UCLA Latino Policy & Politics Initiative

## UCLA Health Center for the Study of Latino Health and Culture

# COVID-19 IN VULNERABLE COMMUNITIES AN EXAMINATION BY RACE & ETHNICITY IN LOS ANGELES AND NEW YORK CITY

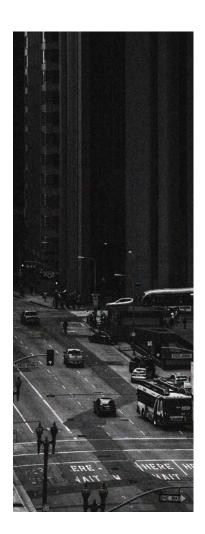
LAURA E. MARTÍNEZ, PH.D., ARTURO VARGAS-BUSTAMANTE, M.P.P., PH.D., YOHUALLI BALDERAS-MEDINA ANAYA, M.D., M.P.H., RODRIGO DOMINGUEZ-VILLEGAS, PH.D., SEIRA SANTIZO-GREENWOOD, SONJA F.M. DIAZ, J.D., M.P.P., AND DAVID E. HAYES-BAUTISTA, PH.D.

## COVID-19 IN VULNERABLE COMMUNITIES AN EXAMINATION BY RACE/ETHNICITY IN LOS ANGELES AND NEW YORK CITY

<sup>1</sup>Laura E. Martínez, Ph.D., <sup>2</sup>Arturo Vargas-Bustamante, M.P.P., Ph.D., <sup>3</sup>Yohualli Balderas-Medina Anaya, M.D., M.P.H., <sup>4</sup>Rodrigo Dominguez-Villegas, Ph.D., <sup>1</sup>Seira Santizo-Greenwood, <sup>4</sup>Sonja F.M. Diaz, J.D., M.P.P., and <sup>1</sup>David E. Hayes-Bautista, Ph.D.

<sup>1</sup>Center for the Study of Latino Health and Culture, David Geffen School of Medicine, University of California at Los Angeles; <sup>2</sup>Fielding School of Public Health, Department of Health Policy and Management, University of California at Los Angeles; <sup>3</sup>Department of Family of Medicine, David Geffen School of Medicine at the University of California at Los Angeles; <sup>4</sup>Latino Policy & Politics Initiative, Luskin School of Public Affairs at the University of California at Los Angeles, CA.

## TABLE OF CONTENTS



04 EXECUTIVE SUMMARY

04 KEY FINDINGS

07 INTRODUCTION

## 07

Demographic comparisons of Latinos in Los Angeles County and New York City

## 07

A Rise in COVID-19 Incidence Among People of Color in California and Los Angeles County

## 08

COVID-19 Incidence and Mortality Rates Among People of Color in New York City

## **08**

Underlying Health Conditions and Risk Factors Associated with Increased COVID-19-related Illness

## 08

The Impact of the COVID-19 Pandemic on the Health and Economic Well-being of Vulnerable Populations

10 METHODOLOGY

10 RESULTS

10 Key Finding 1 12 Key Finding 2

12 Key Finding 3

14 Key Finding 4

15 Key Finding 5

17 Key Finding 6

18 Key Finding 7

19 Key Finding 8

## 20

An Imminent Threat to Immigrant Health and Care During the Pandemic

20 Key Finding 9

24 CONCLUSIONS

24 POLICY RECOMMENDATIONS

27 Appendix

## **EXECUTIVE SUMMARY**

The United States is experiencing a second surge of COVID-19 cases. As of July 21, 2020, the U.S. Centers for Disease Control and Prevention (CDC) have confirmed 3,819,139 COVID-19 cases and 140,630 related deaths (3.68%) in the United States.<sup>1</sup> The pandemic resurfaced the already existing racial and ethnic health disparities and structural determinants of health that our most vulnerable populations face day to day. Essential workers and frontline low-wage workers, racial and ethnic minorities, those living in poverty and without health insurance, the undocumented, and those living with a disability or chronic health condition will continue to be at risk for COVID-19 until we can reduce health care disparities and health inequities that exist in our society.

This research brief compares the prevalence and impact of the COVID-19 pandemic in two large metropolitan county areas, Los Angeles County and New York City (NYC), and among racial and ethnic minorities. Using county-level data provided by the Los Angeles County and New York City Departments of Public Health, we first compare the temporal trends in the number of daily COVID-19 cases and deaths to describe the timing and evolution of the pandemic. We compare COVID-19 case and death rates by gender, race and ethnicity, area poverty level, and city region. We then compare the risk factors faced by racial and ethnic groups and vulnerable populations by analyzing households living below the poverty level, receiving food stamps, lacking health insurance and access to technology, and among those relying on public transit. Among other vulnerable populations are the foreign-born and the undocumented, who may be challenged by their English language capability and access to health care.

We propose policy recommendations to help mitigate existing surges in COVID-19 cases and deaths and to reduce factors that may influence COVID-19 exposure among vulnerable populations. We also highlight immediate approaches that can be implemented at the local and state level, as outbreaks at the community level may add to the surge of COVID-19 cases over time.

## **KEY FINDINGS**

- Young people between the ages of 18 and 40 have the highest COVID-19 case rates in Los Angeles County, while in NYC, adults older than 45 comprise the largest case rates.
- Latinos and Blacks in both Los Angeles County and NYC are twice as likely to die of COVID-19 than non-Hispanic whites. Native Hawai'ians or other Pacific Islanders are nearly seven times at risk for becoming infected in Los Angeles, and have nearly five times the death rate of whites.
- People residing in extremely poor or high poverty areas have the highest COVID-19 case and death rates in both Los Angeles County and NYC.
- The highest COVID-19 case and death rates are observed in predominantly low-income communities within Los Angeles County, such as the city of Vernon and the City of Industry. The highest case and death rates are observed in the Bronx, Brooklyn, and Queens boroughs of NYC.
- In both cities, residents relying on public transit or carpooling to work are at risk for exposure to the novel Coronavirus.

- Households with persons living below the poverty level, receiving food stamps, lacking internet
  or technology services, or experiencing limited English language proficiency (LEP) are all at risk of
  receiving limited health information or precautions or inequitable access to healthcare during the
  COVID-19 pandemic.
- About 11% and 8% of the population in Los Angeles County and NYC, respectively, is uninsured. Among those uninsured, 39% and 42% are young and between the ages of 19 and 34, which comprise a large subset of the existing workforce. This population is at risk of exposure to the novel Coronavirus and face challenges in receiving proper access to care if they become ill.
- About 34 and 37% of the population is foreign-born in Los Angeles County and NYC, respectively, and this percentage is predominantly Latino. Among the foreign-born, 12 13% do not speak English and 15 19% lack health insurance coverage. This poses challenges for the foreign-born in receiving equitable access to health information and access to health care amidst the COVID-19 pandemic.



## INTRODUCTION

## Demographic comparisons of Latinos in Los Angeles County and New York City

Los Angeles County and New York City (NYC) are two of the most densely populated metropolitan areas in the nation. Each has a young, racially and ethnically diverse population.

Los Angeles County has a total population of 10.1 million, the largest population of any county in the nation.<sup>2</sup> The median age of those residing in Los Angeles County is 36.2 years, while the median age in the United States is 37.9.<sup>2,3</sup> Latinos (of any race) comprise 48.5% of the total Los Angeles County population.<sup>2</sup> Within the county, South Gate and Lynwood, Central (Bell Gardens, Bell, Maywood, Cudahy, Commerce, Huntington Park, East Central/Central City, and Boyle Heights), North Central, and San Fernando are some of the communities with the largest Latino populations.<sup>2</sup>

NYC is composed of five county boroughs and has a total population of 8.4 million, with a median age of 36.5.<sup>2,3</sup> Latinos (of any race) comprise 29% of NYC's population. The Latino population varies across NYC boroughs; for example, 56% of the Bronx's population is Latino and only 19% in Brooklyn.<sup>2</sup> In Manhattan, Queens, and Staten Island, about 26%, 28%, and 18% of the population is Latino, respectively.<sup>2</sup>

## A Rise in COVID-19 Incidence Among People of Color in California and Los Angeles County

On March 19, 2020, Governor Gavin Newson issued a statewide order directing all Californians, except for essential workers, to stay home, other than shopping for essential items, in order to minimize transmission of the novel Coronavirus SARS-CoV-2 (COVID-19), protect those at high risk, and buy time to devise strategies to increase the health workforce and hospital surge capacity.<sup>4</sup>

