



Long COVID in Chicago: Data from the 2023 Healthy Chicago Survey

Olusimbo Ige, MD, MS, MPH
Commissioner



About the Healthy Chicago Survey and Data

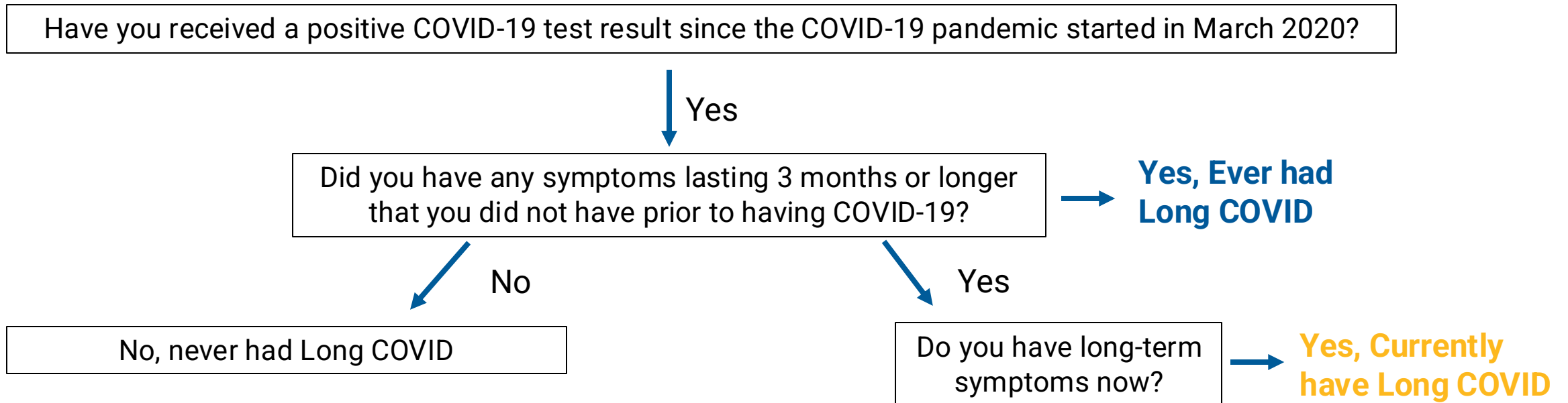
- Annual survey launched in 2014 by the Chicago Department of Public Health to better understand the health of Chicagoans
- Collects information on a range of topics including access to health services, civic engagement, chronic health conditions, diet, financial security, food security, mental health, neighborhood conditions, physical activity, safety, substance use, violence
- Address-based web survey conducted among English and Spanish speaking non-institutionalized Chicagoans, 18 years and older
- Data from this presentation
 - Uses data from 2023
 - Weighted to represent the population of the City of Chicago
 - There were **5,490** survey respondents, equating to a weighted frequency of **2,132,387**
 - *All data is self-reported*

For more information on Healthy Chicago Survey please visit the [Healthy Chicago Survey](#) webpage.

