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Mapping Key Determinants of Immigrants' Health in Brooklyn and Queens

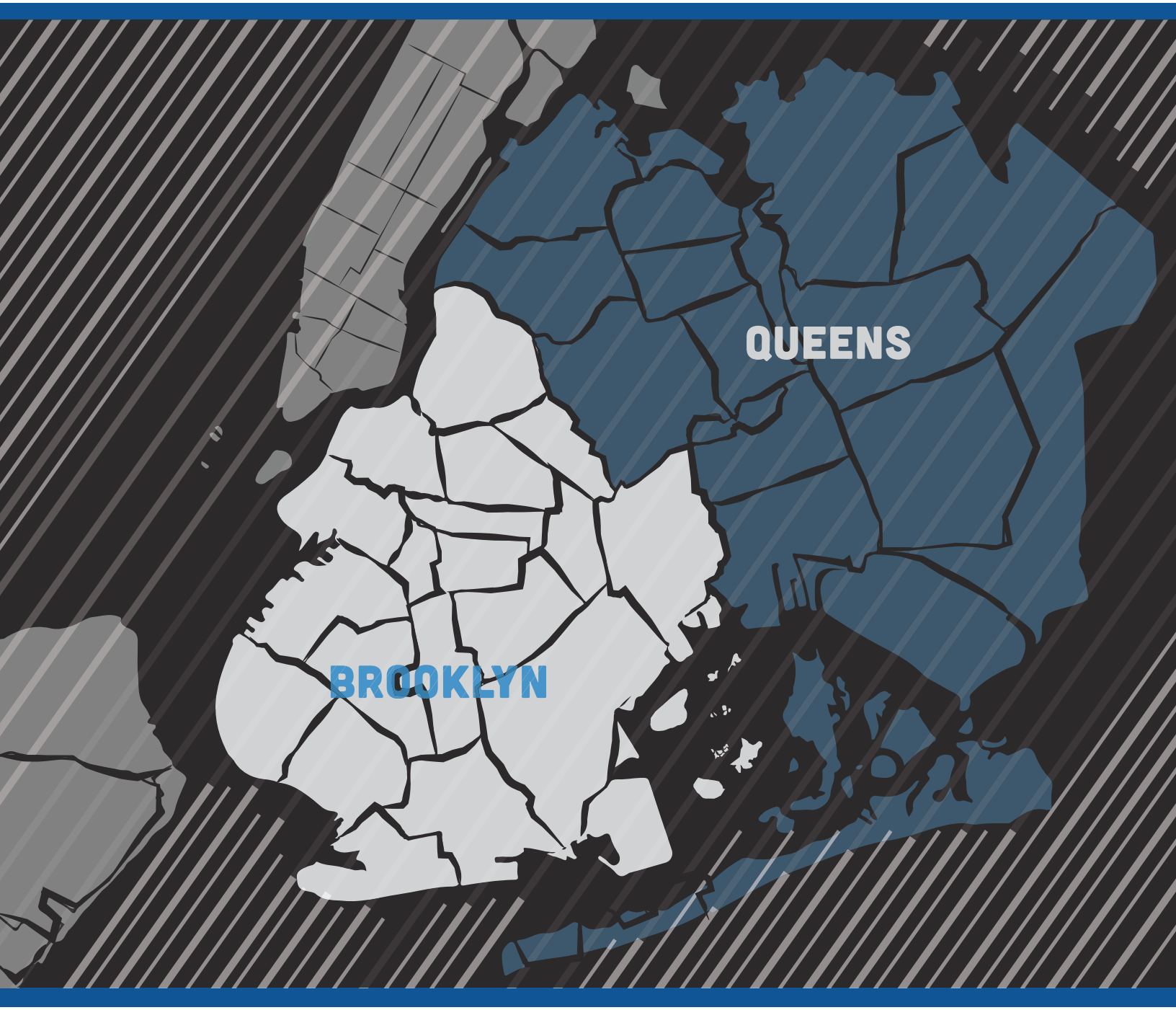

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Table of Contents

Executive Summary....1

Introduction....2

Background....3

- Literature Review....3
- Immigrants and their Health....4
- Essential Workers....4
- Why This Study Focuses on Noncitizens....6
- Selection of Health Determinants for This Study....7

Data Sources and Methodology....8

Brooklyn....10

- Education....14
- Poverty....14
- Health Insurance....15
- Limited English Proficiency (LEP)....16
- Overcrowding....17
- Undocumented Immigrants....17
- Brooklyn Neighborhoods at Risk for Poor Health Outcomes....17
  - *CD 7 Sunset Park and Windsor Terrace*....19
  - *CD 4 Bushwick*....19
  - *CD 10 Bay Ridge and Dyker Heights*....20

Queens....20

- Education....22
- Poverty....23
- Health Insurance....24
- Limited English Proficiency (LEP)....24
- Overcrowding....25

Undocumented Immigrants....26
Queens Neighborhoods at Risk for Poor Health Outcomes....26
CD 4 Elmhurst and South Corona....27
CD 3 Jackson Heights and North Corona....27
CD 7 Flushing, Murray Hill and Whitestone....28
Findings....28
The Neighborhoods....29
Recommendations....30
References....34

Mapping Key Determinants of Immigrants' Health in Brooklyn and Queens

Executive Summary

This study maps the determinants of immigrant health in the boroughs of Brooklyn and Queens. In doing so, it seeks to enable healthcare providers, government agencies, and non-profit immigrant-serving entities – including faith-based entities – to identify gaps in their services to immigrant populations, and to help meet the need – healthcare and other – of diverse immigrant communities at heightened risk of adverse health outcomes.

This report relies primarily on data collected in the American Community Survey (ACS), the largest US household survey, covering approximately one percent of the population (Ruggles et al. 2020). Detailed social and economic statistics are available for New York City (NYC) at the community district (CD) level. The Center for Migration Studies of New York (CMS) derived estimates of the undocumented population for each CD from data collected in the ACS. CMS also examined other sources, such as data from NYC's Department of Health and Mental Hygiene (DoHMH) and the Housing and Vacancy Survey, which provided important context for this analysis.

A literature review for this study revealed that immigrants' health outcomes are related to social and economic conditions such as poverty status, ability to speak English, level of education, housing conditions, and health insurance. Detailed statistics for each CD in Queens and Brooklyn show the following:

- Immigrants in the Queens neighborhoods of Elmhurst/South Corona, Jackson Heights/North Corona, and Flushing/Murray Hill/Whitestone are most at risk of poor health outcomes. These neighborhoods in northern Queens all experience high levels of overcrowding, share of undocumented residents, limited English proficiency (LEP), and percent uninsured.
- Sunset Park/Windsor Terrace is the most vulnerable neighborhood for adverse health outcomes in Brooklyn. The CD has the highest percent of LEP and of those lacking a high school education.
- Bushwick is the next Brooklyn neighborhood most at risk for adverse health outcomes. This CD has the highest share of noncitizens without health insurance, the second-highest poverty rate, and the second-highest percentage with less than a high school degree.
- Bay Ridge/Dyker Heights in Brooklyn has a vulnerable population of at-risk noncitizens; this CD has the highest poverty rate of all the CDs in Brooklyn.
- This study also found that naturalized citizens have health profiles more like the native-born population than like noncitizens.
- Noncitizens have relatively larger percentages of essential workers than the native-born or naturalized populations and thus are more likely to have been adversely affected by the COVID-19 crisis.

- Lack of health insurance – an important health determinant – affects the undocumented population more than it does residents with legal status; approximately half of undocumented residents do not have health insurance.
- Health determinants identified in the literature and analyzed here are highly correlated with each other: that is, if a neighborhood has one or two of the health indicators described here, they are likely to be vulnerable on the other measures. The report suggests the need for a holistic approach to services provided to immigrants in these neighborhoods.
- Commonly used health indicators for the general population are not applicable to immigrant populations. For example, the homicide rate, a universally accepted health indicator, is quite low in the most vulnerable immigrant communities. This example illustrates the importance of collecting health-related data by legal status.

