



Primary Care Access and Equity in New York's City Council Districts

A special report on COVID-19



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Access to Care & Equity in New York City

In this report, **Primary Care Development Corporation (PCDC)** examines the impact of the COVID-19 pandemic by New York City Council District (hereafter District), presenting a targeted analysis of the relationship between access to care and an equitable recovery. PCDC identifies and summarizes key indicators of primary care access, COVID-19 outcomes, and equity by District. We describe the drivers of health equity and present recommendations for addressing gaps in access to care and promoting health for the most vulnerable New Yorkers.

Access to primary care is key to building healthy communities in New York City. Persistent primary care barriers affecting health systems and communities alike—workforce shortages and strain, language access gaps, and lack of affordable primary care services, among others—are consistently associated with worse health outcomes^{1,2} and are often driven by long-standing social and economic inequities, including the effects of structural racism.

For uninsured, low-income, or otherwise under-resourced populations, these barriers can lead to delayed diagnoses and treatment and an overall lack of continuous, culturally responsive care.³ Primary care accessibility hinges on whether the available services are affordable and whether providers are sufficiently resourced to meet the needs of New Yorkers.

COVID-19 in New York City

In March 2020, New York became the first epicenter of the COVID-19 pandemic in the United States. Life for New Yorkers changed profoundly as the City government and health care systems responded to major challenges. Many providers closed their physical offices and transitioned all appointments to virtual visits. Resources were diverted to hospitals, existing barriers to care were magnified, and the pandemic's impact fell hardest on the City's Black, brown, and low-income residents and communities.

The epidemiology of COVID-19 aligns with existing patterns of racial and socioeconomic inequities across New York.⁴ The pandemic has exacerbated inequities, creating important implications for recovery efforts.

Our analysis found that COVID-19 outcomes varied across New York City (Figures 1 & 2):

- **The COVID-19 case rate was highest in Districts 50, 51, 49, 48, and 21.**⁵
- **The COVID-19 death rate was highest in Districts 21, 31, 12, 48, and 25.**⁶

In the pages that follow, we expand upon the relationship between District population characteristics, access to care, and COVID-19 outcomes.

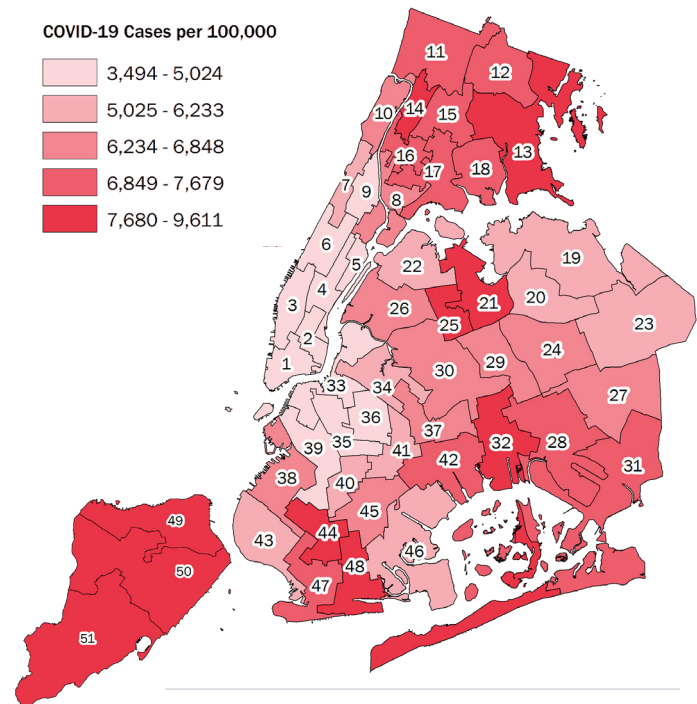


Figure 1.
COVID-19 cases per 100,000 persons by New York City Council District, February 2021