In California, Latinos and Asians over the age of 65 have approximately twice the COVID-19 death rates of whites, while Blacks have more than three times the death rate.<sup>5</sup> In almost every age group, Latinos, Blacks, Asians, and Native Hawai'ian/Pacific Islanders have higher age-specific case rates for COVID-19 than do whites.<sup>6</sup>

In early May, a steady decrease in cases in California prompted the reopening of lower risk workplaces and some businesses,<sup>7</sup> but the state has seen a considerable increase in cases since then. From Memorial Day to the Fourth of July, all racial and ethnic groups in California had a concerning growth in COVID-19 case rates.<sup>8</sup> The COVID-19 case rate for Latinos more than doubled, with a 147% increase. The case rate for Blacks rose by 89.9%, followed by whites (89.1%), Native Hawai'ian/Pacific Islanders (72.6%), and Asians (59.9%).<sup>8</sup> As of July 20, the California Department of Public Health reported 400,769 positive COVID-19 cases and 7,755 deaths (1.94%).<sup>9</sup> California has now surpassed the number of confirmed COVID-19 cases in New York state.<sup>914</sup>

People of color and low-income communities in Los Angeles County have higher COVID-19 rates.<sup>10</sup> Native Hawai'ian or other Pacific Islanders, Latinos, and Blacks have the highest COVID-19 age-adjusted rates per 100,000 population.<sup>10</sup> From April 7 to May 29, the infection rates of Latinos increased after stay-at-home orders were lifted, making up 53% of total cases in Los Angeles County on May 29, although Latinos comprise near 49% of the county's total population.<sup>11</sup> Latinos make up a large portion of essential retail service, production, construction, and maintenance workers, including truck drivers, cashier's, grocery store clerks and stockers, childcare workers, nursing staff and personal care aides, and farm workers.<sup>8,12</sup>

## COVID-19 Incidence and Mortality Rates Among People of Color in New York City

New York City was the first large metropolitan area affected by COVID-19 in the U.S. The first confirmed case was reported on February 29, 2020, yet stay-at-home orders were not implemented until March 22. After physical and social distancing measures and stay-at-home orders were put in place, cases slowed. On May 15, Governor Andrew M. Cuomo announced the reopening of some workspaces and businesses, by region. By June 24, all other New York communities but NYC allowed gatherings of up to 25 people.<sup>13</sup>

As of July 20, the New York City Department of Health and Mental Hygiene (DOHMH) confirmed 219,028 COVID-19 cases and 18,751 deaths (8.56%).<sup>14</sup> The NYC boroughs with the highest number of COVID-19 cases per capita have been areas with lowest median incomes and largest average household size.<sup>13</sup> In April when the first COVID-19 data by race and ethnicity became available, the New York Times reported that Latinos and Blacks were dying of COVID-19 at twice the rates of whites and Asians.<sup>15</sup>

## Underlying Health Conditions and Risk Factors Associated with Increased COVID-19-related Illness

Racial and ethnic minorities with underlying health conditions and/or chronic disease(s) are at an alarmingly increased risk for COVID-19 illness.<sup>16</sup> Some of the reported risk factors for COVID-19 among adults in Los Angeles County were a diagnosis of high blood pressure (29.5%) or taking blood pressure medication (68.7%), asthma (55.3%), obesity-having a body mass index (BMI) of 30 or greater-(28.5%), and being pre-diabetic or having borderline diabetes (16.2%), as compared to those with diabetes (10.5%).<sup>17</sup>

In NYC, 89.9% of total COVID-19 related deaths had at least one co-morbidity – the presence of more than one distinct health condition or disorder in an individual.<sup>14</sup> The highest risk factor among all age groups was hypertension, followed by diabetes, hyperlipidemia, dementia, coronary artery disease, renal disease, COPD, atrial fibrillation, cancer, and stroke.<sup>18</sup>

## The Impact of the COVID-19 Pandemic on the Health and Economic Well-being of Vulnerable Populations

More than two in five Latinos and Blacks in Los Angeles County face high burdens from the county's stay-athome rules because they live in densely populated communities with restricted access to open spaces and limited access to food.<sup>19</sup> In late May, one in four NYC residents also faced food insecurity.<sup>20</sup>

Labor force projections from February to April, 2020, estimated that one in five California workers was jobless due to the COVID-19 pandemic.<sup>21</sup> In April 2020, 22% of Latinos and 26% of Blacks were unemployed in California, compared to 17% of whites and Asians.21 Moreover, about 27% of Californians who lost their jobs during the pandemic were ineligible for unemployment insurance (UI). Undocumented immigrants comprised a third to nearly half of the non-UI – covered individuals left jobless.<sup>21</sup>

From March 14 through April 25, 2020, NYC reported 733,305 new unemployment claims since the COVID-19 pandemic hit, while in 2019, only 37,965 claims were filed (a 1,832% change).<sup>22</sup> NYC's seasonally adjusted unemployment rate was 18.3% in May, 2020, compared to 14.5% for the rest of New York state.<sup>23</sup>



## METHODOLOGY

In this report, we examined COVID-19 cases and deaths from the Los Angeles County Department of Public Health<sup>24</sup> and the New York City Department of Health and Mental Hygiene (DOHMH).<sup>25</sup> Each department provides information on new and daily confirmed COVID-19 cases, as well as death rates by gender, age, race and ethnicity, and area poverty level. Details on each data source and the specific terminology used in this report are provided in **Appendix A**.

For data on household and population estimates, we used the U.S. Census Bureau 2014-2018 American Community Survey (ACS) 5-year estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup> The 5-year estimates are a combination of the one-year data sets and represent data collected over a period of time, with increased statistical reliability for less populated areas and small population subgroups.

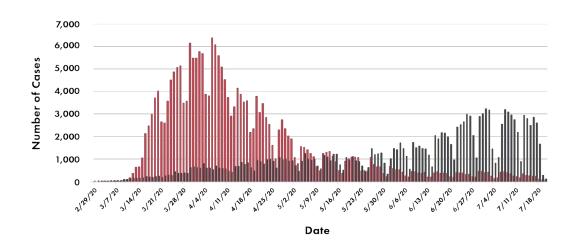
Our analysis focused on different factors influencing community spread, and factors that pose a challenge for Los Angeles County and NYC residents to receiving proper health care during the pandemic. We examined a broad range of topics, such as social, demographic, and housing characteristics. We compared households at or below the poverty level, facing food insecurity, lacking proper information and communication technologies and services, commuting to work, language capability, and multigenerational households. Regarding foreign-born populations, we compared the percentage of those living with two foreign-born parents, lack of U.S. citizenship, ability to speak English, the percent of the population speaking a language other than English at home, the percent without health insurance, and the percentages of racial/ ethnic groups among the foreign-born population. We calculated the total percentage of each specific characteristic out of total population for Los Angeles and NYC, respectively.

## RESULTS

### Key Finding 1

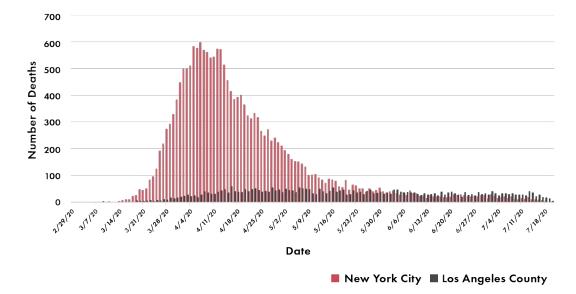
An overview of daily cases and deaths associated with the novel Coronavirus SARS-CoV-2 shows the dynamics of infection in Los Angeles County and NYC over time. NYC saw a steep decline in new cases after a peak on April 6, while Los Angeles continues to see an increase in new cases (**Figure 1**). In the last two weeks (July 7 to July 20, 2020), Los Angeles County has experienced a surge in COVID-19 cases, with 7-day average daily case numbers ranging between 1,827 and 2,573.

## Figure 1: Daily count of confirmed Los Angeles County and NYC residents who tested positive for the novel Coronavirus SARS-CoV-2, and deaths among COVID-19 patients (data through July 20, 2020)



Daily count of confirmed COVID-19 cases

Daily count of COVID-19 related deaths



Note: NYC daily counts are from 02/29 to 7/20/20: Total COVID-19 cases = 219,028 and total COVID-19 related deaths = 18,751. NYC's first confirmed COVID-19 death was reported on March 11, 2020. Los Angeles County's daily counts are from 03/01 to 07/20/20: Total COVID-19 cases = 153,312 and total COVID-19 related deaths = 3,893. The first confirmed COVID-19 death was reported on March 9, 2020

Highest confirmed COVID-19 cases through July 20, 2020: NYC, April 6, 2020 (6,378 confirmed cases); L.A. County, July 1, 2020 (3,237 confirmed cases). COVID-19-related deaths: NYC, April 7, 2020 (597 confirmed deaths); L.A. County, April 16, 2020 (58 confirmed deaths).

