinski, 2017). Women who have experienced intimate partner violence five years or more in the past still have healthcare costs that are 19% above average (McLean & Bocinski, 2017).
- The estimated cost of fatal and non-fatal child maltreatment in the U.S. is estimated to be at least $124 billion annually with some estimates exceeding $500 billion annually (Fang et al., 2021).

Focus group participants identified police brutality and a corrupt criminal justice system as further contributing to inequities in community safety and violence. They also described the ways in which intergenerational violence and trauma are contributing to ongoing violence in communities. Lack of investment in infrastructure such as roads and public safety measures was identified as another factor reducing safety within communities. COVID-19 has led to increasing economic instability and created additional stressors within communities that have contributed to increases in gun violence and interpersonal violence.

Inequities in environment

The maps in Figure 20 show inequitable distribution of environmental hazards across Cook County.

Figure 20. Environmental Justice Indices



Inequities in 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 (Adverse Childhood Experiences, ACEs). As a result, exposure to trauma and the resulting toxic stress contribute to widening health disparities. Supporting and partnering with communities that have experienced trauma to build resiliency is an important step in reducing health inequities, however, it is critical to address the underlying root causes of traumatizing inequities with a focus on future prevention.

Community input survey respondents reported experiencing issues related to COVID-19 that can underly trauma and chronic stress such as a lack of control and not knowing when the pandemic will end (49%), feeling anxious, nervous, or on edge (46%), and feeling alone or isolated (44%) (n=5177). Additionally, a large percentage of survey respondents reported other experiences that can contribute to stress and trauma such as job loss, food insecurity, severe illness, and death of family members or friends.

HEALTH EQUITY PRIORITY POPULATIONS

Differences in the social determinants of health are the result of historical marginalization, systemic exclusion, and structural racism and underpin inequities in morbidity and mortality. Unequal distribution of resources and opportunities and power in communities leads to an inequitable burden of disease within certain communities. There are numerous examples of how different populations are impacted by systemic racism and discrimination.

- **LGBTQIA+ individuals** continue to have worse health outcomes than their heterosexual counterparts due to several factors including legal discrimination in access to health insurance, employment, housing, marriage, adoption, and retirement benefits; lack of laws protecting against bullying; a lack of social programs designed for LGBTQIA+ youth, adults, and elders; and shortage of health care providers who are knowledgeable and can provide appropriate care to LGBTQIA+ patients (Krehely, 2009; U.S. Department of Health and Human Services, n.d.).
- **Immigrants and refugees, particularly undocumented immigrants**, have been consistently negatively impacted by the social determinants of health such as poverty, food insecurity, housing instability, lack of educational attainment, and challenges in health care access (C. D. Chang, 2019). Additionally, they face systemic exclusion and marginalization, difficulties with acculturation, and fear of deportation (C. D. Chang, 2019).
- **Formerly incarcerated community members** face substantial barriers upon re-entry to their communities including barriers to employment such as background checks and a lack of access to employment assistance, low educational attainment and disqualification from many federal and state grant programs, lack of treatment for existing mental and physical conditions combined with low access to health insurance, lack of access to treatment for substance use disorders, and inadequate social-emotional support (Baer et al., 2006; Bruce Western & Becky Pettit, 2010).
- **People with disabilities** typically have less access to healthcare, experience higher rates of depression and anxiety, more often engage in risky behaviors such as smoking, and are less physically active (Centers for Disease Control and Prevention, 2022b; Krahn et al., 2015). In addition, due to structural barriers, they are more likely to live in poverty and more likely to experience food insecurity for economic reasons (Centers for Disease Control and Prevention, 2022b; Krahn et al., 2015).
- Both **children and youth and older adults** experience unique health risks. For example, ageism and provider bias frequently lead to lower quality care and worse health outcomes for older adults (United Nations, 2018; E. V. Wallace, 2021). In addition, social and structural factors shape health outcomes across the lifespan, amplifying the importance of childhood wellbeing for health across the lifespan (E. V. Wallace, 2021).
- The inequities caused by structural and institutional racism have profound effects throughout the lifespan and **Black, Native, and Latinx/e populations** are most impacted. Black, Native, and Latinx/e children are more likely to live in physical residences that have been impacted by lower home ownership; mass incarceration; redlining and gentrification; and wealth gaps (Heard-Garris et al., 2021). Schools attended by children of color are more likely to contain environmental risks such as air, water, and noise pollution and lower school funding due to inequitable allocation resulting from the local income tax base (Heard-Garris et al., 2021). In addition, children of color may not experience the health and physical benefits of green space because of underexposure to park spaces due to historical atrocities and poor park quality (Heard-Garris et al., 2021).

The conditions that create inequities significantly worsened over the course of the COVID-19 pandemic highlighting to need to create lasting change to current systems and structures.

Implications

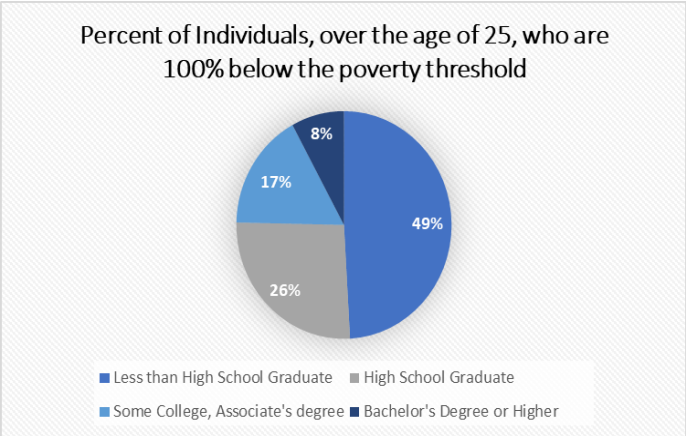
Given the effects that health inequities have on the well-being of individuals, communities, and society, the Alliance for Health Equity has made preventing and reducing health inequities its primary focus since its inception. As a result, this assessment focused on identifying, naming, and building strategies to address the underlying root causes of health inequities including structural racism, discrimination, historical trauma, and the unjust distribution of resources.

SOCIAL AND STRUCTURAL DETERMINANTS OF HEALTH

Education

Education is an important determinant of health because poverty, unemployment, and underemployment are highest among those with lower levels of educational attainment (Figure 21).

Figure 21. Percent of Individuals, over the age of 25, who are 100% below the poverty threshold



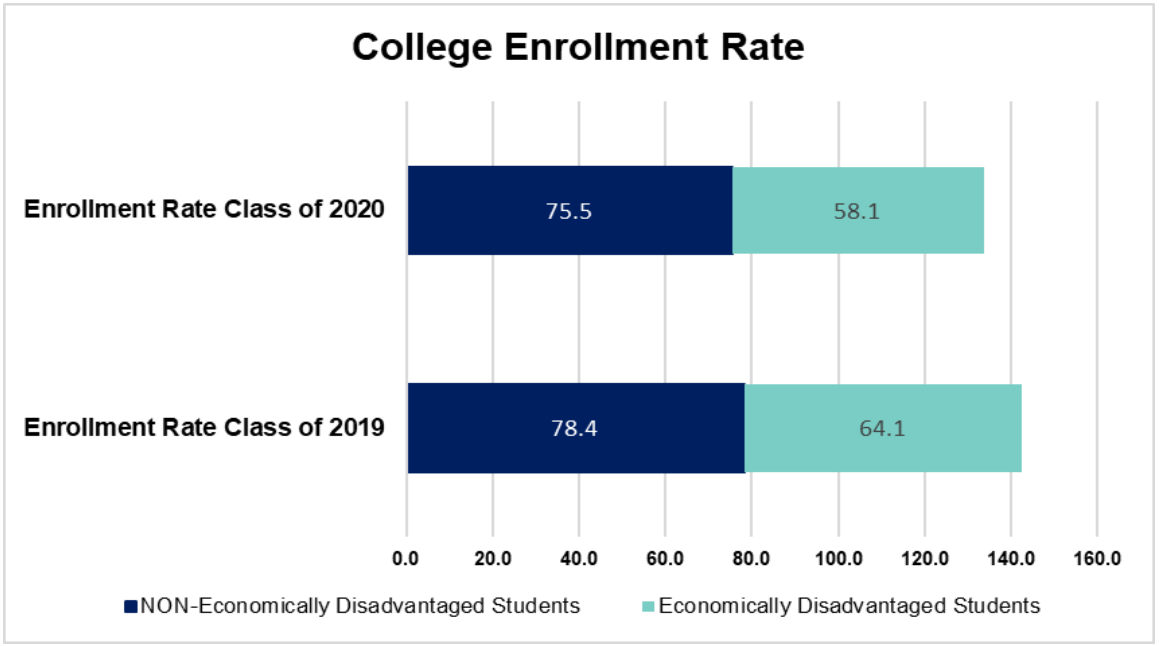
U.S. Census Bureau, Current Population Survey, 2021 Annual Social and Economic Supplement

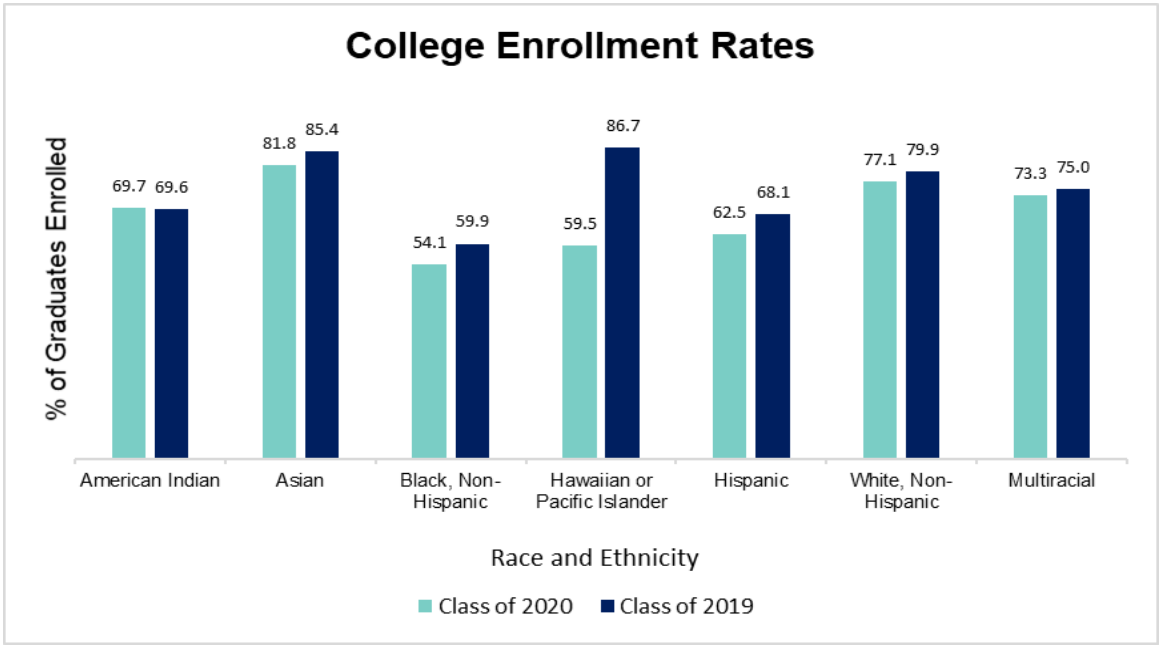
Educational attainment begins with attendance. An American Institutes for Research (AIR) report shows that student attendance rates throughout the country decreased from the fall of 2019 to the fall of 2020. This same report notes lower attendance rates amongst high poverty districts, lower achieving, and district schools who serve mostly students of color (Carminucci, et. al, 2021). During that same school year, Chicago Public Schools (CPS) attendance rate dropped four percent with a seven percent decrease for high school students (Koumpilova, 2022).

In recent data, CPS saw a 1.9% decrease in dropout rates, and a 0.6% increase in the number of graduates for the class of 2021 compared to the class of 2020. Although this increase in graduation rate is promising, the number of graduates enrolling in college have significantly decreased with the most notable drop of enrollments (5.1%) between the class of 2019 and class of 2020. While this decline takes into account all students, it most disproportionately affects economically disadvantaged students, who's enrollment rate is 58.1% compared to the 75.5% enrollment rate of their non-economically disadvantaged peers.

Additionally, Black students and Latine students enroll in college at a lesser rate than their fellow graduates (Figure 22) (*Chicago Public Schools Metric Report*, 2021

Figure 22. Chicago Public Schools College Enrollment Rates





Chicago Public Schools

A 2021 report by Urban Institute reports on the persistent segregation in schools linked closely to school rankings. The continued segregation in schools translates to large disparities in quality of staff, resources, program offerings, and standardized achievement levels. For example, teachers with only one or two years of experience are more likely to be housed in schools in areas that are demographically more Black or Hispanic. These schools also experience a greater number of absentee teachers. While these four elements are considered when creating school rankings, schools in an area with greater number of Black or Hispanic residents are more likely to be negatively labeled in comparison to schools with less Black or Hispanic residents (Monarrez, 2021).

For 73% of Chicago parents, bullying is a large issue (*Voices of Child Health in Chicago Report, 2020*). Social and economic factors stongly relate to how big of a concern bullying is for parents -- non-Hispanic Black parents (78%), parents with less than a high school degree (80%), and parents under the poverty line (89%) have the most concern with bullying as an issue in schools (*Voices of Child Health in Chicago Report, 2020*).

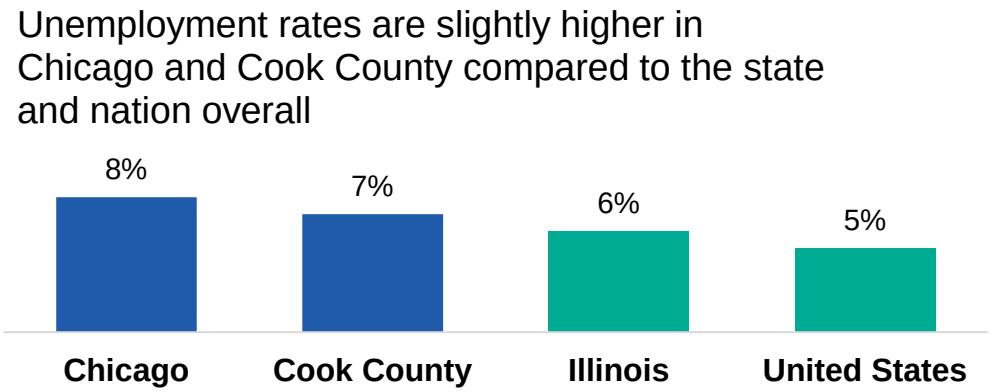
COVID-19 created disturbances in education that rippled across all age groups. For students, COVID-19 presented a challenge in students quickly adapting to remote learning and for some, readapting to hybrid or fully in-person learning. Moreover, schools with fully remote learning saw more instances of students interacting less or not at all within the school day (Chalkbeat). For early childhood education, many preschools and daycares shut down out of concern for COVID-19 transmission. Yet, the lack of engagement with younger children has created greater concerns of possible learning gaps for children of color, children from low-income backgrounds, children with disabilities, and children who are learning English (Tate, 2021). Socioeconomic inequities associated with race and ethnicity, have already been shown to affect children of color's educational performance when compared to their white peers (Garcia & Weiss, 2015). The delay in participation for kindergarten and other early education programs because of the ongoing pandemic can impact school success throughout the lifespan.

Employment

"Make available grants, funds, or donations for the community to create employment assistance for parents and their youth"
Enlace Chicago Focus Group Participant

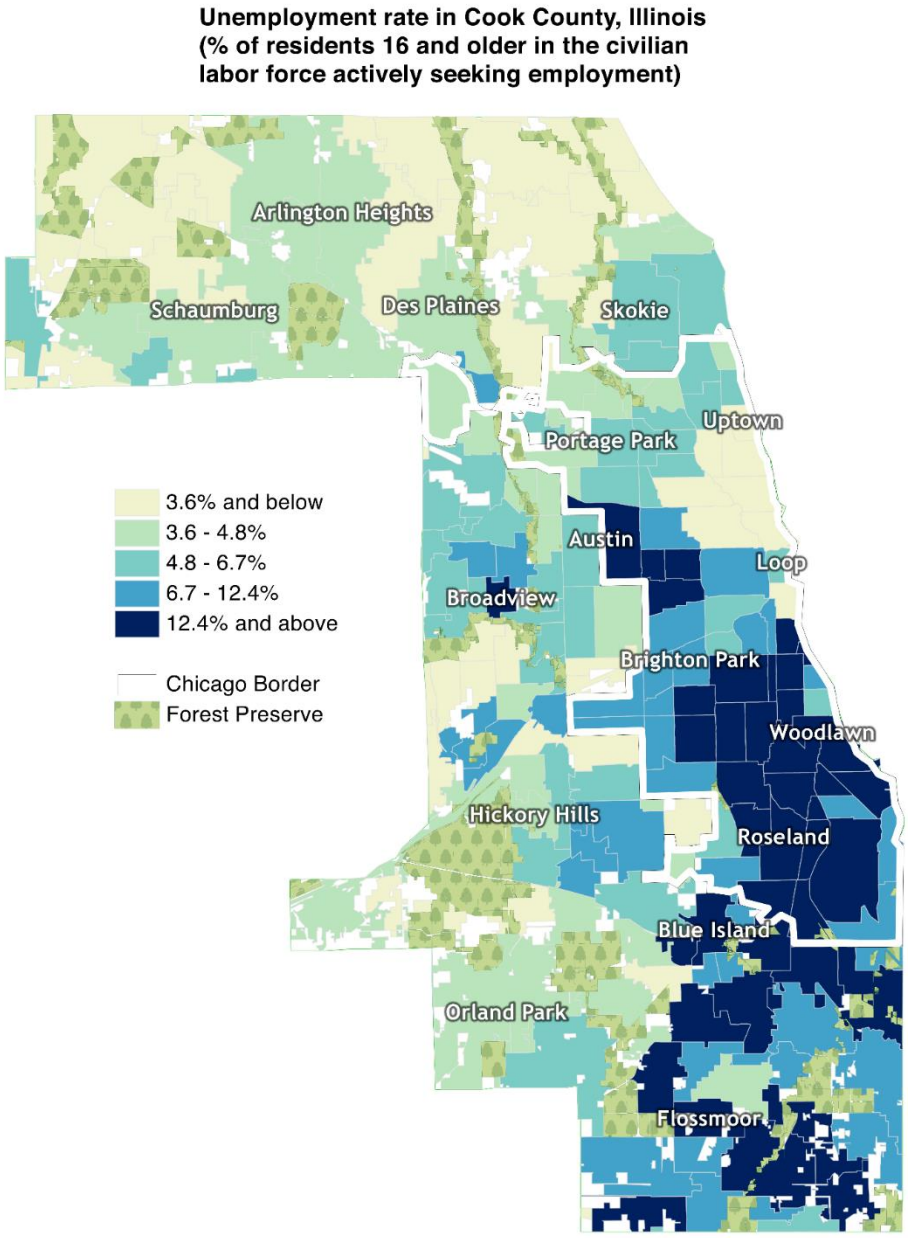
Unemployment and underemployment can create financial instability, which influences access to health care services, insurance, healthy foods, stable quality housing, and other basic needs. Unemployment and underemployment in Chicago and Suburban Cook County are often associated with a history of disinvestment 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 et al., 2017). The most recent unemployment rates for adults over age 16 in Cook County (7%) and Chicago (8%) are slightly higher than the rates for Illinois (6%) and the U.S. (5%) (Figure 23). The persistent geographic inequities in unemployment are visible in Figure 24.

Figure 23. Comparison of unemployment rates in Chicago and Cook County, Illinois (2016-2020)



U.S. Census Bureau, American Community Survey, 2016-2020

Figure 24. Geographic inequities in unemployment, Cook County, Illinois (2016-2020)



Source: American Community Survey 5-Year Estimates, 2016-2020

Community focus group participants highlighted the importance of economic opportunity for creating healthy communities. They cited the need for improved employment opportunities and workforce development for black and brown communities, youth, and immigrants and refugees. Ten percent of community input respondents reported the need for adult education and job training and (10%) reported quality job opportunities as an important need for community health.

Unemployment inequities has widened during the COVID-19 pandemic. Nineteen of survey respondents reported a reduction in pay or hours and 18% reported a loss of employment as a result of the pandemic.

Community Safety and Violence

As previously mentioned, although violence occurs in all communities, it is concentrated in low-income communities of color. For example, homicide rates in Chicago and Suburban Cook County are higher in Black/non-Hispanic and Hispanic/Latinx/e communities (Figure 25). 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.

Figure 25. Homicide morality per 100,000 population in Chicago and Suburban Cook County, Illinois

	Chicago (2020) Rate per 100,000	Suburban Cook County (2016) Rate per 100,000
Overall	23.5	5.4
Non-Hispanic White	1.6	1.4
Non-Hispanic Black	67.3	20.4
Asian or Pacific Islander	2.6	Not available
Hispanic or Latino	13.6	3.4

Illinois Department of Public Health, Death Certificate Data Files

Twenty percent of community input respondents indicated that violence was an important health concern in their communities and 27% indicated that safety and low crime was needed to support improvement in their community. Community focus group participants linked limited programs and educational opportunities for youth with higher rates of violence, substance use disorders, and mental illness. They highlighted that affordable housing is scarce in community with lower crime rates and safety concerns restrict community access to safe spaces for exercise. In addition, they described how a lack of economic opportunities for returning citizens/formerly incarcerated makes transition difficult.

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 ability to compare feelings of safety between community areas in Chicago (Figure 26). 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.

Across the U.S. states have reported increases in interpersonal violence during the COVID-19 pandemic including gun violence, child abuse, and intimate partner violence (A. M. Campbell, 2020; Hatchimonji et al., 2020). In Illinois, there has been an uptick in violent crime overall since 2019 and this trend continued into

2020 (U.S. Federal Bureau of Investigation, 2022). In addition, between March 2020 and June 2021 the Federal Bureau of Investigation reported a 77% increase in hate crimes against Asian people (Findling et al., 2022). These trends highlight the importance of continued violence reduction work including in areas such as research and funding, education in schools, bias in public health reporting, and systemic policy change (Findling et al., 2022).

Figure 26. Perceptions of safety: Percent of adults who report that they feel safe in their neighborhood "all of the time" or "most of the time", Chicago, Illinois (2020-2021)

Community area	Percent	Community area	Percent
West Garfield Park	8%	**Rogers Park**	63%
East Garfield Park	24%	**McKinley Park**	64%
Fuller Park	26%	**Near South Side**	67%
New City	26%	**Kenwood**	67%
Englewood	28%	**Hyde Park**	68%
Chicago Lawn	29%	**Ashburn**	70%
Auburn Gresham	30%	**Pullman**	70%
Washington Park	32%	**Bridgeport**	70%
Chatham	33%	**Near West Side**	71%
North Lawndale	35%	**Loop**	71%
South Lawndale	36%	**Hegewisch**	71%
Humboldt Park	36%	**Near North Side**	72%
South Shore	37%	**West Town**	73%
South Chicago	37%	**Calumet Heights**	74%
Austin	37%	**Portage Park**	75%
West Englewood	38%	**O'Hare**	75%
Gage Park	39%	**Montclare**	76%
Washington Heights	43%	**West Ridge**	76%
Grand Boulevard	43%	**Garfield Ridge**	76%
Riverdale	43%	**Uptown**	76%
Greater Grand Crossing	44%	**Avondale**	77%
West Pullman	44%	**Irving Park**	78%
South Deering	45%	**Logan Square**	79%
East Side	45%	**Dunning**	80%
Roseland	45%	**Oakland**	83%
Brighton Park	47%	**Morgan Park**	85%
Hermosa	47%	**Beverly**	86%
Avalon Park	48%	**Jefferson Park**	88%
Lower West Side	49%	**Lincoln Park**	88%
Burnside	49%	**Edgewater**	89%
Douglas	51%	**Lake View**	90%
Belmont Cragin	52%	**North Park**	91%
West Elsdon	56%	**Norwood Park**	92%
Albany Park	59%	**Lincoln Square**	92%
Archer Heights	60%	**North Center**	92%
West Lawn	62%	**Mount Greenwood**	96%
Armour Square	62%	**Edison Park**	96%
Clearing	62%	**Forest Glen**	99%
Woodlawn	62%		

Chicago Department of Public Health, Chicago Health Atlas, 2020-2021

Food Access

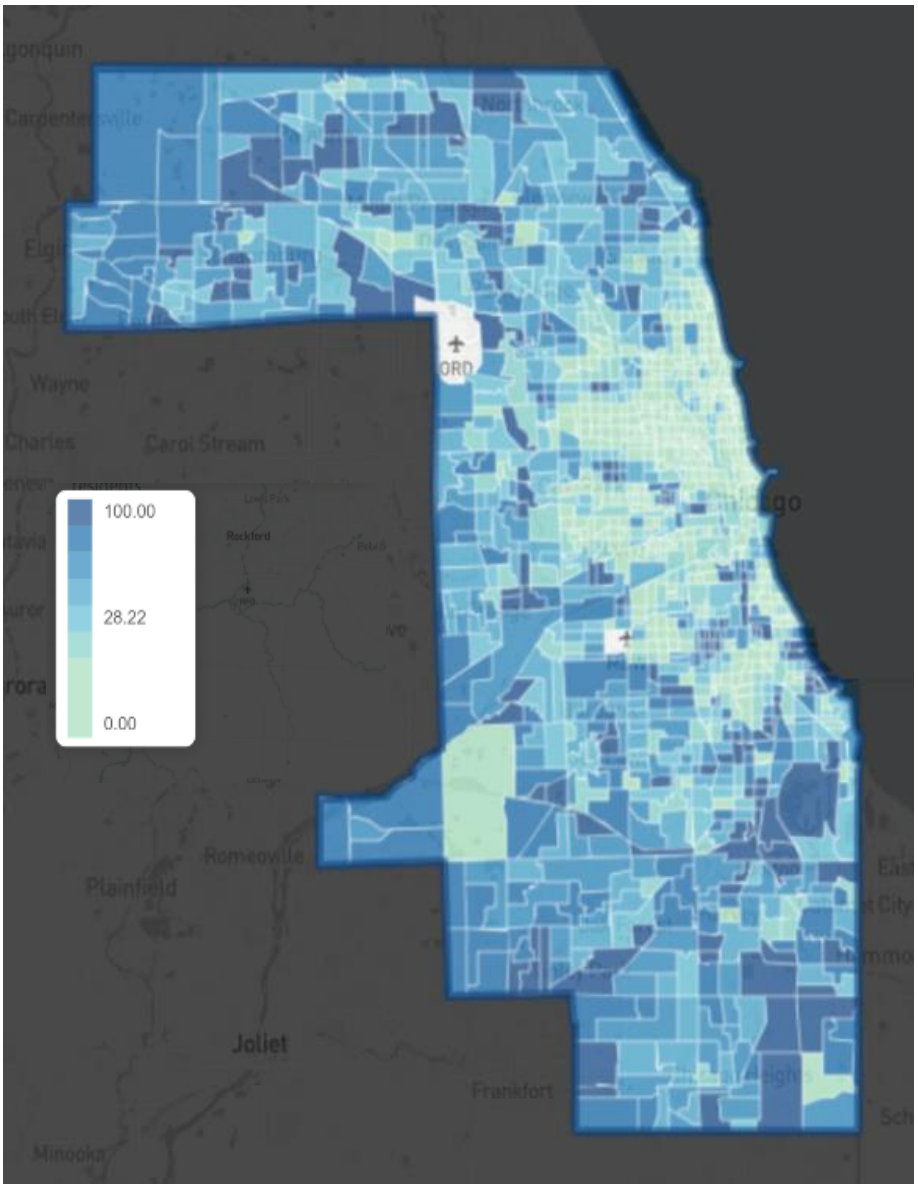
Food access is defined in terms of accessibility, affordability, and food sovereignty. Affordability of and accessibility to food is often intimately tied to systemic racism and social and structural determinants of health that influence the conditions in which individuals, families, and their communities live (Odoms-Young, 2018) (*Introduction to Food Access, Food Security, and Food-Insecure Conditions*, 2018).

Access to affordable healthy foods was a frequently mentioned need among focus group participants. People experiencing homelessness and housing instability, low-income families, older adults, and people with disabilities were described as experiencing additional barriers to accessing adequate healthy food. Six percent (n=5380) of community input survey respondents identified hunger and food insecurity as an important health need in their community. In addition, 14% (n=5377) of respondents identified access to healthy food as being needed to support improvement in community health. Five percent (n=5117) of survey respondents reported that they or someone in their household experienced shortages of food and hunger during the pandemic and an additional two percent reported experiencing shortages of critical infant supplies such as formula.