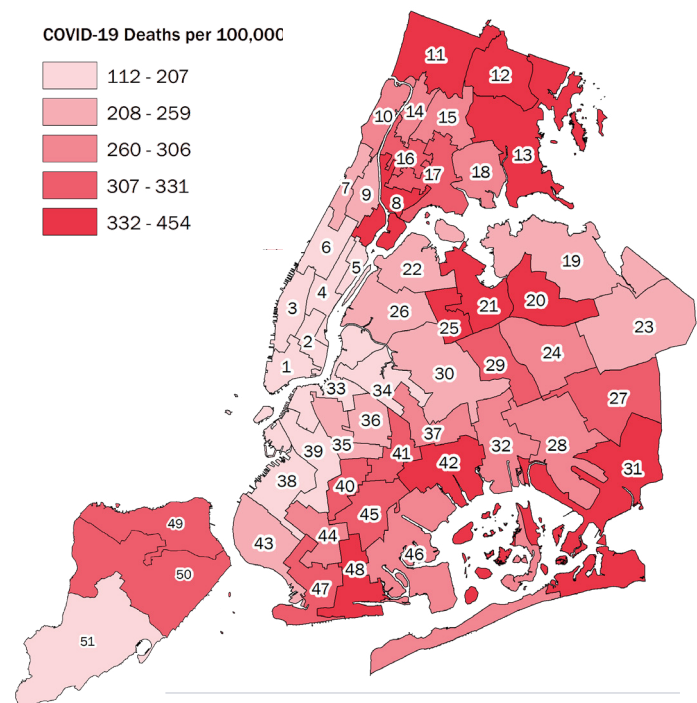


Figure 2.
COVID-19 deaths per 100,000 persons by New York City Council District, February 2021

Barriers to primary care are consistently associated with worse COVID-19 outcomes

District residents facing multiple barriers to accessing primary care were among those disproportionately affected by the COVID-19 pandemic.

Several determinants of access to care were associated with COVID-19 outcomes in our analysis:

- Districts with higher uninsured rates and lower English proficiency have higher COVID-19 case and mortality rates (Figures 3-4).⁷
- Districts with more primary care providers (PCPs) per persons have lower COVID-19 case rates.⁸

Experiencing multiple barriers to care are common in New York City's most underserved neighborhoods, contributing to disparities across Districts in COVID-19 outcomes. Ensuring access to high-quality, continuous primary care and linguistically competent providers drives better health outcomes,^{9,10} and is critical to reducing barriers in post-pandemic recovery.

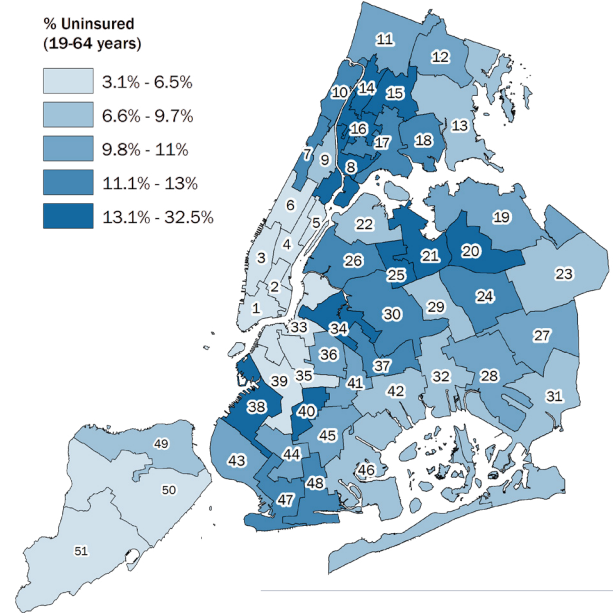


Figure 3.
Percentage of Uninsured Adults (19-64 years) by New York City Council District, 2019