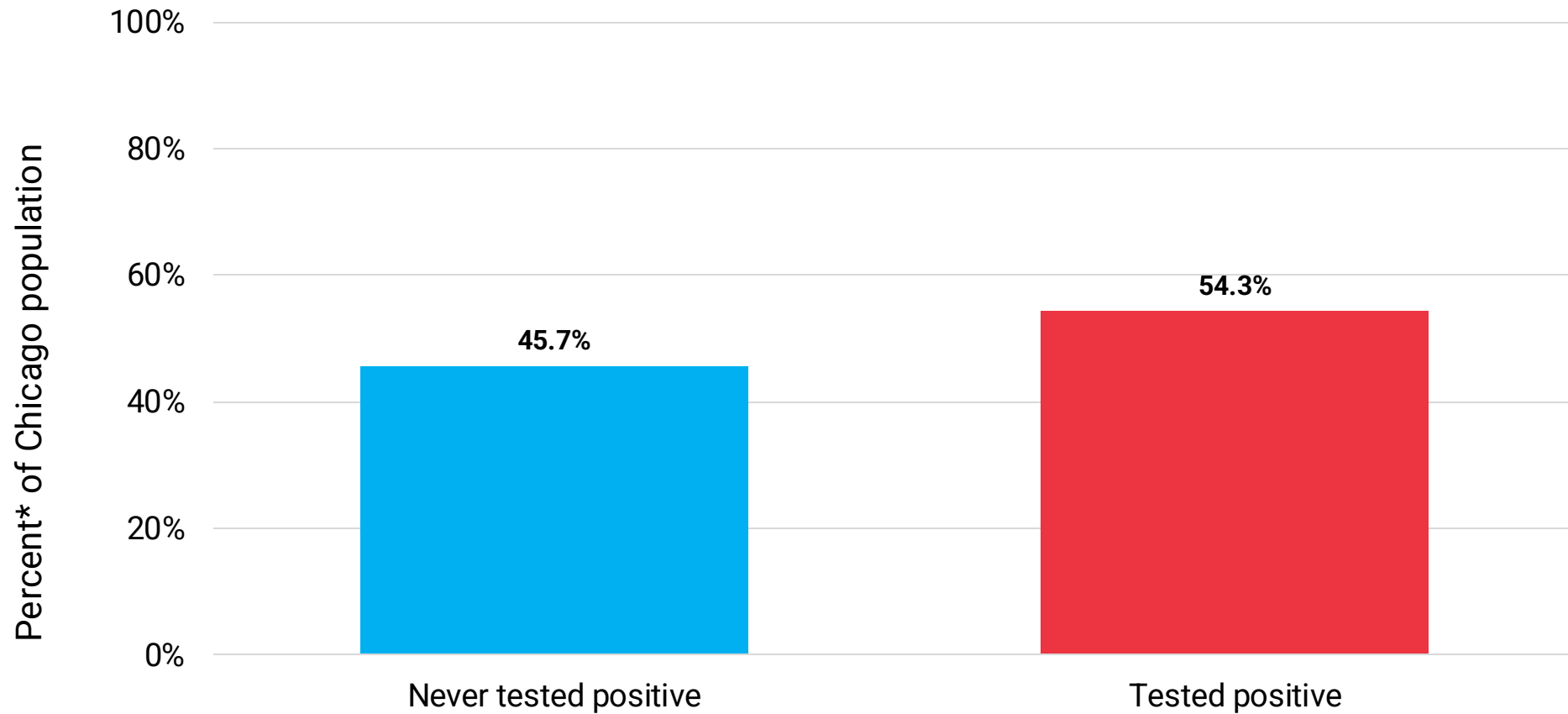
★ Defining Long COVID

Long COVID = A chronic condition involving multiple body systems that occurs after SARS-CoV-2 infection and persists at least 3 months after infection

Defined through a cascade of questions:



COVID-19 among Chicagoans



Data source: Healthy Chicago Survey, 2023

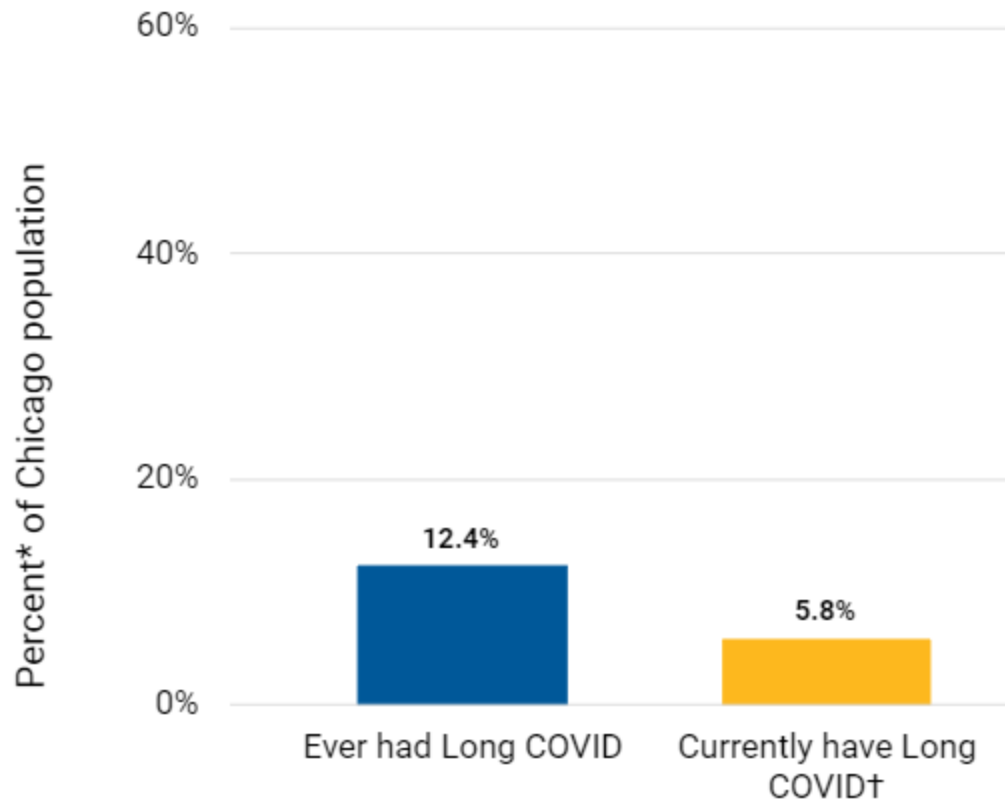
*Percents are weighted to represent Chicago population