"Nice grocery store would be nice, a real one, not a corner store or liquor store - A fresh market to be able to eat healthy"
Good Neighbor Center focus group participant

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 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 areas of food apartheid where it is difficult to buy affordable or good-quality food (Figure 27 - low food access in Cook County) (Larson et al., 2009; Lu, 2020). Thirty-nine percent of Cook County residents live in areas of low food access.

Figure 27. Geographic distribution of low food access in Cook County, Illinois

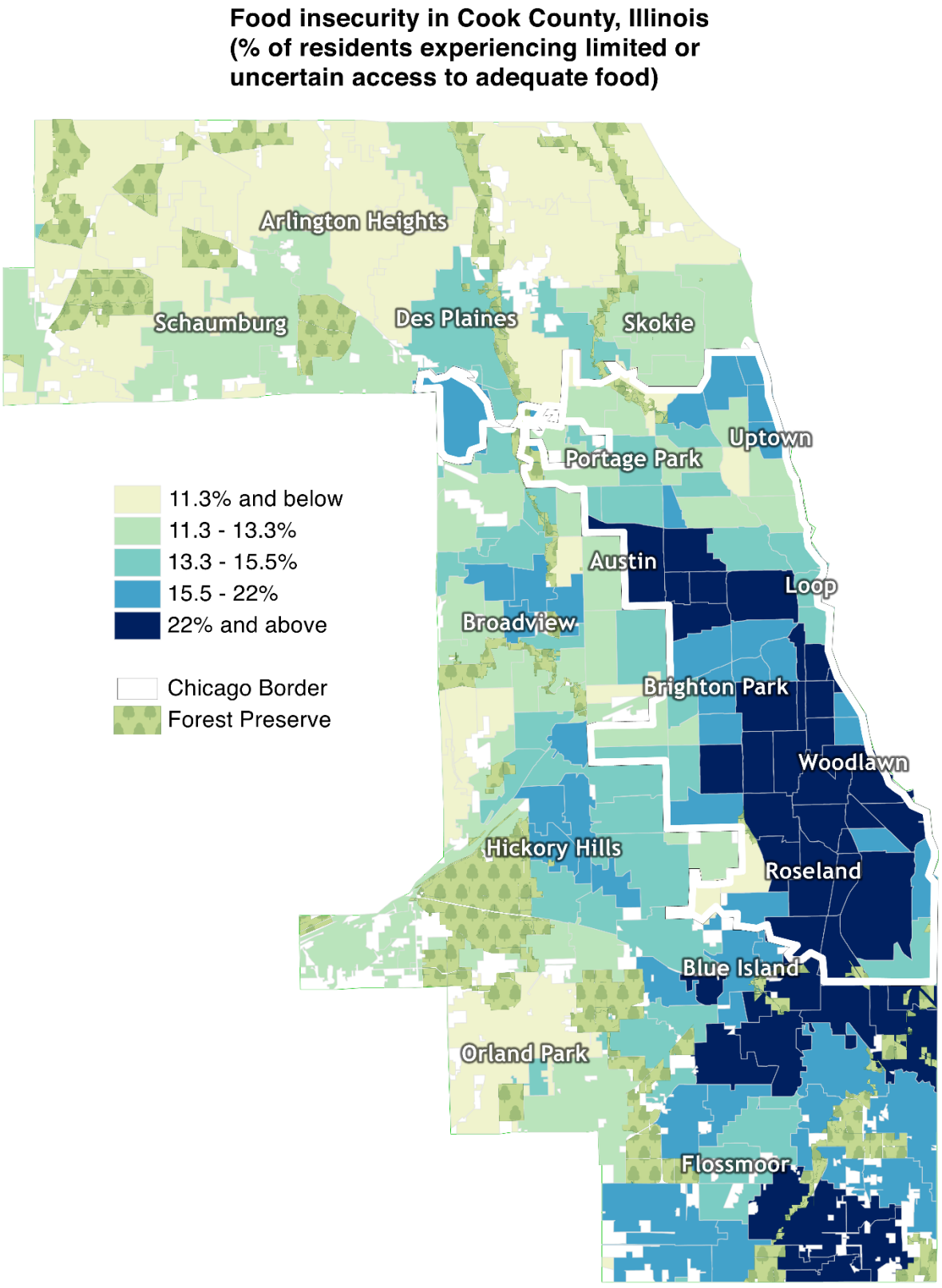


In order to understand the effects of low food access, it also is important to define a few additional terms, including food and nutrition insecurity. Food insecurity is a household-level social and economic condition of limited or uncertain access to adequate food. Food insecurity is reduced variability, desirability, or quality of diet, and includes disrupted eating patterns and food intake (U.S. Department of Agriculture, 2021).

The definition of nutrition insecurity focuses on the individual, family, and community level context. Nutrition security is “a situation that exists when all people, at all times, have physical, social, and economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Ramaswamy, 2017).

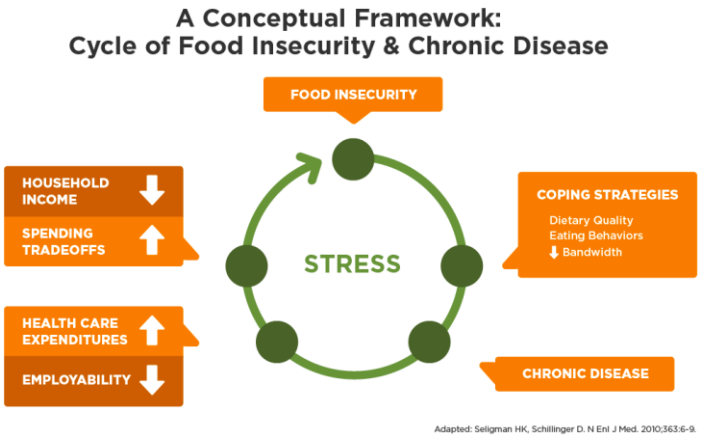
Like most social and structural determinants of health, there are geographic inequities in food insecurity in Cook County (Figure 28).

Figure 28. Geographic distribution of food insecurity in Cook County, Illinois (2020)



Source: Feeding America (Map the Meal Gap 2020)

Food and nutrition insecurity can impact health in several ways, which are well illustrated in the Feeding America conceptual framework on chronic disease. Within this framework, food insecurity begins when an individual or family experiences stress about being able to access fresh and nourishing food. As that stress builds, dietary quality may go down and eating behaviors may be impacted, as families are forced to choose between spending on nourishing food and other essential needs (like housing, utilities, etc.). Long term stress paired with nutrition insecurity can give rise to chronic diseases. Diagnoses like hypertension and diabetes, for example, can increase household cost expenditures on healthcare and reduce employability. As this cycle continues, spending tradeoffs gradually climb and household income falls. These factors in turn can exacerbate food insecurity and thus chronic disease (*Causes and Consequences of Food Insecurity*, 2014).



"Chronic health issues communities are facing come from diet and access to healthy and affordable foods"
Rush Community Health Worker focus group participant

Having examined the health impacts of low food access, it is also imperative to acknowledge that low food access, and thus nutrition and food insecurity, influence different communities in different ways.

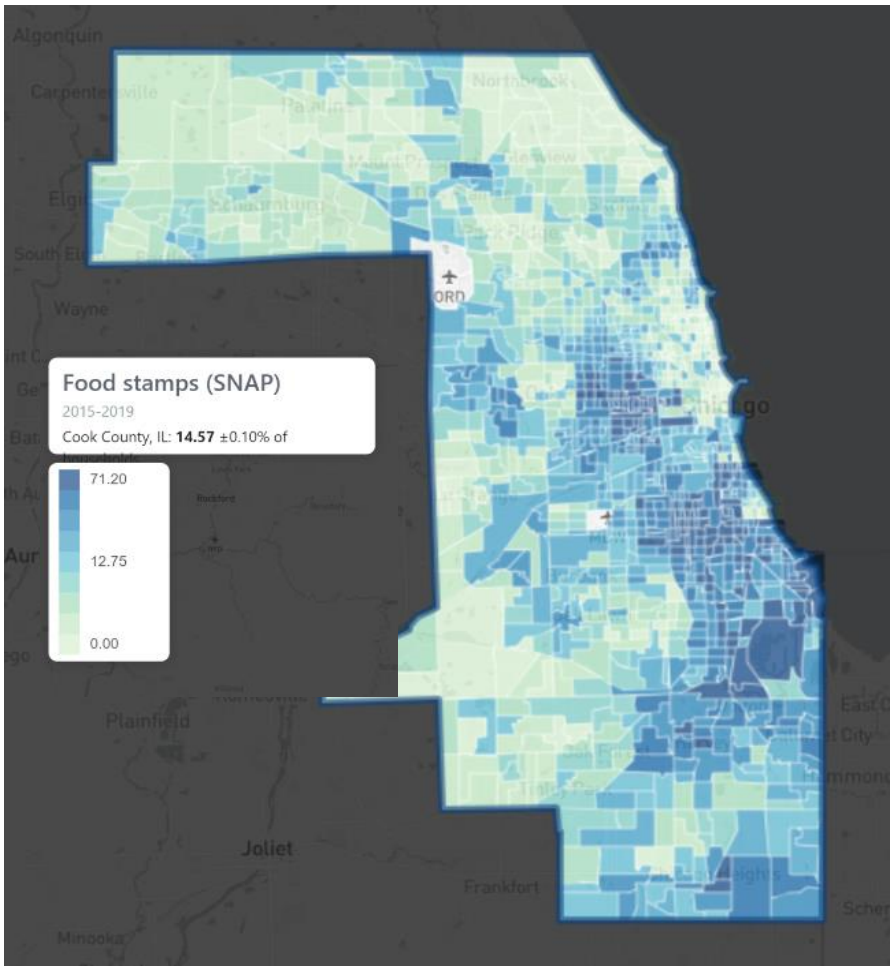
"If we eat healthy, we will have healthy bodies and we will start making healthy decisions"
Garfield Park Community Council focus group participant

- Families with children may experience food and nutrition insecurity when financial stress causes parents or caregivers to alter their diets and nutrition intake in an attempt to shield their children from the effects of food and nutrition insecurity (*U.S. Department of Agriculture, ERS - Food Security and Nutrition Assistance*, 2021).
- Historically redlined Black communities that have been impacted by decades of disinvestment by developers may have few grocery stores and experience challenges with affordability due to being excluded from wealth building opportunities (Block et al., 2018)
- In some predominantly immigrant communities, particularly Latinx/e communities, lack of access to culturally relevant foods and linguistically appropriate care may lead to nutrition and food insecurity (Vahabi & Damba, 2013).
- For Indigenous communities that have been removed from their sovereign lands, lack of access to healthy soil and water can impact food and nutrition insecurity by blocking opportunities to grow and harvest food locally (*Why Food Sovereignty Matters | Indian Affairs*, n.d.).
- In the LGBTQIA+ community, transgender individuals, particularly transgender women of color, are more likely to experience food and nutrition insecurity in part due to safety concerns that come when seeking out emergency food assistance (Keveney, 2022).
- Individuals with disabilities are more vulnerable to food and nutrition insecurity due to limitations they might experience in not only accessing food but also having enough financial resources (due to competing expenses related to living with a disability and work-limits) to afford nourishing food (*U.S. Department of Agriculture, ERS - Disability Is an Important Risk Factor for Food Insecurity*, 2013).

Nutrition programs and food pantries

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 29 - households receiving SNAP benefits).

Figure 29. Geographic distribution of households receiving SNAP benefits, Cook County, Illinois (2015-2019)



Another important nutrition program that addresses food and nutrition insecurity is Women, Infants, and Children (WIC). WIC is available to low-income pregnant people, postpartum (including chest-feeding) people, infants, and children up to age 5. WIC is different from SNAP, in that WIC also requires participants to take part in nutrition education courses, in addition to providing them with supplemental nutritious foods, and screening and referrals to other social services.

SNAP and WIC benefits across Cook County are often underutilized by eligible individuals due to a number of barriers. In fact, nearly 1 in 6 people who are eligible for SNAP do not participate in the program. (American Community Survey, 2016-2020) Some of the barriers that prevent families from participating include:

- Time;
- Mobility;
- Technology;
- Stigma;
- Difficulty meeting requirements for participation; and

- Misinformation around who qualifies ("Hunger and Health - The Role of the Supplemental Nutrition Assistance Program (SNAP) in Improving Health and Well-Being," 2017).

> **"Stamps/Link card… but if you don't have a grocery store what good is that?"**
> MAAFA focus group participant

There is also the challenge of under-coverage. Many families are not receiving sufficient money to afford nourishing foods. An Urban Institute study, identified the maximum SNAP benefit did not cover the average cost of a meal in over 96% of U.S. counties (*Does SNAP Cover the Cost of a Meal in Your County?*, 2021). Many immigrant communities are also unaware that they qualify for or feel fearful of seeking out nutrition benefits, a phenomenon that was exacerbated by changes to the Public Charge Rule under the Trump Administration. The "chilling effect" has resulted in immigrant families with children forgoing benefits, which has served to exacerbate food and nutrition security in immigrant communities (Haley et al., 2020).

In addition to traditional SNAP and WIC programs, 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.

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 (*Summer Food Service Programs | Feeding America*, 2021). In Cook County, summer meal sites are widespread, but are most concentrated in Chicago within communities that have high rates of child poverty.

Community food access points

Safe, accessible, and affordable community food access points play an important role in food and nutrition security in a given neighborhood. Brick and mortar grocery stores are traditionally considered as primary food access points, in addition to corner stores.

It should be noted that access alone to brick and mortar grocery stores does not correlate to improved food and nutrition security, particularly in regions of Chicago and Suburban Cook County like the South Side (Kolak et al., 2018). There may be many reasons for this. The first could be that grocery stores aren't providing fresh produce at an affordable rate, especially for low-income residents. Some stores, and corner stores in particular, may not have the refrigeration or storage space available to house produce.

The appearance of grocery stores in certain neighborhoods has also been linked to gentrification, where longtime and often low-income residents are displaced by wealthier outside developers, individuals, and families (Cohen, 2018). Gentrification can exacerbate food and nutrition insecurity for low-income families and can negatively impact the health and wellbeing of individuals and their families.

> **"Training people on how to cook, cheap food is not nutritious"**
> Beyond Hunger focus group participant in response to a question about solutions to community health needs

Another reason why increasing brick and mortar stores alone doesn't address food insecurity could be that they aren't providing culturally relevant foods and/or educational programming. Many working class and low-income families may not have the time or resources to spend on regularly preparing meals. Also, grocery stores might not be providing these families with the produce they want to cook or know how to prepare. Innovative nutrition security models have leveraged grocery stores as partners who can help share resources for community members who are interested in learning how to prepare certain nourishing foods (Elsevier, 2019). Also, evidence suggests that nutrition and food insecurity could be better addressed when community members are given the opportunity to choose what types of produce they want to see in their local grocery stores (Brinkley, 2019).

To work around the many challenges with traditional food access in nutrition and food insecure communities, community members have created innovative hyper local food access networks. In Chicago, the emergence of Love Fridges and other types of community fridges have brought more produce into low food access communities. Love Fridges support a mutual aid model where community members are invited to leave produce and nonperishable goods when they can, or take from the fridge what they need (*The Love Fridge Chicago*, 2022).

Mutual aid groups are another hyperlocal model created by community members to address low food access. Many community mutual aid groups, which are made up of volunteers from the community they serve, rescue surplus food and leverage partnerships and programs like the U.S. Department of Agriculture Farm to Families Food Box program to deliver nonperishable food and produce directly to community members' homes. To support this work, the Chicagoland Food Sovereignty Coalition, a body of mutual aid groups primarily from the South and West Sides of Chicago and Suburban Cook County, has stood up two food rescue hubs (one located in West Pilsen and one in the Northwest Side of the City). These food rescue hubs provide cold storage for rescued food, in addition to other resources necessary to sustain mutual aid groups across the City and County.

Hospitals and healthcare systems have an opportunity to partner with local mutual aid groups in their service area to address food access, specifically to provide them with rescued food, financial resources, cold-storage, and last-mile transportation support. It is important to note that mutual aid groups are not nonprofits and have unique models that may preclude them from applying for grants or philanthropic funding, and collecting data on their food delivery programs. Hospitals and healthcare systems working with mutual aid partners should be responsive and adaptable to their needs.

Community gardens are another exemplary asset in communities that can reduce food and nutrition insecurity. Community gardens can be found throughout Chicago and Suburban Cook County and often serve as hubs for community wellbeing in addition to food access. However, the highest concentration of sites occurs within the city of Chicago indicating an opportunity to expand these resources further into Suburban Cook County.

"We need grocery stores, healthy products, gardens too"
MAAFA focus group participant

Whether the gardens are local and supported through the Chicago Park District or are part of larger organizations like the Urban Growers Collective or Advocates for Urban Agriculture, community gardens have been demonstrated to improve the health and wellbeing of residents (Carney et al., 2012).

Community gardens improve food access and availability of diverse and fresh produce, help community members connect to one another, positively impact climate change, create relationships between people and the earth, build knowledge of growing and cultivating food, and improve mental health. Gardens can be healing spaces for many communities, and can help preserve the cultural practices of Indigenous, Black, Latinx/e, and immigrant communities.

"Teaching children that a tomato is not grown in a grocery store, teach your children how one little seed can grow million tomatoes"
Garfield Park Community Council focus group participant

Hospitals and healthcare systems in Chicago and Suburban Cook County have an opportunity to invest in and uplift community gardens as a source of mental health support and food access for their patients. Alliance partners can prioritize land and water access for urban growers and producers, particularly those on the West and South Sides. They can also dedicate space onsite at hospitals and clinics to community gardens and integrate them into nutrition education and other clinical support programs.

Cross-sectional impacts

Like other social and structural determinants of health, food access is rooted in cultural and systemic racism, classism, and discrimination that affect the way communities of color (including Black, Indigenous, and Latinx/e communities), low-income communities, and other priority populations (like the LGBTQIA+ community and

people and communities with disabilities) obtain and consume food. Food access is also intimately tied to many other social justice and health equity impacts, including:

- ***Workers rights***
  - Regional partner: Warehouse Workers for Justice
- ***Climate justice***
  - Regional partner: Little Village Environmental Justice Organization
- ***Economic development (part of local food procurement)***
  - Regional partner: Cook County Good Food Purchasing Program
- ***Transportation & mobility***
  - Regional partner: Elevated Chicago
- ***Housing***
  - Regional partner: Housing Action Illinois
- ***Neighborhood safety***
  - Regional partner: iGrow Chicago
- ***Technology and broadband access***
  - Regional partner: Internet Access and Equity Initiative (University of Chicago)
- ***Land and water access***
  - Regional partner: Advocates for Urban Agriculture

Pandemic impacts on Food Access

The impacts of COVID-19 on the local and global food system cannot be understated. Nearly every aspect of the food system has been affected, from the supply chain, to essential food system workers, grocery stores, growers and producers, students and their schools, healthcare providers, etc. (Wolfson & Leung, 2020).

"Prices have gone up for food due to covid"
Humboldt Park Health focus group participant

In Cook County in 2021, it was estimated that 11.8% of families lived in food insecure households, as compared to 9.8% in 2019 prior to the pandemic. In Chicago, more than 14% of households overall were estimated to have experienced food insecurity in 2021(Greater Chicago Food Depository, 2021). According to a 2020 survey, 36% of Black households and 32% of Hispanic households experienced food insecurity as compared to 18% of white households (Acharya, 2020).

Families with children are one of the populations that have experienced the greatest impact of food and nutrition insecurity during the pandemic. According to one study, the rate of food insecurity among children rose from 14% to 28% during the pandemic, with Black and other children of color being the most affected. The same study suggested that an additional 2.5 million children have fallen below the poverty line during COVID-19 (Bleich et al., 2020).

Another study found that 41% of Black households with children and 36% of Hispanic households with children experienced food insecurity during the pandemic, as compared to 24% of white households (Acharya, 2020). Prior to the pandemic, many children received meals during school, and with the shift to virtual learning, many families began to experience food and nutrition insecurity.

Homebound individuals, particularly individuals with disabilities and low-income older adults, have experienced increases in food insecurity which has exacerbated many underlying health conditions. Approximately 84% of adults over the age of 64 have at least one chronic health condition (Goger, 2020). LGBTQIA+ communities and particularly transgender women of color, have also experienced high rates of food insecurity in the pandemic. One study found that transgender people of color experienced the highest rate of food insecurity, 35.8%, followed by transgender white people at 17.1% (Keveney, 2022).

Community members and community-driven solutions are at the forefront of the emergency food response to the COVID-19 pandemic. Innovation by communities to address disruptions in food access has created

stronger systems of collective care for communities and confronted the monumental growth of food and nutrition insecurity seen during the pandemic.

Many community food access partners have also emphasized food sovereignty as a central pillar to building a more resilient food system. Food sovereignty is "the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts the aspirations and needs of those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations" (*Food Sovereignty | USFSA*, 2022).

Hyperlocal food networks, in large part sustained by mutual aid groups, have provided food to families in need and built sovereign food practices. During the pandemic, many mutual aid groups supplemented USDA Farm to Families produce boxes with fresh produce bags prepared with rescued food. These regular food deliveries have demonstrably reduced insecurity (Lofton et al., 2021). Similarly, prepared meal programs like ChiFresh Kitchen worked to provide nourishing meals to homebound individuals while creating employment opportunities for workers on the South and West Sides (*ChiFresh Kitchen*, 2022).

Emergency funding and increased grant opportunities simultaneously allowed many hospital and healthcare system partners to expand VeggieRx and other produce prescription programs. Many used funding to expand prescription programs from specific clinics and patients with chronic conditions to any patients that screened as food insecure. Rush University Medical Center, for example, partnered with TopBox to begin home deliveries of produce boxes (for additional examples of programs, see section on food is medicine initiatives).

Many partners are also prioritizing partnerships with growers and producers to build a more resilient and local food system. Procuring food locally has cut down on transportation costs and helped partners avoid potential supply chain shortages. There are many other benefits to procuring food from local growers that are described in this chapter.

Nutrition programs have also grown during the pandemic to address food and nutrition insecurity among families. Congress increased SNAP benefits by 15% and boosted every household to the maximum benefit for household size (*SNAP Benefits: The COVID-19 Pandemic and Beyond*, 2021). Mobile enrollment and vendors that accept online delivery orders for families with SNAP have also expanded. The Pandemic Electronic Benefit Transfer (P-EBT) initiative was also provided to all eligible children during the 2020-2021 school year who were enrolled in free or reduced-price meals (through the National School Lunch Program) or the Community Eligibility Provision program (*IDHS*, 2021). P-EBT provided families with supplemental funding for meals.

With increased funding, there has been great growth in the ability of food access programs to reach more families and individuals facing food or nutrition insecurity. To continue this work beyond the pandemic, sustainable funding pathways must be identified. Funding improvements for SNAP and WIC benefits must remain, reimbursement models for screening and referral programs should be codified into law, and funders must begin to invest in community-driven solutions to food access. Hospitals and healthcare systems are in a role to lead this work and can continue to uplift food and nutrition security as central to health and wellbeing.

Housing and Community Environment

Housing can serve as an opportunity for many people in this country, offering a pathway to better health, education, and businesses. However, for some people, housing (or the lack of it) provides a significant path to health inequities that have been sustained for decades due to systemic racism, government-fostered segregation, and discriminatory policies and practices (Swope & Hernández, 2019).

Community input emphasized the importance of affordable and safe housing in communities. Focus group participants stated that low-income families, particularly those in communities of color, struggled to afford expenses such as rent and utilities.

"Housing is difficult for low-income families and minority families"
West Cook YMCA focus group participant

Twenty-seven percent (n=5380) of community input survey respondents identified homelessness and housing instability as one of the most important needs in their community. An additional 21% (n=5377) identified affordable housing as being needed to support improvements in community health.

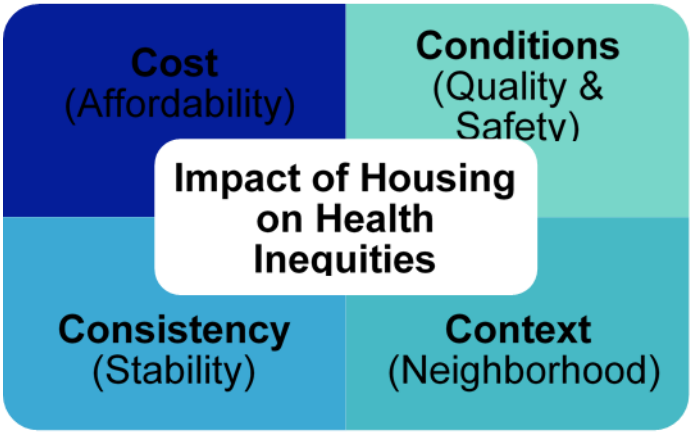
For years, several studies have shown the undeniable and multifaceted linkage between health and housing. Groups that experience housing inequities also may experience inequities with physical, mental, behavioral, and maternal health (Krieger & Higgins, 2002). For example, individuals experiencing poor housing conditions or homelessness may also have high rates of chronic mental and physical health conditions, co-occurring disorders, barriers to health care and affordable housing, and misuse of emergency healthcare services (APHA, 2017; Weller et al., 2016).

Researchers continue to understand that the linkage between housing and health is more nuanced than most think and negatively affects health in several aspects. One does not have to be experiencing homelessness to experience health inequities, and although housing is a prerequisite to health, it is not sufficient alone (Swope & Hernández, 2019). Thus, ensuring access to safe, secure, and affordable housing will significantly improve the health of communities.

Popular frameworks have detailed the dimensions of housing and its association with health outcomes, but they do not always highlight the historical context of the relationship, which is needed to understand the complete picture and promote equitable housing standards (Swope & Hernández, 2019). Therefore, the merging of research models creates a pathway to a holistic conceptual model that includes four pillars that explain how housing impacts health inequities (Swope & Hernández, 2019; Taylor, 2018):

- Cost (housing affordability) – whether residents can pay the cost of the housing without burden;
- Conditions (housing quality and safety) – the adequacy of physical hardware and environmental conditions of the building and unit;
- Consistency (residential stability) – residents' ability to remain in their home for as long as they desire;
- Context (neighborhood opportunity) – presence of positive or adverse health-relevant resources in the surrounding neighborhood (Swope & Hernández, 2019).

Figure 30. Four pillars of housing's impact on health inequities



Adapted from: (Swope & Hernández, 2019; Taylor, 2018)

Consistency (housing stability)

Being without a stable home is harmful to one's health. Housing instability incorporates several facets, such as:

- uncertain finances that lead to not being able to pay rent or mortgage payments,
- being evicted
- the amount of household income spent on housing,

- overcrowding (the number of people per room or unit),
- frequently moving,
- doubling up,
- living in a hotel,
- the volatile nature of available housing,
- personal stressors,
- and experiencing homelessness.

These facets significantly affect a person's health throughout their lifespan, depending on their situation at any given moment. People experiencing housing instability or homelessness have difficulties securing and retaining housing, limiting their ability to prioritize their health and access health care services (Nyamathi & Salem, 2021). For example, unstable housing can decrease the effectiveness of care plans since the proper storage of medications is difficult or impossible (Maqbool et al., 2015). Caregivers of children 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). Youth and young adults that have experienced housing instability may incur multiple health concerns, including increased risk of teen pregnancy, early drug use, and depression (Robert Wood Johnson Foundation, 2011).

Furthermore, people experiencing homelessness are more likely to become sick, have greater hospitalization rates, and have an increased burden of premature mortality (Maness & Khan, 2014). When someone does not have a home, it also affects transitions between hospitals and shelters. Patients experiencing homelessness and being discharged from a hospital sometimes need additional medical care that a shelter cannot provide full-time. This challenge exacerbates the need for medical respite services to serve as a transition point (National Healthcare for the Homeless Council, 2022).

Overall, it takes a prolonged process for people experiencing housing instability to receive assistance with housing, so investment in quality, affordable housing is greatly needed. Then, once someone is placed in housing, they need to receive personalized care coordination and wrap-around services to retain their housing and prioritize their health.

It is also important for people that are living in shelters or that are unsheltered to receive primary care. Several groups, hospitals, and Federally Qualified Health Centers focus on providing these populations health care services. More funding and other resources such as information exchange platforms (or other data and technology) are needed to continue this work and implement more equitable approaches. People who are unsheltered also face unique healthcare challenges due to their environment, and crowded conditions in shelters often negatively affect a person's health, especially during pandemics.