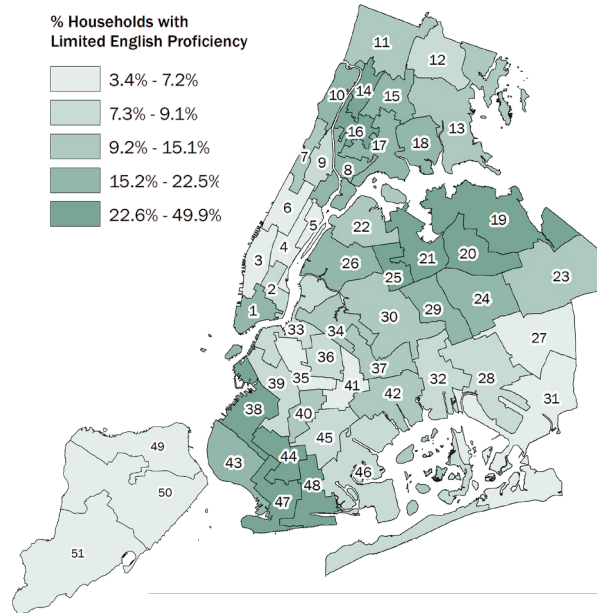


Figure 4.
Percentage of Households with Limited English Proficiency by New York City Council District, 2019



COVID-19 case and mortality rates in Districts 21 and 25, which include the Corona and Elmhurst neighborhoods, were among the highest in New York from the beginning of the pandemic. These same Districts face steeper barriers to care relative to the City's population overall, including higher uninsured rates and lower English proficiency.

New Yorkers are delaying and forgoing care due to cost

In 2018, one in every **seven** New Yorkers (13.2%) reported delaying or forgoing care due to cost. Timely and continuous access to primary care is essential for early disease intervention and effective management of chronic conditions.¹¹

Our analysis found that District-level factors are associated with delayed or forgone care due to cost:

- Higher rates of delayed or forgone care due to cost are associated with fewer PCPs per person and higher rates of preventable emergency department (ED) visits.
- Higher chronic disease rates, including diabetes, and higher COVID-19 case and mortality rates are associated with higher rates of delayed or forgone care due to cost.

Delayed and forgone care was a barrier well before the pandemic—the impacts of which include a higher prevalence of unmanaged chronic conditions in addition to extended delays—and continues to be a major barrier across the City’s underserved communities.

Access to affordable, timely, and continuous care will reduce long-term health care costs and overall burden to health systems during the post-COVID-19 recovery period.

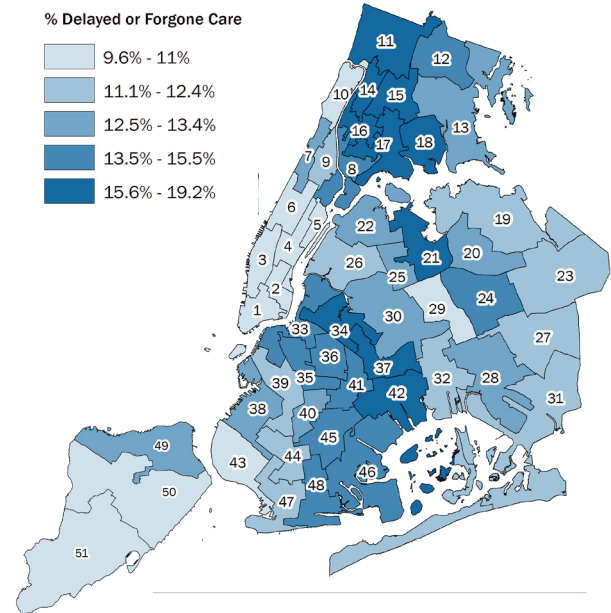


Figure 5.
Percentage of Adults Reporting Delayed or Forgone Care Due to Cost by New York City Council District, 2018