† At the time of their survey (Aug. 2023 – Dec 2023)

Long COVID among Chicagoans



% of Long COVID among all Chicagoans



% of Long COVID among Chicagoans who ever tested positive for COVID-19



Data source: Healthy Chicago Survey, 2023

^ Reported having received a positive COVID-19 test result since the COVID-19 pandemic started in March 2020

*Percents are weighted to represent Chicago population

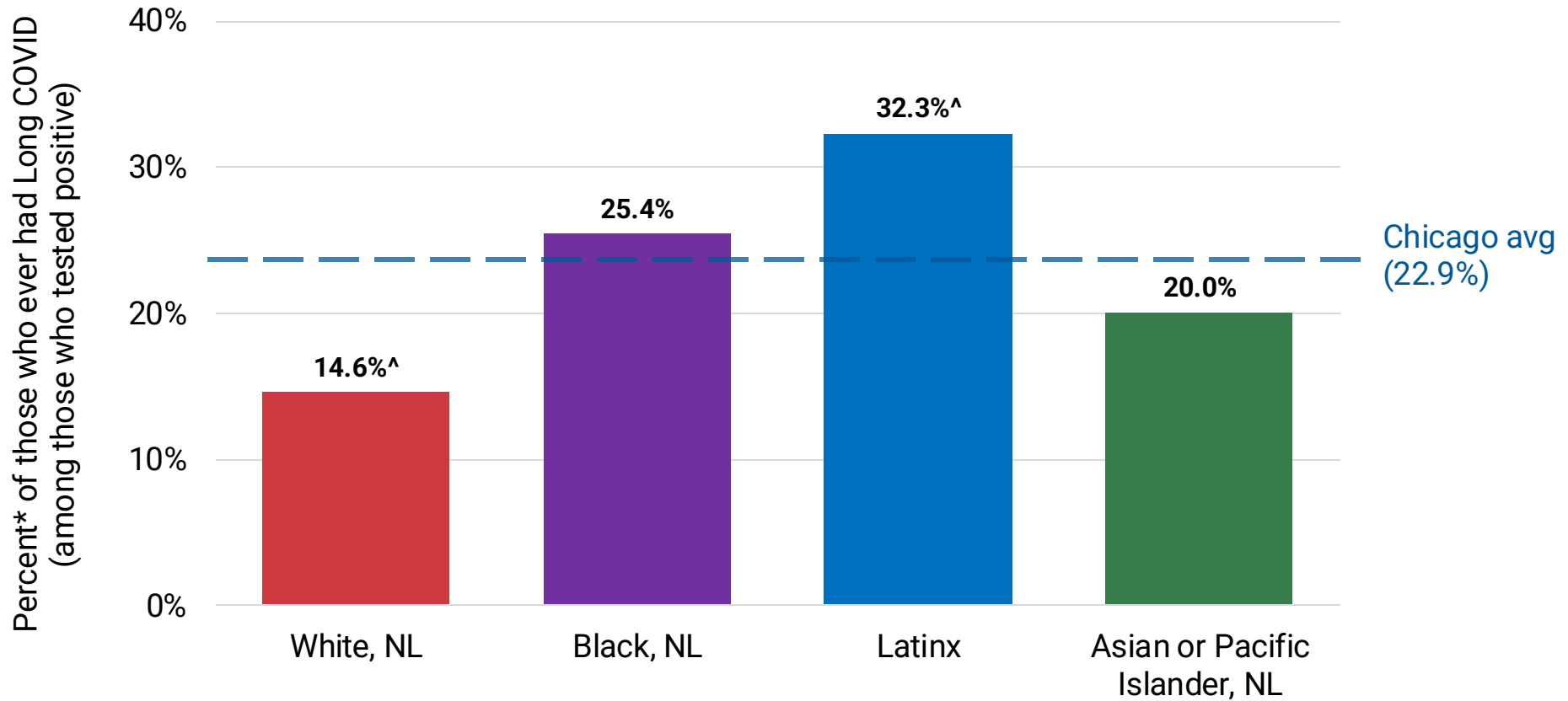
† At the time of their survey (Aug. 2023 – Dec 2023)