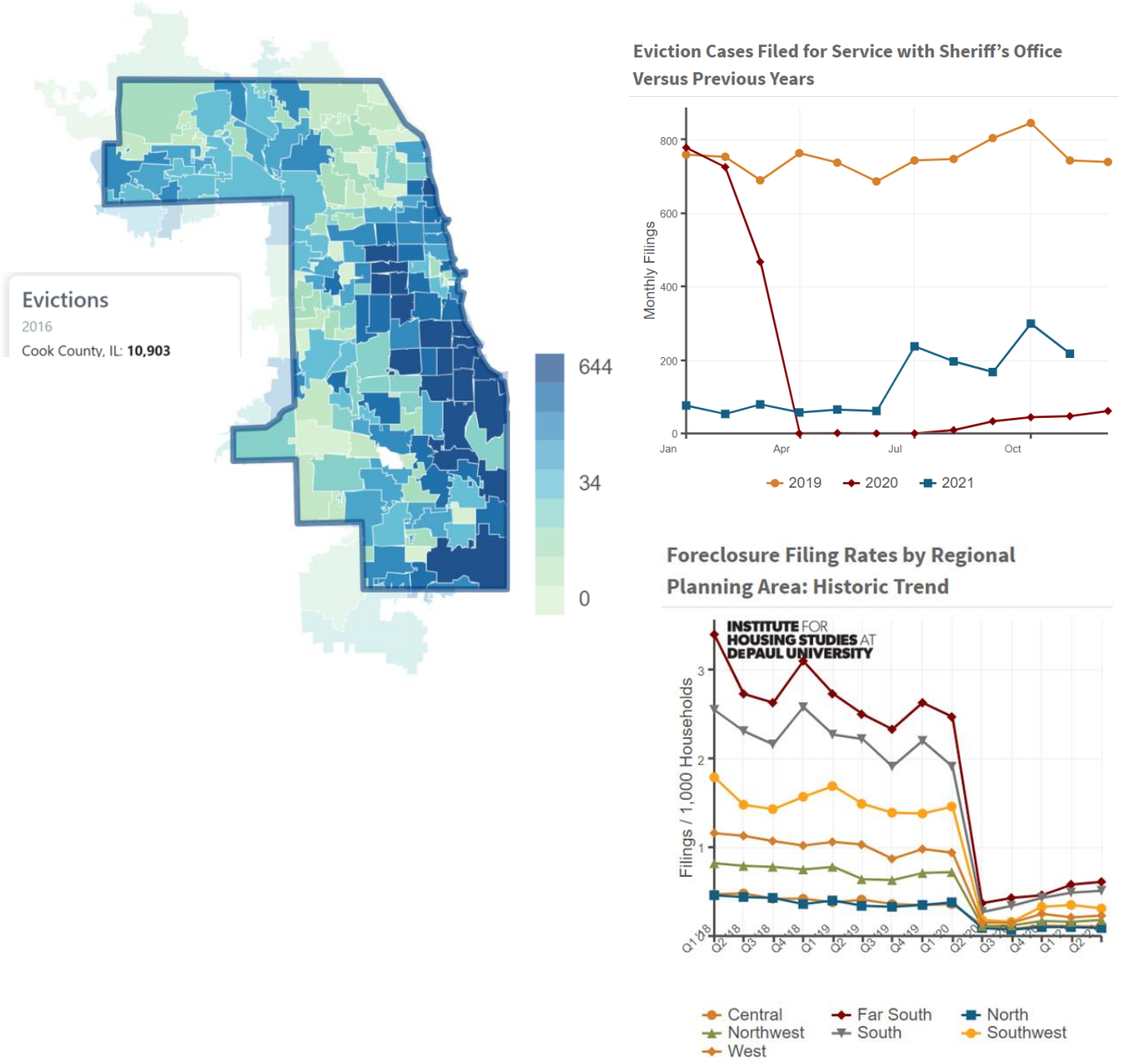
"Individuals may need support being a 'good tenant'"
National Alliance on Mental Illness (NAMI) focus group participant

To achieve health equity and social justice, it is imperative to also give special attention to the needs of populations that are often excluded or disadvantaged, such as people of color, people that identify with the LGBTQ+ community, immigrants (including undocumented), refugees, people with disabilities, youth and families, non-English speakers, people in foster care, and people re-entering the community from prison as well as people dealing with substance use, mental health, and domestic violence issues.

Several studies suggest that individuals under threat of eviction, or forced dislocation, can have adverse effects on physical and mental health outcomes, such as psychological distress, suicide, child maltreatment, adverse birth outcomes, and high blood pressure (Khadka et al., 2020; Vásquez-Vera et al., 2017). Black and Latine/x renters are disproportionately threatened with eviction and evicted from their homes (Hepburn et al.,

2020). Receipt of early intervention services, such as foreclosure assistance, has been linked with improved physical and mental health outcomes (Tsai, 2015). Another study suggests that foreclosure findings predict a decline in Black communities and that interventions like reducing penalties for overdue property taxes should be implemented (Snidal et al., 2022). Whether illegal or legal, evictions and foreclosures can threaten individuals' health, so it is essential to form and leverage partnerships with healthcare and legal aid to assist patients with resources during difficult times.

Figure 31. Geographic distribution of evictions in Cook County, Illinois (2016)



Providing individuals and families with stable, affordable housing can improve health and reduce health care costs (Taylor, 2018). Nationally, many hospitals realize that it could be cheaper to provide housing to patients rather than keeping the patients for a single night, even if they must build the housing themselves.

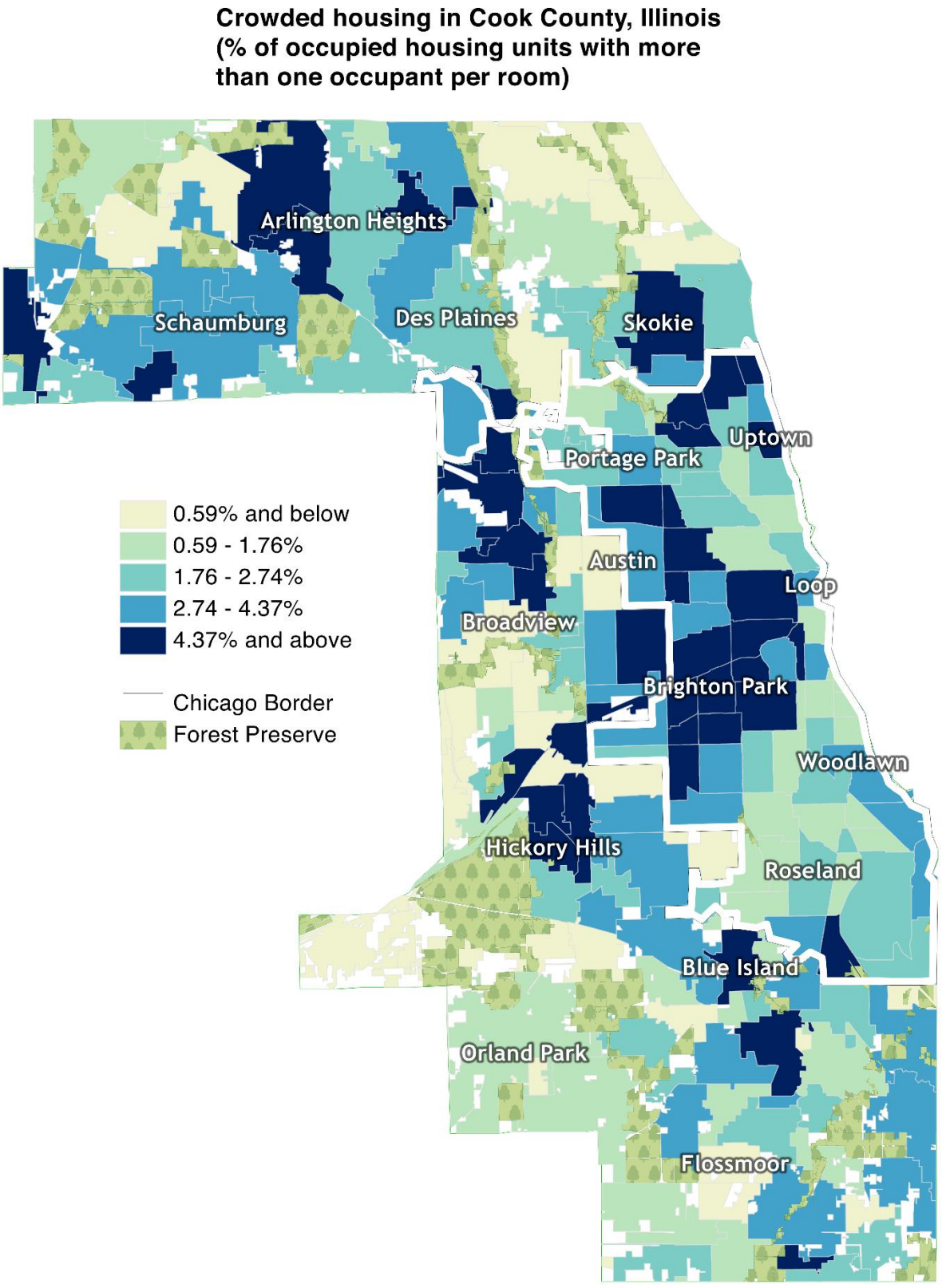
Conditions (Housing Quality and Safety)

Housing quality and safety refer to the physical and social conditions inside a home or residence. Unfortunately, due to systemic racism and intentional segregation, low-income individuals and families are more likely to live in substandard housing that lacks quality, safety, and adequate function.

Poor housing conditions can also lead to health conditions, including respiratory infections and other infectious diseases, asthma, allergies, lead poisoning, injuries, psychological distress, and cardiovascular diseases (Jacobs, 2011; Krieger & Higgins, 2002; Sims et al., 2020). Poor and unstable housing conditions that affect health outcomes include air pollutants, second-hand smoke exposure, lead exposure, bad air, bad water quality, inadequate plumbing and sanitation, poor ventilation, carpeting, pest infestations, insufficient heating and cooling, lack of housing maintenance, and other aspects of the housing that are structurally and functionally inadequate (Ahmad et al., 2020).

Crowded housing and the need to utilize communal bathrooms have also been linked to adverse effects on one's health; both interfere with practicing good personal hygiene and effective physical distancing (Ahmad et al., 2020). Crowded housing has even been found to negatively impact a child's school achievement, behavior, and physical health (Solari & Mare, 2012). Throughout Chicago and Suburban Cook County, there are several communities where 3% or more households are considered overcrowded.

Figure 32. Geographic distribution of crowded housing in Cook County, Illinois (2015-2019)



Source: American Community Survey 5-Year Estimates, 2016-2020

Air pollutants, specifically particulate matter and elemental carbon are associated with cardiovascular disease and mortality (Mitchell et al., 2007; Sims et al., 2020). In addition, second-hand smoke exposure is highly prevalent among residents in multi-unit housing and public housing, and secondhand tobacco smoke can migrate through shared ventilation systems, unsealed cracks, and door spaces, leading to adverse health outcomes (Sims et al., 2020). Lead exposure can lead to permanent brain and nervous system damage in children (World Health Organization, 2021). Insufficient heating and cooling are associated with higher blood pressure and increased risk of cardiovascular events, particularly among older adults (Saeki et al., 2015).

People with disabilities, senior adults, and people with diseases such as cancer, have unique needs that should be considered for safe housing conditions. Individuals benefit from wrap-around services that can be offered as a part of their housing so that they can age and focus on their health in place instead of only having the option to go to a nursing home.

Interventions to improve the quality and safety of housing can include policy changes to enforce quality standards on housing. Improving housing conditions for patients and community members can improve their health and reduce the overall amount spent on medical care. Several strategies serve as an excellent example for this prevention work. For instance, when children arrive at hospitals in Alameda County with asthma or elevated blood toxicity levels, the Alameda County Public Health Department inspects their homes and addresses repairs to reduce allergens and other asthma triggers, which increases systemwide savings from using health prevention funding (Rose & Miller, 2016).

In New York City, Mount Sinai Hospital supported the evaluation of the Two Shades of Green program. Two Shades of Green is a partnership that applies green (energy-efficient and low impact), healthy (free of mold, toxins, and vermin), and cost-effective measures to property maintenance and the rehabilitation of existing affordable housing. Since 2013, Two Shades of Green has stimulated housing renovation and property maintenance in more than 1500 affordable apartments. Owners of these properties have reduced asthma risk for their residents through property management practices that minimize exposures to pests, tobacco smoke, and harsh cleaning products. Such techniques also reduce operating costs, particularly for green cleaning, with several properties experiencing cost savings as high as 50% (Kottke et al., 2017).

Cost (Housing Affordability)

The United States is facing one of the most severe affordable housing crises (National Low Income Housing Coalition, 2021b). Affordable housing can significantly affect an individual's access to food, health care, and wrap-around services. When households struggle to pay rent, mortgage, tax, or utility bills, they are more at risk for adverse health outcomes since they must make difficult choices between that and paying for food, medicine, primary care, transportation, and other essentials (Bushman & Mehdipanah, 2022).Thus, increased access to affordable housing promotes an individual's health as they would struggle less to eat nutritious food and manage their health (Bailey, 2020). Without an adequate housing stock, many people are at risk of starting or continuing a cycle of homelessness.

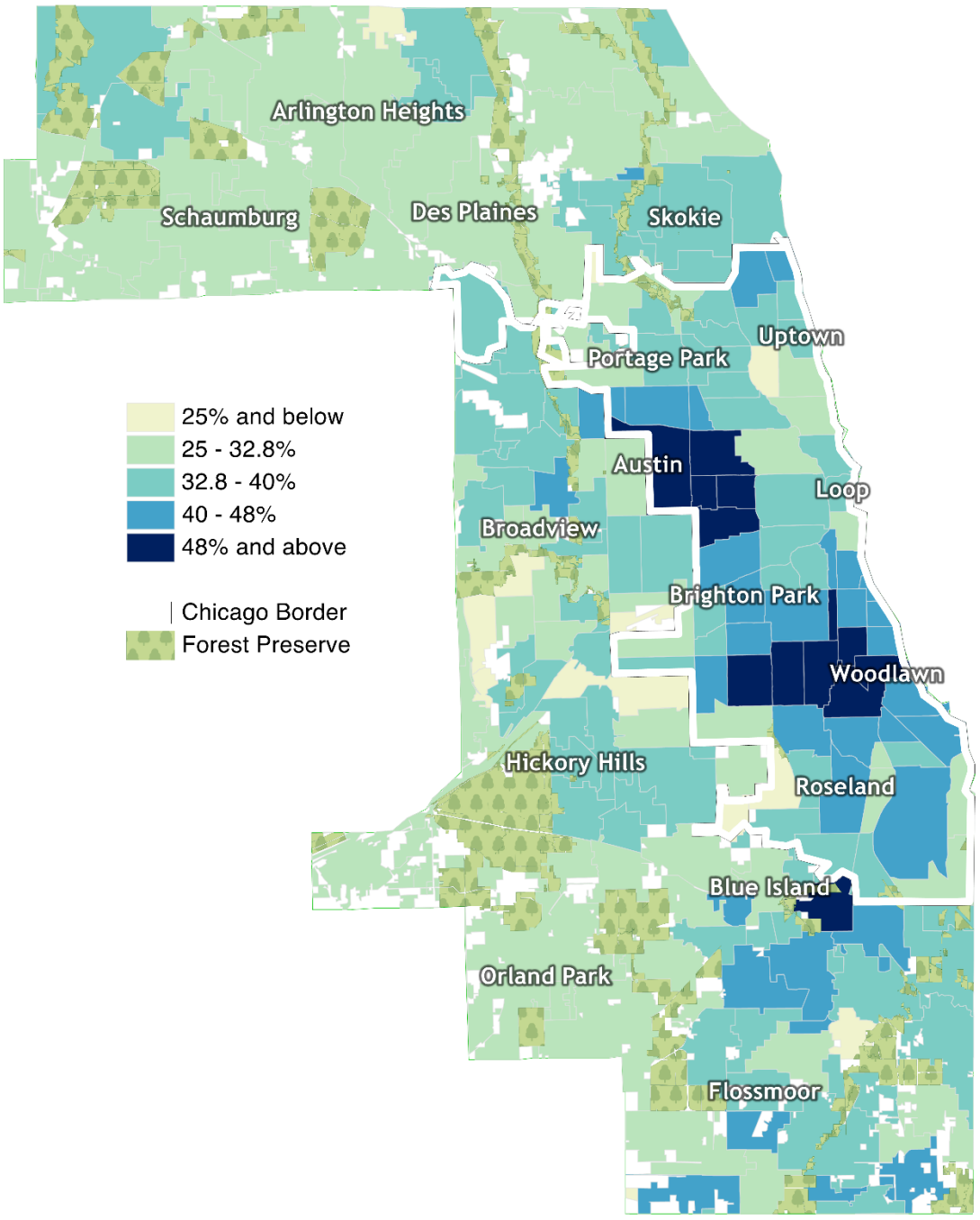
Housing costs remain unacceptably high, and rising rents have outpaced wages and household income (*Eviction And Health*, n.d.; *Housing and Health*, 2019). Black and Latine/x communities often have very high property taxes on low property values, and their median household wealth is much lower (*Housing and Health*, 2019). In Cook County, Illinois, 73.8 weekly minimum wage hours are needed to afford a two-bedroom rental home at fair market rent (National Low Income Housing Coalition,

"Rent prices are increasing. There are families who must share an apartment"

Northwest Side Housing Center focus group participant

2021a). Households spending more than 30% of income on housing are considered housing cost burdened. Severely cost-burdened households have 50% or more of their monthly gross income devoted to housing. Within Cook County, there are several regions where more than 35% of households are considered cost-burdened (Figure 32). These regions are primarily concentrated in the far Northwest, West, and South sides of the city and county. Figure 32 Includes both renters (rent) and owners (mortgage and other owner costs) to calculate the cost-burdened households in Cook County.

Figure 32. Geographic distribution of cost-burdened households in Cook County, Illinois (2015-2019)



Source: American Community Survey 5-Year Estimates, 2016-2020

On average, only one in four eligible households receive housing assistance (Swope & Hernández, 2019). Restrictions and requirements prevent access to subsidized housing. Several conditions make it more challenging to obtain assistance via the housing voucher program. For instance, you must meet a specific income limit and be a U.S. citizen or eligible immigrant. In addition, some landlords are unwilling to accept the market-rate amount for the rental assistance, which decreases the number of neighborhoods that the individuals and families can move to.

"People applied to resources but never heard back after months, even while facing eviction"
Beyond Hunger focus group participant

Even with the Fair Housing Act, there is still a fair amount of modern-day redlining and lending discrimination for people of color, leading to lower generational wealth from the intentional segregation of neighborhoods. Racial and socioeconomic inequities are caused by upstream social and structural influences that impact economic resources needed to purchase housing; this eventually affects downstream health and well-being (Sims et al., 2020). Owning a home is an excellent way for families to build sustainable generational wealth, but homeownership does not produce the same long-term investment benefits for Black people that it does for white people because the houses in the Black neighborhoods are do not appreciate as much and are worth much less than an identical home in a white neighborhood (Rusk, 2001). A study found that individuals living in communities where home values appreciated more rapidly had higher levels of physical functioning (Hamoudi & Dowd, 2013).Those same individuals also have an increase in better physical health during housing market booms (rise in housing prices) (Yue & Ponce, 2021).

"Not a lot of financial variety in housing options, not a lot of support for lower income famil[ies]"
West Cook YMCA focus group participant

Gentrification is also becoming more common in larger cities, sparking debate over its health impacts for the original residents. Some types of gentrification result in improved neighborhood conditions and property value increases. Consequently, the same types can result in poorer health outcomes due to residential displacement and increased stress (Smith et al., 2020). Factors that influence whether people move or stay include their household composition, income and savings, increase in rent, and discrimination. For those individuals and families that can stay and live in a neighborhood being gentrified, self-reported health can increase due to the positive impact of more neighborhood investments (Agbai, 2021) or it can be inhibited based on the cost of living increases and cultural displacement (Ellen & Captanian, 2020). For people that must move out of the neighborhood being gentrified, there is a disruption to their social networks and service providers, and ultimately their health depending on the difference in neighborhood resources and conditions relative to the original neighborhood (Ellen & Captanian, 2020). The factors that influence whether original residents must move are repeatedly negatively associated with Black and other low-income individuals.

The provision of supportive housing plays a vital role in healthcare since it provides stable places for people to live while receiving integrated health services and significantly lower overall healthcare expenditures (Wright et al., 2016). A study also found that veterans who received temporary financial assistance incurred lower healthcare costs than those who did not receive assistance (*Temporary Financial Assistance Decreased Health Care Costs For Veterans Experiencing Housing Instability* | *Health Affairs*, n.d.).

Health organizations can make contributions to expand access to affordable housing. State Medicaid programs and managed care organizations can pay for housing-related support services such as housing location services, eviction prevention (such as negotiating with landlords and assistance with personal budgeting), and tenant rights and responsibilities training. Hospitals can also use their various assets, including land, investment portfolios, community benefit resources, and data capacity to make strategic financial investments in housing, such as affordable housing development. Finally, community-based services providers (such as behavioral health clinics and social services agencies) and local public health departments can partner with

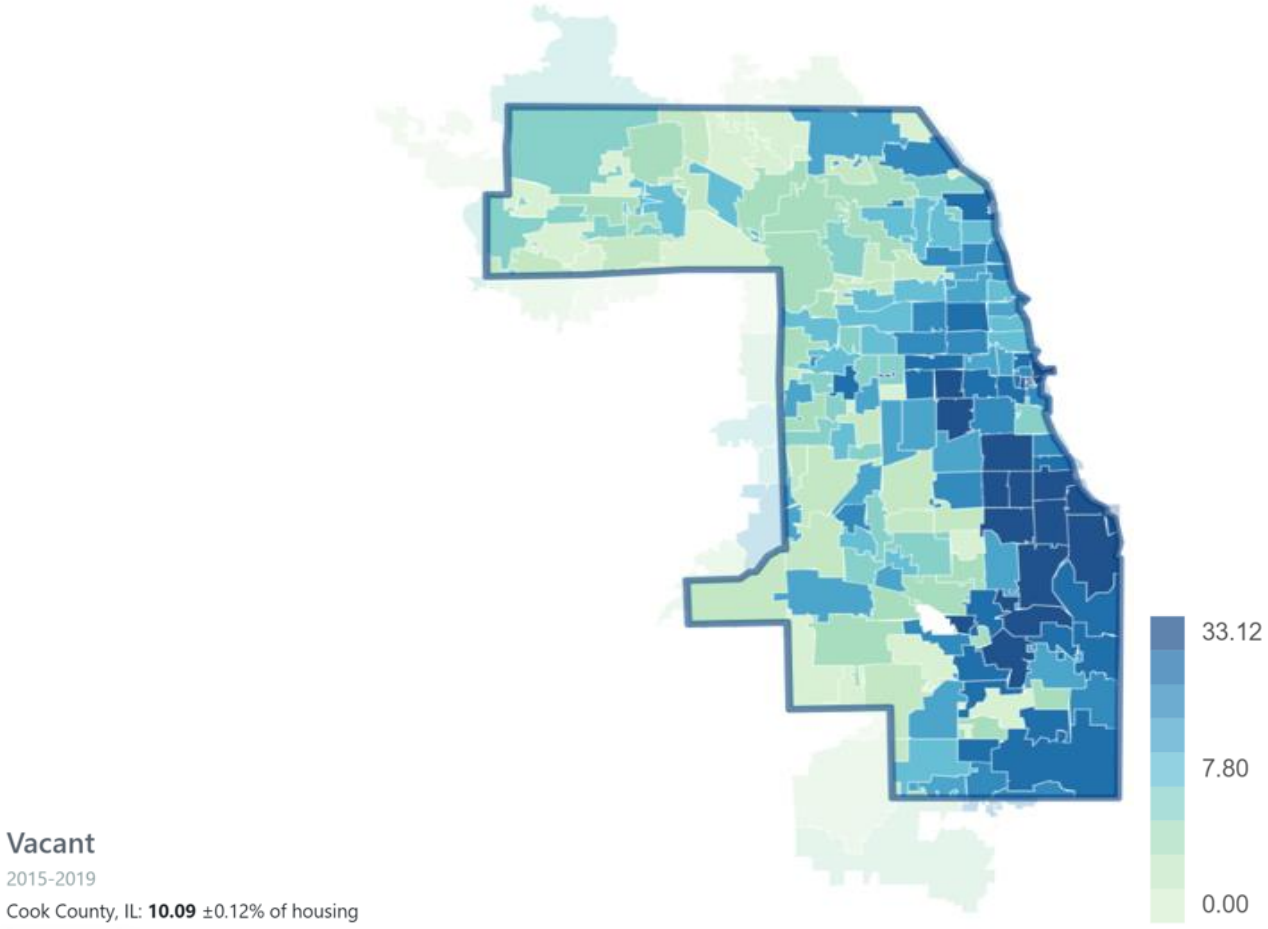
housing providers to improve the condition of public and affordable housing properties, deliver individualized home-based support services, and target community health programs to low-income residents (Bailey, 2020).

Context (Neighborhood Opportunity)

The physical and social characteristics of where people live have a substantial impact on their health. Research has linked improved health with the availability of healthcare services, public transportation, nutritious foods at nearby grocery stores, and safe spaces to exercise as well as walkability, overall safety, and air quality (Taylor, 2018). Consequently, what neighborhood you live in dramatically determines your life expectancy. Therefore, a big part of improving health and decreasing the life expectancy gap is improving neighborhoods for low-income individuals (*Healthy Chicago 2025*, n.d.).

Abandoned buildings and lots are associated with health and safety. One study's findings suggest that city neighborhoods with high long-term vacancy rates are significantly associated with adult health problems and that efforts to reduce vacant properties should focus on those units that have been vacant for the longest period of time (Immergluck & Wang, n.d.). 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 et al., 2015).

Figure 33. Geographic distribution of the percentage of vacant housing units in Cook County, Illinois (2015-2019)



U.S. Census Bureau, American Community Survey, 2015-2019

Additional social characteristics that have an impact on health are redlining and segregation (Taylor, 2018). Racial residential segregation is the physical separation of race groups into different residential areas, and in this country, the segregation was fueled by discriminatory housing and lending practices, such as redlining (Reddy et al., 2022). Redlining is the systematic implementation of discriminatory practices that denied mortgages in neighborhoods of color while ensuring mortgages in predominantly white neighborhoods (Lynch et al., 2021). This practice shaped access to wealth, community disinvestment, and the segregated neighborhoods that we still see today (Lynch et al., 2021). The structural racism is linked to many adverse health outcomes. For instance, a study found that individuals living in more segregated neighborhoods in young adulthood were more likely to develop cardiovascular disease (Reddy et al., 2022).

Access to quality schools is one of the most critical aspects of neighborhood opportunity. In the United States, schools in low-income communities continue to be underfunded, relying heavily on local property taxes for the funding. Since housing in white neighborhoods is worth much more due to the racialized property value system, many schools in low-income areas suffer. Nationally, nonwhite school districts get $23 billion less a year than white school districts. Illinois has made significant strides to close this gap (*EdBuild* | *23 Billion*, n.d.). Illinois has taken several steps to improve equity in school funding by introducing equity grants and an opportunity index, but schools still need considerably large amounts to be adequately funded.