Introduction

New York City has a long and storied history as a gateway for immigrants to the United States. Immigrants play a pivotal role in the city's economic, civic, and cultural life. New York City is fortunate to have a Mayor's Office of Immigrant Affairs (MOIA) that promotes programs and policies to advance the inclusion of all immigrant New Yorkers, regardless of immigration status. MOIA strives to mitigate the hardships of immigrants by increasing access to health care, legal, and language programs (NYC Mayor's Office of Immigrant Affairs, 2019). NYC's philosophy and ethic of inclusion provides an overarching framework for addressing health determinants in New York City.

Health is influenced by the many ways in which people experience life. Among other factors, education, poverty, housing, employment, and neighborhoods influence health outcomes. Immigrants in particular face a range of special health-related challenges. They face significant barriers to health care access due to linguistic and cultural barriers that complicate communication in the health care setting.

Many of the foreign-born, including most undocumented immigrants, are not eligible for public benefits such as Medicaid. They are also more likely than native-born citizens[1] to reside in overcrowded housing and to be jeopardized by poor working conditions that can contribute to poor health outcomes.

This study reviewed the literature and supporting data to identify neighborhoods with the most vulnerable immigrant populations in Brooklyn and Queens, highlighting the potential risks to their health and well-being. The research focuses on immigrants who are not citizens because they face greater obstacles – for example, language, poverty, and immigration status – in accessing health care, and they are more likely to live in disadvantaged neighborhoods than naturalized citizens.

The primary units of analysis for this study are Public Use Microdata Areas (PUMAs) which are

[1] Native-born citizens include those who are born in the 50 states, Puerto Rico, Guam, the US Virgin Islands, or the Northern Marianas in addition to those who are born abroad to American parents.

statistical geographic areas defined by the Census Bureau.[2] PUMAs are closely aligned with New York City's geography for community districts.[3] There are 18 CDs in Brooklyn and 14 in Queens. This report uses the terms community district and "neighborhood" interchangeably.

Many studies that examine characteristics of immigrants address them as a homogenous group rather than delineating them by legal status. In distinguishing immigrants by legal status, this report makes an important contribution to the field. CMS compiled detailed estimates of the undocumented population for this report for each CD; however, the report does not disclose those numbers due to privacy and security concerns. Rather, percentages of undocumented residents are shown, for example, the percent of undocumented immigrants below the poverty level, but not the number.

The report's findings will enable government agencies and non-profit immigrant-serving organizations to identify neighborhoods in which the health of immigrants is disproportionately jeopardized by factors such as lack of legal status, limited English proficiency, and lack of health insurance. While the focus of this analysis is on Brooklyn and Queens, CMS has also made this data accessible (via a webtool) for the immigrant communities in the Bronx and Manhattan.[4] Detailed statistics, along with maps, for each of the four boroughs can be downloaded from the webtool.

Background

Literature Review

An extensive literature review showed that a wide range of socioeconomic characteristics, such as income, education, the presence of parks and recreational facilities, and accessibility of healthy food, bear significantly on health outcomes. The literature shows a strong relationship between individuals' socioeconomic characteristics—including educational attainment, income, employment, poverty, and housing conditions—and health outcomes.

Extensive research shows a strong link between education and health (Knesebeck et al. 2006), and educational attainment has been shown to be correlated with mortality rates (Muller 2002; Deaton and Paxson 2001). Low income has been linked to a range of health problems, including hypertension, high cholesterol, and cardiovascular disease (Diez Roux et al. 1997; Raphael 2004; Kaplan and Keil 1993; Wu et al 2020).

Neighborhood characteristics can also influence health outcomes. Guest, Almgren, and Hussey (1998) and Bosma et al. (1998) found an association between overall mortality risk (all-cause mortality) and residence in neighborhoods with relatively high shares of residents with less than a high school education. Similarly, Diez Roux found correlations between residents in such

[2] PUMAs are aggregated from Census tracts and must have a minimum population of 100,000. For more information, see https://www.census.gov/programs-surveys/geography/guidance/geo-areas/pumas.html.

[3] In Manhattan, PUMA 3810 is equivalent to CD 1 and CD 2 combined and PUMA 3807 is equivalent to CD 4 and CD 5. In the Bronx, PUMA 3710 is equivalent to CD 1 and CD 2 and PUMA 3705 corresponds to CDs 3 and 6.

[4] Data for Staten Island are not provided as this borough is outside the scope of the study.

neighborhoods and prevalence of coronary heart disease and elevated serum cholesterol levels. Both individual-level poverty (Yen and Kaplan 1999; Shaw et al. 2000) and neighborhood poverty (Waitzman and Smith 1998) are also associated with poor health outcomes.

Disadvantaged neighborhoods are often overcrowded, increasing residents' chance of contracting infections and infecting others (Agran et al. 1996; Acevedo-Garcia 2000). These neighborhoods may also have high concentrations of workers without sick leave who are more likely to work when they are ill, potentially exposing their co-workers and family members to pathogens (Cook 2011). Moreover, residents of disadvantaged neighborhoods have limited access to high-quality preventive care (Kaplan and Keil 1993).

Immigrants and their Health

Research on social and economic factors that affect immigrants' health is more limited. Poor and less-skilled immigrants may be vulnerable to health risks arising from their working and housing conditions. They are also more likely to take jobs in neighborhoods with high levels of pollutants or near toxic dump sites (Pellow and Park 2002).

Health outcomes also correlate with immigration status. Some scholars have emphasized that social stigma and fears of deportation experienced by undocumented immigrants can spur depression, anxiety, and other mental health conditions (Gonzales, Suarez-Orozco, and Dedios-Sanguineti 2013; Suarez-Orozco et al. 2011; Sullivan and Rehm 2005; Yoshikawa 2011).

Research has found that when preterm birth (PTB) rates were compared between the period prior to the 2016 US presidential nomination and post-inauguration, the overall PTB rate significantly increased, particularly for births to Hispanic women (Krieger et al. 2018). This finding indicates that risk of preterm births can be raised by severe stressors such as adverse sociopolitical conditions.

Essential Workers

In the COVID-19 pandemic, immigrants have a higher percentage of "essential" workers than the native-born population (Kerwin and Warren 2020). Immigrants serve as frontline health care workers, which often puts them at higher risk of exposure to the disease and of infection. Immigrant-dense neighborhoods in New York City have been among the hardest hit by COVID-19. Administrative data from NYC's Department of Health (DoHMH) show a strong correlation between the concentration of immigrants in a ZIP code and the death rate due to COVID-19 (NYC Mayor's Office of Immigrant Affairs et al. 2020).

Almost three-quarters of undocumented workers in the city are defined as essential compared to just over one-half (54 percent) for those workers who are native-born (Table 1). The percentage of essential workers is not used as a health determinant in this study because the pandemic is likely to be a temporary condition. However, the effects of being an essential worker should receive additional study to determine any lasting impact on the immigrant population.