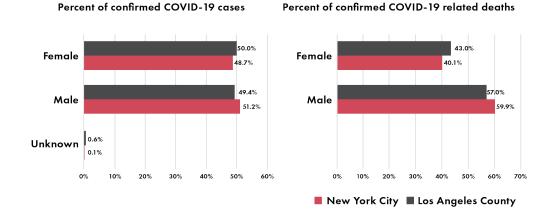
Data Sources: County of Los Angeles Public Health: COVID-19 Surveillance Dashboard – Data does not include the cities of Long Beach and Pasadena.<sup>24</sup> New York City: Open source data, New York City Department of Health and Mental Hygiene (DOHMH).<sup>25</sup>

## COVID-19 in Vulnerable Communities

#### **Key Finding 2**

Males face the highest burden of COVID-19–related deaths in both Los Angeles County and NYC (Figure 2A). Age demographics show that young people between the ages of 18 and 40 correspond to the highest case rates (per 100,000 people) observed in Los Angeles County, while adults between the ages of 45 and 64 and older than 75 comprise the largest case rates in NYC (Figure 2B). Age is a factor in those who die from COVID-19. The highest COVID-19 death rates are observed among adults older than 65 years of age (Figure 2B).

## Figure 2. Confirmed COVID-19 cases and deaths by gender and age group in Los Angeles County and NYC (data through July 20, 2020)



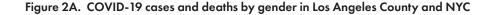
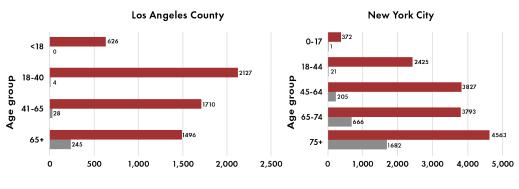


Figure 2B. COVID-19 cases and deaths by age group in Los Angeles County and NYC



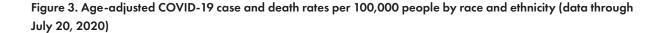


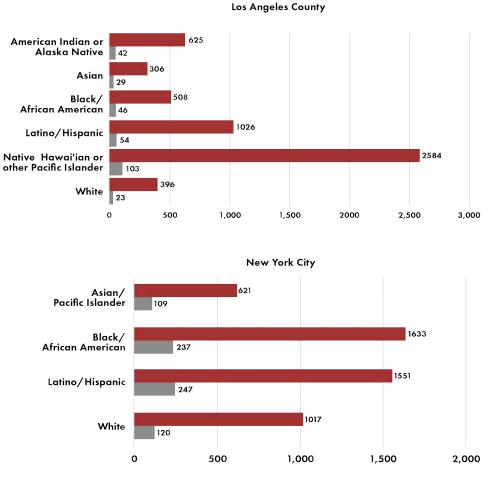
Data sources: County of Los Angeles Public Health: COVID-19 Surveillance Dashboard – Data does not include the cities of Long Beach and Pasadena.<sup>24</sup> New York City: Open source data, New York City Department of Health and Mental Hygiene (DOHMH).<sup>25</sup>

#### Key Finding 3

Latinos and Blacks living in Los Angeles or NYC have almost twice the COVID-19 case and death rates of whites. Native Hawai'ians or other Pacific Islanders have the largest COVID-19 case and death rates in Los Angeles County.

When we examined COVID-19 case and death rates among different racial and ethnic groups, we found that Latinos and Blacks living in Los Angeles County and NYC have nearly twice the death rates of non-Hispanic whites (per 100,000 people) (**Figure 3**). Native Hawai'ian and other Pacific Islanders have about seven times the risk of becoming infected, and have nearly five times the death rate of whites in Los Angeles County. Moreover, American Indian or Alaska Natives show COVID-19 case and death rates that are nearly 58% and 83% higher than whites, respectively, in Los Angeles County.





Age-adjusted case rate per 100,000 people

Note: Latinos are of any race. Data for all other races and ethnicities are non-Hispanic population estimates: White non-Hispanic, Black non-Hispanic, Asian or Pacific Islander non-Hispanic, and American Indian or Alaska Native non-Hispanic. Precise race-specific population estimates are not available for American Indian or Alaska Natives in NYC, thus, data was not included here (see Appendix A).

Age-adjusted rates are shown per 100,000 population for each race/ethnicity. Age-adjusted rates account for differences in the distribution of age in the underlying populations (see Appendix A).

Data sources: County of Los Angeles Public Health: COVID-19 Surveillance Dashboard – Data does not include the cities of Long Beach and Pasadena.<sup>24</sup> New York City: Open source data, New York City Department of Health and Mental Hygiene (DOHMH).<sup>25</sup>

## COVID-19 in Vulnerable Communities

### Key Finding 4

People residing in high poverty areas display the highest COVID-19 case and death rates in both Los Angeles County and NYC.

When we examined neighborhood or area poverty levels, which reflect the percentage of households living at or below the federal poverty line (FPL) (see **Appendix A**), we found that the highest age-adjusted case and death rates were among ≥ 30% of residents living in areas below the FPL (**Figure 4**) (data through July 20, 2020). Similar trends were observed in both Los Angeles County and NYC.

On examining various neighborhood or city areas in Los Angeles County and NYC, we found that areas with high Latino or Black populations and/or with low-income residents displayed the highest case and death rates. The region with the highest COVID-19 case rate in Los Angeles County was Vernon, and the city with the highest death rate was City of Industry (**Appendix: Table 1**). Vernon has a total population of 2O9 residents, a median age of 34.3, and a poverty rate of 2.2%.<sup>26</sup> About 34% of the population is Latino, and 19% is Black. City of Industry has a total population of 437, with a median age of 3O.8. Its poverty rate is 6.9%, and over half of the population is Latino (52.5%).<sup>26</sup> The region and city with the lowest case and death rates were Brookside (a Mid-Wilshire neighborhood) in Los Angeles city, and the city of Walnut, respectively. Compared to Vernon and City of Industry, both Brookside and Walnut have a larger population demographic and higher median household incomes, and their largest racial group is white.<sup>26</sup>

In New York City, the boroughs with highest COVID-19 case and death rates were the Bronx, Brooklyn, and Queens (**Appendix: Table 2**). These locations have young median age groups and high poverty rates, and Latinos and Blacks comprise a large subset of racial and ethnic groups.<sup>2,3</sup> The Bronx has a population of 1.44 million and a poverty rate of 30%; Latinos comprise 56% of its total population, followed by Blacks (29%), whites (9%), and Asians (4%).<sup>2,3</sup> Brooklyn has 2.60 million residents, a poverty rate of 22%, and a population demographic that is 36% white, 30% Black, 19% Latino, and 12% Asian.<sup>2,3</sup> Queens has 2.30 million residents, a poverty rate of 14%, and a population demographic that is 28% Latino, 25% white, 25% Asian, and 17% Black.<sup>2,3</sup> The neighborhoods with the lowest COVID-19 case and death rates were in Manhattan, which has 1.63 million population and a poverty rate of 17%; whites comprise the largest racial group (47%), followed by Latinos (26%), Blacks (12%), and Asians (12%).<sup>2,3</sup>

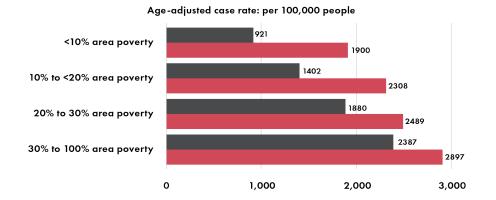
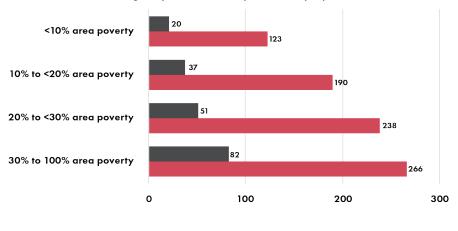


Figure 4. Age-adjusted COVID-19 case and death rates per 100,000 people by area poverty (data through July 20, 2020)







Data Sources: County of Los Angeles Public Health: COVID-19 Surveillance Dashboard – Data does not include the cities of Long Beach and Pasadena.<sup>24</sup> New York City: Open source data, New York City Department of Health and Mental Hygiene (DOHMH).<sup>25</sup> For details on area poverty classifications and age-adjusted case and death rates, see Appendix A.