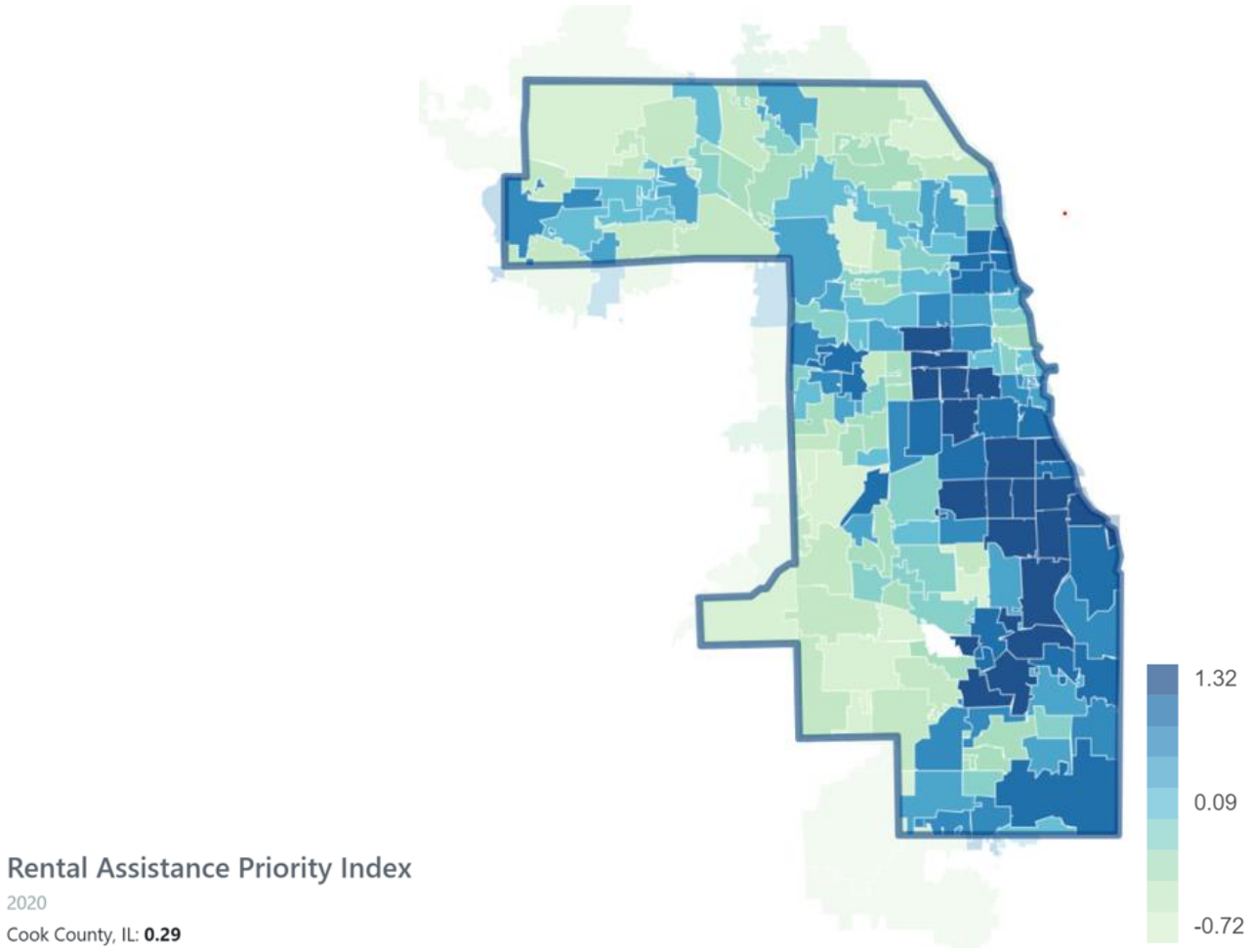
A community social capital model can be used for neighborhood-specific solutions by focusing on efficacy, trust, and engagement of the neighborhood's residents to utilize their connections to make a difference (*Community Social Capital Model*, n.d.). Increased partnerships between community development, public health, and the medical field to document inequities, identify the most productive investments, design thoughtful interventions, and track their effectiveness are critical in making all neighborhoods healthy places to live ("Making the Case for Linking Community Development and Health," n.d.). Collective efficacy can prevent adverse health outcomes by advocating more forcefully for desired resources (Swope & Hernández, 2019).

Pandemic impacts on housing

"Housing and homelessness numbers have tripled since COVID-19"
City of Broadview focus group participant

The economic hardship, risk to health, and psychological distress during the COVID-19 pandemic worsened housing affordability, quality and safety, stability, and neighborhood opportunities. There were a record number of jobs lost and a growing risk of evictions and foreclosures. Homeowners and housing developers also face a greater risk in the future due to economic uncertainty (Scally et al., 2020). The economic consequences of the pandemic increased the risk of renters facing eviction as well (*Eviction And Health*, n.d.). In addition, poor housing conditions have been linked with worse health outcomes and spread of infectious diseases. Counties with a higher percentage of households with poor housing had a higher incidence of, and mortality associated with, COVID-19 (Ahmad et al., 2020). The index in Figure 34 estimates the level of need by measuring the prevalence of low-income renters who are at risk of experiencing housing instability and homelessness. The index is intended to reflect the housing instability risk that has resulted from historical and COVID-19 risk factors and is designed to prioritize the distribution of resources among populations in need during the pandemic in a way that promotes equity.

Figure 34. Geographic distribution of rental assistance priority index estimates in Cook County, Illinois (2020)



Urban Institute ("Where to Prioritize Emergency Rental Assistance to Keep Renters in Their Homes")
People experiencing homelessness have a higher risk of severe illness and death from COVID-19 due to underlying health conditions and lack of access to health care. However, experts mentioned that public health measures undertaken to combat COVID-19, while necessary, sometimes have unintended consequences for people experiencing homelessness or do not consider their unique circumstances and challenges, such as vaccination card requirements or the federal program to ship at-home tests to residences. In addition, many shelters were operating with reduced bed capacity to ensure the appropriate physical distance between guests (*COVID Continues to Create Barriers for Chicago's Homeless Population*, n.d.).

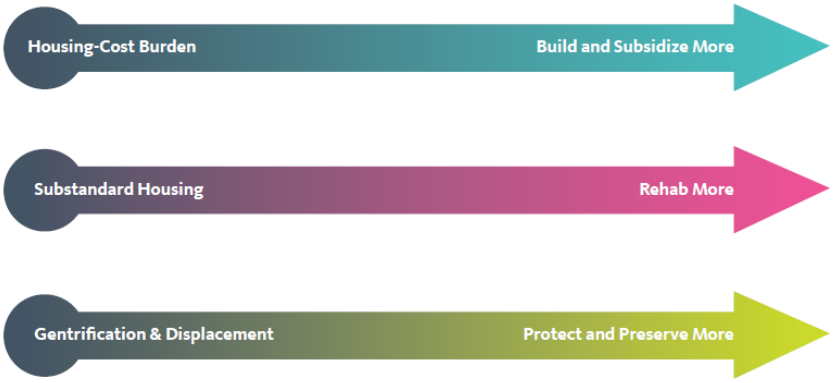
Unfortunately, social distancing was a key defense mechanism in reducing the spread of the virus, but it is a household-level strategy that is difficult for people experiencing homelessness or those with not a lot of space to do (Rosenberg et al., 2020). For example, multi-generational households or homes with overcrowding or doubling up may not provide as much opportunity to social distance. Throughout the pandemic, several projects involved converting hotels to non-congregate shelters and medical respite options.
The Centers for Disease Control and Prevention (CDC) issued a nationwide eviction moratorium, or a temporary halt in residential evictions for nonpayment of rent, in September 2020. In the months that followed, Congress passed two bills that appropriated emergency rental assistance for states and localities to distribute to renters and landlords (National Low Income Housing Coalition, 2022). Increased investments in housing and non-congregate shelters are needed to help mitigate these challenges in the future.

"[With the] eviction moratorium gone, lots of people are losing homes"
North Lawndale Employment Network focus group participant

Overall Solutions

There is an overall lack of housing and other relevant resources. There is a need for improved policy responses and sufficient political mobilization to address shortfalls in the provision of quality, affordable housing since housing continues to be viewed as a commodity rather than a right (Swope & Hernández, 2019). Healthcare organizations can invest in equitable housing policy priorities to address system issues, such as advocating to apply prevention funds to healthy housing rehabilitations, rehousing, and housing protections or collaborating with other organizations to expand financing for sustainable funding (Rose & Miller, 2016). Power dynamics involved in producing complex processes of displacement, indebtedness, evictions, and homelessness over the past several decades should also be analyzed.

Moreover, prevention is also a key strategy in how housing impacts health and is vital to ending generational homelessness. Healthcare organizations should have the appropriate screenings to assess individuals of all the facets and threats to housing stability as well as provide the appropriate resources once a need is identified. Hospitals have a unique opportunity to be proactive and reactive to housing affordability, instability, quality, and safety.



Source: Healthy Communities of Opportunity: An Equity Blueprint to Address America's Housing Challenges

HEALTHCARE DELIVERY SYSTEM & ACCESS TO CARE

There are several complex factors that further influence access to health care including **proximity; affordability; availability, convenience, accommodation, and reliability; quality and acceptability; openness and approachability; and cultural responsiveness and appropriateness**. (Alliance for Health Equity, 2019)

And, in 2020, hospitals and health systems in Chicago highlighted **systemic racism** as a key barrier and factor that must be overcome in achieving equitable access to care. (Open letter, Systemic Racism is a Public Health Crisis, 2020)

The 2021 Transformation Data and Community Needs Report for Illinois (Transformation Report), which includes a focus on Chicago and Cook County, found that:

- "Lack of access is driven by both resource gaps [in the healthcare system] and by social, economic, and other **social determinants of health barriers** that people face in achieving health-- for example, lack of access to transportation; lack of access to affordable, healthy food; unemployment; community violence; etc."
- The three most frequent and resource-intensive drivers of Medicaid-enrollee hospitalization are:
    - **Mental illness**, particularly bipolar and depressive disorders
    - **Substance use disorders**, especially alcohol and opioid use disorders
    - A subset of "**ambulatory care sensitive conditions**" (ACSCs): hypertensive diseases, diabetes, chronic obstructive pulmonary disease (COPD)/asthma, and heart disease
    - Note: **Complications of labor and delivery and maternal care**, and inequities in maternal and child health outcomes, were also identified as a topic for focus but data limitations did not allow for in-depth analysis.
- **"Improving health outcomes for these diseases and conditions can only be achieved if social determinants of health are addressed as part of healthcare delivery."**

(Illinois Department of Healthcare and Family Services & University of Illinois at Chicago, 2021)

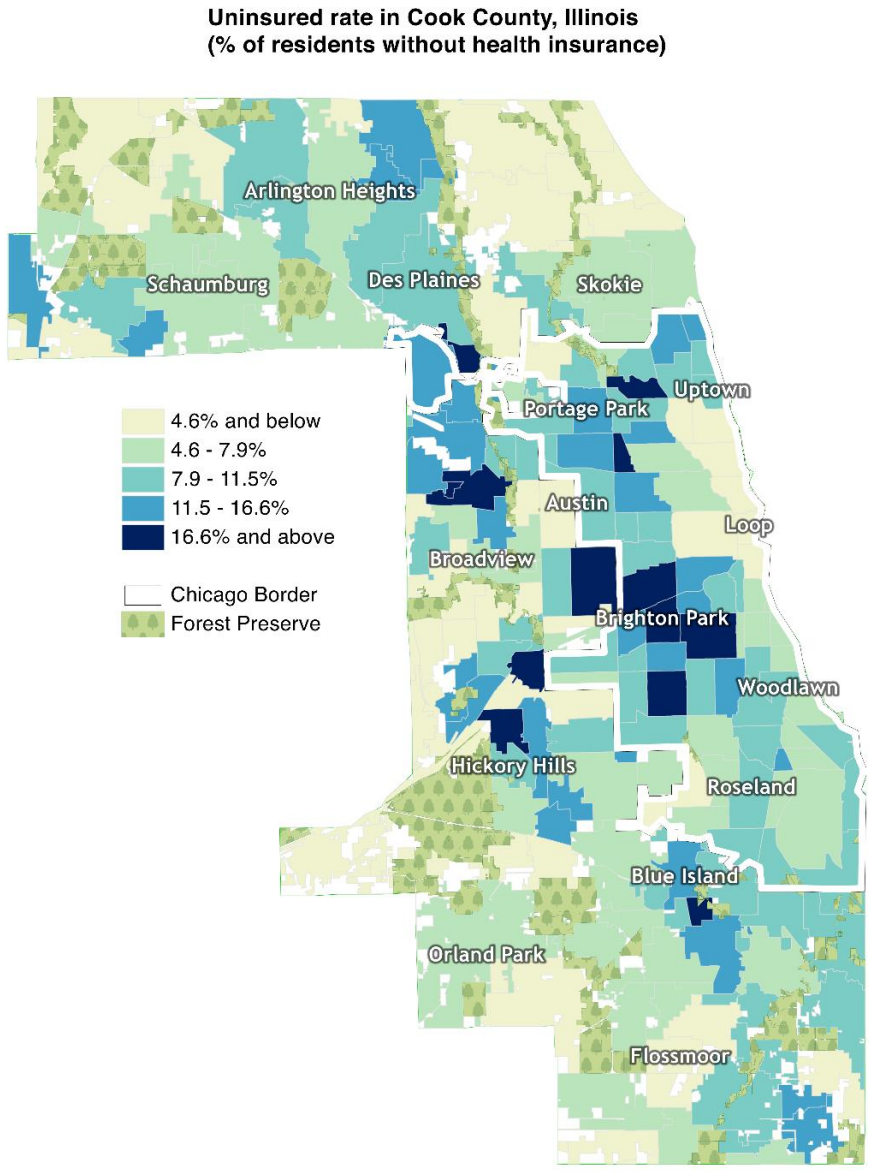
Health Insurance Coverage

Within Cook County, 8.8% of the population does not have health insurance coverage which is greater than the statewide rate of 6.8% (U.S. Census Bureau, American Community Survey, 2020). Uninsured rates are higher among certain population groups. For example:

- in Cook County, uninsured rates are highest among young adults aged 18-39 (14%) compared to middle age adults (10%), children under 18 (3%) and adults over age 65 (1.3%);
- in Cook County, uninsured rates among the Hispanic/Latine population (16%) are more than double those of the non-Hispanic/Latine population;

The geographic distribution of uninsured individuals in Cook County is presented in Figure35. Over 16% of community members are uninsured in several communities in both Chicago and suburban Cook County. Uninsured individuals are significantly less likely to access needed health care services.

Figure 35. Geographic distribution of rate of uninsured individuals, Cook County, Illinois



Source: American Community Survey 5-Year Estimates, 2016-2020

Proximity to healthcare services

Communities on the south and west side of Chicago and in south and west suburbs of Cook County (historically redlined areas) are more likely to have trauma deserts (areas without a nearby level I or II trauma hospital), pharmacy deserts (a community in which residents live more than a half a mile from a pharmacy, and lack access to affordable transportation), and hospitals facing capital limitations. (Goudie et al., 2021; Illinois Department of Public Health, 2021; Tung et al., 2019) On the north side of Chicago, which has a majority white population and is more racially and culturally diverse, there are 10 time as many health care providers available as majority-Black communities in the south and west sides of Chicago. (*State of Racial Justice in Chicago – A Tale of Three Cities*, n.d.) The impacts of COVID-19 along with consolidations and closures among healthcare institutions will only exacerbate these inequities. For example, during 2019-2020, multiple obstetric units and hospitals on Chicago's south side had temporary and permanent closures, due to COVID-19 and economic limitations. This left only three birthing hospitals on the South Side, while six remained in the North and West sides of the city. (Illinois Department of Public Health, 2021)

Chicago and the surrounding metropolitan area remains one of the most racially segregated cities in the country.(Bechteler & Kane-Willis, 2020) Since the 1930's, redlining, home mortgage denial on the basis of race, and government-backed disinvestment in non-white neighborhoods, is at the root of Chicago's history of segregation and inequity. (Illinois Department of Public Health, 2021) Many historically redlined neighborhoods have become more disinvested over time and are more likely to lack essential resources, like health care providers and facilities. (Illinois Department of Public Health, 2021)

Research has established that patients living further away from healthcare facilities have worse health outcomes related to survival rates, length of stay in hospital, and non-attendance at follow-up visits than those who live closer (Kelly et al., 2016). 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 (HRSA) 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. Figures 37 and 38 provide maps of Primary Care Providers per capita and Mental/Behavioral Health Providers and Dentists per capita that accept Medicaid.

Figure 37. Primary care providers per capita

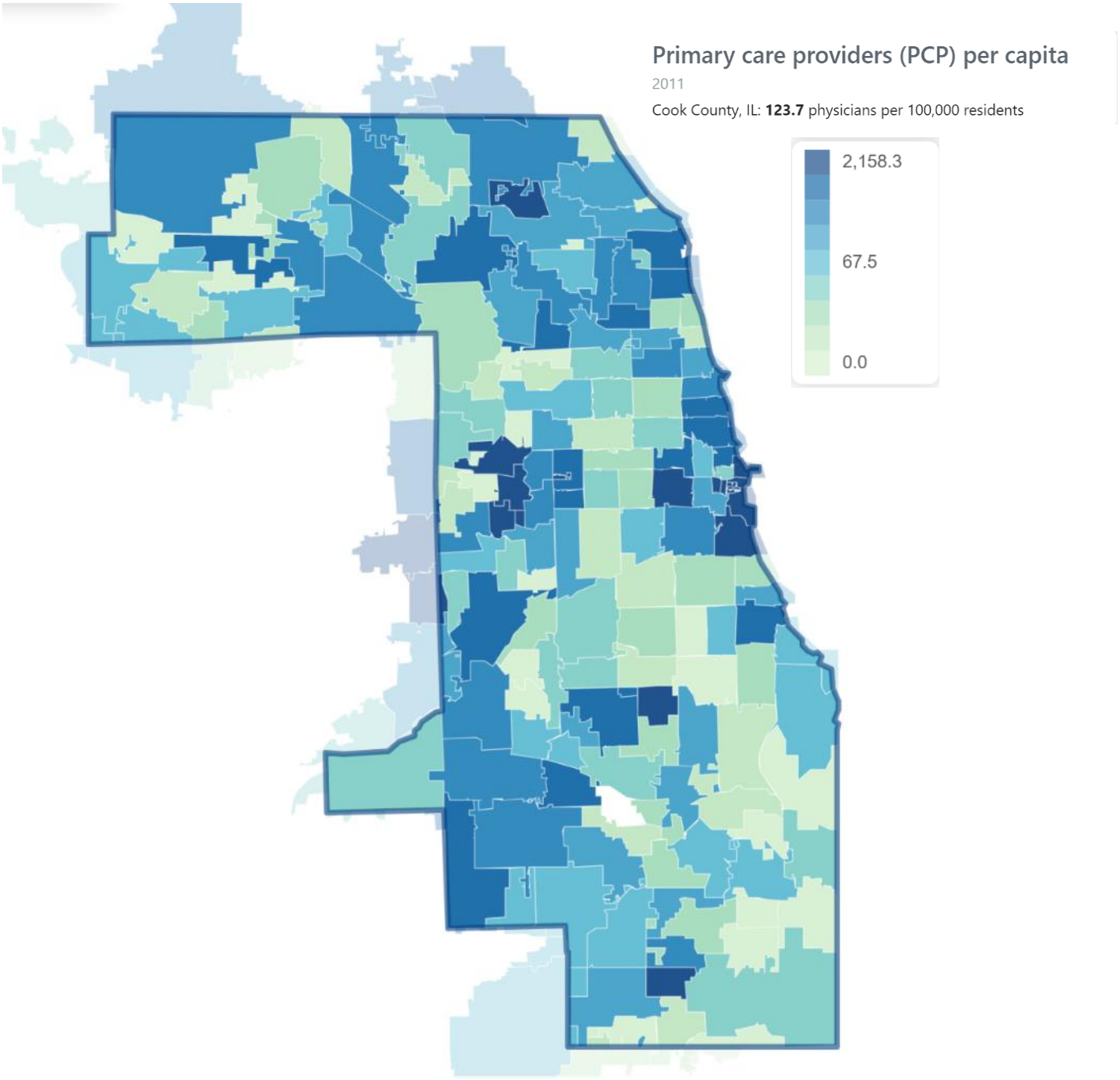
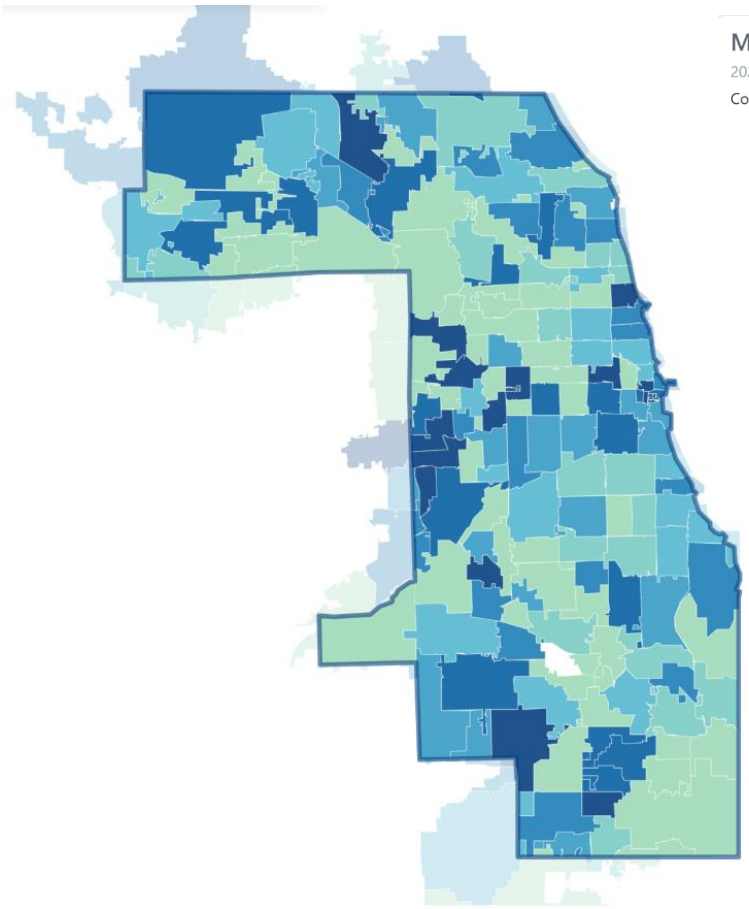
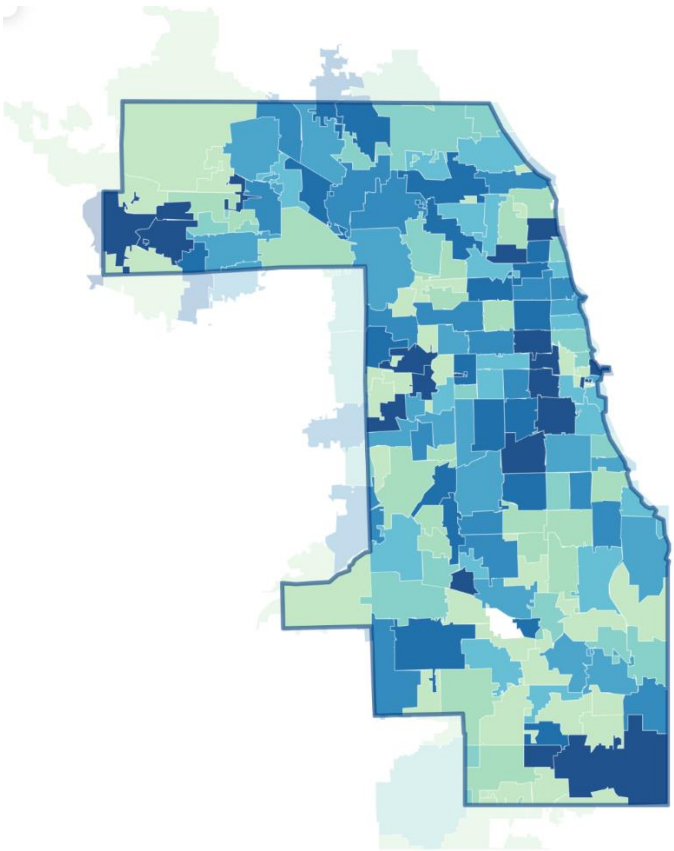


Figure 38. Healthcare providers providing care to Medicaid enrollees



Medicaid behavioral health professionals per capita
2021
Cook County, IL: **22.30** providers per 100,000 residents

3,102.63
7.94
0.00

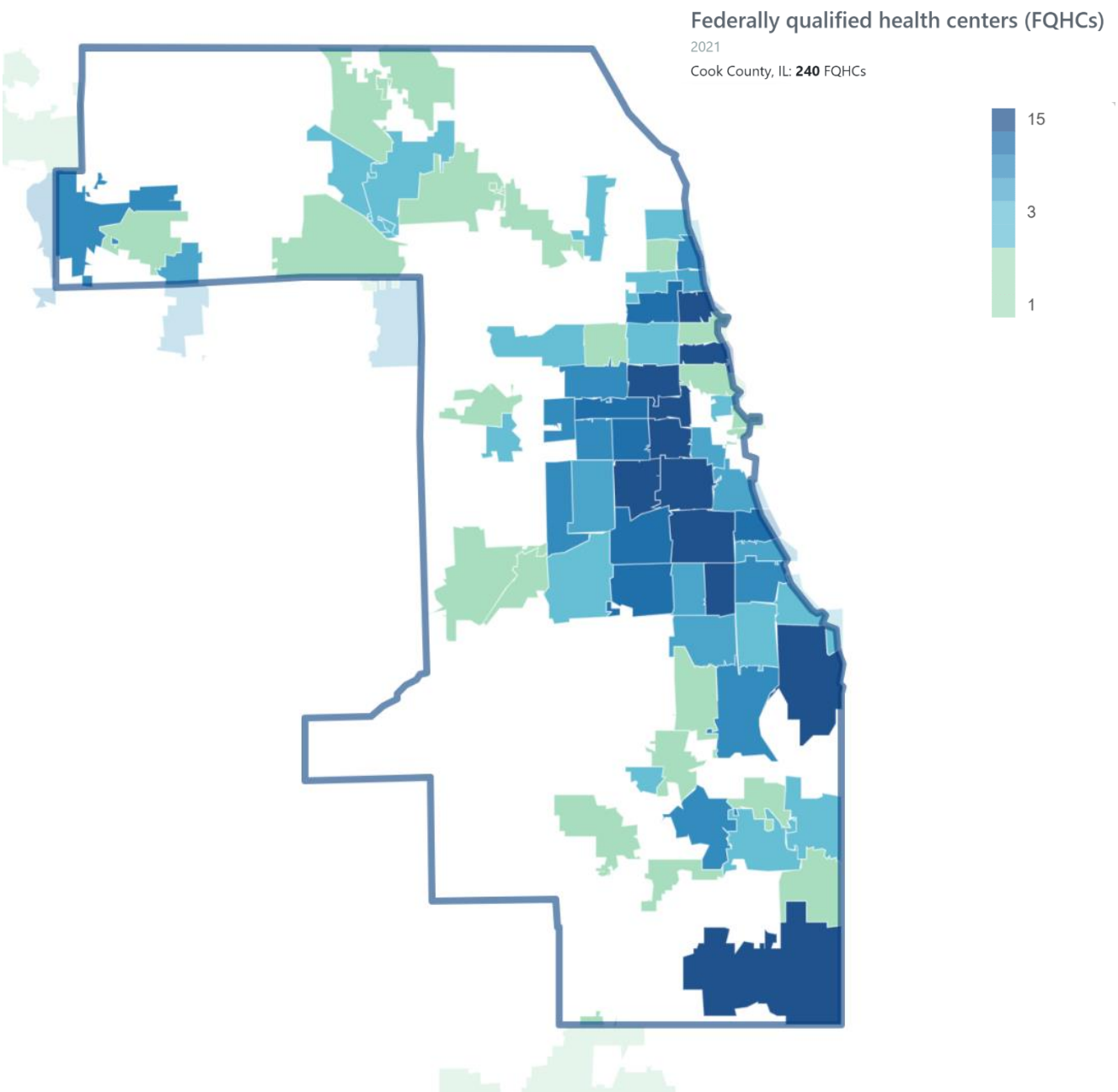


Medicaid dentists per capita
2021
Cook County, IL: **33.70** providers per 100,000 residents

336.07
16.52
0.00

Community health centers and Federally Qualified Health Centers (FQHCs) have an important role in eliminating disparities in access to health care. Community health centers and FQHCs provide primary and preventive care, and many also provide behavioral health care as well as oral health, vision, and pharmacy services. By law, FQHCs must serve a federally-designated medically underserved area or a medically underserved population; and serve all individuals regardless of ability to pay; charge no more than a “nominal fee” to low-income uninsured and underinsured individuals; and provide non-clinical enabling services to increase access to care, such as transportation, translation, and case management. Nationwide, most FQHC patients have low-incomes with 91% falling below the 200% Federal Poverty Level (FPL) and 68% below 100% of the FPL (National Association of Community Health Centers, 2020). Figure 39 shows the geographic distribution of FQHCs across Cook County.