Table 1. Percentage of Essential Workers in Brooklyn and Queens, by Legal Status and Community District

CD	Area	Native-born	Noncitizens	Undocumented
	Total New York City	54%	69%	74%
	Total Brooklyn	50%	70%	75%
1	Greenpoint & Williamsburg	37%	52%	43%
2	Brooklyn Heights & Fort Greene	38%	46%	61%
3	Bedford-Stuyvesant	47%	57%	73%
4	Bushwick	48%	81%	81%
5	East New York & Starrett City	67%	76%	76%
6	Park Slope, Carroll Gardens & Red Hook	36%	45%	54%
7	Sunset Park & Windsor Terrace	52%	75%	81%
8	Crown Heights North & Prospect Heights	49%	50%	58%
9	Crown Heights So., Prospect Lefferts & Wingate	52%	66%	62%
10	Bay Ridge & Dyker Heights	57%	80%	84%
11	Bensonhurst & Bath Beach	55%	83%	89%
12	Borough Park, Kensington & Ocean Parkway	42%	66%	74%
13	Brighton Beach & Coney Island	63%	76%	75%
14	Flatbush & Midwood	52%	77%	79%
15	Sheepshead Bay, Gerritsen Beach & Homecrest	56%	71%	66%
16	Brownsville & Ocean Hill	55%	72%	76%
17	East Flatbush, Farragut & Rugby	61%	72%	79%
18	Canarsie & Flatlands	65%	72%	78%
	Total Queens	60%	74%	75%
1	Astoria & Long Island City	47%	61%	55%
2	Sunnyside & Woodside	53%	77%	82%
3	Jackson Heights & North Corona	54%	78%	79%
4	Elmhurst & South Corona	60%	84%	89%
5	Ridgewood, Glendale & Middle Village	59%	68%	65%
6	Forest Hills & Rego Park	51%	63%	56%
7	Flushing, Murray Hill & Whitestone	63%	72%	68%
8	Briarwood, Fresh Meadows & Hillcrest	57%	74%	73%
9	Richmond Hill & Woodhaven	63%	71%	65%
10	Howard Beach & Ozone Park	69%	70%	62%
11	Bayside, Douglaston & Little Neck	66%	77%	83%
12	Jamaica, Hollis & St. Albans	70%	74%	79%
13	Queens Village, Cambria Heights & Rosedale	69%	62%	55%
14	Far Rockaway, Breezy Point & Broad Channel	61%	79%	79%

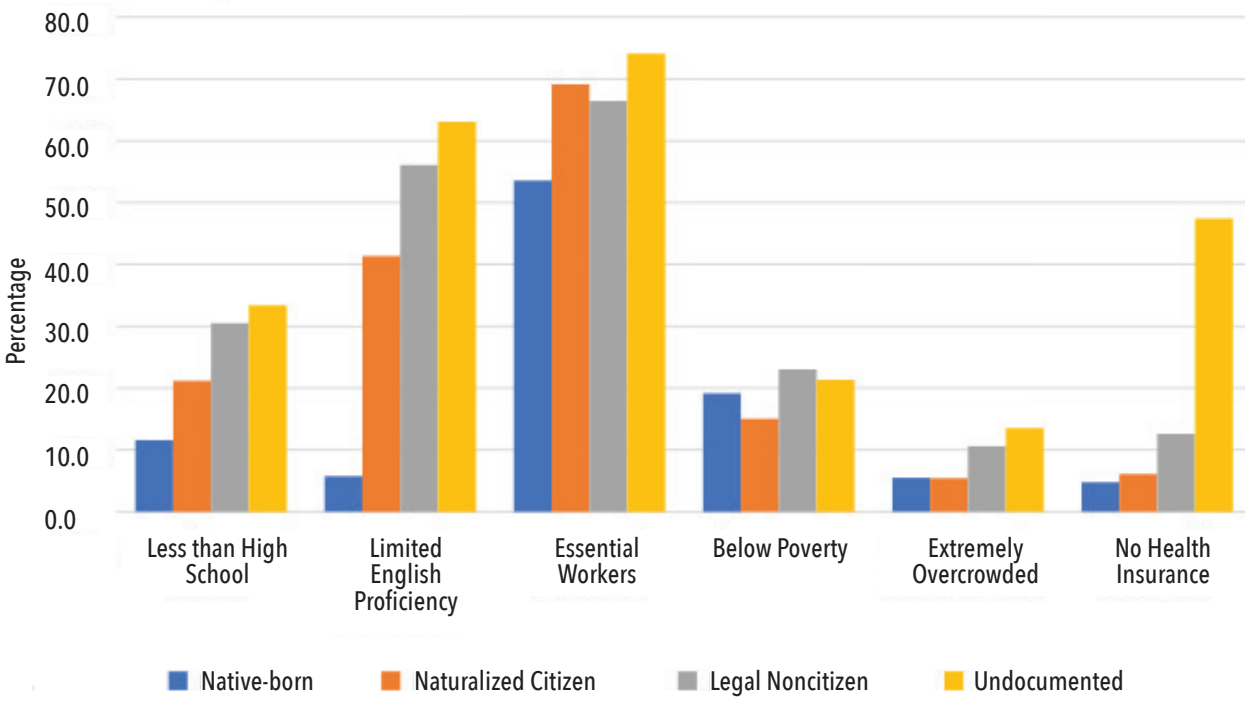
Source: Center for Migration Studies

Calculations using data from the 2014-2018 American Community Survey IPUMS

Why This Study Focuses on Noncitizens

The foreign-born population is a heterogenous group comprised of immigrants with many legal statuses and who transition at significant rates from one status to another. Of the foreign-born, undocumented immigrants (those without immigration status) are in the most precarious position. Although the statistics compiled for this study show that nearly two-thirds of undocumented residents in New York City have lived in the United States for more than a decade, members of this population lack access to most public benefits, often work in hazardous conditions with little job security, and live in fear of deportation. On the other end of the spectrum, immigrants who become US citizens through the naturalization process receive all the benefits and advantages of US born citizens.[5]

Figure 1.
Selected Socioeconomic Characteristics of Immigrants by Legal Status
New York City



Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Integration is an important process for immigrants as they navigate the road between legal statuses. Research has shown that as immigrants become more integrated, they begin to resemble US-born citizens (National Academies of Sciences , Engineering, and Medicine 2015; Kerwin and Warren 2019). Analysis of data for this report supports that research (Figure 1). We

[5] The Trump administration, however, has made denaturalization a priority. Denaturalization can occur when past errors or fraud were found to have been committed during the naturalization process. https://journals.sagepub.com/doi/pdf/10.1177/2331502419894286

find that naturalized citizens have characteristics more like US-born citizens than noncitizens.[6] The uninsured rate for citizens, both native-born and naturalized citizens, is roughly 5 percent compared to 25 percent for noncitizens overall and 47 percent for undocumented immigrants. Citizens are less likely to live in extremely overcrowded housing than noncitizens (5 percent compared to 12 percent). Naturalized citizens have the lowest poverty rate of all these groups; 15 percent compared to 19 percent for the US born, and 22 percent for noncitizens.

Because naturalized citizens comprise more than one-half (55 percent) of the total foreign-born population, including them in this analysis would obscure the findings. By focusing exclusively on noncitizens, this study reveals the needs of the most vulnerable group of immigrants.

Selection of Health Determinants for This Study

CMS selected the health determinants[7] for this study based primarily on health indicators shown in reports published by the US National Center for Health Statistics,[8] County Health Rankings,[9] and NYC Community Health Profiles.[10] Common indicators emerged across these reports, the most salient being health insurance, educational attainment, poverty, and housing conditions. Others include neighborhood conditions, self-reported health, homicide, mortality, and teen pregnancy rates.

However, data limitations emerged in the process of selecting the health indicators. There was a lack of information on health determinants for geographic areas below the borough level. Most health determinants are available at the city level and sometimes the borough level, but data for neighborhoods, the focus of this report, is limited. In addition, information specific to immigrants is rarely collected because of the sensitivity of information on legal status, particularly in the healthcare setting. As a result, many of the commonly accepted health determinants are not available for the foreign-born and even less commonly for noncitizens. We found that health determinants for the total population did not always correlate well with measures known to be health indicators for immigrants. For example, the homicide rate, a commonly accepted health determinant, was not available by immigration status. We found that homicide rates are more likely to be correlated with neighborhoods comprised of relatively large numbers of citizens, and, in fact, are low in most immigrant communities. That, and similar findings for other data sets, reinforced the decision to rely on ACS data to compile

[6] Noncitizens are comprised of undocumented immigrants and legal noncitizens such as green card holders and nonimmigrants (international students, temporary workers or other immigrants here on a temporary visa).