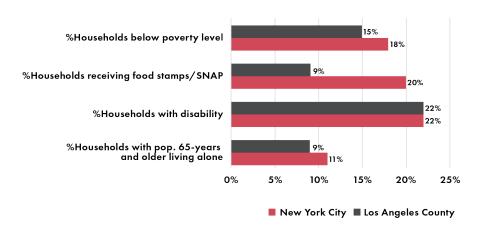
#### **Key Finding 5**

People living in close quarters, below the poverty level, requiring food stamp assistance, lacking internet and broadband services, and living in multigenerational households are all at risk for not receiving proper health care during the pandemic, and in its aftermath.

The average household size for Los Angeles County is 3 persons per household, which is larger than the average household size of NYC (2.62) and the United States as a whole (2.63).<sup>3</sup> Persons living in close quarters are at risk of transmitting the novel Coronavirus to family or other household members. There is growing evidence that the virus can be transmitted by asymptomatic infected individuals or by those infected before they recognize the onset symptoms, and the virus has a long incubation period of about 14 days.<sup>27</sup>

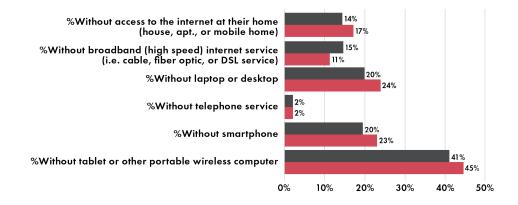
Data shows that 15% and 18% of households in Los Angeles County and NYC, respectively, live below the poverty line (**Figure 5A**). Compared to Los Angeles, NYC has a larger percentage of households receiving food stamps and of households comprised of people over 65 living alone. Almost a quarter of households in both Los Angeles and NYC have persons living with a disability (22%), who may require special services and medical attention if they become ill.

Access to technology services is essential during this pandemic, among other things in order to have access to telehealth virtual "doctor visits" if one becomes infected. At the beginning of the pandemic and stay-at-home orders, residents were restricted from seeing a primary care physician or specialist face to face. Health systems continue to adopt telemedicine, which has the potential to become a norm. Yet, the implementation of telemedicine may increase disparities in health care access for vulnerable populations who have limited digital literacy or access to the technology needed to conduct telehealth "visits" using special applications or system interfaces via a smartphone or computer.<sup>28</sup> In addition, researchers at the University of California, San Francisco, have found that non-Hispanic white patients represented a significantly higher proportion of telehealth visits, as compared to Blacks, Latinos, and Asians or Pacific Islanders.<sup>29</sup>



## Figure 5A. Households at risk for not receiving proper health care

Our data shows that in Los Angeles County and NYC, respectively, 14% and 17% of households lack access to the internet at home, 11% and 15% do not have access to broadband internet services, 20% and 24% do not have laptop or desktop computers, 20% and 23% do not have smartphones, and 41% and 45% do not have tablets or other portable wireless devices (**Figure 5B**). A small percentage of households still lack even telephone service (2%).

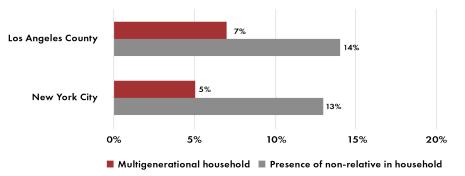


## Figure 5B. Households without access to technology in Los Angeles County and NYC



One in five Americans lives in a multigenerational household, which includes at least two adult generations (parents and grandparents) and children under the age of 25.<sup>30</sup> At the national level, about 16% of the white population live in a multigenerational household, compared to 29% of Asians/Pacific Islanders, 27% of Hispanics, and 26% of Blacks.<sup>30</sup> Young adults are the most likely to live in multigenerational households; among 25-to 29-year-olds, 33% were residents in such homes.<sup>30</sup> Our analysis shows that 5% and 7% of households in Los Angeles County and NYC, respectively, are multigenerational households (**Figure 5C**). Moreover, 13% and 14% of households have a non-relative living in them, which may contribute to overcrowded housing conditions, and place these residents at risk for exposure to the virus if one or more become infected.

## Figure 5C. The percentage of multigenerational households and households with non-relatives living in them in Los Angeles County and NYC



Data source: U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year housing estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup>

## Key Finding 6

People who commute to work by public transit or carpool may be at risk for novel Coronavirus exposure.

Compared to Los Angeles County (9%), a higher percentage of households in NYC (55%) do not have vehicles and must rely on public transit or other means of transportation to work (e.g., carpool, walking) (**Figure 6A**). In Los Angeles, most drive alone to work (74%), but another 10% commute by carpool (**Figure 6B**). In both Los Angeles and NYC, only a small proportion of households have people who regularly work from home (5% and 4%). Figure 6. Total percentage of households without vehicles and the breakdown of means of transportation to work, in Los Angeles County and NYC

Figure 6A. Households without vehicles

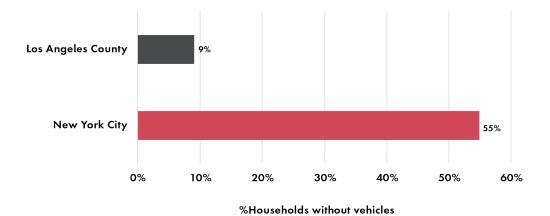
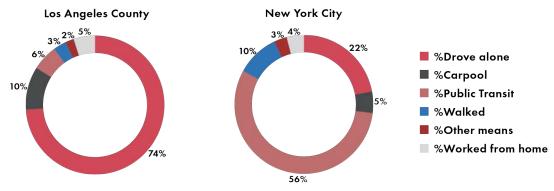


Figure 6B. Means of transportation to work



Data source: U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year housing estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup>

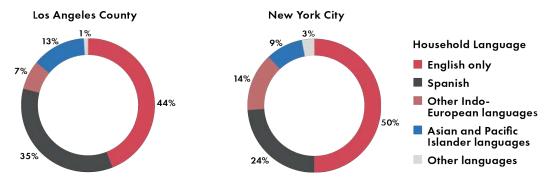
### Key Finding 7

About 50% and 56% of the population in Los Angeles County and NYC, respectively, speak a language other than English at home, compared to 22% of the U.S. population as a whole. This places this population at risk of not receiving proper health information and may require health care professionals that meet their language needs if they conduct telehealth visits during the COVID-19 pandemic.

Providing communities with accurate and detailed information about COVID-19–related illness and prevention measures is essential. But language divides may place non-English speakers or individuals with limited English proficiency (LEP) at a greater risk. At the beginning of the pandemic, and again when stay-at-home orders were implemented, some health information was translated into commonly spoken languages such as Spanish, Mandarin, and Cantonese. Los Angeles and NYC, however, are home to non-English speakers who speak many different languages. Census data show that 56% of households in Los Angeles

speak a language other than English at home. In NYC, 50% of households speak a language other than English at home, and 22% in the U.S. as a whole. More specifically, 35% of households in Los Angeles speak Spanish, 7% speak other Indo-European languages, and 13% speak Asian or Pacific Islander languages at home (**Figure 7**). In NYC, 24% of households speak Spanish, 14% speak other Indo-European languages, and 9% speak Asian or Pacific Islander languages at home (**Figure 7**).



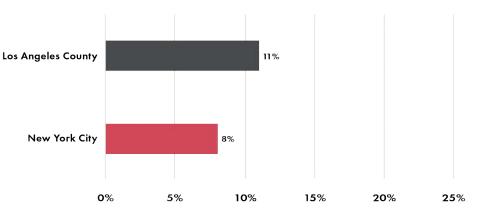


Data source: U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year housing estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup>

## Key Finding 8

The risk of becoming ill after infection, for those individuals who develop symptoms, is heightened among those who do not have any form of health insurance. About 11% and 8% of the population in Los Angeles County and NYC, respectively, live without health insurance. Among those uninsured, 39% and 42%, respectively, are young, between the ages of 19 and 34, and 49% are between the ages of 35 and 64 (**Figure 8**).