Figure 39. Federally Qualified Health Centers (FQHCs), Cook County, Illinois



Implicit Bias in Healthcare

Implicit bias in the healthcare system is correlated with inequities in access, patient–provider interactions, treatment decisions, and health outcomes for patients. (Hall et al., 2015) Research indicates that some health care providers hold false beliefs about biological/genetic differences for Black and White patients increasing opportunities for implicit bias.(Saluja & Bryant, 2021) Specifically for pregnant persons, a 2004 study found significantly lower epidural analgesia rates for Black, Hispanic, and Asian women compared to White women during labor and delivery. (Rust et al., 2004) Implicit bias can also be intertwined into seemingly "evidence-based" practices. Until a recent revision, the widely used Trial of Labor After Cesarean (TOLAC) calculator stratified patients by race based only on an observation instead of a pathophysiologic basis. (Grobman et al., 2007, 2021) Reviewers suggest that the lower rates of a "successful" TOLAC for Black women could stem from biased decision-making by providers that moved Black women to the operating room sooner than White women. (Vyas et al., 2019)

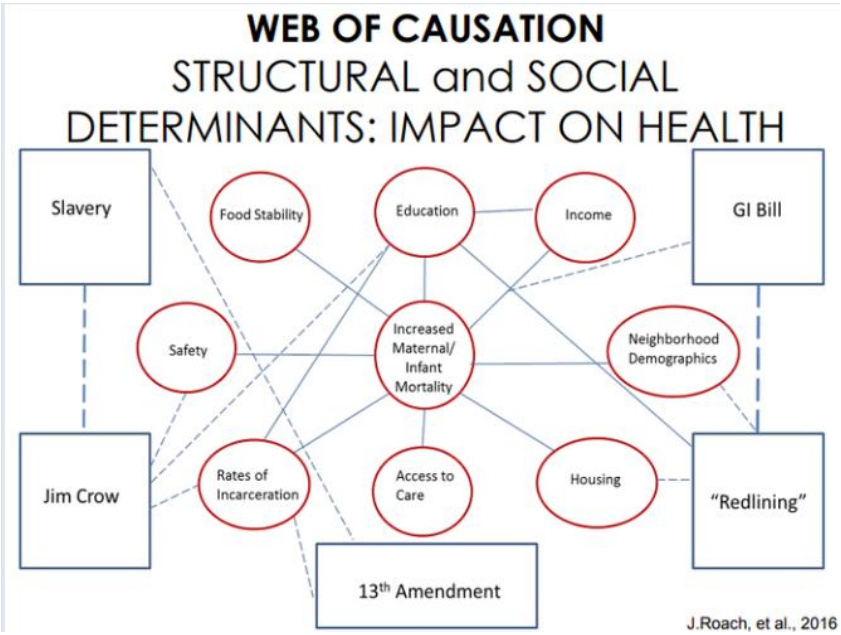
Implicit bias is now widely acknowledged as a threat to patient wellness, however there is lagging movement to establish evidence-based guidance for health systems and clinicians on effective intervention and for establishing effective accountability and transparency for patients and hospital providers alike. A 2022 review of core concepts suggests that when developing implicit bias interventions, healthcare providers "must prioritize patient perspectives and address education, communication, and cognitive reframing". (Siden et al., 2022) Bovat specifically suggests that in Illinois, "Centers for Medicare and Medicaid Services should create more specific guidelines for healthcare providers to attend reoccurring trainings on trauma-informed care, antiracism, cultural competency, and unconscious racial bias." (Bovat, 2021) As focus is placed on healthcare providers to implement effective implicit bias trainings, there is still a dire need for reform for the systemic forms of bias within medical training and practice. Advocates insist that medical school curricula requires drastic reform to eliminate unscientific racial stereotypes, standardize protocols to improve outcomes and reduce disparities, and proactively create programs and support systems for young Black physicians. (Green et al., 2021)

MATERNAL AND CHILD HEALTH

Maternal health encompasses the health of birthing persons during pregnancy, childbirth, and during the post-partum period. This period is a critical time for women's health since they typically have more interaction with and access to health care services. In addition, pregnancy provides an opportunity to identify, treat and manage underlying chronic conditions to improve overall health.

The Restoring Our Own Through Transformation (ROOTT) Theoretical Framework (Figure 40) focuses on the underlying root causes of inequities in birth outcomes, including intuitional, systemic, and structural racism, as opposed to individual factors.(*Policy & Advocacy*, n.d.) The framework shows how the interconnected pathways between structural and social determinants lead to increased maternal and infant mortality rates in the United States and the social inequities that emerge from these outcomes.(Crear-Perry et al., 2021; *Policy & Advocacy*, n.d.)

Figure 40. ROOTT Web of Causation – Structural and Social Determinants' Impact on Health



This figure depicts the theoretical framework developed by ROOTT used to identify structural and social determinants of maternal and infant mortality in the United States. Structural determinants are depicted in boxes connected by dashed lines, which shape the distribution of social determinants (depicted in circles and connected by solid lines). The interconnected pathways between structural and social determinants lead to increased maternal and infant mortality rates and socially defined inequities in these outcomes. (Crear-Perry et al., 2021)

“Reviewing and addressing maternal mortality is important because it’s a key indicator of the well-being of our community and can reflect trends overall in the health of women of reproductive age.” (*‘Unacceptable Disparities’ Persist Among Maternal Deaths*, 2021)

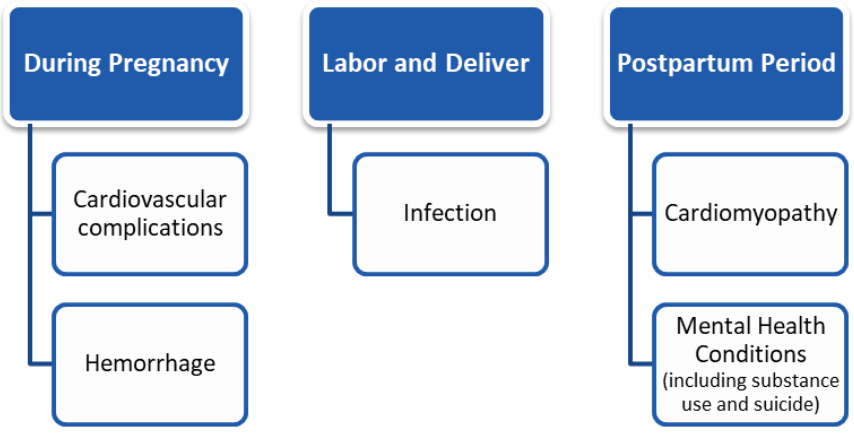
Severe pregnancy complications and maternal mortality are used on an international level to assess the overall health status of a country, state, or community.(Illinois Department of Public Health, 2021) The US is one of only 13 countries in the world where the maternal mortality rate is worse now than it was 25 years ago, and it is the only industrialized country with a rising maternal mortality rate.(*Durbin, Duckworth Introduce MOMMA Act to Reduce Maternal and Infant Mortality Rates | U.S. Senator Dick Durbin of Illinois*, n.d.) In 2018, there were 17 maternal deaths for every 100,000 live births in the U.S while in comparison, the maternal mortality ratio was three per 100,000 or fewer in in the Netherlands, Norway, and New Zealand.(*Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*, 2020)

In comparison to other nations there are a number of key differences which include: the U.S. has an overall shortage of maternity care providers relative to the number of births, access to home visits after delivery varies in the U.S. but is guaranteed in other countries, and the U.S. is the only high-income country that does not guarantee paid leave to mothers after childbirth. (Crear-Perry et al., 2021; *Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*, 2020)

While the reasons for increases in pregnancy-related mortality and severe maternal morbidity are complex and compounding, research is a clear that race, is a defining inequity for mortality and morbidity rates. (D’Efilippo, 2019; Illinois Department of Public Health, 2021; *Maternal Mortality in the United States*, 2020; *Severe Maternal Morbidity in the United States*, 2021) Nationally, Black and American Indian/Alaskan Native women are two to three times more likely to die from pregnancy-related causes than white women. (*Infographic*, 2020; *Trends in Pregnancy- Related Deaths and Federal Efforts to Reduce Them*, 2020). Non-Hispanic Black mothers are more than twice as likely as non-Hispanic white mothers to experience severe maternal morbidity. (*Severe Maternal Morbidity in the United States*, 2021) **Early research indicates that the impacts of the COVID-19 pandemic will only work to exacerbate these impacts.** (Delahoy, 2020; McCloskey et al., 2021)

In the United States, 700 to 900 pregnancy-related deaths occur annually and on average two-thirds of these deaths are preventable. (Petersen, 2019b) Research indicates that an increasing percentage of these deaths occur during the late postpartum period (more than 43 days after the end of pregnancy). (Eckert, 2020) Research finds that more than half (52%) of all deaths occur after the day of delivery. (*Maternal Mortality in the United States*, 2020) However, even these numbers are not the whole picture, as the maternal mortality rate is widely considered to be underestimated because fluctuating methods are used to count deaths related to pregnancy, and reporting is inconsistent. (D’Efilippo, 2019)

Figure 41. Leading causes of maternal mortality during each phase of the pregnancy/post-partum period



The persistent nature of racial disparities in maternal health continue to propel providers and researchers to realize that inequities are due to more than just access to healthcare, but include factors such as poverty, quality of education, health literacy, employment, housing, childcare availability, and community safety (Illinois Department of Public Health, 2018). However, research indicates that while these factors play a role in the dire state of the maternal health crisis in the United States, addressing these determinants alone is not enough. For example, educational advancement is typically seen as protective in terms of health, but that's not the reality for Black birthing people. A college-educated Black woman faces a 60% greater risk for a maternal death than white women without a high school education.(*Maternal Mortality in the United States*, 2020) **Researchers and providers must work to recognize the role that structural racism and implicit bias inherent in the historical and social context of America, and pervasive in the health care system, play in maternal health inequities.** New literature underscores that structural racism must be centered as a key social determinant of health with driving impacts on maternal health, as researcher Sara Bovat writes:

> The racially neutral discourse in the U.S. capitalist health care system and political economy hides the fact that Black women are disproportionately dying due to maternity-related "care" in Chicago and the entire country. The neutralized rhetoric of calling maternal mortality rates "health disparities" implicitly suggests that the concern is a matter of differences in outcomes and not structural racism. (Bovat, 2021)

Infant mortality

Nationally and statewide in Illinois, between 2015-2019, Black women experienced infant mortality at over two times the rate of other race/ethnic groups (Figure 42).The trend is more pronounced in Cook County and Chicago where Black women experience infant mortality at over 3 times the rate of white women.

Figure 42. Infant mortality rates in United States compared to Illinois and Cook County, IL, 2015-2019

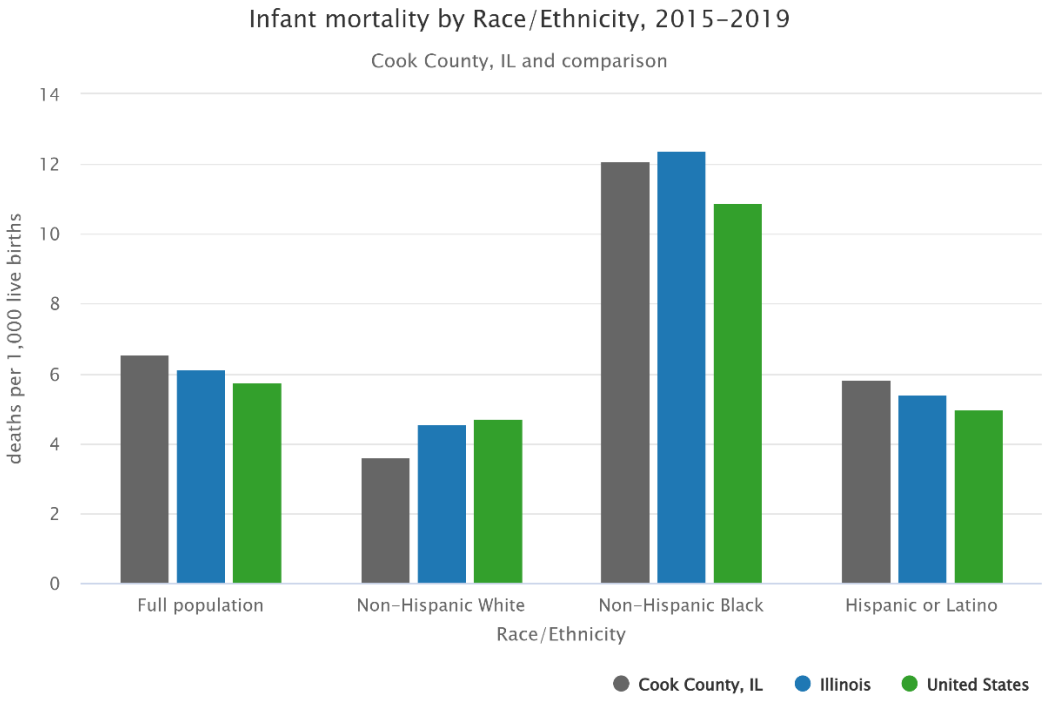
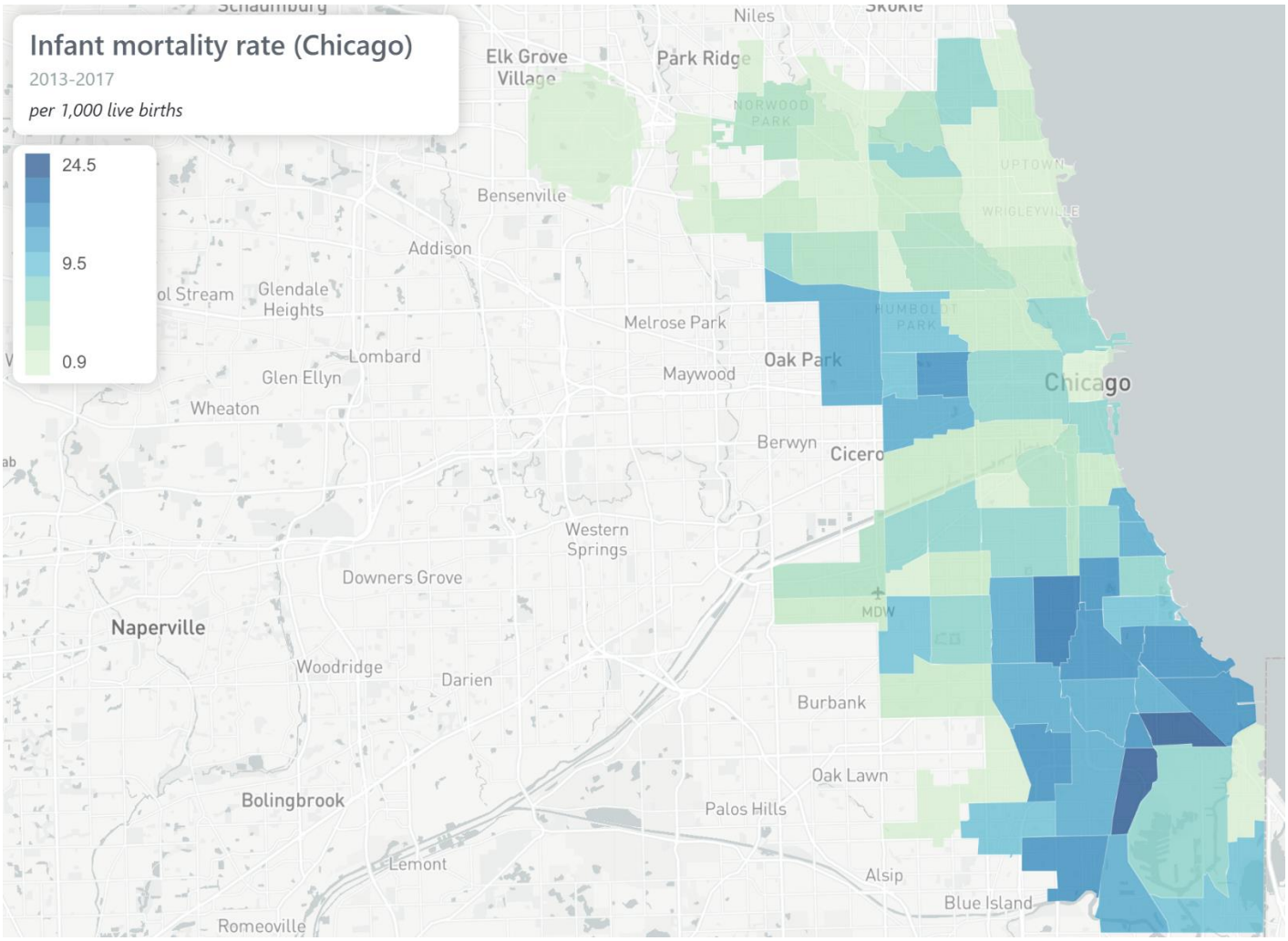


Figure 43. Map of Infant mortality rates for Chicago community areas*



Illinois Department of Public Health, via Chicago Health Atlas.
* Updated data by municipality not available for suburban Cook County at time of publication.

Maternal mortality

In a 2021 report, **two Illinois Maternal Mortality Review Committees (MMRC) determined in a review of 2016-2017 pregnancy-related deaths that 83% of the 129 deaths were potentially preventable, and that Black women in Illinois were three times as likely to die of pregnancy-related conditions than their white counterparts.** (Illinois Department of Public Health, 2021) The report found that the gap has shrunk pregnancy-related deaths between Black and white women, but not due to improved health outcomes for Black women. Instead, it is an effect of worsening conditions for white women, especially due to mental health conditions, including substance use disorder and suicide. (Illinois Department of Public Health, 2021; *'Unacceptable Disparities' Persist Among Maternal Deaths*, 2021) Mirroring the national trend, the report also found that one-third of pregnancy-related deaths occurred during the late postpartum period, more than two months after pregnancy. (Illinois Department of Public Health, 2021) The leading cause of pregnancy-related death was mental health conditions including substance use disorders (40%), followed by pre-existing chronic medical conditions that were exacerbated by pregnancy: hemorrhage and hypertensive disorders of pregnancy. (Illinois Department of Public Health, 2021) Additionally, 85% of the pregnancy-associated deaths by suicide and 35% of the pregnancy-associated deaths by drug overdose were determined to be a pregnancy-related death - a chain of events initiated by pregnancy, or the aggravation of an unrelated condition by the physiologic effects of pregnancy. (Illinois Department of Public Health, 2021) The MMRCs

determined that nearly all the pregnancy-associated homicide, suicide, and drug overdose deaths in this time range were potentially preventable. (Illinois Department of Public Health, 2021)

Also, a review of 408 severe maternal morbidity cases from 2018 in Illinois found that women with severe maternal morbidity were more likely to be Black, 35 or older, have public insurance, and report receiving inadequate prenatal care. (Geller et al., 2021) The most common causes of severe maternal morbidity were hemorrhage and preeclampsia and eclampsia. (Geller et al., 2021)

Figure 44. Top Four Underlying Cause of Death Categories for Pregnancy-Related Deaths, Illinois 2016-2017

Cause of Death Category	Number of Pregnancy-Related Deaths	Percent of Pregnancy-Related Deaths
Mental Health Conditions*	24	40%
Pre-existing Chronic Medical Condition**	5	8%
Hemorrhage	5	8%
Hypertensive Disorders of Pregnancy	5	8%
All Other Causes Combined***	21	35%

Due to rounding, percentages in this figure do not add up to 100%

** Includes deaths due to depression, schizophrenia, and substance use disorder*

*** These deaths were related to health conditions that women were known to have prior to pregnancy, including: lupus, sickle cell disease, and end-stage renal disease. These deaths are included as "non-cardiovascular deaths" by the CDC PMSS.*

**** Each of the other cause of death categories accounted for fewer than five deaths during the two-year period and are not able to be reported individually.*

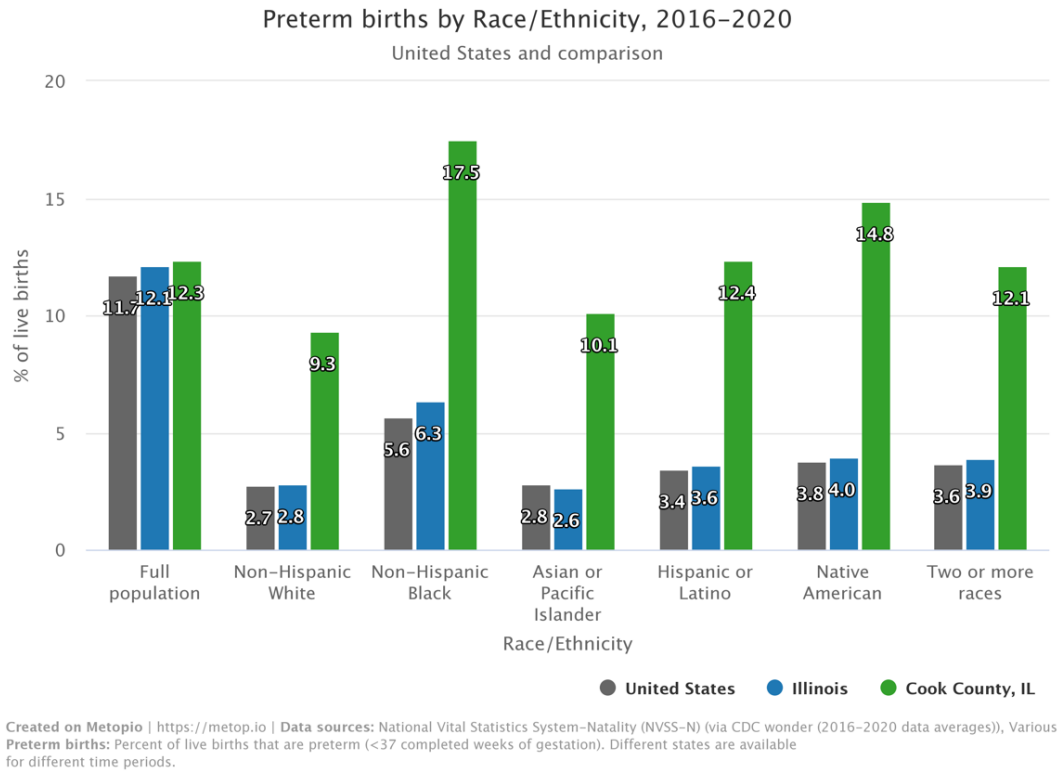
Table: First published in the Illinois Maternal Morbidity and Mortality Report 2016-2017, (Illinois Department of Public Health, 2021)

In addition to pregnancy-related deaths, there are also pregnancy-associated deaths. A pregnancy-associated death is a maternal death that is attributed to a condition that is not related to the pregnancy and occurs within 1 year of the pregnancy. (J. Campbell et al., 2021; *Maternal Mortality in the United States*, 2020) Violence is a significant, and often overlooked, factor for pregnancy-associated death. (M. E. Wallace et al., 2020) Over the past decade, research has supported homicide as a leading cause of pregnancy-associated deaths nationally. (J. Chang et al., 2005; Cheng & Horon, 2010; *Maternal Death at an Inner-City Hospital, 1949-2000 - PubMed*, n.d., p.) This trend is consists with findings in Illinois, that saw "violent deaths," from 2016-2017, due to suicide, homicide, and drug overdose account for 42% (71 deaths) of deaths initially presumed to be pregnancy-associated deaths.(Illinois Department of Public Health, 2021) The MMRC-V also determined that virtually all the violent pregnancy-associated deaths potentially preventable. (Illinois Department of Public Health, 2021)

Preterm Birth

Data collected from 2016 to 2020, indicates that average preterm birth rates are highest among Blacks at the national, state, and county level (Figure 45). The Cook County rate is higher than the national rate among Blacks and also the overall national rate. In Cook County, preterm rates were highest among Blacks followed by Native Americans, Hispanic/Latine, and those who identified as two or more races.

Figure 45. Preterm birth rate in the United States compared to Illinois and Cook County, IL, 2016-2020



Created on Metopio | https://metop.io | **Data sources:** National Vital Statistics System–Natality (NVSS–N) (via CDC wonder (2016–2020 data averages)), Various
Preterm births: Percent of live births that are preterm (<37 completed weeks of gestation). Different states are available for different time periods.

Mental Health – Maternal and Child Health

Maternal mental health conditions are one of the most common contributors to poor perinatal outcomes, increased risk of obstetric complications and preterm labor, and a high risk factor for maternal self-harm deaths, or deaths from suicide or overdose.(Glazer & Howell, 2021; Hinson, n.d.) Suicide and overdose remain the leading causes of death for women during the first year postpartum.(Glazer & Howell, 2021; Hinson, n.d.) Maternal anxiety and depression are widely common affecting 1 in 5 birthing persons, however they are widely underdiagnosed with a lack of universal screening, missed treatment opportunities, and in the case of a death, typically under-reported. (Illinois Department of Public Health, 2021; *Improving Maternal Mental Health*, 2008) The Illinois MMRCs found that 40% of the pregnancy-related deaths were the result of mental health conditions (including depression, schizophrenia, and substance use disorder). (Illinois Department of Public Health, 2021) Growing research links severe maternal morbidity, which impacts Black women at a higher risk, with heightened risks of developing mental health disorders such as postpartum depression and post-traumatic stress disorder.(Furuta et al., 2014; Small et al., 2020) Maternal mental health conditions also adversely affect the health of the infant and is linked to low infant birth weight, higher rates of malnutrition and stunting, reduced completion immunization, and behavioral, cognitive, or emotional delays. (Hinson, n.d.; *Improving Maternal Mental Health*, 2008) Barriers to improving these conditions include stigma in discussing mental health conditions, inconsistent documentation of pregnancy on death certificates, and exclusion of self-harm deaths (with suicide and overdose deemed incidental causes) from maternal and pregnancy-related mortality

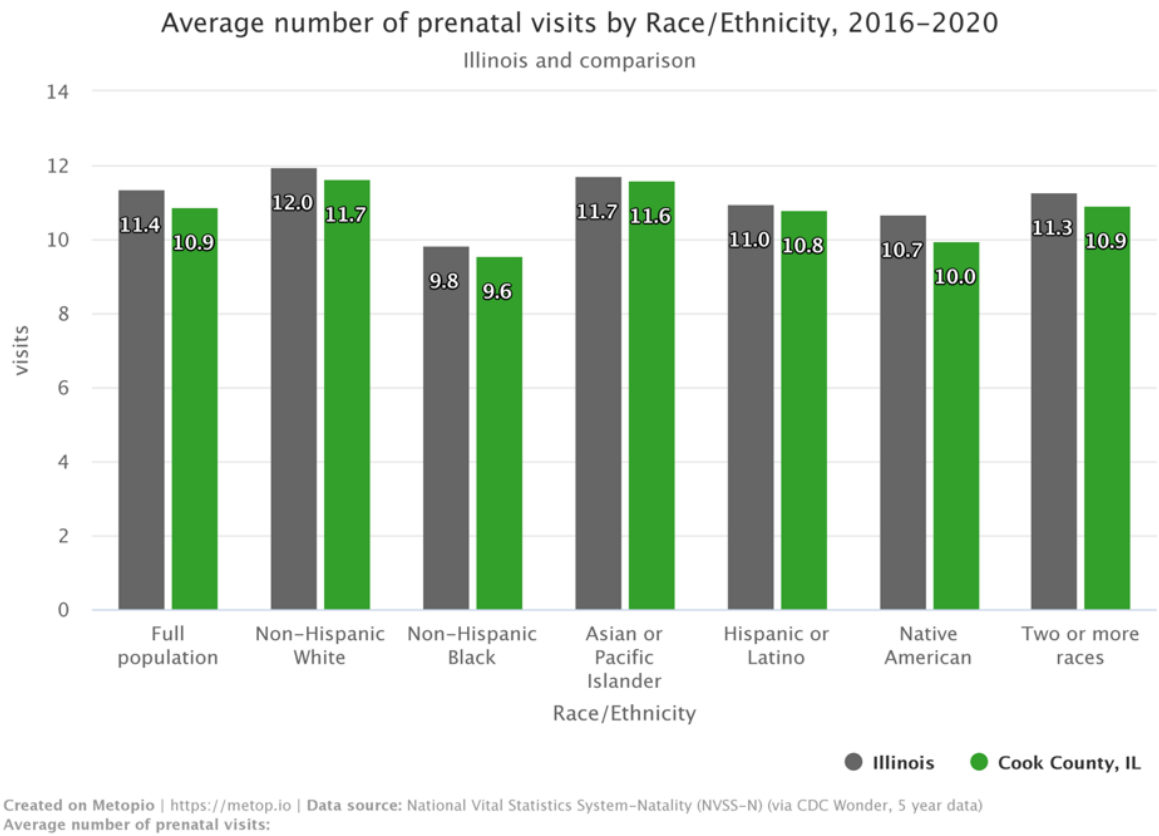
definitions. (Glazer & Howell, 2021; Rockett, 2021) **Two Illinois Maternal Morbidity Committees outline a number of recommendations that focus proper screening for mental health conditions, consistent access for mothers to receive comprehensive mental health treatment, a 'warm-handoff' to ensure women receive appropriate medication management, and supporting coordinated care between physical and mental health providers.** (Illinois Department of Public Health, 2021) Research suggests that maternal mental health conditions are temporary and treatable if supported by self-care, social support, talk therapy, and medication. (*Treatment of Postpartum Depression: Clinical, Psychological and Pharmacological Options*, n.d.) New recommendations for postpartum care, to improve these conditions, support the use of mobile phone applications to provide comprehensive social and clinical support for postpartum mothers. However, a 2021 review of the current offerings of postpartum mobile health tools find that typically current applications do not provide equitable and inclusive access to women of color. A few local initiatives in Chicago are working to address this gap and create apps specifically for people of color. (Tucker et al., 2021) (Rockett, 2021)

Access to Care – Maternal and Child Health

Prenatal Care

Statewide in Illinois and in Chicago and Cook County, Black women on average had the least amount of prenatal visits, compared to White, Hispanic, Native America, and Asian women (Figure 46). The Center for Disease Control and Prevention (CDC) has found that these inequities in prenatal care relate to higher rates of death from pregnancy-related complications among Black women. (Petersen, 2019a)

Figure 46. Average number of prenatal visits in Illinois and Cook County, IL from 2016-2020



Health Insurance

Between 2016 and 2017 in Illinois, women on Medicaid during pregnancy were three times as likely to die within one year of pregnancy as compared to women on private insurance. (Illinois Department of Public Health, 2021) The majority of the 2016- 2017 pregnancy-associated deaths in Illinois occurred more than two months after pregnancy, which indicates the importance of continuous, extended postpartum care for mothers. To address this imperative, **in April 2021, with the Illinois Continuity of Care & Administrative Simplification 1115 Waiver, Illinois became the first state to expand Medicaid coverage from 60 days postpartum to 12 months postpartum.** This legislature also reinstates managed care within 90 days and waives Hospital Presumptive Eligibility. As a result, the new Medicaid guidelines ensures that "new, low-income mothers have uninterrupted access to full Medicaid benefits throughout their critical first year postpartum."