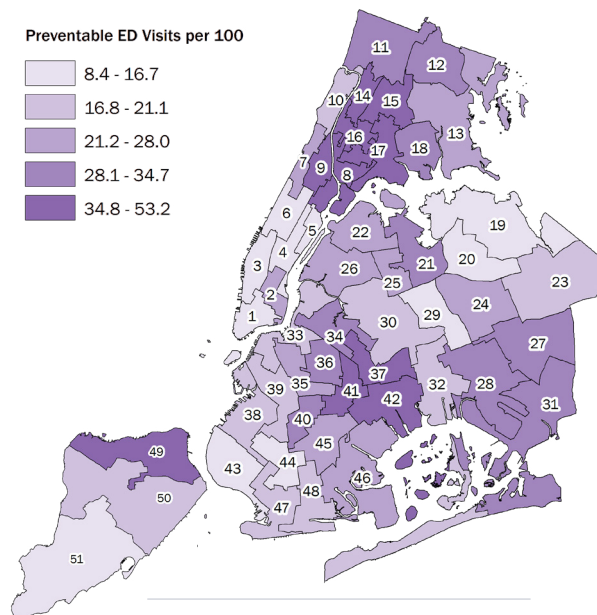


Figure 6.
Potentially Preventable ED Visits per 100 persons by New York City Council District, 2016



Five Districts in the Bronx (14-18), which include the Morrisania and Cortona neighborhoods, have the highest rates of delayed or forgone care due to cost in New York (Figures 5 and 6). In the Bronx overall, one of every six adults (16.9%) reported delayed or forgone care. Despite having more PCPs than other boroughs, except Manhattan, ensuring affordable care for these Districts and other communities struggling to afford care in the Bronx is essential to ensuring access to care and closing gaps in health outcomes.¹²

Black and Latinx Districts have persistent gaps in access to care and more COVID-19 deaths

Black and Latinx communities in New York City have inequitable access to care, persisting for decades despite efforts to close gaps. Our analysis highlights how Districts with larger Black and Latinx populations face barriers to health care and were hardest hit by the COVID-19 pandemic (Figure 7):

- Districts with a larger proportion of Black residents have fewer PCPs per capita and higher rates of delayed or forgone care due to cost.
- Districts with a larger proportion of Latinx residents have higher COVID-19 case rates.
- Districts with larger proportions of Black and Latinx residents have higher COVID-19 mortality rates.

The confluence of low access to care and a disproportionate burden of COVID-19 outcomes in Districts with larger Black and Latinx residents in the City suggests these areas may experience long-term negative impacts from the pandemic. Targeted investment in health care resources for these Districts is essential to close gaps in equity for New Yorkers.