% Population without health insurance

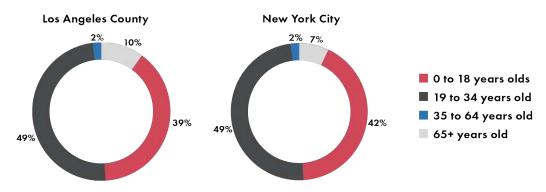


Figure 8B. Age distribution of the uninsured population in Los Angeles County and New York City

Data source: U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year housing estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup>

### An Imminent Threat to Immigrant Health and Care During the Pandemic

One in six health care professionals filling health care jobs in rural and underserved communities, and risking their lives daily through this work, is foreign-born, and about one in twenty is not a U.S. citizen.<sup>31</sup> An estimated 10.5 to 12 million undocumented immigrants live in the U.S.<sup>32,33</sup> Undocumented immigrant workers are an essential part of the American workforce and make vital contributions to the economy, but they are at risk in myriad ways during this pandemic crisis. The Affordable Care Act prohibits undocumented immigrants from receiving coverage, which leaves about 7.1 million undocumented immigrants without health insurance in the U.S.<sup>34</sup>

## Key Finding 9

We found that about 34% and 37%, respectively, of the population of Los Angeles County and NYC is foreignborn (Figure 9A), and a large proportion of these residents are not U.S. citizens (Figure 9B). Most of this foreignborn population speaks a language other than English at home, and 15 and 19% are uninsured (Figure 9B). Latinos comprise the largest racial/ethnic group among the foreign-born in both Los Angeles and NYC (Figure 9C).

This data highlights those foreign-born in Los Angeles County and NYC, which may face challenges in receiving equitable access to health information and access to health care amidst the COVID-19 pandemic.

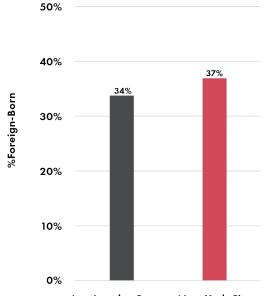
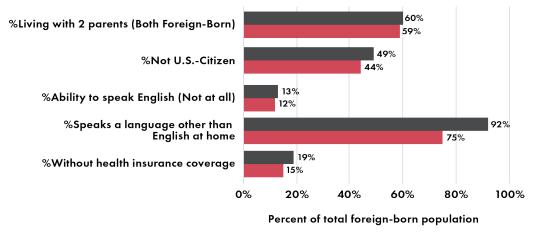


Figure 9A. Total percentage of the population of Los Angeles County and NYC that is foreign-born

Los Angeles County New York City

Figure 9B. Comparison of different sociodemographic factors among foreign-born populations in Los Angeles County and NYC



New York City Los Angeles County

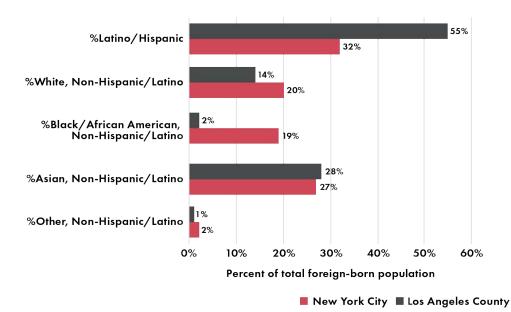


Figure 9C. Comparison of foreign-born populations in Los Angeles County and NYC by race/ethnicity

Data source: U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year housing estimates and Public Use Microdata Sample (PUMS) data.<sup>2</sup>



## CONCLUSIONS

This report compares current trends in confirmed COVID-19 cases and deaths in two highly impacted metropolitan areas in the nation, Los Angeles County and New York City. Our results, based on existing COVID-19 incidence and mortality rates, highlight the magnitude of racial and ethnic disparities between non-Hispanic whites, on the one hand, and Latinos, Blacks, and Native Hawai'ians/Pacific Islanders, on the other. Our data also highlights that among Los Angeles County and NYC residents, those living in households below the poverty level, dealing with food insecurity, lacking adequate internet or digital technology services, or experiencing limited English language proficiency (LEP) may face inequitable access to healthcare during the COVID-19 pandemic. This creates multiple challenges for these vulnerable communities amidst a second surge of COVID-19 cases, and as these counties prepare to meet the health needs of those that become infected and/or severely ill now or during future waves of the pandemic.

Recent spikes in new COVID-19 cases among Angelenos may be due to low-wage workers living in dense housing, residents commuting to work with other people, and/or residents facing health care systems that do not meet the community's needs to enable them to obtain proper health care. Undocumented and uninsured individuals may not receive, or even seek, health care. These risk factors heighten disparities and threaten the health and safety of vulnerable populations in the face of a global pandemic. Our analysis highlights the importance of research to monitor the health access disparities that racial and ethnic minorities and vulnerable populations encounter, and to identify new strategies for reducing these.

## **POLICY RECOMMENDATIONS**

Los Angeles County and New York City have the potential to advance health equity during the COVID-19 pandemic, and beyond. This report will enable policy analysts and stakeholders to identify effective policies for addressing the needs of vulnerable communities during this health and economic crisis.

The following policy recommendations may help reduce or eliminate disparities in COVID-19 cases and deaths among communities of color, who face the highest burden, and among disenfranchised communities that lack the resources and opportunities to protect themselves and their family members at the face of this pandemic crisis.

There are several actions we need to take to enact change across different sectors, including federal and state health public systems, health care facilities, and community-level governance. Below are actions that the states of California and New York can take at both the state and regional levels:

- 1. Continue to ensure access to testing for low-income communities of color.
  - a. Increase access to affordable and readily available testing for low-income communities of color.
  - b. Establish testing sites in residential areas with high concentrations of overcrowded housing.
- 2. Provide additional health and nutritional resources (e.g., food vouchers) to families residing in high poverty areas, and provide state- and city-supported programs for the undocumented, who are ineligible for federal assistance programs.

- a. Expand food assistance programs and meals that can be provided at schools for children and adults/seniors.
- **b.** Invest in emergency meal delivery services for those who do not have access to food and that cannot commute to service locations.
- c. Ensure food security and healthcare access for essential workers and/or for those recently unemployed who have lost employer-based healthcare.
- 3. Invest in health protection measures for residents who rely on public transit and residents living in atrisk neighborhoods.
  - a. Install hand sanitizer dispensers and make masks available at bus stops and metro/train stations, parks and recreational areas, and grocery stores.
  - **b.** Require use of masks by those onboard public transit and make no-cost masks available for those who do not have them available upon boarding public transit.
- 4. Expand and enforce workplace health and safety regulations to protect workers long-term, especially essential workers.
  - a. Ensure adequate access to Medicaid coverage.
  - b. Support policy efforts to provide paid sick paid leave for all workers.
  - c. Provide employee protections for undocumented communities and those employed under work authorization agreements to ensure that all essential workers (including those outside of healthcare) have adequate PPE and are not at increased risk of exposure in the workplace.
  - **d.** Ensure that individuals with pre-existing and/or chronic disease conditions continue to receive needed primary care during the pandemic and get regular health check-ups and precautions, and are able to transition to telehealth services in primary care clinics.
- 5. Supply members of low-income areas with the technology<sup>28</sup> necessary to access telehealth.
  - a. Reduce costs for broadband internet services.
  - **b.** Subsidize broadband internet access for patients living in medically and linguistically underserved communities.
  - c. Encourage telehealth "visits," to ensure continuity of care for those with co-morbidities or dealing with chronic care management.
  - **d.** Fund support of equitable access to necessary equipment and technology to provide telehealth "visits" to vulnerable populations, in a manner that ensures patient safety.

- e. Ensure that reasonable accommodations are made during telehealth "visits" for people who have limited English proficiency and need interpreters.
- **f.** Provide access to American Sign Language (ASL) interpreters and other services for those with disabilities (e.g., patients who are hard of hearing or blind).
- 6. Continue to support local and national policies and research programs striving to alleviate the burden of COVID-19 on vulnerable populations.
  - a. Invest in services for underserved communities to address the structural issues highlighted above (housing, lack of health insurance, etc.) predisposing these communities to heightened risk of infection and increased mortality as a result of COVID-19. Focus particularly those facing job losses and economic hardship.
  - **b.** Work with community leaders, public health officials, health care professionals, clinicians, and scientists to develop long-range recovery plans for the current crisis, while including health equity advisory committees.
  - c. Invest in funding for research studying COVID-19 related racial/ethnic health disparities.

## Appendix A: Data Sources and Notes on Terminology and Methodology

Parts of the descriptions provided below are based on text taken directly from the websites and documents of each data source.