Advocacy recommendations from the Illinois Maternal Morbidity Committees for continuing this work include the following:

- Health insurance plans, including Illinois Medicaid, should encourage a continuum of postpartum care and allow reimbursement for multiple postpartum visits for all women. (Illinois Department of Public Health, 2021)
- Health insurance plans, including Illinois Medicaid, should cover intensive case management and outreach and non-medical support services (such as doulas) for women with complex medical and mental health conditions while pregnant and up to one year after delivery. (Illinois Department of Public Health, 2021)
- Health insurance plans, including Illinois Medicaid, should reimburse for telehealth regardless of patient or provider location, including phone-based services, for clinical services not widely geographically available in Illinois, including, but not limited to cardiology, pain management, psychiatry, substance use treatment, and counseling services.(Illinois Department of Public Health, 2021)

Midwife and Doula Support

As previously mentioned, the United States has an overall shortage of maternity care providers, but especially falters with a workforce supply of midwives. In the US, maternity care is primarily led by obstetrician-gynecologists (OB-GYNs), however in some other countries with lower maternal and infant mortality rates, such as the UK and the Netherlands, midwives provide a majority of prenatal care and deliveries. (*Maternal Mortality and Maternity Care in the United States Compared to 10 Other Developed Countries*, 2020) Research and the World Health Organization recommend midwives as part of strong multi-disciplinary health care teams to reducing maternal mortality as they have been found to be comparable or preferable to OB-GYN-led care for mother and baby outcomes. (*Nursing and Midwifery*, n.d.; *US Ranks Worst in Maternal Care, Mortality Compared With 10 Other Developed Nations*, n.d.) In the U.S., midwives are not consistently covered by private insurance and while Medicaid programs cover midwife services the supply of providers is much too low for the access to be consistent.

Illinois is taking steps to counter this national trend. **In December 2021, Governor JB Pritzker signed a law that permits the professional regulation of midwives in Illinois, becoming the 36th state to legalize the practice.** (Press, 2021) **Implementation of this legislation is intended to increase home births facilitated by culturally competent and culturally sensitive midwives, which could improve maternal morbidity and mortality outcomes for women of color, especially Black and Latino women, in Illinois.** ("Midwives Gain a Victory in Illinois, but Look for More," 2021; Soglin, 2021) Working to expand scope-of-practice laws and required physical supervision of midwives will be critical in addressing medical racism and implicit bias birthing persons experience.(Soglin, 2021; *US Ranks Worst in Maternal Care, Mortality Compared With 10 Other Developed Nations*, n.d.)

Doulas are also an additional support service as part of a birthing person's health care team. Research indicates that the presence of a doula can have positive medical outcomes for women including significant reductions in cesarean births, reduction in preterm births, and increases in breastfeeding initiation, instrumental vaginal births, need for oxytocin augmentation, and shortened durations of labor.(*Academy of Breastfeeding Medicine Founder's Lecture 2009: Maternity Care Re-Evaluated - PubMed*, n.d.; D. A. Campbell et al., 2006; Gruber et al., 2013; Illinois Department of Public Health, 2021; Kozhimannil et al., 2013; Mottl-Santiago et al., 2008; Newton et al., 2009; Papagni & Buckner, 2006; Sauls, 2002) Research is also growing that the role of the doula may also be an avenue to stem the tide of medical racism, as doulas of color are often drawn this work with an antiracist commitment to disrupt patterns of systematic exclusion of women of color in their communities have experienced. (*Perspectives of Doulas of Color on Their Role in Alleviating Racial Disparities in Birth Outcomes*, n.d.; September 12 et al., n.d.) Researchers encourage the promotion and prioritization of the value of a doula during the COVID-19 during a pandemic, especially for those most vulnerable to social stressors. (McCloskey et al., 2021) **As of 2021, Illinois now offers doula services under Medicaid for pregnant persons.** (*Illinois General Assembly - Bill Status for HB0158*, n.d.) **This enables the coverage of weekly prenatal doula services, during delivery and up to 12 months postpartum. These services also can be added into existing home visiting programs.** (*Illinois General Assembly - Bill Status for HB0158*, n.d.)

Social Determinants of Health – Maternal and Child Health

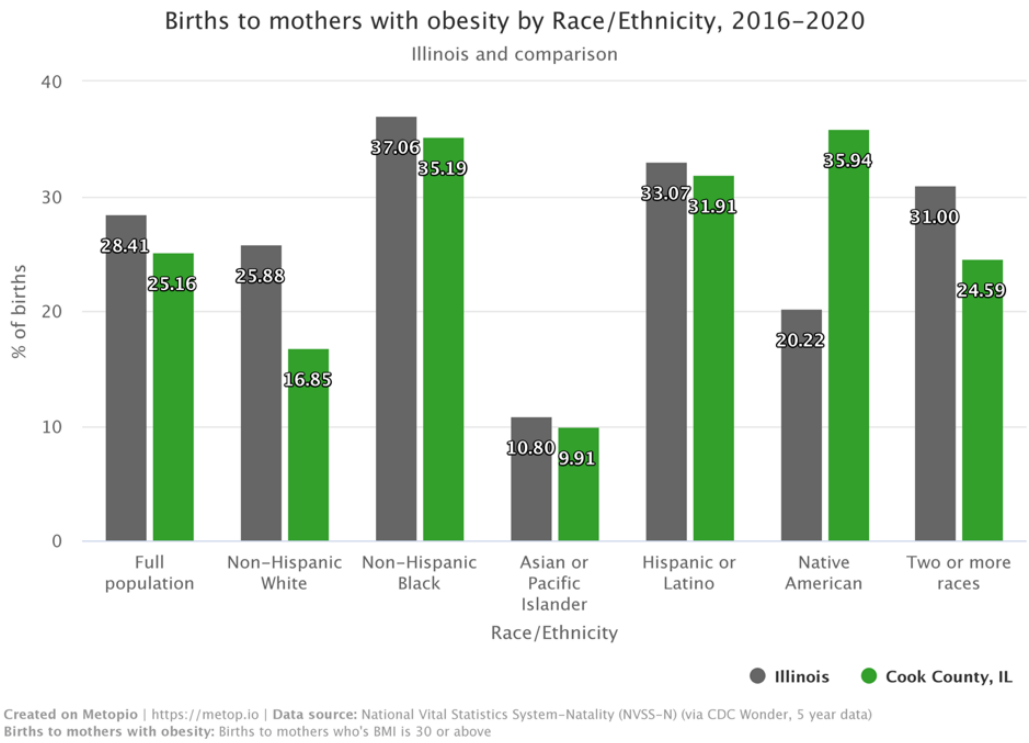
Adverse Childhood Experiences (ACEs) and Toxic Stress

Social and structural determinants of health relate to Adverse Childhood Experiences (ACEs) and toxic stress for children and across the lifespan. Individuals who experience multiple ACEs in childhood are at higher risk for a number of developmental effects and physical and mental health conditions across their life. "Severe, intense, or prolonged adversity" can lead to a child having an overactive stress response, and in the context of adverse environmental and structural factors, can also lead to toxic stress response. ACEs and toxic stress are strongly associated with many serious health conditions, including shorter life expectancy and higher rates of mortality for leading causes of death. (Bhushan 2020 - *Roadmap for Resilience: The California Surgeon General's Report on Adverse Childhood Experiences, Toxic Stress and Health*) (Bucci 2016) (Garner 2012) (Hughes 2017) (Miller 2011) (Roos 2013)

Food and Nutrition Security

A key aspect of social determinants of health during and after pregnancy is food and nutrition security. Access to ensuring adequate nutrition during pregnancy and postpartum is especially crucial for both mother and child. For pregnant persons, food insecurity during pregnancy has been linked to gestational diabetes, iron deficiency, greater gestational weight gain, increased blood pressure, and increased likelihood of maternal depression.(B. Laraia et al., 2013; B. A. Laraia et al., 2006, 2010) For the infant, food insecurity has been correlated to low birth weight, pre-term birth, birth defects, and diabetes and coronary heart disease. (Borders et al., 2007; Gundersen & Ziliak, 2015) The relationships between poor nutrition, increased gestational weight, and racial inequity are demonstrated as well in data collected from 2016-2020 that indicates that Black and Native American women in Cook County, IL experienced obesity at the time of birth at a higher rate that White or Asian women (Figure 47). Across the state of Illinois, Black women had the highest rates of obesity of the time of delivery. Programs such as WIC provide a monthly food package for pregnant or nursing women, infants, and children up to age 5 in families under 185 percent of FPL. (*IDHS*, n.d.) However, this emerging research make the case for federal, state and local assistance programs to relax strict income criteria for program qualification. (B. A. Laraia et al., 2022)

Figure 47. Births to mothers with obesity statewide in Illinois and Cook County, IL from 2016-2020



Food insecurity is associated with financial hardship, stress, and poor mental health, as well as poor nutrition for pregnant women. (Gundersen & Ziliak, 2015; B. A. Laraia et al., 2006) However emerging research provides measurable indicators of the prevalence and magnitude of these co-occurrences.(B. A. Laraia et al., 2022) According to the 2022 California report, the majority of women who experienced some type of food insecurity during their pregnancy (marginal, low, or very low) reported one or more additional maternal hardships. (B. A. Laraia et al., 2022) The most common hardships seen were depressive symptoms, with over half (54.4%) of the women experiencing very low food security reporting depression. [7]/1/2022 3:17:00 PM Additional prevalent factors included experiencing job loss, lack of practical support, and intimate partner violence. (B. A. Laraia et al., 2022) Based on this growing body of nuanced research, a key recommendation to support birthing persons, is to move towards implementing universal screening for maternal food insecurity. (Dolin et al., 2021; B. A. Laraia et al., 2022) Screening and referrals should be a more systematic process and not only look to address food insecurity but other severe hardships as well. (B. A. Laraia et al., 2022) In doing so, these efforts will improve the effectiveness of referrals and help inform future interventions. (Canavan et al., 2022; B. A. Laraia et al., 2022) In addition to these recommendations to improve outcomes, a 2022 study in New England, also encouraged funding for dedicated staff responsible for following up on screening results and providing a warm-handoff for referrals, and onsite food programs that address transportation and access barriers. (Canavan et al., 2022)

Incarceration of Pregnant Persons

The number of women in jails across the U.S. has drastically increased from under 8,000 in 1970 to nearly 110,000 as of 2014, with women of color, low-income populations, and survivors of rape, domestic violence, or child abuse disproportionately represented. (*Overlooked: Women and Jails in an Era of Reform | Vera Institute*, n.d.) The vast majority (80%) are mothers and primary caregivers to minor children, and are typically single parents. (*Overlooked: Women and Jails in an Era of Reform | Vera Institute*, n.d.) Approximately 5% of women are pregnant at the time of arrest, and while some of these women are released before giving birth annually,

approximately 1,400 women in the US give birth while incarcerated. (*Overlooked: Women and Jails in an Era of Reform | Vera Institute*, n.d.; Sufrin et al., 2019)

Data on pregnancy among incarcerated women is outdated and often only limited to prevalence estimates and births. (*Pregnant Women in Prison and Jail Don't Count: Data Gaps on Maternal Health and Incarceration - Jennifer Bronson, Carolyn Sufrin, 2019*, n.d.) Transgender men and nonbinary people can also become pregnant however, very little data has been collected about their birthing experiences and medical care in the carceral system, as most of the very limited data focused on pregnant cisgender women. (*Overlooked: Women and Jails in an Era of Reform | Vera Institute*, n.d.; Walljasper, 2022) In addition to missing data, there are no US-focused systematic assessments of miscarriages, abortions, stillbirths, preterm births, or neonatal and maternal deaths among incarcerated women. (*Pregnant Women in Prison and Jail Don't Count: Data Gaps on Maternal Health and Incarceration - Jennifer Bronson, Carolyn Sufrin, 2019*, n.d.) Researchers encourage the implementation and regular maintenance of jail and prison monitoring systems for pregnancy-related outcomes, the addition of questions on pregnancy when conducting survey with currently or formerly incarcerated individuals, and the addition of an indicator of "incarceration to national surveys and surveillance systems that collect data on pregnancy and maternal health." (*Pregnant Women in Prison and Jail Don't Count: Data Gaps on Maternal Health and Incarceration - Jennifer Bronson, Carolyn Sufrin, 2019*, n.d.)

In 2021, the American Association for Public Health (APHA), in response to the crisis of the COVID-19 pandemic and chronic health harms exacerbated by the pandemic within jails and prisons recommended "moving toward the abolition of carceral systems and building in their stead just and equitable structures that advance the public's health" (*Advancing Public Health Interventions to Address the Harms of the Carceral System*, 2020) and to reimagine and pilot interventions that "tackle the interpersonal, social, economic and political determinants of health at the root of societal problems", making policing and the carceral system non-existent. (*Policing Is a Threat to Public Health and Human Rights | BMJ Global Health*, n.d.)

Housing Instability for Pregnant Persons and Young Children

Research shows that housing instability during pregnancy is related to a number of maternal and infant health outcomes in the United States. Housing instability refers to "having high housing costs (those greater than 30 percent of monthly income), living in overcrowded or low-quality housing, unsafe housing, frequent moving, living with family and friends, and homelessness". (*Housing Instability Is an Important (Yet Overlooked) Factor in the Maternal Health Crisis*, n.d.) For mothers this is linked to maternal hypertension, anemia, and hemorrhage.(Clark et al., 2019) For infants it is linked to low-birth weight, pre-term birth, and extended hospitalization (Carrion et al., 2015; Cutts et al., 2015; Leifheit et al., 2020) For example, a 2019 study found women experiencing housing instability were 20% higher more likely to experience preterm birth compared to pregnant women with stable housing. A 2020 study, reviewing data from urban areas from 1998 to 2000 suggested that up to 3% of overall adverse birth and infant outcomes could be addressed by eliminating severe housing insecurity. (Leifheit et al., 2020)

Women and pregnant people experiencing housing instability face a number of comorbidities as they are more likely to be low-income, face food insecurity, and have fewer social supports. (Clark et al., 2019) They are also more likely to experience direct negative health effects of racism through "weathering," whereby the persistently high stress levels associated with socioeconomic disadvantages lead to adverse physiological effects and worse health outcomes among marginalized groups. Homelessness and hosing instability is also highly racially inequitable in Chicago and Cook County. In Chicago, 70% of people experiencing homelessness in the City's 2021 Point in Time Count identified as Black, while Black individuals account for only 29% of the overall population in Chicago.

The Collaborative on Child Homelessness Illinois (COCHI) was founded based on the recognition that homelessness and housing instability in early life places children at very high risk for Adverse Childhood

Experiences (ACEs), leading to lifelong health effects. (https://nhchc.org/wp-content/uploads/2019/08/aces-fact-sheet.pdf) COCHI is working to advance strategies to address housing instability and homelessness for pregnant people, families, and young children age 0-6. At the national level, the Black Maternal Health Momnibus Bill, also calls for the creation of a “Housing for Moms” taskforce. (Underwood, 2021) If passed, this taskforce would work to ensure that women in the perinatal and postpartum period have access to “safe, stable, affordable, and adequate housing.”

Transportation for Pregnant Persons and Young Children

While some research suggest that the neighborhood environment influences maternal health outcomes, there is limited measurable research on how neighborhood environments impact of maternal mortality and/or severe maternal morbidity. (Stanhope et al., 2021) Nationally, as of 2017, about 5.8 million Americans reported transportation barriers preventing them from seeking needed medical care. (Wolfe et al., 2020) A lack of transportation is associated with adverse health outcomes and deteriorated chronic illnesses. (R. Wallace et al., 2005) Typically, prenatal and postpartum phases are periods of time with a need for increased interaction with and access to health care services. (Burch & Spinnato, 2021; Chen et al., 2021) Pregnant, low-income, women of color, are disproportionally affected by transportation barriers, placing them at a higher risk for missed prenatal care. (Illinois Department of Public Health, 2021) In 2018, 81% of pregnant White women received timely and adequate prenatal care, compared to 68% of pregnant Black women and 72% of Hispanic women. (*Maternal, Infant, and Child Health: MICH-10.2 Increase the Proportion of Pregnant Women Who Receive Early and Adequate Prenatal Care*, 2020) Danny Chun, spokesperson for the Illinois Health and Hospital Association, stated: “Access to transportation has to be considered, especially in communities with low rates of car ownership — and especially during the pandemic, when long trips on public transportation increase health risks for pregnant women”. (Black, 2020) Long-standing research demonstrates how transportation interventions, such as bus passes and taxi vouchers, may increase women's engagement with prenatal care. (Melnikow et al., 1997) However, these short-term interventions must be partnered with long-term socioeconomic support to see sustained health for both mother and child. (Illinois Department of Public Health, 2021)

MENTAL HEALTH AND SUBSTANCE USE DISORDERS

Mental health is an integral and essential component of overall health and wellbeing (World Health Organization, 2018). Mental health includes emotional, psychological, and social well-being and it affects how we think, feel, and act (Centers for Disease Control and Prevention, 2021b). In addition, it influences how a person handles stress, relates to others, and makes healthy choices (Centers for Disease Control and Prevention, 2021b).

Community input: Mental health continues to be a top priority for communities in Chicago and Suburban Cook County. Some of the mental health needs expressed by community members in focus groups included wholistic integrated care, improved education and systems for addressing mental health crises, reducing stigma around treatment, improving access to treatment, and addressing the underlying social and structural determinants of mental health. Thirty-nine percent (n=5380) of community input survey respondents identified mental health as one of the most important health needs in their communities. Forty percent (n=5377) of community input survey respondents identified access to mental health services as being needed to support improvements in community health.

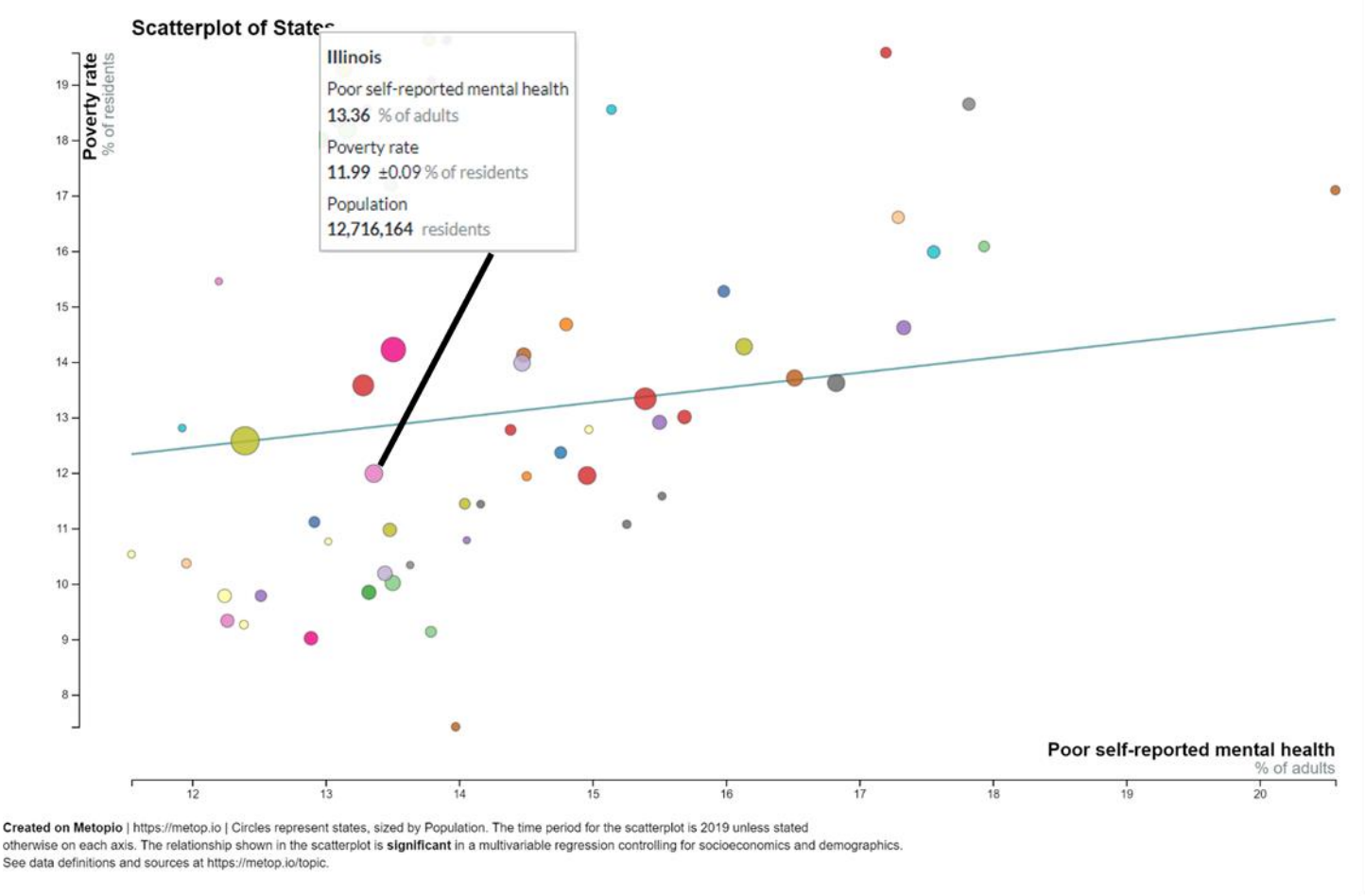
Factors affecting mental health (social determinants of mental health)

There are several factors that influence mental health including:

- **Demographics** (age, ethnicity, gender, genetics);
- **Economics** (economic inequity, economic recession, income, debt, assets, financial strain, unemployment, food insecurity);
- **Neighborhood** (infrastructure, neighborhood environment, built environment, safety and security, housing, overcrowding, recreation);
- **Environmental events** (natural and human-made disasters, war or conflict, climate change, forced migration);
- **Social and cultural** (racism, discrimination, community social capital, social stability, social support, social participation, education); and
- **Trauma and stress** (chronic stress, adverse childhood experiences, acute trauma, complex trauma) (Lund et al., 2018; Shim & Compton, 2020).

A direct link exists between social and economic inequity and mental health (Macintyre et al., 2018). Worldwide, there is a social gradient in mental health with higher levels of income inequity being linked to higher prevalence of mental illness (Macintyre et al., 2018). Experiences of socioeconomic disadvantages including unemployment, low income, poverty, debt, and poor housing are consistently associated with poorer mental health (Cairns et al., 2017; Elliot, 2016; Macintyre et al., 2018; Shim & Compton, 2020). This trend is apparent in the United States as well where there is a highly significant correlation between poverty rate and poor self-reported mental health (Figure 48). In addition, mental health conditions are prominent among historically marginalized and systemically excluded populations who experience social exclusion, discrimination, racism, and trauma.

Figure 48. Correlation between poor self-reported mental health and poverty rate in the United States, 2019



Created on Metopio | https://metop.io | Circles represent states, sized by Population. The time period for the scatterplot is 2019 unless stated otherwise on each axis. The relationship shown in the scatterplot is **significant** in a multivariable regression controlling for socioeconomics and demographics. See data definitions and sources at https://metop.io/topic.

Priority populations

Mental health impacts everyone, however, the unfair and unjust distribution of opportunity and resources in communities leads to some populations experiencing a greater burden of mental health conditions. During focus groups held throughout Cook County and through reviews of previous studies, several populations were identified as having priority needs related to mental health.

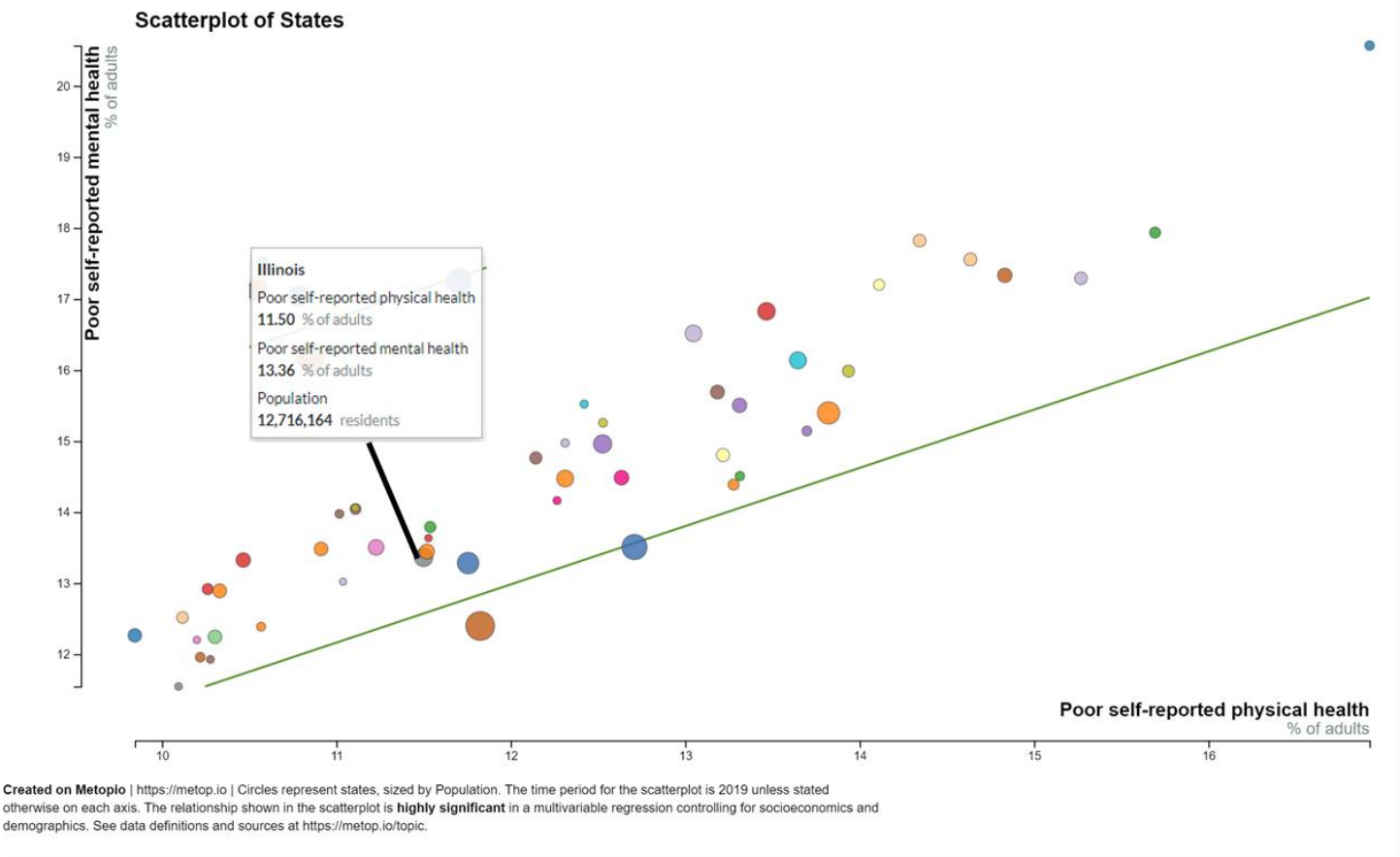
- Children, adolescents, and young adults have unique needs related to mental health. However, treatment availability in Cook County is severely limited for this age group despite continually rising rates of depression, anxiety, suicide attempts, and other mental health conditions. The trauma and social isolation resulting from the pandemic have worsened mental health outcomes among youth.
- Immigrants and refugees face unique challenges related to issues such as relocation, forced migration, war and conflicts, social isolation, racism, and discrimination. In addition, they face additional barriers to treatment including lack of insurance coverage, poor access to affordable services, discrimination by medical staff, language barriers, and stigma.