‘Ever had Long COVID’ by Select Characteristics

The following data are representative of adult (18+) Chicagoans who responded to the 2023 Healthy Chicago survey and self-reported having received a positive COVID-19 test result since March 2020



Self-Reported: Ever had Long COVID by Race and Ethnicity

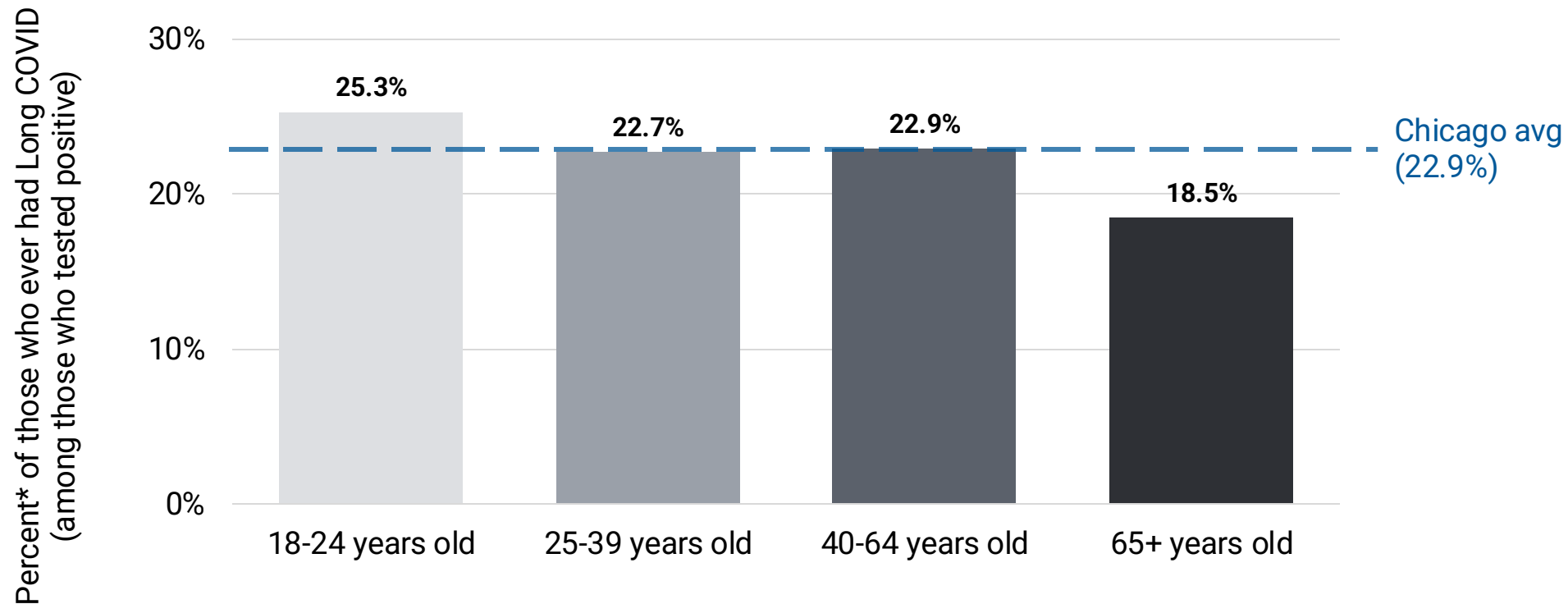


Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval

★ Self-Reported: Ever had Long COVID by Age



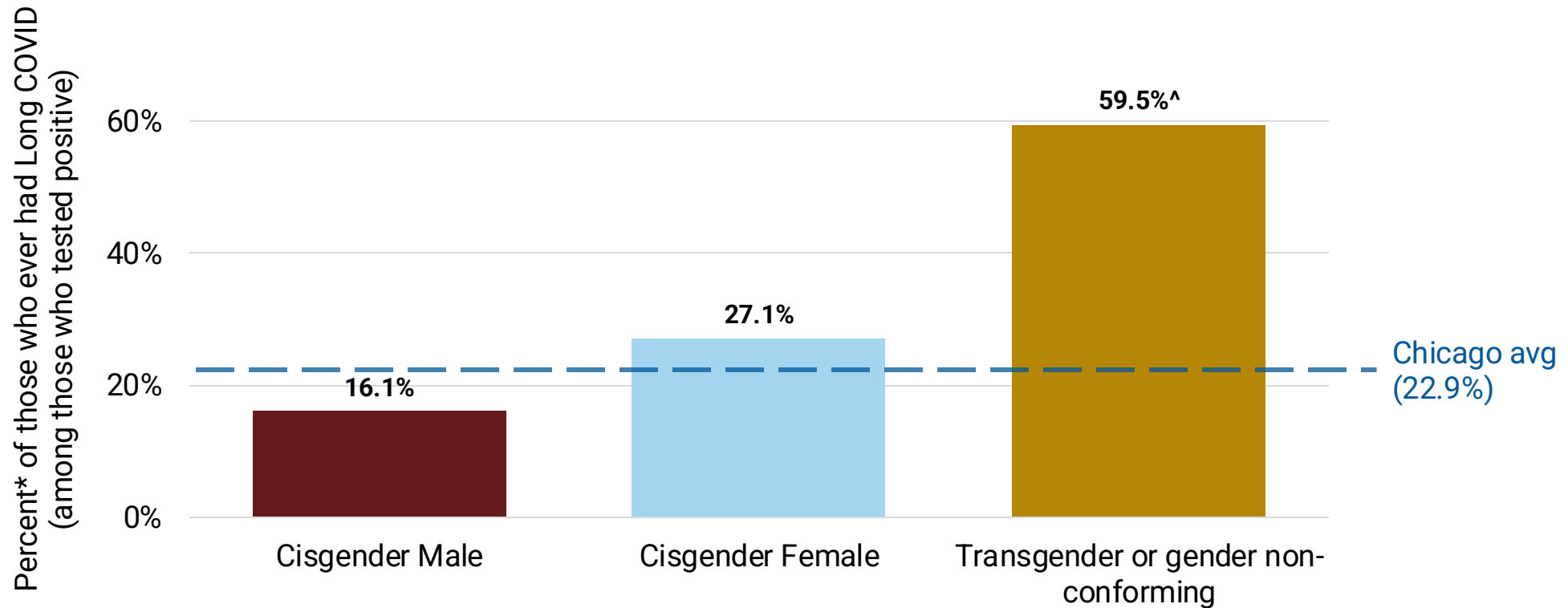
Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval



Self-Reported: Ever had Long COVID by Gender Identity



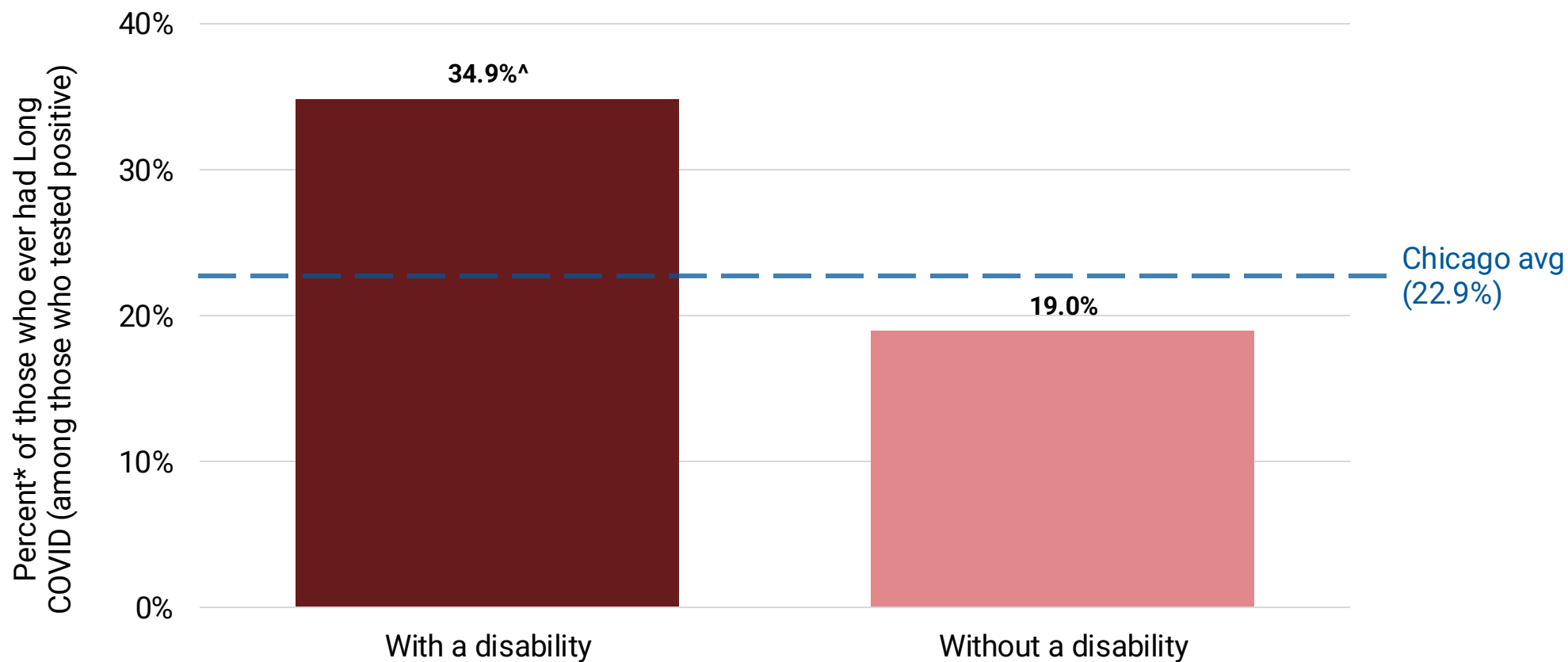
Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval