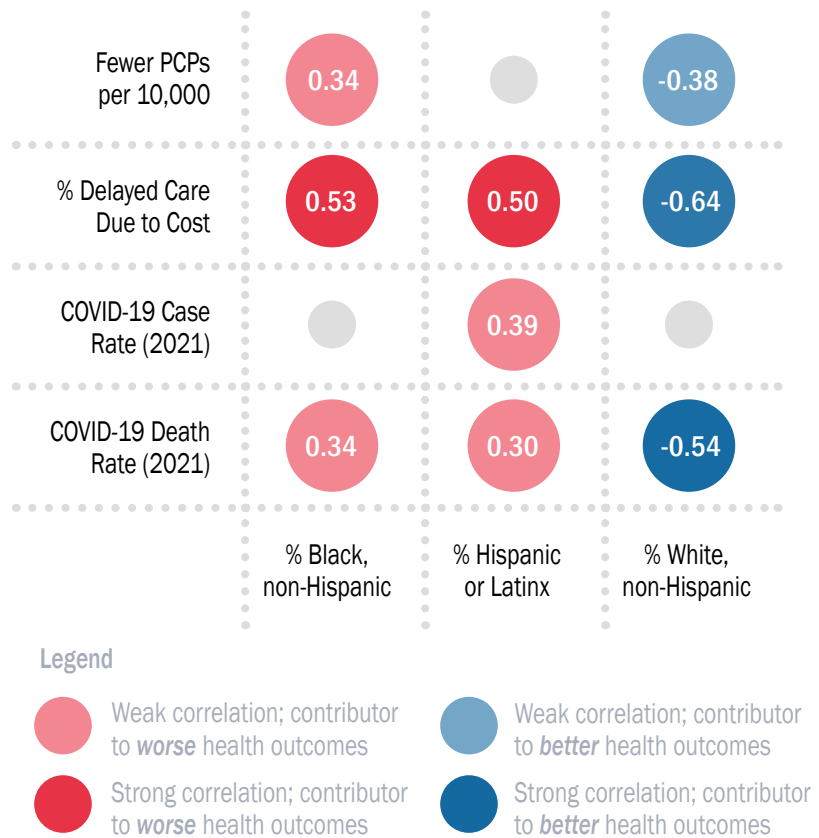


Figure 7.
Correlation Matrix of Access, COVID-19, Race and Ethnicity Measures by New York City Council District, 2016-2021

Interpreting correlations: Correlation coefficients, or r-values, measure the strength and direction of the relationship between two variables. R-values range from -1.0 to 1.0. An r-value of 1 represents perfect positive correlation, an r-value of -1 indicates perfect negative correlation, and an r-value of 0 indicates no correlation. Positive correlation occurs when an increase in one variable is associated with an increase in the second variable, whereas negative correlation exists when an increase in one variable is associated with a decrease in the second variable.

Statistical Significance: Significance at $\alpha < 0.05$ is indicated by any blue or red bubble. Insignificant correlations are represented with a gray bubble.

Recommendations

This report presents key issues contributing to health care access and equity in New York City and highlights Council Districts with a disproportionate burden of barriers or poor health outcomes. We have several recommendations for Council Members, policy makers, and primary care advocates:



- **Commit to long-term investment in community-based health care facilities and providers* in areas with a shortage of primary care providers and/or access points.**
- **Grow and diversify the primary care workforce by promoting the use of interprofessional care teams and recruiting and training providers from within the communities they serve.**
- **Strengthen access to low-cost care for uninsured New Yorkers including by increasing funding for NYC Care and expanding it to include FQHCs.**
- **Equip primary care providers with the vaccine and funding necessary to accelerate COVID-19 vaccine distribution and provide culturally competent education about the importance and safety of vaccination.**

** Community-based health care facilities include Federally Qualified Health Centers (FQHCs) and Look Alikes, school based health centers, independent practices, among others.*

Methodology and Data Sources

The *Primary Care Access and Health Equity in New York City's Council Districts* report is comprised of access, health, and sociodemographic data aggregated and presented at the Council District level. The purpose of this analysis is to identify Districts where COVID-19 has disproportionately affected residents and where the pandemic's impact overlaps with barriers to primary care.

Data at the ZIP Code Tabulated Area (ZCTA) and Census Tract (CT)-levels were aggregated to estimate each measure by Council District. Census block centroids were spatially joined and overlaid with ZCTA and District boundaries to weight the proportion of each ZCTA population within each District. We computed District-level measures by re-calculating each ZCTA and CT measure using these weighted proportions relative to each District.

Each report measure and respective *data sources* are listed below:

Provider availability is measured by number of primary care providers per 10,000 persons aged 18 years and older. PCPs in this report are defined as physicians (MDs or DOs) with a primary care specialty of internal medicine, general medicine, or family medicine.

Specialized Knowledge and Applications (SKA), 2016-2017.
Provider Network Data System (PNDS), 2017.
National Plan and Provider Enumeration System (NPPEs), 2017.

Uninsured rates represent the percent of adults aged 19-64 years in each District without health insurance coverage.

American Community Survey (ACS) 5-Year Estimates via the United States Census, 2019.
Table ID: S2701.

Delayed and forgone care due to cost represents the percentage of the (adults 18+ years) in a District reporting they delayed or did not seek care altogether due to high cost.

Behavioral Risk Factor Surveillance System (BRFSS) and ACS via Uniform Data Systems (UDS) Mapper, 2017

Limited English proficiency is the percentage of the population reporting limited English language proficiency.