- More than one-third of LGBTQ+ Americans faced discrimination of some kind in 2020 including three in five transgender Americans (Mahowald et al., 2020). Discrimination adversely impacts mental and economic well-being of many LGBTQ+ Americans with 50% reporting moderate or significant psychological impacts of discrimination (Mahowald et al., 2020).
- Older adults and homebound adults have unique mental health needs. Age-related illnesses such as dementia and Alzheimer's disease were identified as one of the top health needs among community input respondents. In addition, older adults were identified by focus group participants as being more likely to experience isolation. The health risks associated with isolation may be particularly serve among the older adult population (Cornwell & Waite, 2009).
- Although more than 40% of veterans have an identified mental health need, more than half do not seek care (National Academies of Sciences et al., 2018).
- The number of individuals with mental health conditions involved in the juvenile and criminal justice systems continues to increase (Mental Health America, n.d.-b). The lack of appropriate and culturally competent community-based services has enormous fiscal, health, and human costs (Mental Health America, n.d.-b).
- Low-income individuals and families who struggle to afford out-of-pocket expenses and are vulnerable to changes in program funding and the closure of public mental health centers.

Mental health and physical well-being

Mental health and physical well-being are intricately connected. Mental illness significantly increases the risk that an individual will experience a physical health problem and vice versa. Figure 49 shows the highly significant correlation between poor self-reported mental health and poor self-reported physical health among adults in the U.S. As a result, policies and programs aimed at promoting physical health should include strategies that address both mental health and the underlying root causes of mental and physical health outcomes.

Figure 49. Correlation between self-reported poor mental health and poor self-reported physical health in the United States, 2019

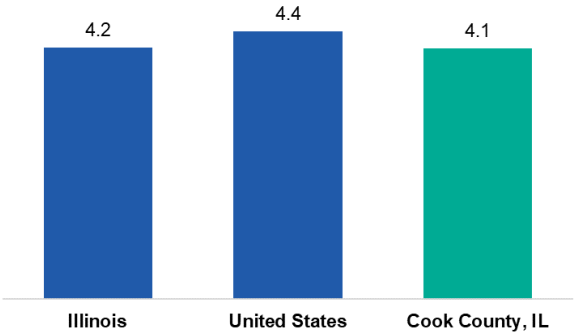


Mental health status

As previously mentioned, community input indicates that there are several factors influencing mental health within Chicago and Suburban Cook County communities. In addition, community input and current research indicate that the COVID-19 pandemic has significantly worsened overall mental health as well as the conditions that contribute to mental well-being within communities.

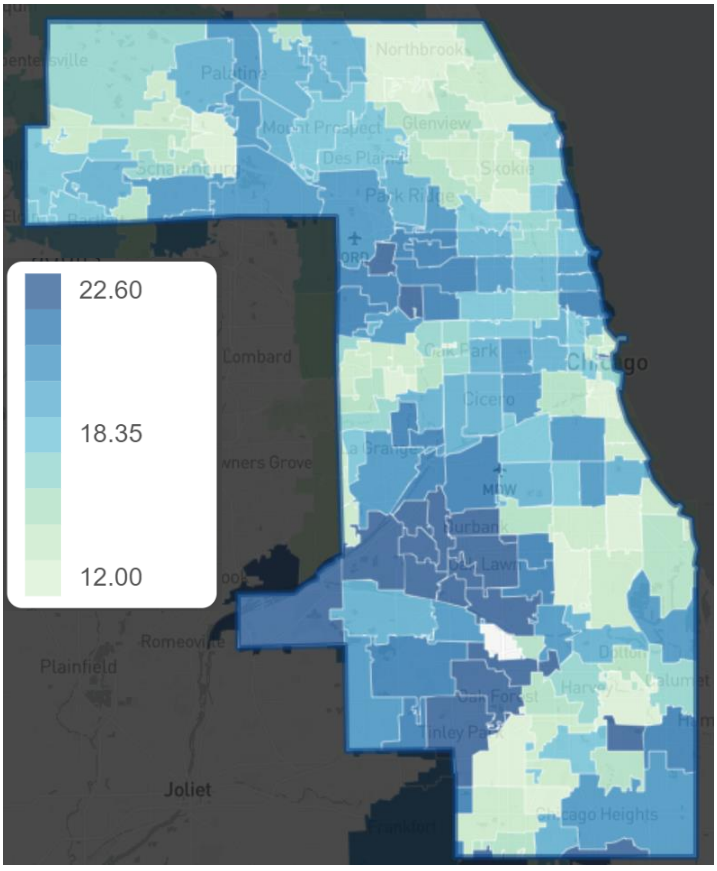
The average number of mentally unhealthy days reported by adults in Cook County was 4.1 in 2018 (Figure 50). Additionally, the prevalence of adults reporting depression in Cook County was 17.3 percent in 2019 (Figure 51). In the U.S. overall, approximately ten percent of adults reported symptoms of anxiety and depression in 2019 (Panchal et al., 2021). This percentage jumped to 40% of adults during the ongoing COVID-19 pandemic (Panchal et al., 2021).

Figure 50. Number of mentally unhealthy days, during the past thirty days, among adults aged 18 and older (Days)



Behavioral Risk Factor Surveillance System (BRFSS), PLACES, 2018

Figure 51. Prevalence of depression among adults in Cook County, Illinois, (Percent)

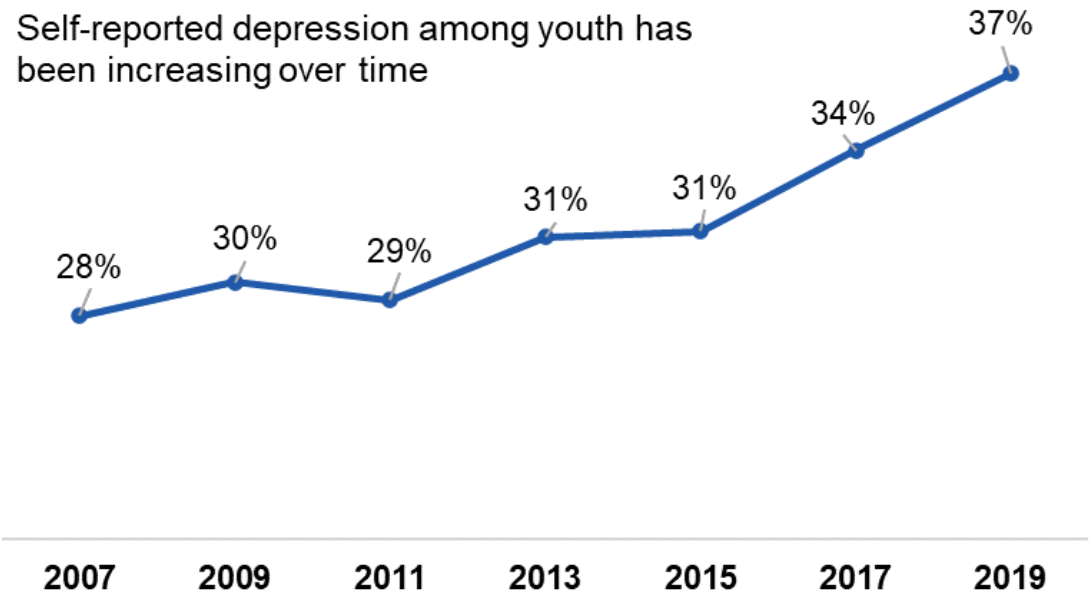


PLACES, 2019

Following the same trends as adults, self-reported depression among youth has been increasing over time (Figure 52). It is estimated that pediatric depression and anxiety doubled during the pandemic (Slomski, 2021). In addition to increased rates of depression and anxiety, emergency department visits for youth suicide attempts among youth aged 12-17 increased by 31% in 2020 compared to 2019 (Yard, 2021). There are significant existing inequities in suicide attempts by race and ethnicity with Native American youth having the highest burden in Illinois in 2019 (Figure 53).

"Well, ever since the pandemic we have seen a lot of suicide at an international level across all ages"
Northwest Side Housing Center
parent focus group participant

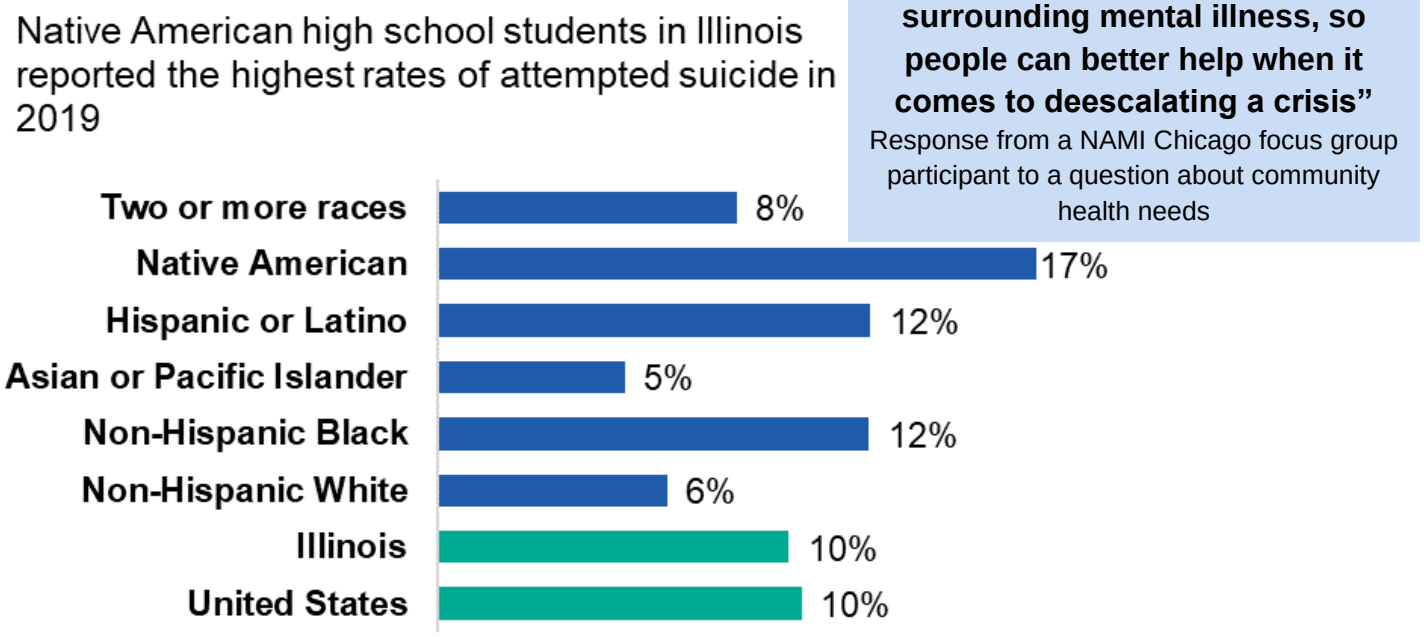
Figure 52. Self-reported depression among youth in the Illinois



Youth Risk Behavior Surveillance System (YRBSS), 2007-2019

Figure 53. Percent of high school students who report having attempted suicide at least once in the past 12 months by race and ethnicity, Illinois

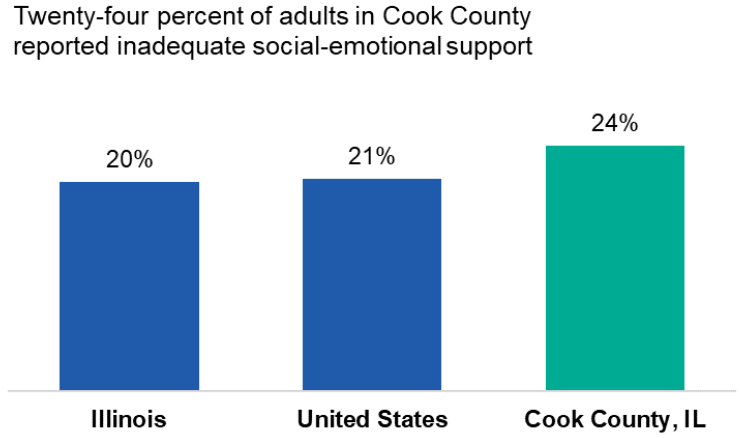
"Awareness and education surrounding mental illness, so people can better help when it comes to deescalating a crisis"
Response from a NAMI Chicago focus group participant to a question about community health needs



Youth Risk Behavior Surveillance System (YRBSS), 2019

Social-emotional support and social connectedness are important determinants of mental health. Nearly a quarter of adults in Cook County report that they do not have adequate social-emotional support (Figure 54). Fourteen percent (n=778) of community input respondents indicated that there wasn't anyone in their community that they felt comfortable asking for help.

Figure 54. Percent of resident adults aged 18 and older who report inadequate social and emotional support, Cook County, Illinois
Behavioral Risk Factor Surveillance System (BRFSS), 2006-2012



Access to treatment

As previously mentioned, community input respondents identified access to mental health services as the top improvement needed to support community health. Nationwide in 2020, over 57% of adults with mental illness received no treatment (Mental Health America, 2022). In 2022, the prevalence of adults in Illinois with untreated mental illness was estimated to be 53% or 958,000 individuals (Mental Health America, 2022). The consequences of untreated mental illness are staggering for both individuals and society (National Alliance on Mental Illness, 2020). Untreated mental health conditions can result in unnecessary disability, unemployment, homelessness, substance abuse, inappropriate incarceration, suicide, poor health outcomes, and poor quality of life (National Alliance on Mental Illness, 2020). The National Alliance on Mental Illness (NAMI) estimates the economic cost of untreated mental illness to be more than 100 billion dollars annually in the United States (National Alliance on Mental Illness, 2020).

"[A] barrier is good insurance that allows people to access mental health services regularly alongside a steady income that covers co-pays"
UCAN focus group participant

"I had no idea where to go or how to find help, and I worked in healthcare"
NAMI Chicago focus group participant

Several issues impacting access to treatment were discussed among focus group participants.

- Lack of access to quality insurance coverage for regular mental health services is a barriers and mental health centers that serve uninsured or underinsured are particularly needed.
- Many mental health services are fully booked with long waiting times for treatment which is particularly problematic for those experiencing a crisis.
- Awareness of how to identify someone experiencing a mental health crisis or suicidal ideation and connecting them with appropriate services needs to be improved within communities. Tools for parents so they know how to promote the mental health and well-being of their children is another identified need.
- There are gaps in knowledge about existing resources with multiple groups mentioning the need for better communication about programs and services.
- Better support is needed for caregivers including better systems for discharge planning and care coordination.
- Individual, community, provider, and institutional stigma surrounding mental illness prevents many people from seeking help.

"Not many have families to support them, mentally and financially"
Garfield Park Alliance Council focus group participant

When appropriate community-based treatment is not available, those experiencing serious mental health complications are often forced to seek care in emergency departments which are often ill-equipped to treat patients promptly and lack the tools to effectively connect them to long-term care (American Association of Medical Colleges, 2019). In addition, focus group participants highlighted that other types of emergency services are ill-equipped to handle mental health crises and expressed reluctance to use them. In particular, police intervention was associated with negative impacts on outcomes.

Potential solutions

As previously mentioned, community input provided several potential solutions to mental health needs in communities.

- Increasing wholistic integrated care approaches among providers.
- Improving mental health awareness within communities including knowledge on how to identify and appropriate respond to mental health crises.

- Reducing mental health stigma within communities and among healthcare providers.
- Improving access to treatment for underinsured, uninsured, and low-income individuals and families.
- Improving support for caregivers and improving systems for discharge planning and connection to long-term care.
- Providing free or low-cost services in schools to improve access to treatment among youth.
- Creating permanent telehealth options for mental health treatment.
- Reducing gaps in knowledge about existing resources by improving communication between healthcare providers, community-based organizations, and communities.

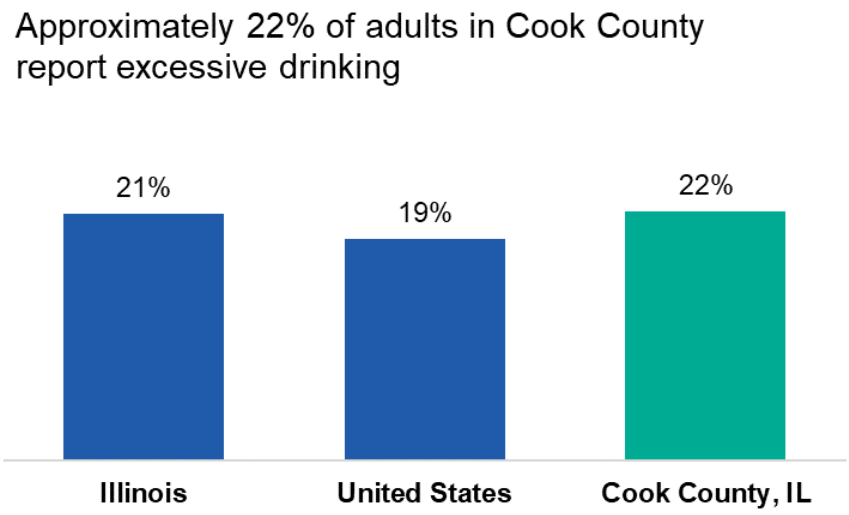
"Because Mental Health is an invisible disability, others may question the legitimacy of mental illness as something that affects individuals' lives"
NAMI Chicago focus group participant

Substance use disorders

A substance use disorder is a complex condition in which there is uncontrolled use of a substance despite harmful consequences and day-to-day functioning becomes impaired (American Psychiatric Association, 2021). Substance abuse affects as estimated 25 million Americans directly and an additional 40 million Americans, such as families of drug users or those killed by intoxicated drivers, are impacted indirectly (Mental Health America, n.d.-a). Approximately 16 million adults and 300,000 children struggle with heavy drinking annually and an estimated 21.6 million Americans aged 12 or older are addicted to other drugs such as sedative-hypnotics or barbiturates, opiates, sedatives, hallucinogens and psychostimulants (Mental Health America, n.d.-a). The COVID-19 pandemic not only highlighted the increasing burden of substance use disorders in the U.S. but also worsened it. In early 2020 alone, the CDC estimated that 13% of Americans started or increased substance use to cope with the stress and uncertainty of the pandemic (Czeisler, 2020).

In 2018, 22% of adults in Cook County reported excessive drinking (Figure 55). However, alcohol use is likely to be significantly underreported so this estimate provides a lower bound on actual excessive drinking prevalence. Emergency department visits for alcohol abuse in Cook County are presented in Figure 55.

Figure 55. Percent of adults aged 18 and older who report drinking more than two drinks per day on average (men) or more than one drink per day on average (women), and/or report having five or more drinks (men) or four or more drinks (women) on an occasion in the past 30 days in Cook County, Illinois



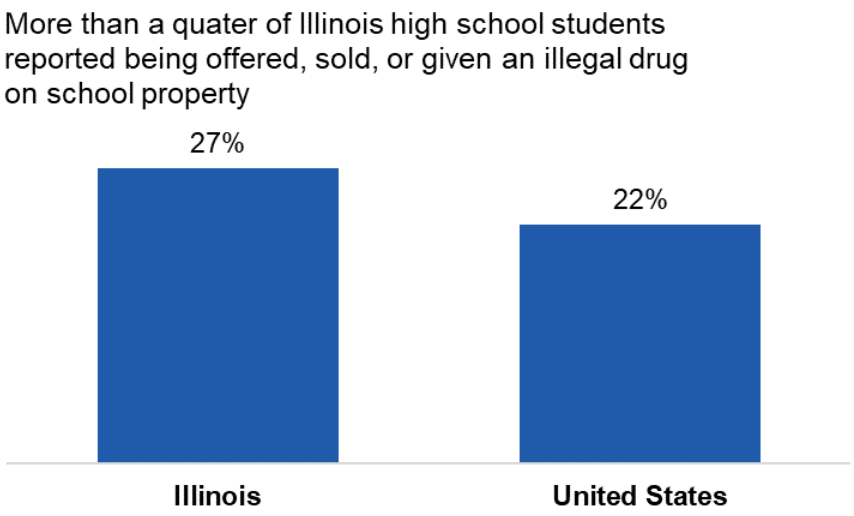
Behavioral Risk Factor Surveillance System (BRFSS), PLACES, 2018

There is a nationwide gap in current data on the prevalence of substance use disorders among youth. A 2021 study of data collected from 2015-2018 estimates the lifetime prevalence of substance use among adolescents at 27% (Volkow et al., 2021). In this same study, prevalence of substance use disorders varied by substance and age group (Volkow et al., 2021).

In Illinois, more than a quarter of high school students reported being offered, sold, or given an illegal drug on school property which is higher than the national average (Figure 56). Better monitoring systems are needed to fully understand the burden of substance use disorders among children and adolescents particularly in light of pandemic impacts.

"[Parents] don't have the skills to deal with developing addictions"
Garfield Park Alliance Council focus group participant

Figure 56. High school students who report that in the past 12 months, someone has offered, sold, or given them an illegal drug on school property in Illinois

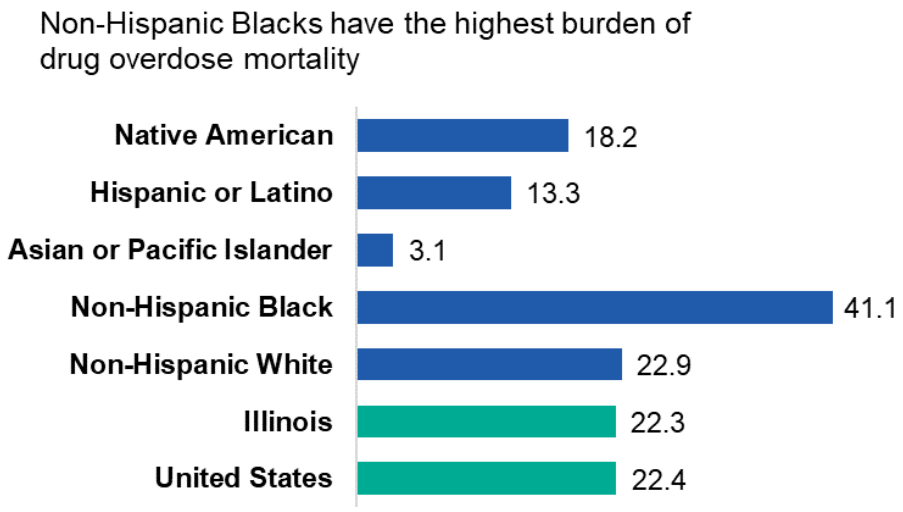


Youth Risk Behavior Surveillance System (YRBSS), 2019

Drug-related mortality

Over the past several years, drug-related mortality has been increasing in Chicago and Suburban Cook County. In 2020, drug overdose deaths hit a historic high in the United States during the COVID-19 pandemic exceeding 90,000 (Santhanam, 2022). In addition, there are significant inequities in mortality with non-Hispanic Blacks being hit the hardest by drug overdose deaths. This trend is apparent within Illinois with non-Hispanic blacks having the highest rate of drug overdose mortality (Figure 57).

Figure 57. Deaths per 100,000 residents due to drug poisoning (such as overdose), whether accidental or intentional in Illinois



Chicago Department of Public Health (Epidemiology Department: Chicago community area level) , National Vital Statistics System-Mortality (NVSS-M) (CDC Wonder), 2016-2020

"I don't think there's adequate resources and I think as a result of the pandemic it has gotten worse"
NAMI Chicago focus group participant

Pandemic Impacts on Mental Health and Substance Use Disorders

As mentioned throughout this chapter, COVID-19 has had a profound impact on mental health and substance use disorders within communities. Healthcare systems across the nation are experiencing dramatic increases in the need for mental health care and substance use disorders treatment. Communities within Cook County highlighted several impacts that COVID-19 has had on behavioral health.

- COVID-19 has caused long-term mental health issues due to death, lost-income, and devastation within communities.
- Depression, anxiety, stress, fear of getting sick/getting others sick, inactivity, and insomnia are some of the common struggles communities are facing. In addition, the pandemic has caused isolation as well as division and fear within communities.
- Many mental health services were limited or discontinued during the pandemic.
- Essential workers are experiencing heightened levels of stress during the pandemic and require additional support.
- More than 40% of community input survey respondents reported stress related to not knowing when the pandemic would end (lack of control); feeling nervous, anxious, or on edge; or feeling alone or isolated.

Conclusion

Mental health plays a critical role in the overall well-being of communities. It has repeatedly been identified as a top health priority by communities in Chicago and Suburban Cook County. Innovative strategies and expansion of existing programs combined with effective policy change is needed to address the growing burden of mental health conditions and substance use disorders in Cook County particularly in light of the negative impact that the ongoing COVID-19 pandemic has had.

CHRONIC CONDITIONS, HEALTH BEHAVIORS, AND MORTALITY

Chronic Conditions

A chronic condition is an ongoing physical or mental health condition that lasts a year or more, requires ongoing medical attention, and/or limits activities of daily living (Centers for Disease Control and Prevention, 2021a; Raghupathi & Raghupathi, 2018). Worldwide and in the United States, chronic diseases are the leading cause of disability and death (Raghupathi & Raghupathi, 2018). Sixty-percent of adults in the United States have a chronic condition and 40% of adults have two or more chronic conditions (Centers for Disease Control and Prevention, 2021a). Heart disease, cancer, and diabetes are the leading causes of death in the U.S. and are the leading drivers of the nation's 3.8 trillion in annual healthcare costs (Centers for Disease Control and Prevention, 2021a). The COVID-19 pandemic highlighted the importance of prevention and appropriate treatment for chronic conditions as illnesses such as diabetes, heart disease, and chronic obstructive pulmonary disease (COPD) significantly increases the risk of serious illness and death from the SARS-CoV-2 virus (Hacker, 2021).

Prevention

Chronic conditions such as heart disease, stroke, cancer, diabetes, arthritis, asthma, mental illness, and HIV/AIDS create a significant health and economic cost for individuals and communities. Prevention and management of chronic conditions can significantly reduce the burden of these diseases on individuals and society. The Centers for Disease Control and Prevention have developed four domains for chronic disease prevention (Figure 58). 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.

Figure 58. The 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, 2017)

Health behaviors

There are five key health behaviors that are strongly correlated with chronic disease outcomes: smoking, physical activity, alcohol consumption, body weight, and sufficient daily sleep (Liu et al., 2016). Although the age-adjusted prevalence of people in Cook County who are more at risk of chronic disease based on these health behaviors is similar to nationwide rates (Figure 59), there are significant geographic differences (Figure 61). Current health status and quality of life, sociocultural factors, physical environment, access, psychological factors, and socioeconomic inequities strongly influence the ability to initiate and maintain health behaviors (Kelly et al., 2016). As evidenced in previous chapters and Figures 61, some communities, particularly those on the West and South Sides of the county, are facing additional barriers to engaging in preventative health behaviors.

Childhood and adolescence are a critical development period. The patterns established during this time help determine not only current health status but the risk of developing chronic diseases during adulthood (Park et al., 2014). County level data on youth health behaviors remain an ongoing data gap in Illinois. The statewide rates for youth risk behaviors such as cigarette smoking and vaping range ranged from 19% to 47% respectively (Figure 60). In addition, less than a quarter of youth in Illinois reported adequate levels of preventative health behaviors such as engaging in recommended levels of physical activity (22%) and fruit and vegetable consumption (22%) (Figure 60).