[7] The terms "health indicator" and "health determinant" are used interchangeably in this report even though they are not always viewed as synonymous. For an in-depth discussion of these terms as well as "health outcomes", see Understanding Population Health Terminology https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2690307/

[8] See US National Center for Health Statistics Leading Indicators https://www.cdc.gov/nchs/healthy_people/hp2020/hp2020_indicators.htm

[9] See County Health Rankings, A Collaboration between Robert Wood Johnson Foundations and University of Wisconsin. https://www.countyhealthrankings.org/reports

[10] See New York Community Health Profiles. https://www1.nyc.gov/site/doh/data/data-publications/profiles.page

health indicators for noncitizens at the CD level.[11]

Based on the available data and literature review, the study focuses on the following six indicators:

- Without health insurance coverage. Undocumented immigrants cannot purchase health insurance on the Health Insurance Market Place, and, with few exceptions, are not eligible for Medicaid.[12]
- Less than a high school education, for persons 18 and older.
- Below the federal poverty threshold.
- Living in extremely overcrowded households: more than 1.5 persons per room.
- Limited English Proficiency (LEP): persons, five years and older, who speak a language other than English at home and do not speak English very well, as reported by the Census Bureau.
- Undocumented immigrant status, as estimated by CMS.

The analysis of these determinants is supplemented by other ACS data, such as years spent in the United States, country of birth, languages spoken, essential workers, and number of persons in mixed-status households. These data allow us to provide a more nuanced context for the specific neighborhoods and boroughs where the largest numbers of immigrants live.

Data Sources and Methodology

The primary data used in this report were compiled from data collected in the American Community Survey (ACS) conducted annually by the Census Bureau.[13] The survey covers approximately 1 percent of the total US population. The survey provides detailed social and economic data for all states, as well as for all cities, counties, metropolitan areas, and PUMAs or population groups of 100,000 people or more. This study relies on detailed data collected in the ACS for New York City's PUMAs which are closely aligned with community districts.

CMS derives estimates of the undocumented resident population from data collected in the ACS. First, data are selected for noncitizens that arrived after 1982. Then, respondents who are likely to be legal residents – such as Medicare recipients, government workers, and military personnel – are removed from that data. Finally, a series of population controls are applied at

[11] It would have been preferable to separate the noncitizen population into legal residents and undocumented for this analysis; however, for privacy and security reasons, numbers of the undocumented populations for CDs are not shown.

[12] In New York State, all children under the age of 19 are eligible for Child Health Plus regardless of legal status. https://www.health.ny.gov/health_care/child_health_plus/. PRUCOL (Permanently Residing Under the Color of Law) immigrants such as DACA and TPS are also eligible for Medicaid in NY State. And lastly, undocumented immigrants can receive "emergency Medicaid" which is defined as "care and services … necessary for the treatment of an emergency medical condition". http://www.wnylc.com/health/entry/70/.

[13] For more information on the American Community Survey and the Public Use Micro Data Sample, see https://www.census.gov/programs-surveys/acs/microdata.html

the individual country level to derive final estimates. The procedures are described in detail in Warren (2014). These operations are done at the microdata level.

CMS compiled detailed estimates of the foreign-born populations by legal status at the CD level for each of the variables included in this study. In some cases, the percentage of undocumented residents, such as the percentage below the poverty level, are shown. However, care was taken to avoid the possibility of showing any data that could be used to derive estimates of the undocumented population in any CD or in either borough studied.

Many other data sources were examined for this study such as the Community Health Survey conducted by NYC's Department of Health (DoHMH) and administrative data from the NYC Bureau of Vital Statistics.[14] Housing characteristics collected in the NYC Housing and Vacancy Survey[15] were also explored as well as data from the Census of Fatal Occupational Injuries, Feeding America, New York Police Department (NYPD), and NYC Department of Corrections. It was important to examine all data sources available to determine what could be used in this analysis. None of these sources provided the detail required to study noncitizens at the CD level and as a result are not included as the health indicators in this study.

As noted, the primary unit of analysis for this study are CDs as defined by PUMAs. The naming convention for CDs is designated by NYC Department of City Planning.[16] The naming convention used in the maps reflects CD numbers with a borough identifier incorporated. For example, CD 301 is equivalent to Brooklyn CD 1.

The six indicators chosen for this study are compiled and analyzed for each CD and ranked from highest to lowest. CDs that ranked the *highest* are neighborhoods with residents that were *most at risk* of adverse health outcomes based on these determinants. For example, CDs with higher poverty rates would rank higher than those with lower rates. A final ranking was produced by summing the indicators across each CD. The procedures for selecting the most at-risk communities are illustrated in the next sections.

Detailed population profiles were created for each CD for the following subgroups: native-born citizens, naturalized citizens, legal noncitizens, and undocumented immigrants. Much of these data are available in a webtool (provide link) for the Bronx, Brooklyn, Manhattan, and Queens. The webtool was created for healthcare providers, government agencies, and non-profit organizations to assist them in serving the immigrant population in New York City. Users can download custom tables and maps corresponding to those tables along with Excel files

[14] The Community Health Survey is a representative sample of 10,000 NYC residents conducted annually. Data from this survey were provided by Tamar Marder and Nneka L. Lundy De La Cruz at DoHMH. For more information on this survey, see https://www1.nyc.gov/site/doh/data/data-sets/community-health-survey.page. Administrative data on vital statistics were provided by Mary Huynh at the Bureau of Vital Statistics, DoHMH. https://www1.nyc.gov/site/doh/data/data-sets/vital-statistics-data.page

[15] The NYC Housing and Vacancy Survey, conducted by the Census Bureau every three years, gathers information on the housing conditions of NYC residents. https://www.census.gov/programs-surveys/nychvs.html/

[16] The naming of neighborhoods is inherently challenging. We therefore defer to NYC Department of City Planning's naming conventions. https://www1.nyc.gov/assets/planning/download/pdf/data-maps/nyc-population/census2010/puma_cd_map.pdf

showing detailed information for CDs.

In order to produce reliable estimates at the CD level, ACS data files for the 5-year period 2014 to 2018 were used, rather than more recent 1-year data for 2018. Data are also available at the borough and city level. Numbers throughout the report are rounded to 100s, and values that rounded to fewer than 500 are omitted.

The following two sections provide detailed information and findings for Brooklyn and Queens. For both boroughs, contextual data are presented followed by a discussion of each health indicator. Maps show the geographic distribution of noncitizens (percentages) for each indicator. This information provides the framework for in-depth discussions of the three neighborhoods in each borough that emerged as having immigrant populations that were most at-risk for adverse health outcomes. The emphasis on these most at-risk neighborhoods should not obscure the findings that other similar neighborhoods are also at risk of adverse health outcomes.