Uniform Data Systems (UDS) via UDS Mapper, 2019

Lack of preventive care and the related health burden is represented by the number of potentially preventable emergency department (ED) visits.

Statewide Planning and Research Cooperative System (SPARCS), 2016

Chronic disease burden is represented by the percentage of adults who report being diagnosed with Diabetes.

BRFSS via CDC 500 Cities Project, 2015

COVID-19 case rate represents the cumulative number of COVID-19 cases per 100,000 people.

COVID-19 death rate represents the cumulative number of deaths due to COVID-19 per 100,000 people.

NYC Coronavirus Disease 2019 (COVID-19) Data. NYC Department of Health and Mental Hygiene via Github. Accessed November 20, 2020 and February 12, 2021.

Race and ethnicity measures include the percentage of Black, non-Hispanic, Hispanic and Latino (referred to as *Latinx* throughout the report), and White, non-Hispanic residents.

ACS 5-Year Estimates via the United States Census, 2019. Table ID: DP05.

Endnotes

- ¹ Basu, S., Berkowitz, S. A., Phillips, R. L., Bitton, A., Landon, B. E., & Phillips, R. S. (2019). Association of primary care physician supply with population mortality in the United States, 2005-2015. *JAMA internal medicine*, 179(4), 506-514.
- ² Starfield, B, Shi, L, Macinko, J. Contribution of primary care to health systems and health. *Milbank Q.* 2005;83:457-502.
- ³ Chandra, A., Acosta, J., Carman, K. G., Dubowitz, T., Leviton, L., Martin, L. T., ... & Plough, A. L. (2017). Building a national culture of health: background, action framework, measures, and next steps. *Rand health quarterly*, 6(2).
- ⁴ Ogedegbe G, Ravenell J, Adhikari S, et al. Assessment of Racial/Ethnic Disparities in Hospitalization and Mortality in Patients With COVID-19 in New York City. *JAMA Netw Open.* 2020;3(12):e2026881.
- ⁵ The COVID-19 case rate represents the number of COVID-19 cases per 100,000 people through February 11, 2021.
- ⁶ The COVID-19 death rate represents the number of COVID-19 deaths per 100,000 people through February 11, 2021.
- ⁷ COVID-19 mortality rates were positively correlated with uninsured rates ($r=0.46$, $p<.01$) and the proportion of households with limited English proficiency ($r=0.37$, $p<.01$). COVID-19 case rates were positively correlated with uninsured rates ($r=0.36$, $p<.01$) and the proportion of households with limited English proficiency ($r=0.37$, $p<.01$).
- ⁸ COVID-19 case rates were negatively correlated with PCP availability ($r=-0.31$, $p<.05$)
- ⁹ Ponce, N. A., Hays, R. D., & Cunningham, W. E. (2006). Linguistic disparities in health care access and health status among older adults. *Journal of general internal medicine*, 21(7), 786-791.
- ¹⁰ Ellner, A. L., & Phillips, R. S. (2017). The coming primary care revolution. *Journal of general internal medicine*, 32(4), 380-386.
- ¹¹ Ionescu-Ittu, R., McCusker, J., Ciampi, A., Vadeboncoeur, A. M., Roberge, D., Larouche, D., ... & Pineault, R. (2007). Continuity of primary care and emergency department utilization among elderly people. *Cmaj*, 177(11), 1362-1368.
- ¹² Average PCP availability (per 10,000) varies across boroughs; 21.2 per 10,000 in Manhattan, 9.0 per 10,000 in the Bronx, and 5.7, 5.6, and 5.4 per 10,000

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Suggested Citation

Weisbeck, K., Ford, MM., Allard, A., Abraham, N., Summers, C., Cohen, L. (2021). *Primary Care Access and Equity in New York's City Council Districts*. Primary Care Development Corporation. New York, NY.

Acknowledgements

Thank you to the New York City Council for supporting our efforts to improve primary care access and address health equity for New Yorkers.



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