Community focus group input supported the data indicating that chronic disease burden is a priority health issue in many communities. Conditions such as obesity, diabetes, hypertension, and asthma were highlighted. In addition, community input respondents identified a number of chronic health conditions as important health needs in their communities including cancers (19%), heart disease and stroke (14%), diabetes (12%), obesity (10%), and lung disease (2%) (n=5380). Community members identified several factors influencing the prevalence of chronic conditions including inactivity in youth and adults, inadequate access to healthy foods, poor access to health services, lack of income, and smoking. Participants explained that many of these factors worsened during the COVID-19 pandemic due to issues such as the discontinuation of afterschool sports programs and gym closures and that chronic conditions often worsened with COVID-19 infection.

“Chronic health issues communities are facing come from diet and access to healthy and affordable foods”
Rush Community Health Worker Focus Group Participant

Figure 59. Age-adjusted prevalence of key health behaviors and conditions among adults in Cook County, Illinois, 2019

Health Behavior/Condition	Cook County	United States
Binge drinking among adults aged 18 years or older	22%	18%
Current smoking among adults aged 18 years or older	15%	16%
No leisure-time physical activity among adults aged 18 years or older	26%	26%
Sleeping less than 7 hours among adults aged 18 years or older	36%	36%
Obesity	29%	31%

(Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, 2021)

Figure 60. Select health behaviors among Illinois high school students, 2019

Health Behavior/Condition	Illinois	United States
Cigarette smoking among high school students Percent of high school students who report having ever tried cigarette smoking, even one or two puffs	19%	23%
Vaping among high school students Percent of high school students who report having ever used an electronic vapor product	47%	50%
Physical activity among high school students Percentage of high school students who report that in the past 7 days, they were physically active at least 60 minutes per day on all 7 days	22%	22%
Fruit and vegetable consumption among high school students Percent of high school students who have had at least 4 servings of fruits or vegetables per day during the last 7 days	22%	23%

(Centers for Disease Control and Prevention, Division of Adolescent and School Health, 2021)

Figure X. Percentage of adults that reported having five or more drinks (men) or four or more drinks (women) on an occasion in the past 30 days. Cook County, Illinois, 2019

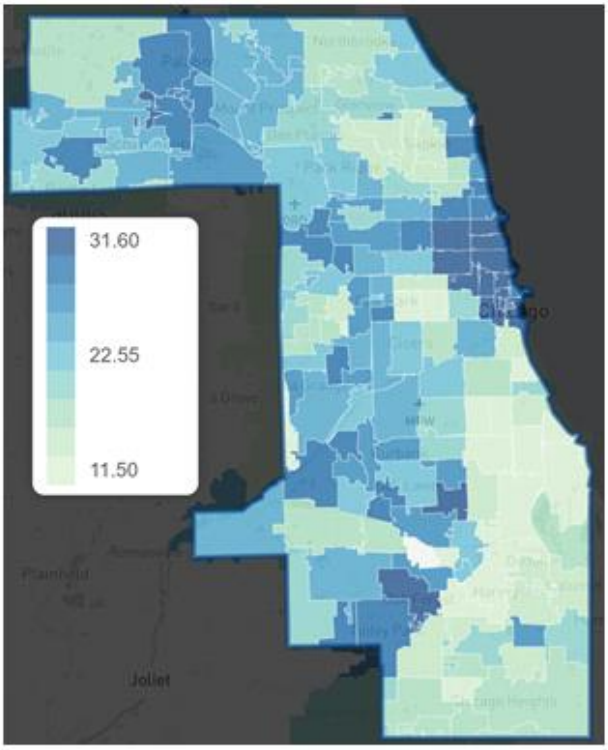


Figure X. Percentage of adults that reported having smoked at least 100 cigarettes in their lifetime and currently smoke every day or some days, Cook County, Illinois, 2019

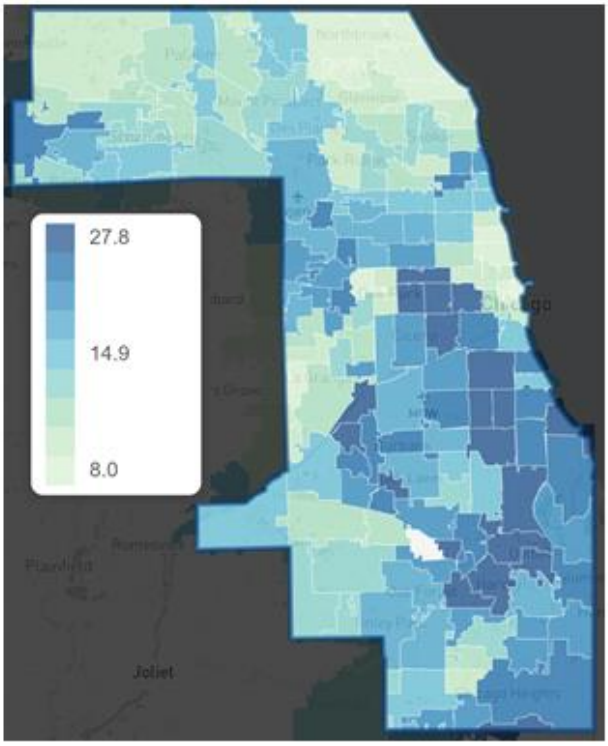


Figure X. Percentage of adults that reported no physical activity in the past month in Cook County, Illinois, 2019

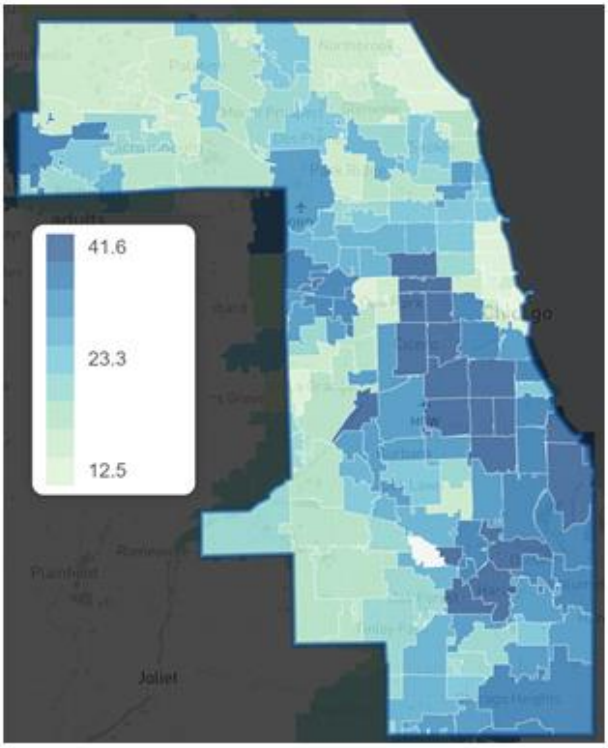
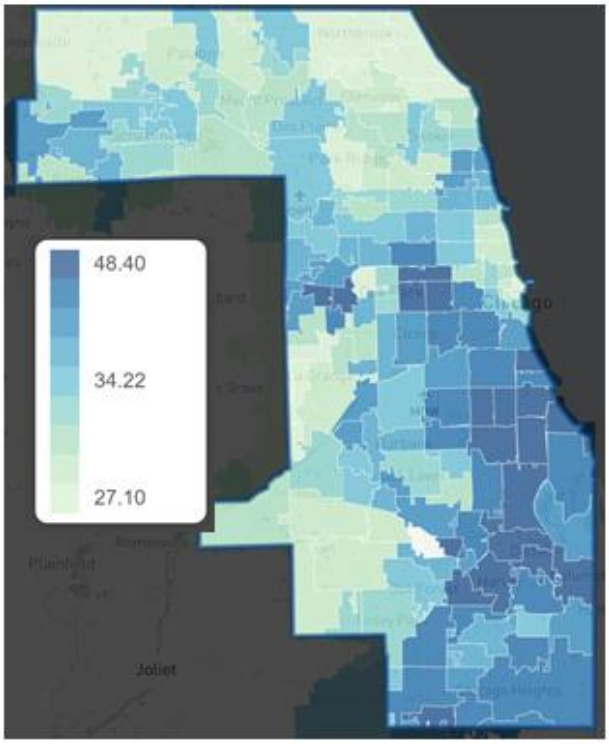
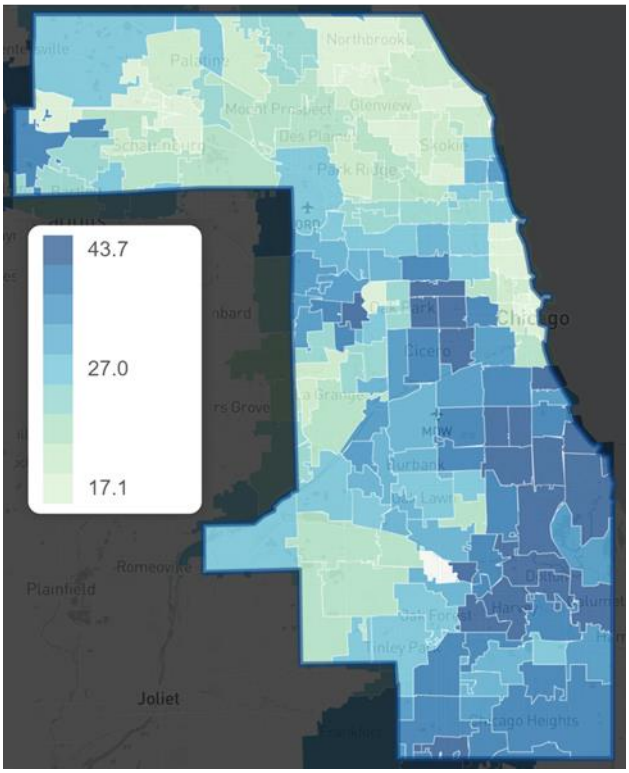


Figure X. Percentage of adults that reported usually getting insufficient sleep (less than 7hours) on average during a 24-hour period, Cook County, Illinois, 2019



Behavioral Risk Factor Surveillance System (BRFSS) (State and US data) , PLACES

Figure X. Percentage of adults who are obese (have a body mass index (BMI) ≥30.0 kg/m² calculated from self-reported weight and height) Cook County, Illinois, 2019



Behavioral Risk Factor Surveillance System (BRFSS) (State and US data) , PLACES

Sexually transmitted infections

The burden of sexually transmitted infections (STIs) in Cook County is disproportionately high in communities of color. The higher rates are not caused by ethnicity or heritage but are the result of social conditions such as poverty, large wealth gaps, fewer jobs, and lower education levels that make it harder for people to stay healthy (Centers for Disease Control and Prevention, 2022f; Gonzalez et al., 2009)

Examples of factors influencing the burden of STIs in communities

- People who struggle to afford basic needs may have trouble accessing sexual health services.
- Many people of color distrust the healthcare system and have faced discrimination from healthcare providers which may make them reluctant to seek testing and treatment for STIs.
- In communities with higher STI rates, sexually active people have a higher chance of selecting a partner with an STI making them at higher risk of contracting one.

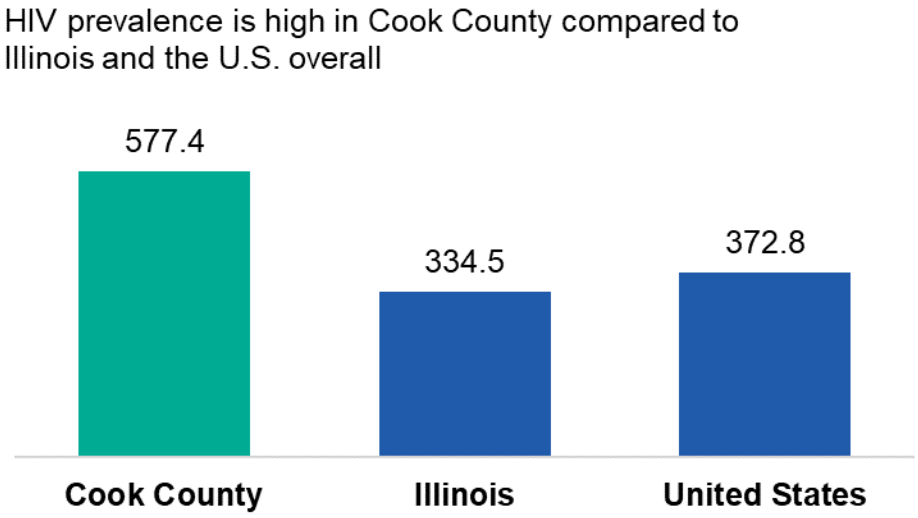
(Centers for Disease Control and Prevention, 2022f)

STIs can cause serious health complications including cancers, infertility, ectopic pregnancy, spontaneous abortions, still birth, low-birth rate, neurological damage, and death (Eng & Butler, 1997). STIs are a significant health concern in the United States despite their high cost, burden, and the fact that they are largely preventable (U.S. Office of Disease Prevention and Health Promotion, 2022). Detailed STI surveillance is available through CDPH and CCDPH. Data for Human Immunodeficiency Virus (HIV), chlamydia, syphilis, and gonorrhea are included in this section.

HIV prevalence and incidence

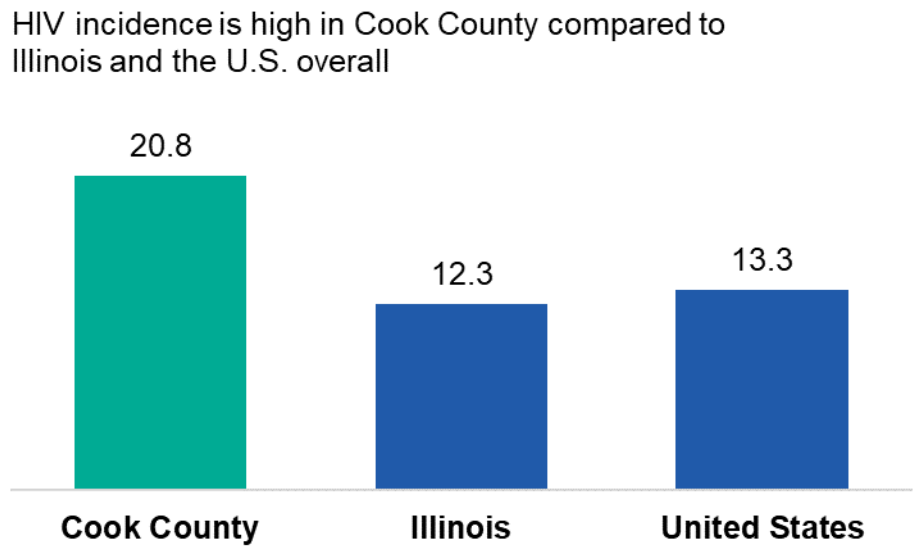
HIV prevalence is the number of existing HIV cases at a given time per 100,000 people (Figure 63). HIV incidence is the rate of new HIV cases per 100,000 people (Figure 63). In Cook County, HIV prevalence and incidence is high compared to the statewide and national rates.

Figure 63. HIV prevalence per 100,000 people in Cook County, Illinois



National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018

Figure 64. HIV incidence per 100,000 people in Cook County, Illinois

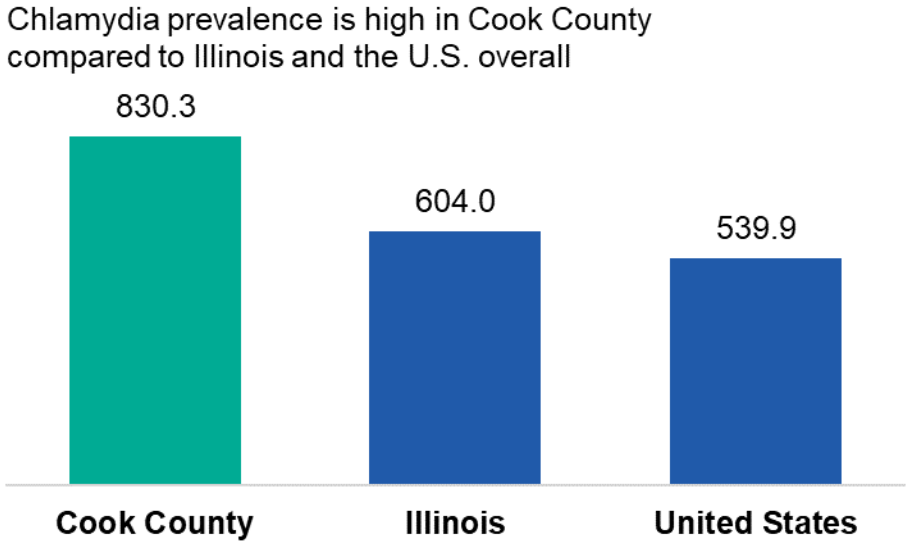


National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018

Chlamydia

Chlamydia incidence is the number of new cases of chlamydia per 100,000 people. Overall, chlamydia prevalence is high in Cook County (Figure 65). Historically the highest burden of chlamydia has been among Black residents in Chicago and Suburban Cook County. As previously mentioned, these racial and ethnic difference are largely due to socioeconomic inequities such as poor access to health care, segregation, poverty, discrimination, unemployment, and poor access to quality education.

Figure 65. Chlamydia prevalence per 100,000 population in Cook County, Illinois

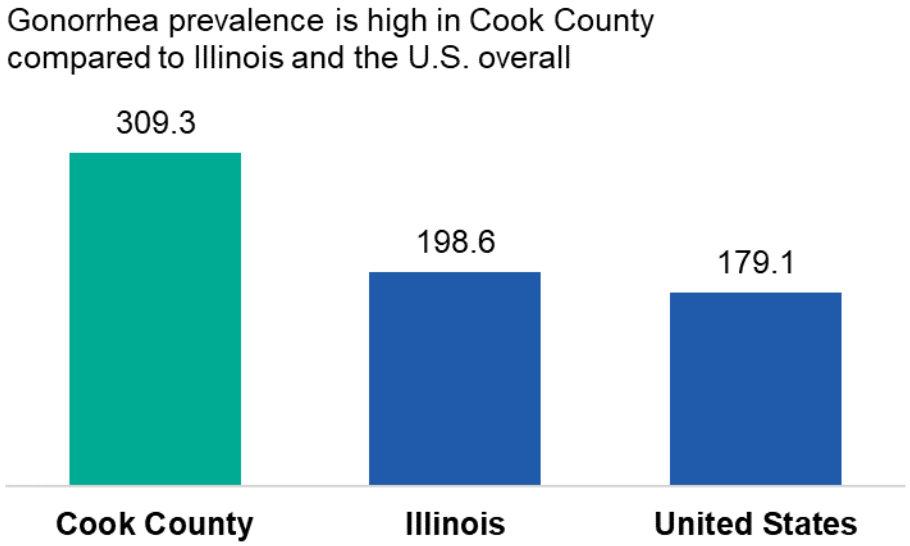


National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018

Gonorrhea

Gonorrhea is the second most commonly reported STI and is most prevalent among people aged 15-24 years (Centers for Disease Control and Prevention, 2022e). In addition, it is becoming harder to treat some gonorrhea due to the increase of drug-resistant strains (Centers for Disease Control and Prevention, 2022e). Like other STIs, the prevalence of gonorrhea is high in Cook County (Figure66).

Figure 66. Gonorrhea prevalence per 100,000 population in Cook County, Illinois



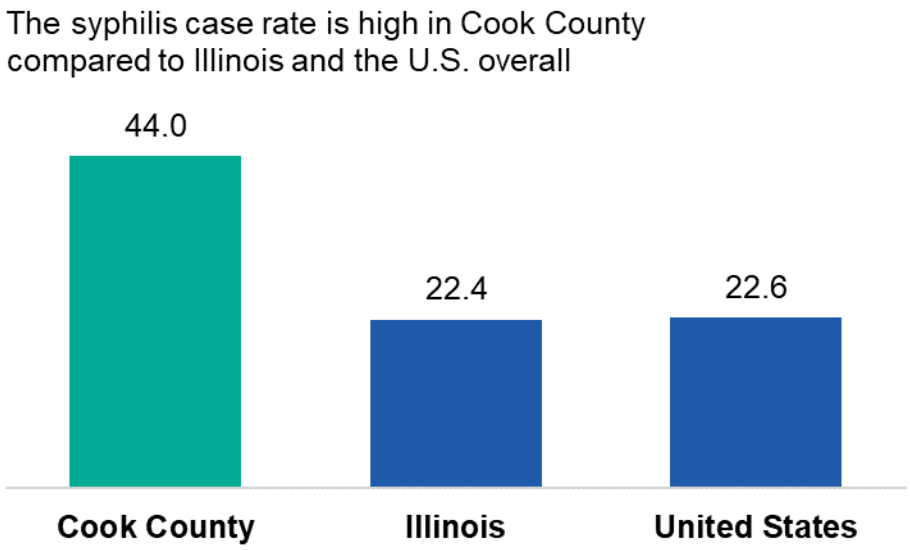
National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018

Syphilis

Primary and secondary syphilis infections follow the same patterns as chlamydia and HIV with the majority of new cases reported in non-Hispanic Blacks. Congenital syphilis is transmitted from mother to baby during pregnancy. Across the U.S. there has been a sharp increase in congenital syphilis cases among newborns (Centers for Disease Control and Prevention, 2022d). Congenital syphilis can cause miscarriage, stillbirth, prematurity, low birth weight, or death shortly after birth (Centers for Disease Control and Prevention, 2022d). 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, 2022d). Within Cook County, the syphilis case rate is high (Figure 67).

Figure 67. Syphilis case rate per 100,000 in Cook County, Illinois



National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, 2018

STIs and COVID-19

Preliminary data from 2020, during the first year of the COVID-19 pandemic, indicates that cases of gonorrhea, syphilis, and congenital syphilis surged, surpassing 2019 levels (Centers for Disease Control and Prevention, 2022c). Although rates of Chlamydia decreased, it is expected that it was due to a decrease in testing and screening (Centers for Disease Control and Prevention, 2022c).

Highlights from the Center's for Disease Control 2020 STD Surveillance Report

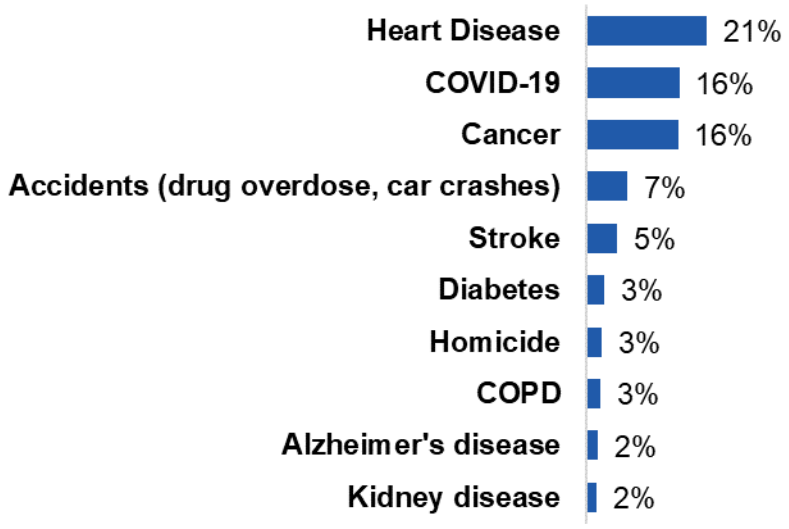
- Reported cases of gonorrhea and primary & secondary (P&S) syphilis were up 10% and 7%, respectively, compared to 2019.
- Syphilis among newborns (i.e., congenital syphilis) also increased, with reported cases up nearly 15% from 2019, and 235% from 2016. Early data indicate primary and secondary syphilis and congenital syphilis cases continued to increase in 2021 as well.
- Reported cases of chlamydia declined 13% from 2019.

(Centers for Disease Control and Prevention, 2022c)

Mortality

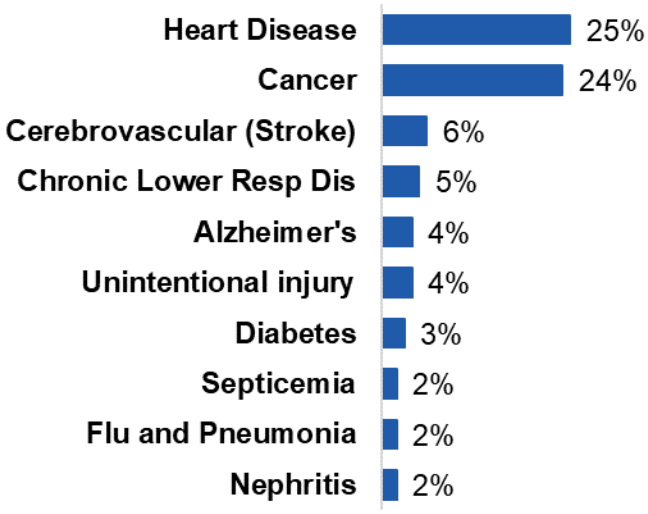
As previously mentioned, chronic conditions such as heart disease, cancer, and diabetes are the leading causes of death and disability in the U.S. (Raghupathi & Raghupathi, 2018). Sixty-percent of adults in the United States have a chronic condition and 40% of adults have two or more chronic conditions (Centers for Disease Control and Prevention, 2021a). In addition to being the leading driver of overall mortality, chronic disease significantly increase the risk of serious illness and death from COVID-19 infection (Hacker, 2021). Figure 68 presents the leading causes of death in Chicago and Figure 69 presents the leading causes of death for Suburban Cook County.

Figure 68. Leading causes of death in Chicago, 2020



CDPH Office of Vital Records, Analyzed by CDPH Office of Epidemiology

Figure 69. Leading causes of death in Suburban Cook County, 2013-2017



Illinois Department of Public Health, Division of Vital Records, 2013-2017

Age-adjusted mortality rates reveal significant racial and ethnic inequities in mortality within Chicago and Suburban Cook County (Figures 70-71). Non-Hispanic Blacks have the highest rates of mortality in Chicago and the Suburbs.

Figure 70. Age-adjusted mortality rates per 100,000 population in Chicago (2020)

	Heart disease	Cancer	Stroke	Diabetes-related
Non-Hispanic White	212.9	159.9	37.5	83.0
Non-Hispanic Black	294.6	210.8	88.0	188.1
Asian or Pacific Islander	138.4	149.9	59.0	152.9
Hispanic or Latino	163.6	139.7	50.6	259.6

Chicago Department of Public Health, Chicago Health Atlas. From Illinois Department of Public Health, Death Certificate Data Files

Figure 71. Age-adjusted mortality rates per 100,000 population in Suburban Cook County (2013-2017)

	Heart disease	Cancer	Stroke	Diabetes-related
Non-Hispanic White	161.7	170.8	37.8	35.6
Non-Hispanic Black	219.1	213.6	68.9	67.6
Asian or Pacific Islander	116.0	113.6	23.5	53.2
Hispanic or Latino	92.1	117.5	32.5	39.9

Illinois Department of Public Health, Division of Vital Records, 2013-2017

Inequities in the burden of 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.

Mortality trends

In Chicago, mortality rates increased for all of the top chronic conditions except cancer (Figure 72). Additionally, in 2020, COVID-19 became the second leading cause of death.

Figure 72. Mortality rates per 100,000 population in Chicago, Illinois (2015-2019)

	2015	2016	2017	2018	2019	2020
Diabetes-related	64.6	63.4	59.5	59.7	58.8	155.3
Stroke	45.4	46.0	51.7	50.9	52.3	60.0
Cancer	190.4	185.9	179.2	175.6	177.6	173.8
Heart disease	207.4	207.1	201.3	208.5	208.4	229.4

Chicago Department of Public Health, Chicago Health Atlas. From Illinois Department of Public Health, Death Certificate Data Files

Figure 73. Mortality trends in Suburban Cook County (2013-2017)

	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, 2013-2017

COVID-19 Mortality

The cumulative COVID-19 related death count in Suburban Cook County as of March 2020 was 15,318 (Cook County Medical Examiner, 2022). The cumulative death count in Chicago as of April 2020 was 773 (Chicago Department of Public Health, 2022, p. 19). Non-Hispanic Blacks have the highest burden of COVID-19 mortality in Chicago and nationwide (Bassett et al., 2020; Chicago Department of Public Health, 2022; Mackey et al., 2021). Preliminary research has indicated that socioeconomic factors such as educational attainment, housing, occupation, and prior health status are strongly contributing to racial and ethnic COVID-19 mortality inequities (Feldman & Bassett, 2021). If all populations had experienced the same mortality rates as college-educated non-Hispanic white populations, there would have been 71% fewer deaths among communities of color (Feldman & Bassett, 2021).

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