Brooklyn

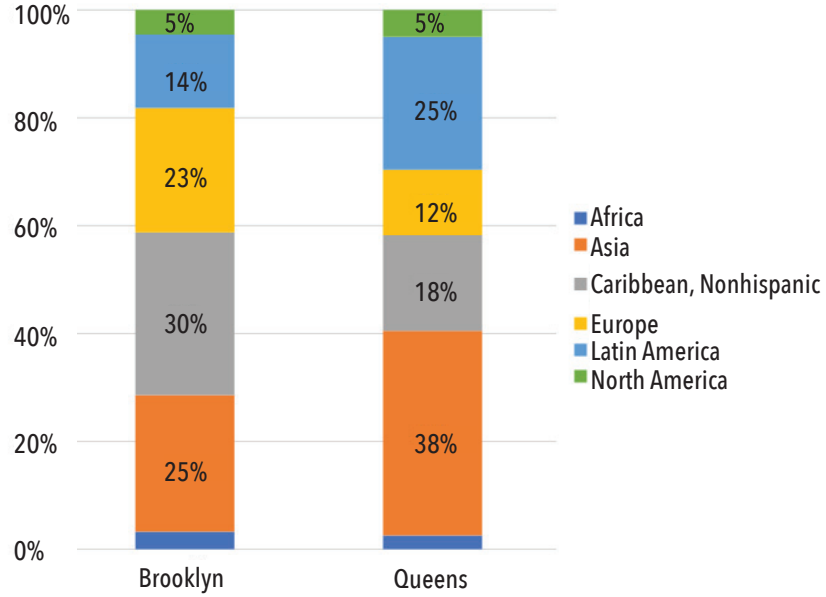
The borough of Brooklyn has the largest population in New York City with 2.6 million persons, making it larger than the fourth largest city of Houston, Texas. Early waves of immigrants, such as the Russians in Brighton Beach, established their home in Brooklyn. However, the Immigration and Nationality Act of 1965 (INA) reshaped immigration law by leveling the playing field and accepting immigrants from all regions of the world, not just Europe, as had been the case. This led to a resurgence of immigration from all over the world into all five boroughs of New York City.

Brooklyn has almost 1 million immigrants, comprising 37 percent of its population. Figure 2 illustrates the remarkable diversity of immigrants coming from different regions of the world for both boroughs. The West Indian countries (Caribbean, non-Hispanic), Asia, and Europe each contribute roughly equal shares – between 23 and 30 percent – to Brooklyn's foreign-born population. While Brooklyn does not have the largest share or number of immigrants, it is arguably as diverse as Queens.

Of the total foreign-born population in Brooklyn, almost 60 percent consists of naturalized citizens. Noncitizens, the focus of this report, number 384,000 and are comprised of legal noncitizens and undocumented immigrants (Figure 3). The top five sending countries for noncitizens in Brooklyn are China[17] (58,000), Mexico (43,000), Dominican Republic (26,000), Jamaica (21,000) and Haiti (20,000). Trinidad and Tobago, Uzbekistan, Ecuador, Guyana, and Ukraine round out the top 10 sending countries for noncitizens (Table 2).

[17] The People's Republic of China, which includes China and Hong Kong, is referred to as China in this study.

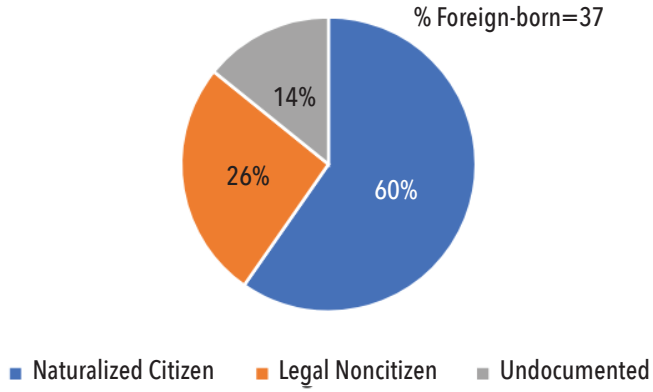
Figure 2.
Total Foreign-born by Area of World
Brooklyn and Queens



Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Noncitizens from the West Indies are much more likely to settle in Brooklyn than in other parts of New York City. Over two-thirds (68 percent) of all Haitian noncitizens in the city live in Brooklyn, as well as 54 percent of all noncitizens from Trinidad and Tobago. These immigrants live primarily in Central Brooklyn, home to one of the largest populations of West Indians outside the West Indies. Although recent trends show the West Indian population declining in Brooklyn, this community is still large. Uzbekistan and Ukraine also have large concentrations of noncitizens in Brooklyn 83 percent and 80 percent, respectively.

Figure 3.
Total Foreign-born by Legal Status
Brooklyn



Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Table 2. Top Countries of Birth for Noncitizens, Brooklyn

Country of birth	Number	As a percent of NYC total
Total noncitizens	384,000	27%
China[1]	56,000	33%
Mexico	43,000	29%
Dominican Republic	26,000	13%
Jamaica	21,000	37%
Haiti	20,000	68%
Trinidad and Tobago	14,000	54%
Uzbekistan	11,000	83%
Ecuador	11,000	14%
Guyana	10,000	29%
Ukraine	10,000	80%