## Data Sources and Documentation for Los Angeles County

Data on daily COVID-19 case and death counts were obtained from the COVID-19 Surveillance Dashboard, developed and published by the Los Angeles County Department of Public Health.<sup>24</sup> Data does not include the cities of Long Beach and Pasadena. COVID-19 case and death rates by poverty and racial/ethnic groups were calculated using direct standardization for age at diagnosis and weighting by the year 2000 standard population, which is the U.S. standard population for age-adjusting mortality statistics.<sup>35</sup> Age-adjusted rates account for differences in the distribution of age in the underlying population, and were determined per 100,000 population (2018 Population Estimates for Los Angeles County).

Reporting on COVID-19 case data according to the Los Angeles County Department of Public Health: Cases are confirmed by a Confidentiality Morbidity Report (CMR16), which provides information on disease diagnosis, suspected risk factors, and specimens used to confirm the diagnosis.<sup>24</sup> Reports are maintained by Atlas Public Health, a division of Atlas Development Corporation licensed to Los Angeles County.<sup>24</sup>

Reporting on COVID-19 death data: Records documented in a CMR16 form are further reported/identified through routine death reporting surveillance.<sup>24</sup>

### Data Sources and Documentation for New York City

NYC county boroughs: Bronx County (north of Manhattan and Queens and south of Westchester County); Kings County (Brooklyn, the most populous in NY and the second most-densely populated county in the U.S.); New York County (Manhattan, consists mostly of the Manhattan Islands and includes small islands, as well as Marble Hill on the mainland); Queens County (NYC borough of Queens); and Richmond County (Staten Island).

Data for daily COVID-19 case and death counts were obtained from the New York City Department of Health and Mental Hygiene (DOHMH)–New York City Open Data resource.<sup>25, 36</sup> This dataset provides daily counts of confirmed COVID-19 cases and deaths among New York City (five boroughs) residents or residents from another country that are being treated in New York City. Data on confirmed cases were reported to the NYC DOHMH by hospital, commercial, and public health laboratories.

As with Los Angeles County, age-adjusted rates of COVID-19 cases and deaths for NYC were calculated using direct standardization for age at diagnosis and weighting by the U.S. 2000 standard population. Thus, age-adjusted rates account for differences in the distribution of age in the underlying population and have been determined per 100,000 population. The NYC Health Department produced population estimates based on estimates from the U.S. Census Bureau and the NYC Department of City Planning.<sup>36</sup>

New York City reporting on COVID-19 related deaths: The NYC Department of Health reports data on deaths from the State Hospital Emergency Response Data System and from daily calls to hospitals and other facilities caring for patients, such as nursing homes.<sup>36</sup> The NYC Health Department reports data that reflect both positive tests for COVID-19, as confirmed by laboratories, and confirmation of a person's death by the city's Office of the Chief Medical Examiner and the Bureau of Vital Statistics, which is responsible for the registration, analysis, and reporting of all deaths in NYC.<sup>36</sup>

## Reporting on At-risk Populations in Los Angeles County and New York City Boroughs

Data on key facts for each county, such as total population estimates, total households, poverty levels among households, and data for at-risk populations was gathered from the U.S. Census Bureau 2014-2018 American Community Survey (ACS) 5-year housing and population estimates and Public Use Microdata Sample (PUMS) data<sup>2</sup> and the U.S. Census Bureau COVID-19 Demographic and Economic Resources: COVID-19 Impact Planning Report.<sup>3</sup>

## Data Dictionary and Definitions Used for Each Category Analyzed

Race/Ethnicity. U.S. Census Bureau classifications are used by the Departments of Public Health. All race and ethnicity population estimates are for whites, Blacks, American Indians or Alaska Natives, Asians, and Native Hawai'ian/Pacific Islanders who are not identified as Latino/Hispanic.

Latino/Hispanic - Includes all persons with ethnicity reported as "Latino/Hispanic," regardless of race.

White - A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Black or African-American – A person having origins in any of the black racial groups of Africa.

American Indian or Alaska Native – A person having origins in any of the original peoples of North and South America, including Central America, and who maintains tribal affiliation or community attachment.

**Asian** – A person having origins in any of the original peoples of East Asia, Southeast Asia, or the Indian subcontinent, including Bangladesh, Cambodia, China, India, Japan, Korea, Laos, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.

**Native Hawai' ian or other Pacific Islander –** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

For New York City, data about persons who identify as American Indian or Alaska Native, Native Hawai'ian or other Pacific Islander, or other races are not available, as precise race-specific population estimates are not available for these groups. Data for Asians and Pacific Islanders are reported together. For Los Angeles County, data for Asians and Native Hawai'ians or other Pacific Islanders are reported separately.

**Gender and gender-nonconforming people.** Due to the small number of cases among transgender and gender-nonconforming people, data for these populations have not been provided by the Los Angeles County Department of Public Health or the New York City Department of Health and Mental Hygiene at this time.

**Area Poverty.** Area- or neighborhood-level poverty was classified in a manner consistent with Health Department practices to describe and monitor disparities in health.

**For Los Angeles County,** area poverty reflects the percentage of households living at or below the Federal Poverty Line (FPL). Area poverty estimates were provided by the Los Angeles County Department of Public Health<sup>24</sup> and were derived from the U.S. Census Bureau, 2013-2017 American Community Survey (ACS) 5-year estimates at the census tract level.

**New York City** reports information by geography using modified ZIP Code Tabulation areas (ZCTA), which solidify ZIP codes into units of areas. The ZCTA geography was developed by the U.S. Census Bureau.<sup>36</sup> Neighborhood-level poverty groups were classified in a manner consistent with the Health Department practices to describe and monitor disparities in health in NYC.<sup>37</sup> Neighborhood poverty measures are defined as the percentage of people earning below the Federal Poverty Threshold (FPT) within a ZCTA.

**For both Los Angeles County and New York City:** For both Los Angeles County and New York City: Area poverty rates are age-adjusted according to the U.S. standard population and per 100,000 people.<sup>35</sup> The standard cut-points for defining categories of neighborhood-level or area poverty were: low: <10% of residents living in an area below the FPT or FPL; medium: 10% to < 20%; high: 20% to < 30%; and very high: ≥ 30% - 100% of residents living below the FPT or FPL.<sup>24,36</sup>

**Multigenerational households.** Most households are single-generation or two-generation (adult-minor child) households. According to the U.S. Census, a multigenerational household is one that contains three or more parent-child generations; for example, the householder, a child of a householder (can be biological, stepchild, or adopted), and grandchildren of the householder.<sup>37</sup> A householder with a parent or parent-in-law of the householder, and a child of the householder would also be a multigenerational household.<sup>37</sup> We identified multigenerational households via Census responses to "No, not a multigenerational household," or "Yes, is a multigenerational household."

Languages other than English spoken at home. The U.S. Census Bureau classifies these languages<sup>39</sup> as follows:

## Spanish.

**Other Indo-European languages:** French, including Cajun; Haitian; Italian; Portuguese; German, Yiddish, Pennsylvania Dutch or other West Germanic languages; Greek; Russian, Polish, Serbo-Croatian, Ukrainian, or other Slavic languages; Armenian; Persian, including Farsi and Dari; Gujarati, Hindi, Urdu, Punjabi, Bengali, Nepali, Marathi or other Indic languages; other Indo-European languages, such as Albanian, Lithuanian, Pashto (Pushto), Romanian, Swedish, etc.; and Telagu, Tamil, Malayalam, Kannada, or other Dravidian languages.

Asian and Pacific Island languages: Chinese, including Mandarin and Cantonese; Japanese; Korean; Hmong; Vietnamese; Khmer; Thai; Lao or other Tai-Kadai languages; other languages of Asia, such as Burmese, Karen, Turkish, Uzbek, etc.; Tagalog, including Filipino and liocano; and Samoan, Hawai'ian, or other Austronesian languages.

*All other languages:* Navajo; other Native languages of North America, such as Apache languages, Cherokee, Lakota, Tohono O'odham, Yupik, etc.; Arabic; Hebrew; Amharic, Somali, or other Afro-Asiatic languages; Yoruba, Twi, Igbo, or other languages of Western Africa; Swahili or other languages of Central, Eastern, and Southern Africa; and other languages (e.g., Hungarian, Basque, Finnish, Jamaican Creole English, or unspecified).

Appendix: Table 1. Top five highest and lowest COVID-19 case and death rates (per 100,000 people) reported for Los Angeles County by city region (data through July 20, 2020).