Self-Reported: Ever had Long COVID by Disability Status



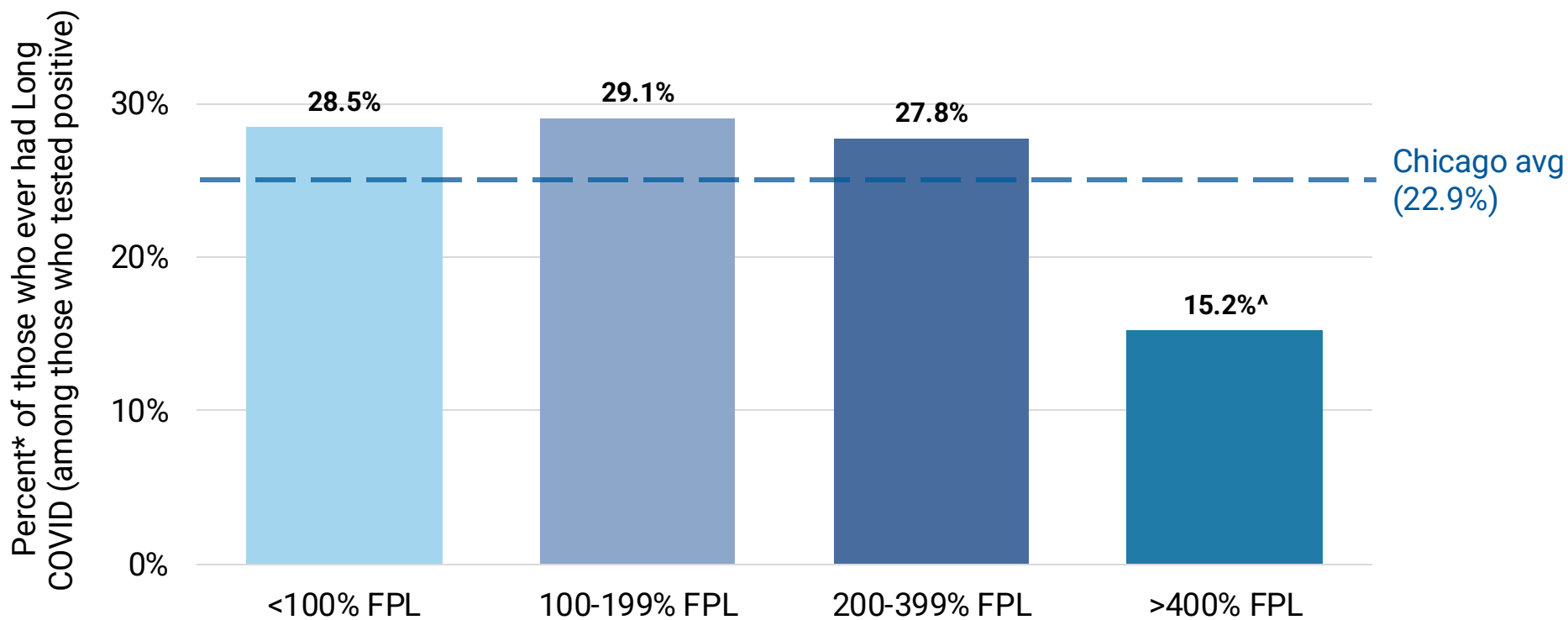
Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval



Self-Reported: Ever had Long COVID by Federal Poverty Level



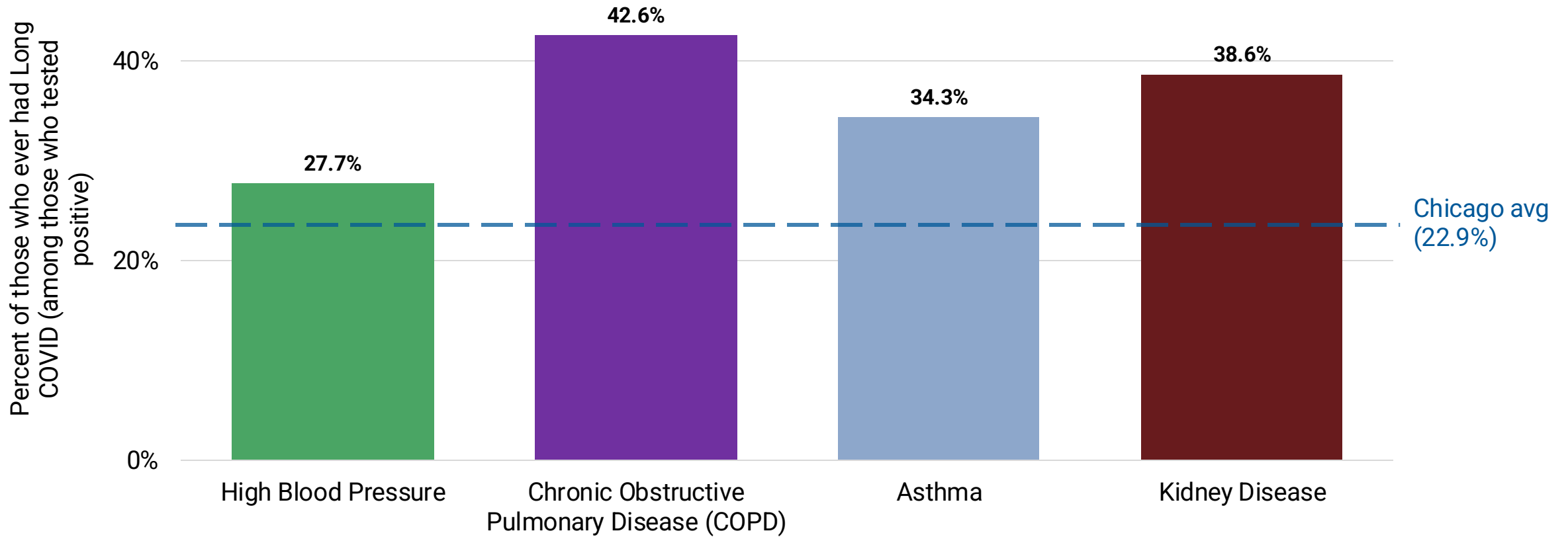
Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval



Self-Reported: Ever had Long COVID by Chronic Disease



Data source: Healthy Chicago Survey, 2023

*Percents are weighted to represent Chicago population

^Within 95% Confidence Interval



Self-Reported: Long COVID in Chicago compared to United States

- All indicators refers to “Ever had Long COVID” except for “Currently have”
- "Ever had" and "Currently have Long COVID" estimates similar between Chicago and US
- Chicago has higher rates than US of "Ever had Long COVID" by:
 - Race and ethnicity
 - Latinx
 - Gender Identity
 - Transgender

Long COVID Among Individuals who Ever Tested Positive for SARS-CoV-2		
Indicator	Chicago*	United States^
Long COVID		
Ever had	12.4%	14.3%
Currently have	5.8%	5.3%
Race and Ethnicity		
Black	25.4%	26.1%
Latinx	32.3%	29.1%
White	14.6%	24.9%
Gender Identity		
Transgender/GNC	59.5%	39.3%
Cisgender women	27.1%	30.0%
Cisgender men	16.1%	20.2%
With a disability	34.9%	43.4%
Federal Poverty Level		
>400%	15.2%	NA