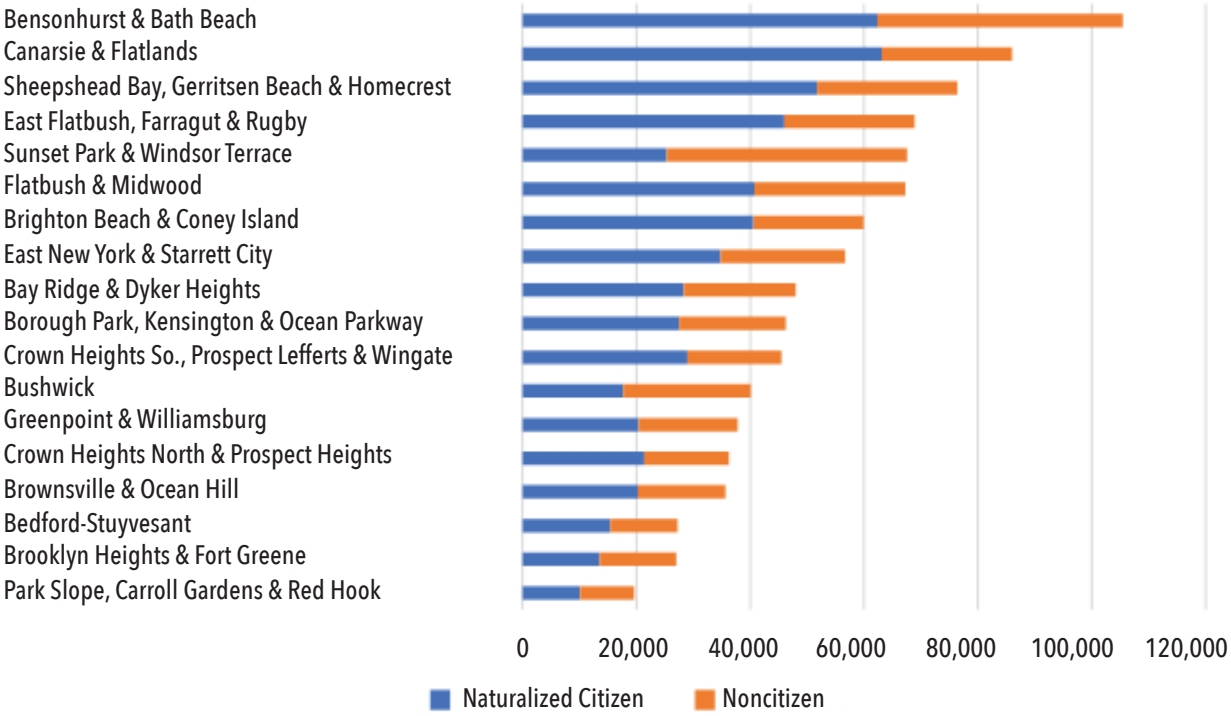
[1] China includes Hong Kong

Source: Center for Migration Studies

Calculations using data from the 2014-2018 American Community Survey IPUMS

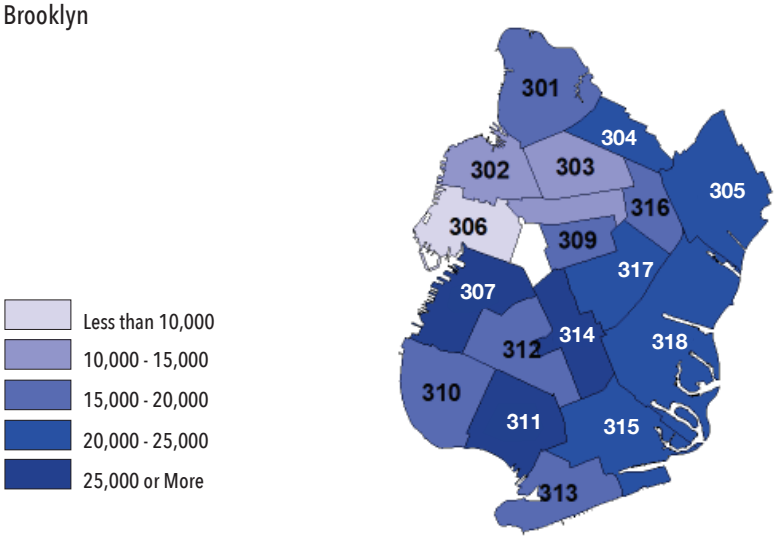
The largest concentration of immigrants in the borough is in Southern Brooklyn. The neighborhoods of Bensonhurst/Bath Beach, Brighton Beach/Coney Island, and Sheepshead Bay/Gerritsen Beach/Homecrest all have populations that are more than one-half foreign-born. However, with the exception of Bensonhurst/Bath Beach, noncitizens have different settlement patterns than those who are naturalized citizens. Sunset Park/Windsor Terrace is home to one of the largest settlements of noncitizens (42,000), which comprise 29 percent of this neighborhood. Bushwick also has a larger than average share of noncitizens (17 percent) (Figures 4 and 5). These two CDs are unique in Brooklyn as being neighborhoods where the number of noncitizens exceeds the naturalized population.

Figure 4.
Total Foreign-born by Legal Status
Brooklyn



Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Figure 5.
Number of Noncitizens by Community District
Brooklyn



301	Greenpoint & Williamsburg
302	Brooklyn Heights & Fort Greene
303	Bedford-Stuyvesant
304	Bushwick
305	East New York & Starrett City
306	Park Slope, Carroll Gardens & Red Hook
307	Sunset Park & Windsor Terrace
308	Crown Heights North & Prospect Heights
309	Crown Heights So., Prospect Lefferts & Wingate
310	Bay Ridge & Dyker Heights
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313	Brighton Beach & Coney Island
314	Flatbush & Midwood
315	Sheepshead Bay, Gerritsen Beach & Homecrest
316	Brownsville & Ocean Hill
317	East Flatbush, Farragut & Rugby
318	Canarsie & Flatlands

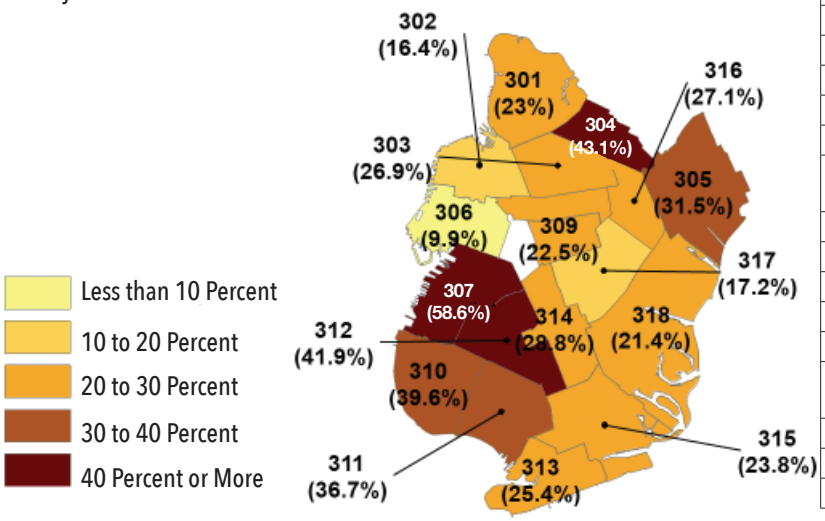
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Education

In general, immigrants have lower educational attainment than persons born in the United States. In Brooklyn, 25 percent of foreign-born lack a high school degree compared to 12 percent of the native-born. For noncitizens, the share without a high school degree is 32 percent.

There is large variation in the education indicator across the CDs of Brooklyn. In Sunset Park/ Windsor Terrace, 59 percent of noncitizens do not have a high school education compared to Park Slope (10 percent) (Figure 6). Bushwick has the second highest concentration of those without a high school education in Brooklyn (43 percent). And while Borough Park's share of noncitizens lacking a high school education (42 percent) is high, this neighborhood has a relatively small number and percent of noncitizens.

Figure 6.
Percent Noncitizens with Less than High School Degree
Brooklyn



301	Greenpoint & Williamsburg
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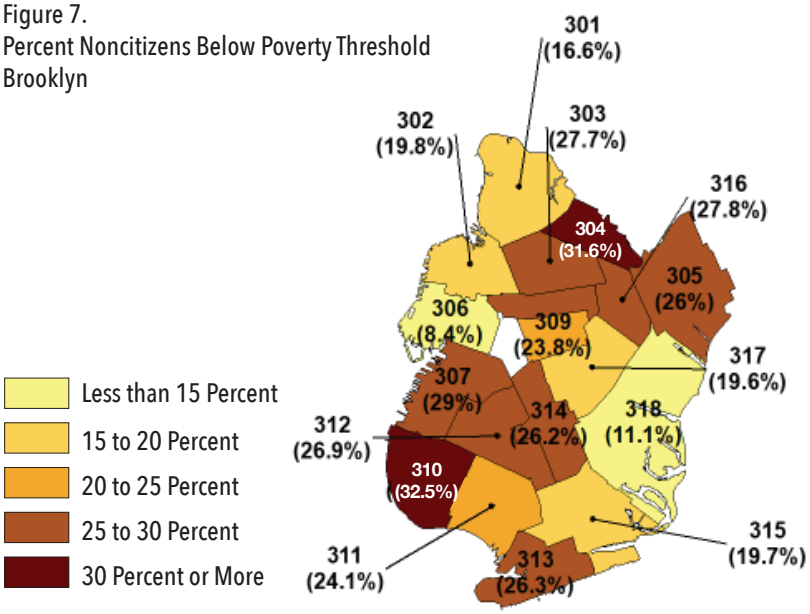
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Poverty

Brooklyn has the second highest poverty rate of all the boroughs in New York City. About one in five persons (21 percent) live below the poverty level, compared to a poverty rate of 13 percent for Queens. The poverty rate for noncitizens in Brooklyn is 24 percent.

Figure 7 shows the poverty rates for CDs in Brooklyn. Bay Ridge/Dyker Heights and Bushwick have the highest poverty rates of all the CDs in Brooklyn. Almost one-third of noncitizens in Bay Ridge/Dyker Heights and Bushwick live in poverty. Brownsville/Ocean Hill and Bedford-Stuyvesant have the next highest poverty rates, however, these neighborhoods have relatively fewer noncitizens.