CITY/COMMUNITY	HIGHEST COVID-19 ADJUSTED CASE RATES (PER 100,000 PEOPLE)	CITY/COMMUNITY	HIGHEST COVID-19 ADJUSTED DEATH RATES (PER 100,000 PEOPLE)
CITY OF VERNON	12,066	CITY OF INDUSTRY	556
LOS ANGELES – WHOLESALE DISTRICT	4,212	LOS ANGELES – LITTLE ARMENIA	428
CITY OF INDUSTRY	4,139	LOS ANGELES – ST. ELMO VILLAGE	230
LOS ANGELES – VERNON CENTRAL	3,797	LOS ANGELES – WESTLAKE	222
LOS ANGELES – CENTRAL	3,725	LOS ANGELES - PICO UNION	212

CITY/COMMUNITY	LOWEST COVID-19 ADJUSTED CASE RATES (PER 100,000 PEOPLE)	CITY/COMMUNITY	LOWEST COVID-19 ADJUSTED DEATH RATES (PER 100,000 PEOPLE)
CITY OF SAN MARINO	311	CITY OF AGOURA HILLS	5
CITY OF WESTLAKE VILLAGE	272	CITY OF DIAMOND BAR	5
CITY OF AVALON	151	CITY OF LA VERNE	5
CITY OF HIDDEN HILLS	133	CITY OF SAN MARINO	4
LOS ANGELES – BROOKSIDE	118	CITY OF WALNUT	1

Note: Data provided here is exclusively for Los Angeles city regions, not unincorporated county areas. "Ninety-two city regions or unincorporated areas reported zero COVID-19 related deaths, thus, the five lowest COVID-19 adjusted death rates for incorporated Los Angeles city regions are provided here.

Data Source: County of Los Angeles Public Health: COVID-19 Surveillance Dashboard. Data does not include the cities of Long Beach and Pasadena.<sup>24</sup>

Appendix: Table 2. Top five neighborhoods with highest and lowest COVID-19 case and death rates (per 100,000 people) reported for New York City (data through July 20, 2020).

NEIGHBORHOOD	BOROUGH	HIGHEST COVID-19 ADJUSTED CASE RATES (PER 100,000 PEOPLE)	NEIGHBORHOOD	BOROUGH	HIGHEST COVID-19 ADJUSTED DEATH RATES (PER 100,000 PEOPLE)
AIRPORT/EAST ELMHURST	QUEENS	4,635	EAST NEW YORK	BROOKLYN	717
EAST NEW YORK	BROOKLYN	4,439	EDGEMERE/FAR ROCKAWAY	QUEENS	570
ALLERTON/BAYCHESTER/PELHAM GARDENS/WILLIAMSBRIDGE	BRONX	4,425	FLUSHING/MURRAY HILL	QUEENS	531
CORONA/NORTH CORONA	QUEENS	4,406	ALLERTON/BAYCHESTER/PELHAM GARDENS/WILLIAMSBRIDGE	BRONX	496
JACKSON HEIGHTS	QUEENS	4,320	AIRPORT/EAST ELMHURST	QUEENS	491

NEIGHBORHOOD	BOROUGH	LOWEST COVID-19 ADJUSTED CASE RATES (PER 100,000 PEOPLE)	NEIGHBORHOOD	BOROUGH	LOWEST COVID-19 ADJUSTED DEATH RATES (PER 100,000 PEOPLE)
EAST VILLAGE/GRAMERCY/ GREENWICH VILLAGE	MANHATTAN	937	LINCOLN SQUARE	MANHATTAN	32
FINANCIAL DISTRICT	MANHATTAN	905	FINANCIAL DISTRICT	MANHATTAN	27
TRIBECA	MANHATTAN	812	FINANCIAL DISTRICT	MANHATTAN	24
GREENWICH VILLAGE/SOHO	MANHATTAN	780	FINANCIAL DISTRICT	MANHATTAN	0
BATTERY PARK CITY	ΜΑΝΗΑΤΤΑΝ	645	BATTERY PARK CITY	ΜΑΝΗΑΠΑΝ	0

Data Source: Open source data, New York City Department of Health and Mental Hygiene (DOHMH).<sup>25,36</sup>

## **COVID-19 in Vulnerable Communities**

#### **ENDNOTES**

<sup>1.</sup> Centers for Disease Control, Coronavirus Disease 2019 (COVID-19)–Cases in the U.S., 2020. Available from: <u>https://www.cdc.gov/coronavirus/2019–ncov/cases-updates/cases-in-us.html</u> Accessed July 21, 2020.

<sup>2</sup> U.S. Census Bureau, 2014-2018 American Community Survey (ACS) 5-year estimates and Public Use Microdata Sample (PUMS) data. Available from: https://www.census.gov/programs-surveys/acs/data/pums.html Accessed June 23, 2020.

<sup>3.</sup> U.S. Census Bureau, State and County COVID-19 Impact Planning Report, 2020. Available from: https://covid19.census.gov/ Accessed July 2, 2020.

<sup>4</sup> March 19, 2020 Executive Order N-33-20, Executive Department State of California, 2020. Available from: <u>https://www.govca.gov/wp-content/uploads/2020/03/319.20-attested-EO-N-33-20-COVID-19-HEALTH-ORDER.pdf</u> Accessed June 25, 2020.

<sup>5.</sup> Hayes-Bautista, D.E. and Hsu, P. COVID-19 and Diversity: The Emerging Picture in California, 2020. Center for the Study of Latino Health and Culture (CESLAC), UCLA Health. Available from: <u>https://www.uclahealth.org/ceslac/covid-19-and-diversity-the-emerging-picture-in-california</u> Accessed June 20, 2020.

<sup>6</sup> Hayes-Bautista, D.E. and Hsu, P. The COVID-19 Case Rate and California's Diversity: Patterns in Coronavirus Exposure, 2020. Center for the Study of Latino Health and Culture (CESLAC), UCLA Health. Available from: <u>https://www.uclahealth.org/ceslac/the-covid-19-case-rate-and-californias-diversity-patterns-in-coronavirus-exposure</u> Accessed June 20, 2020.

<sup>7</sup> May 4th, 2020 Executive Order N-60-20, Executive Department State of California, 2020. Available from: <u>https://www.govca.gov/wp-content/uploads/2020/05/54.20-E0-N-60-20.pdf</u> Accessed June 25, 2020.

<sup>8.</sup> Hayes-Bautista, D.E. and Hsu, P. From the Memorial Day to the Fourth of July Weekends 2020: The COVID-19 Case Rate Increase in California's Diverse Population, 2020. Center for the Study of Latino Health and Culture (CESLAC), UCLA Health. Available from: <u>https://www.uclahealth.org/ceslac/the-covid-19-case-rate-increase-in-californias-diverse-population</u> Accessed July 9, 2020.

COVID-19 Updates (Coronavirus Disease 2019), California Department of Public Health (CA.gov), 2020. Available from: <u>https://www.cdph.ca.gov/</u> <u>Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx</u> Accessed July 21, 2020.

<sup>10</sup>. LACDPH. COVID-19 Racial, Ethnic & Socioeconomic Data & Strategies Report. Los Angeles County Department of Public Health, 2020. Available from: http://publichealth.lacounty.gov/docs/RacialEthnicSocioeconomicDataCOVID19.pdf Accessed July 9, 2020.

<sup>11.</sup> Yu, E. As Many Angelenos Stayed Home, LA County Saw A Spike in Coronavirus Among Latinos. Here's Why, 2020. Available from: <u>https://laist.</u> com/2020/06/09/los-angeles-county-coronavirus-latinos-esential-workers-spike-analysis.php Accessed July 21, 2020.

<sup>12</sup> A Statistical Picture of Latinos in California, 2017 Update. Prepared for the Latino Legislative Caucus, California Senate Office of Research, 2017. Available from: <u>https://latinocaucus.legislature.ca.gov/sites/latinocaucus.legislature.ca.gov/files/forms/Statistical%20Picture%20of%20Latinos%20</u> in%20California%20-%202017%20Update.pdf. Accessed July 9, 2020.

<sup>13</sup>. New York Coronavirus Map and Case Count, 2020. Available from: <u>https://www.nytimes.com/interactive/2020/us/new-york-coronavirus-cases</u>. <u>html</u> Accessed July 21, 2020.

<sup>14</sup> New York State Department of Health. COVID-19 Tracker, 2020. Available from: <u>https://covid19tracker.health.ny.gov/views/NYS-COVID19-Tracker/NYSDOHCOVID-19Tracker-Fatalities?%3Aembed=yes&%3Atoolbar=no&%3Atabs=n</u> Accessed July 21, 2020.