*Data source: Healthy Chicago Survey, 2023

^Data source: U.S. Census Bureau, Household Pulse Survey, Oct 18-30, 2023

‡Older Adults in Chicago: 65+, in United States: 60+



Limitations

- Healthy Chicago Survey representative of Chicagoans, but some limitations:
 - Self-reported survey and subject to recall bias
 - Cross-sectional, thus directionality and timing cannot be determined
 - Not based on medical assessment or diagnostic criteria
 - Did not assess impact of COVID illness severity on likelihood of experiencing Long COVID
 - Did not assess impact of COVID vaccine on likelihood of experiencing Long COVID
- Other data sources to determine Long COVID morbidity among Chicagoans



Conclusions

- Adult Chicagoans who were more likely to report ever having Long COVID were from minority groups including:
 - Latinx and Black Chicagoans
 - Transgender or gender non-conforming Chicagoans
 - Chicagoans with a disability
 - Chicagoans with existing chronic diseases, especially COPD
- Higher income Chicago adults were the least likely to report ever having Long COVID
- Chicagoans with a chronic disease are more likely to report ever having Long COVID
 - Almost half of individuals with COPD likely to report ever having Long COVID



Prevention Recommendations and Diagnosis

- COVID infection prevention:
 - Staying up-to-date with COVID-19 vaccination
 - Use behavioral precautions to prevent spread of virus
- Long COVID testing and diagnosis
 - Healthcare provider considers diagnosis of Long COVID based on:
 - Health history
 - Previous diagnosis of COVID-19 by positive test, symptoms, or exposure
 - Health examination



Long COVID Research Moonshot Act

- Senator Bernie Sanders (I-VT), Chair of the Senate Health, Education, Labor, and Pensions (HELP) Committee, has [introduced new legislation](#) that would allocate funding for the National Institutes of Health (NIH) and the Centers for Disease Control and Prevention (CDC) to address Long COVID.
- In addition to significant research investments, the legislation would provide grants to local, state and Tribal health departments to provide training on Long COVID identification.
- The legislation would also require collaboration with public health partners to develop a national public education campaign to educate and increase awareness about Long COVID.
- CDPH looks forward to the passage of the bill and additional resources for educational campaigns .



[Chicago.gov/Health](https://www.chicago.gov/Health)



HealthyChicago@cityofchicago.org



[@ChicagoPublicHealth](https://www.facebook.com/ChicagoPublicHealth)



[@ChiPublicHealth](https://twitter.com/ChiPublicHealth)

Appendix

How does CDPH assess Long COVID

Healthy Chicago Survey Questions

- Positive COVID test status determined by the question, “Have you received a positive COVID-19 test result since the COVID-19 pandemic started in March 2020?”
- Ever Long COVID status determined by the question, “Did you have any symptoms lasting 3 months or longer that you did not have prior to having COVID-19?”
- Current Long COVID status determined by the question, “Do you have long-term symptoms now?”
- Race and ethnicity determined by the questions, “Which one or more of the following would you say is your race?” and “Are you Hispanic or Latino/a, or of Spanish origin?”
- Gender determined by the questions, “What is your gender?” and “Do you consider yourself to be transgender?”
- Vaccine status determined by the questions, “Have you ever received at least one COVID-19 vaccine shot?” and “Have you received at least one COVID-19 vaccination since September 1, 2022?”
- Income level determined using the US Department of Health and Human Services Federal Poverty Levels for 2023 and the survey questions, “What is your annual combined household income?”, “How many members of your household, including yourself, are 18 years of age or older?”, and “How many children less than 18 years of age live in this household?”

Healthy Chicago Survey Questions continued

- Disability status determined by at least one affirmative response to the following six questions: “Are you deaf, or do you have serious difficulty hearing?”; “Are you blind, or do you have serious difficulty seeing, even when wearing glasses?”; “Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?”; “Do you have serious difficulty walking or climbing stairs?”; “Do you have difficulty dressing or bathing?”; “Because of a physical, mental, or emotional condition, do you have difficulty doing errands along such as visiting a doctor's office or shopping?”
- High blood pressure status determined by the question, “Has a doctor, nurse, or other health professional ever told you that you had high blood pressure?”
- COPD status determined by the question, “Has a doctor, nurse, or other health professional ever told you that you had chronic obstructive pulmonary disease, COPD, emphysema, or chronic bronchitis?”
- Asthma status determined by the question, “Has a doctor, nurse, or other health professional ever told you that you had asthma?”
- Kidney disease status determined by the question, “Not including kidney stones, bladder infection or incontinence, were you ever told you have kidney disease?”