Figure 7.
Percent Noncitizens Below Poverty Threshold
Brooklyn



301	Greenpoint & Williamsburg
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Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

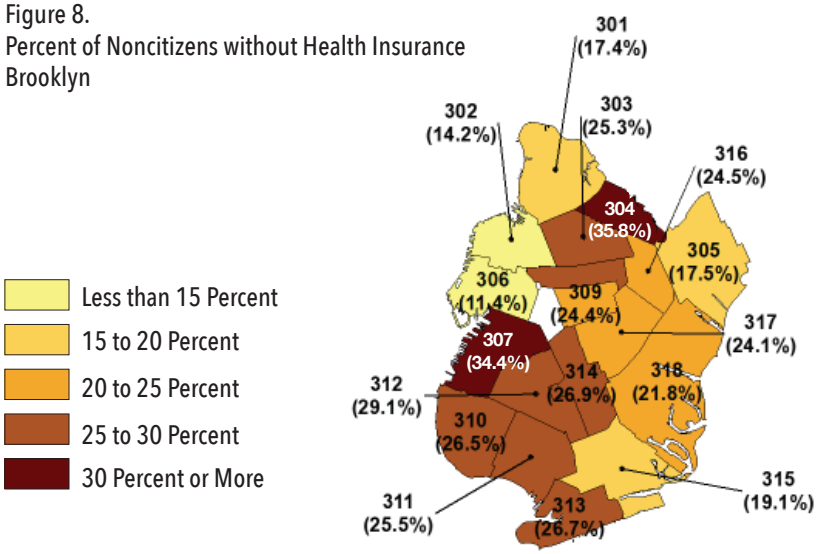
Health Insurance

The number of persons without health insurance has dropped dramatically since the enactment of the Affordable Care Act in 2010.[18] In New York City, the uninsured rate dropped from 25 percent in 2010 to 7 percent in 2018. Brooklyn's uninsured population (8 percent) is close to the citywide average. More than a quarter (25 percent) of Brooklyn's noncitizens – 96,000 residents – lack health insurance, which is more than triple the average for the borough.

The two CDs with the largest share of uninsured are Bushwick (36 percent) and Sunset Park/Windsor Terrace (34 percent) (Figure 8). Almost 15,000 noncitizens in Sunset Park/Windsor Terrace lack health insurance, the majority of whom are undocumented immigrants. As noted, undocumented immigrants cannot purchase health insurance on the Health Insurance Market Place, and, with few exceptions, are not eligible for Medicaid.

[18] The Affordable Care Act (ACA), formally known as the Patient Protection and Affordable Care Act, was signed into law by President Barack Obama in 2010. For more information, see https://www.hhs.gov/healthcare/about-the-aca/index.html.

Figure 8.
Percent of Noncitizens without Health Insurance
Brooklyn



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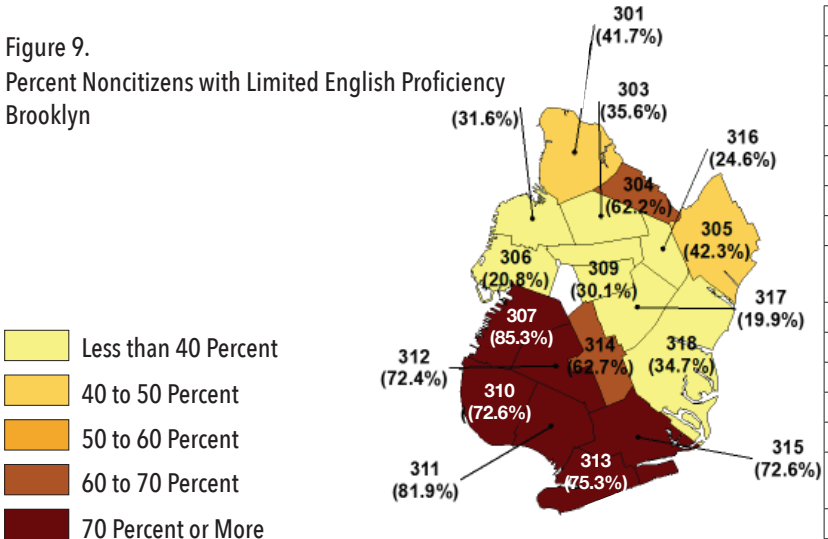
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Limited English Proficiency (LEP)

Over half (56 percent) of all noncitizens in Brooklyn have limited English proficiency (LEP). This is twice the borough-wide average of 22 percent. Figure 9 shows that the LEP population is largely concentrated in the southwestern Brooklyn neighborhoods.

A large majority of noncitizens in Sunset Park/Windsor Terrace (85 percent) and Bensonhurst (82 percent) have LEP. And nearly three-quarters of the noncitizen population in the neighborhoods of Brighton Beach, Bay Ridge/Dyker Heights, and Sheepshead Bay are limited in their ability to speak English.

Figure 9.
Percent Noncitizens with Limited English Proficiency
Brooklyn



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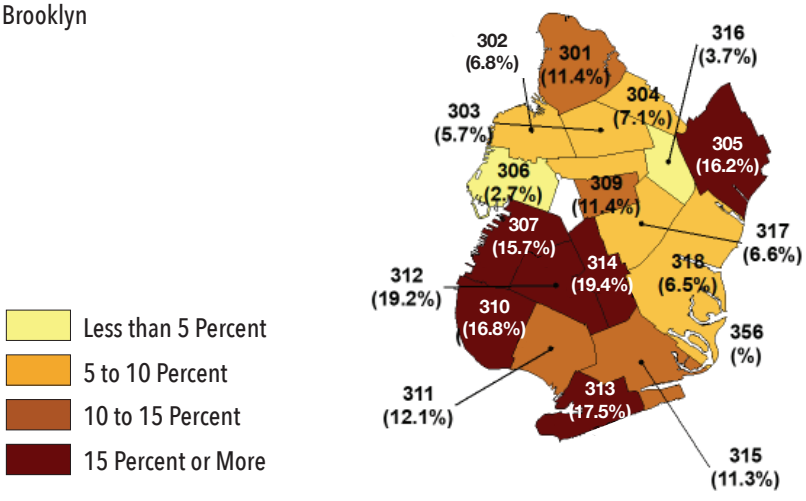
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Overcrowding

New York City has an affordable housing crisis. In the 2014 to 2018 period, 187,000 persons lived in households defined as being extremely overcrowded.[19] This condition is pervasive across the five boroughs. Figure 10 shows the extent to which noncitizens live in extremely overcrowded conditions, indicating the immense need for affordable housing in Brooklyn. In Flatbush and Borough Park, 19 percent of noncitizens live in extremely overcrowded conditions. Brighton Beach and Bay Ridge/Dyker Heights also have large shares of noncitizens living in overcrowded conditions, roughly 17 percent each.

Figure 10.
Percent Noncitizens in Extremely Overcrowded Housing
Brooklyn



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Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Undocumented Immigrants

Undocumented immigrants living in Brooklyn account for only a small share of the borough's population. Estimates of the size of the population are not shown for security and privacy reasons. However, the percentage of the population residing in each CD was used as a health indicator.

Brooklyn Neighborhoods at Risk for Poor Health Outcomes

Table 3 presents the rankings of noncitizens for all six indicators combined by CD. Noncitizens in the neighborhoods that rank highest are more likely to be at risk of poor health outcomes. The percent of noncitizens for each indicator is also shown. The three neighborhoods in Brooklyn that ranked the highest on the six determinants are Sunset Park/Windsor Terrace (CD 7), Bushwick (CD 4), and Bay Ridge/Dyker Heights (CD 10). The next section examines the data for these three neighborhoods.

[19] The US Department of Housing and Urban Development defines an extremely overcrowded household as one with more than 1.5 persons per room. https://www.huduser.gov/publications/pdf/measuring_overcrowding_in_hsg.pdf.

Table 3. Community Districts Rank Ordered by Selected Health Indicators for Noncitizens, Brooklyn

Note: CDs that ranked the *highest* are neighborhoods with noncitizens that were *most at risk* of adverse health outcomes based on these determinants.