<sup>15</sup> Mays, J.C. and Newman, A. Virus is Twice as Deadly for Black and Latino People than Whites in N.Y.C., 2020. Available from: <u>https://www.nytimes.com/2020/04/08/nyregion/coronavirus-race-deaths.html</u> Accessed July 23, 2020.

<sup>16.</sup> Centers for Disease Control. COVID-19 in Racial and Ethnic Minority Groups, U.S. Centers for Disease Control and Prevention, 2020. Available from: <u>https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/racial-ethnic-minorities.html</u> Accessed July 9, 2020.

## COVID-19 in Vulnerable Communities

<sup>17</sup>. COVID-19 Rates and Risk Factors by California County Dashboard. Presented by the UCLA Center for Health Policy Research's California Health Interview Survey (CHIS), 2020. Available from: <u>http://healthpolicy.ucla.edu/health-profiles/Pages/CovidDashboard.aspx</u> Accessed July 21, 2020.

<sup>18</sup>. New York State, Department of Health. COVID-19: Top 10 Comorbidities by Age Group, 2020. Available from: <u>https://covid19tracker.health.nv.gov/views/NYS-COVID19-Tracker/NYSDOHCOVID-19Tracker-Fatalities?%3Aembed=yes&3Atoolbar=no&3Atobs=n</u> Accessed June 25, 2020.

<sup>19</sup> Ong, P., Gonzalez, S., Pech, C., Diaz, S., Ong, J., Ong, E. and Aguilar, J. Struggling to Stay Home: How COVID-19 Shelter in Place Policies Affect Los Angeles County's Black and Latino Neighborhoods, 2020. UCLA Center for Neighborhood Knowledge and the UCLA Latino Policy & Politics Initiative, Luskin School of Public Affairs, 2020. Available from: <u>https://latino.ucla.edu/research/struggling-to-stay-home-how-covid-19-shelter-in-place-policies-affect-los-angeles-countys-black-and-latino-neighborhoods/</u> Accessed July 1, 2020.

<sup>20</sup>. Lerner, S. "We Need Protein"—Coronavirus Pandemic Deepens New York's Hunger Crisis. The Intercept, 2020. Available from: <u>https://theintercept.</u> <u>com/2020/06/16/coronavirus-hunger-crisis-nyc/</u> Accessed June 26, 2020.

<sup>21.</sup> Ong, P., Pech, C., Gonzalez, S., Diaz, J., Ong, J., Ong, E. and Aguilar, J. Jobless During a Global Pandemic: The Disparate Impact of COVID-19 on Workers of Color in the World's Fifth Largest Economy, 2020. UCLA Center for Neighborhood Knowledge and the UCLA Latino Policy & Politics Initiative, Luskin School of Public Affairs. Available from: <u>https://latino.ucla.edu/research/jobless-during-a-global-pandemic-the-disparate-impact-of-covid-19-on-workers-of-color-in-the-worlds-fifth-largest-economy</u>/ Accessed July 1, 2020.

<sup>22</sup>. Marroquin, M. COVID-19: Unemployment in New York State by the numbers. lohud, 2020. Available from: <u>https://www.lohud.com/story/money/2020/05/04/covid-19-unemployment-new-york-state-numbers/3064195001/</u> Accessed July 7, 2020.

23. Labor Statistics for the New York City Region, 2020. Available from: https://www.labor.ny.gov/stats/nyc/ Accessed July 8, 2020.

<sup>24</sup>. County of Los Angeles Public Health. COVID-19 Surveillance Dashboard, 2020. Available from: <u>http://dashboard.publichealth.lacounty.gov/covid19</u> <u>surveillance\_dashboard/</u> Accessed July 21, 2020.

<sup>25</sup>. New York City Department of Health and Mental Hygiene (DOHMH). Open source data on COVID-19 cases, hospitalizations, and deaths, 2020. Available from: <u>https://github.com/nychealth/coronavirus-data</u> Accessed July 21, 2020.

<sup>24.</sup> Data USA. COVID-19 in the United States, 2020. Available from: <u>https://datausa.io/coronavirus</u> and City of Los Angeles Neighborhoods Population and Race 2010 Census, Los Angeles Almanac. Available from <u>http://www.laalmanac.com/population/po24la.php</u> Accessed July 21, 2020.

<sup>27.</sup> Centers for Disease Control. Coronavirus Disease 2019 (COVID-19), Public Health Guidance for Community-Related Exposure, 2020. Available from: https://www.cdc.gov/coronavirus/2019-ncov/php/public-health-recommendations.html Accessed July 3, 2020.

<sup>28</sup>. Anaya, B-M. Y., Martinez, L.E., Vargas-Bustamante, A., Hernandez, S., Bholat, M.A., Morales, M., Santizo Greenwood, S., Diaz, S. and Hayes-Bautista, D.E. Telehealth and COVID-19 Policy Considerations to Improve Access to Care, 2020. Center for the Study of Latino Health and Culture (CESLAC), UCLA Health, and the UCLA Latino Policy & Politics Initiative, Luskin School of Public Affairs. Available from: <u>https://latino.ucla.edu/research/telehealth-covid-</u> <u>19-policy-considerations-to-improve-access-to-care/</u> Accessed July 2, 2020.

<sup>29</sup> Nouri, S., Khoong, E.C., Lyles, C.R. and Karliner, L. Addressing Equity in Telemedicine for Chronic Disease Management During the Covid-19 Pandemic. NEJM Catalyst. 2020: 1-13.

<sup>30</sup> Cohn, D. and Passel, J.S. A record 64 million Americans live in multigenerational households. Pew Research Center, FACTANK News in the Numbers, 2018. Available from: <u>https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/</u> Accessed July 1, 2020.

<sup>31.</sup> Patel, Y.M., Ly, D.P., Hicks, T. and Jena, A.B. Proportion of non-US-born and noncitizen health care professionals in the United States in 2016. JAMA. 2018; 320:2265-2267.

<sup>32</sup> Passel, J.S. Measuring illegal immigration: How Pew Research Center counts unauthorized immigrants in the U.S., Pew Research Center, 2019. Available from: <u>https://www.pewresearch.org/fact-tank/2019/07/12/how-pew-research-center-counts-unauthorized-immigrants-in-us/</u> Accessed July 6, 2020. <sup>33.</sup> Kamarck, E. and Stenglein, C. How many undocumented immigrants are in the United States and who are they? Policy 2020 Brookings, 2019. Available from: <u>https://www.brookings.edu/policy2020/votervital/how-many-undocumented-immigrants-are-in-the-united-states-and-who-are-they/</u> Accessed July 6, 2020.

<sup>34</sup>. Cheng,Y.J., Kanaya, A.M., Araneta, M.R.G. et al. Prevalence of diabetes by race and ethnicity in the United States, 2011-2016. JAMA. 2019; 322:2389-2398.

<sup>35</sup> Klein, R.J. and Schoenborn, C.A. Age Adjustment Using the 2000 Projected U.S. Population. Healthy People 2010 Statistical Notes, U.S. Centers for Disease Control and Prevention/National Center for Health Statistics. 2001; 1-9. Available from: <a href="https://www.cdc.gov/nchs/data/statnt/statnt20.pdf">https://www.cdc.gov/nchs/data/statnt/statnt20.pdf</a> Accessed July 1, 2020.

<sup>34</sup>. NYC Coronavirus Disease 2019 (COVID-19) Data and Technical Notes, 2020. Available from: <u>https://github.com/nychealth/coronavirus-data</u> Accessed July 22, 2020.

<sup>37.</sup> Toprani, A. and Hadler, J.L. Selecting and Applying a Standard Area-based Socioeconomic Status Measure for Public Health Data: Analysis for New York City. New York City Department of Health and Mental Hygiene: Epi Research Report, May 2013; 1-11. Available from https://www1.nyc.gov/assets/ doh/downloads/pdf/epi/epiresearch-SES-measure.pdf Accessed July 22, 2020.

<sup>38</sup>·2010 U.S. Census Bureau Summary File 1–Census of Population and Housing 2012. Available from: <u>https://www.census.gov/prod/cen2010/doc/sf1.</u> pdf Accessed July 1, 2020.

<sup>39.</sup> About Language Use in the U.S. – Four and Forty-Two Group Classifications of Languages Spoken at Home with Examples, U.S. Census Bureau, 2020. Available from: <u>https://www.census.gov/topics/population/language-use/about.html</u> Accessed July 21, 2020.





UCLA Health Center for the Study of Latino Health and Culture



Latino Policy & Politics Initiative

uclahealth.org/ceslac/

latino.ucla.edu