		Percent Noncitizen[1]					
		Less than HS, Age 18+	LEP[2], Age 5+	Below Poverty	Undoc. Rank	Extremely Overcrowded[3]	No Health Insurance
Rank	Community District						
18	Sunset Park & Windsor Terrace (CD 7)	59	85	29	18	16	34
17	Bushwick (CD 4)	43	62	32	16	7	36
16	Bay Ridge & Dyker Heights (CD 10)	40	73	33	8	17	27
15	Borough Park, Kensington & Ocean Parkway (CD 12)	42	72	27	7	19	29
14	Brighton Beach & Coney Island (CD 13)	25	75	26	15	18	27
13	Flatbush & Midwood (CD 14)	29	63	26	14	19	27
12	Bensonhurst & Bath Beach (CD 11)	37	82	24	17	12	26
11	East New York & Starrett City (CD 5)	32	42	26	12	16	18
10	Sheepshead Bay, Gerritsen Beach & Homecrest (CD 15)	24	73	20	10	11	19
9	Brownsville & Ocean Hill (CD 16)	27	25	28	9	4	25
8	Bedford-Stuyvesant (CD 3)	27	36	28	3	6	25
7	Crown Heights So., Prospect Lefferts & Wingate (CD 9)	23	30	24	11	11	24
6	Crown Heights North & Prospect Heights (CD 8)	24	21	26	6	8	27
5	Greenpoint & Williamsburg (CD 1)	23	42	17	4	11	17
4	East Flatbush, Farragut & Rugby (CD 17)	17	20	20	13	7	24
3	Canarsie & Flatlands (CD 18)	21	35	11	5	7	22
2	Brooklyn Heights & Fort Greene (CD 2)	16	32	20	2	7	14
1	Park Slope, Carroll Gardens & Red Hook (CD 6)	10	21	8	1	3	11

[1] For every health indicator, with the exception of undocumented immigrants, the percent noncitizen is computed as the number of noncitizens for that health indicator divided by the total noncitizen. For example, percent "Less than HS" is computed as the number of noncitizens who have not completed high school (18 and over) divided by all noncitizens (18 and over). For undocumented immigrants, the CDs are rank ordered by the percent undocumented.

[2] LEP refers to Limited English Proficiency.

[3] Extremely overcrowded is defined as more than 1.5 persons per room.

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

CD 7 Sunset Park and Windsor Terrace

Although Sunset Park/Windsor Terrace is not the largest immigrant neighborhood in Brooklyn, it is home to the largest number of noncitizens in the borough. Its noncitizen residents have lived in the United States an average of 16 years, one-half the average length of residence of naturalized citizens in the neighborhood (28 years). Noncitizens from China (42 percent) and Mexico (26 percent) make up more than two-thirds of the population. The percent of LEP noncitizens who speak Chinese[20] and Spanish is roughly the same (46 percent).

Immigrants are interwoven into the fabric of New York City, often living in households whose residents have multiple legal statuses. Mixed-status households, defined as having at least one undocumented immigrant and one person with lawful residence, are often used as a metric to emphasize this point. Over one-quarter (39,000) of residents in Sunset Park/Windsor Terrace live in mixed-status households. Of those, 32 percent are children under age 18, a large majority of whom are US citizens (11,000).

Sunset Park/Windsor Terrace has the highest ranking for three indicators: percent of LEP, less than high school education, and undocumented status. This CD also has the second largest share of uninsured noncitizen residents, which is related to the number of undocumented immigrants residing in the neighborhood. Although this neighborhood has a high percentage living in overcrowded housing, their ranking (13th) on that variable is not quite as high as other CDs in the borough.

CD 4 Bushwick

Bushwick has a relatively smaller number of noncitizens, however, it ranked second as being the most at risk of adverse health conditions based on our health determinants. This can be explained partly by the fact that a considerable proportion of noncitizens in this community district are undocumented immigrants. Lack of status is a significant barrier to accessing public benefits because undocumented residents are not eligible for most of these programs. Thirty-six percent of noncitizens in this neighborhood do not have health insurance, the highest percent of all the neighborhoods in Brooklyn. This compares to one-quarter of noncitizens borough-wide.

Twenty-five percent of the noncitizens who live in this CD are from Mexico, followed by the Dominican Republic (22 percent) and Ecuador (15 percent). The overwhelming majority of noncitizens with limited English proficiency speak Spanish (88 percent).

Bushwick also has large percentages of noncitizens in poverty (32 percent) and those without a high school education (43 percent). Approximately 23,000 persons live in a mixed-status household. US citizen children comprise 30 percent of these households.

[20] Chinese includes the languages of Mandarin and Cantonese.

CD 10 Bay Ridge and Dyker Heights

Bay Ridge/Dyker Heights, which is contiguous to and south of Sunset Park/Windsor Terrace, is similar to that neighborhood in its large settlements of Chinese and Mexicans. However, a more diverse mix of immigrants from other countries has settled in this neighborhood, compared to Sunset Park/Windsor Terrace. Immigrants from Egypt are the third largest national group in the community district followed by immigrants from Italy, Greece, and Ukraine. The top languages for LEP noncitizens in this neighborhood are Chinese (48 percent), Spanish (24 percent), and Arabic (9 percent).

Unlike Sunset Park/Windsor Terrace and Bushwick, the community of Bay Ridge/Dyker Heights has a relatively larger share of naturalized citizens, implying that its foreign-born population has been established here longer. About 40 percent (48,000) of the residents in this neighborhood are immigrants, of which 28,000 are naturalized citizens. On average, naturalized citizens in this neighborhood have lived in the United States twice as long as noncitizens (30 years compared to 15 years).

Bay Ridge/Dyker Heights has the highest poverty rate of all the neighborhoods in Brooklyn. One-third (33 percent) of noncitizens are in poverty compared to 24 percent for all noncitizens in Brooklyn. Other striking disparities are the number of noncitizens in Bay Ridge/Dyker Heights without a high school education (40 percent) and those living in overcrowded housing (17 percent). This neighborhood has relatively lower rankings for percent without health insurance (ranked 12) and undocumented (ranked 8).

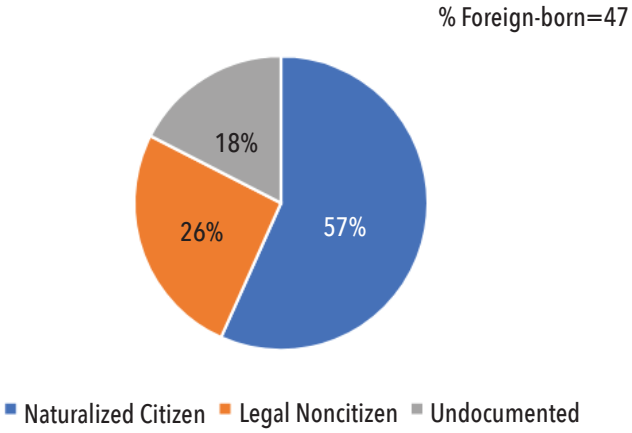
The share and number that live in mixed-status households was not as large as other neighborhoods in the borough because of the relatively smaller presence of undocumented immigrants. About 15,000, or 12 percent, of the total population in Bay Ridge/Dyker Heights live in mixed-status households.

Queens

Queens is the second largest borough in the city but has the largest number and share of foreign-born persons. Of the 2.3 million residents, almost half (47 percent) are foreign-born. Often cited as the most diverse county in the United States, the 1.1 million immigrants residing in this borough come from over 160 countries. Queens is home to one of the fastest growing immigrant groups in recent years – Asian immigrants. Almost half (48 percent) of all immigrants from Asia living in New York City live in Queens.

Of the total foreign-born population in Queens, 57 percent are naturalized citizens (Figure 11). The remaining noncitizens (471,000), the focus of this report, are comprised of legal noncitizens and undocumented immigrants.

Figure 11.
Foreign-born Population by Legal Status
Queens



Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

The top five sending countries of noncitizens to this borough are China (79,000), Ecuador (46,000), Mexico (44,000), Dominican Republic (26,000), and Bangladesh (24,000). India, Colombia, Guyana, Korea, and Jamaica round out the top 10 sending countries for noncitizens. Almost two-thirds (64 percent) of Bangladeshis in New York City reside in Queens. Other noncitizens with a high propensity to settle in this borough are from Colombia (73 percent), Korea (65 percent), Ecuador (62 percent) and India (61 percent) (Table 4).

Table 4. Top Countries of Birth for Noncitizens, Queens

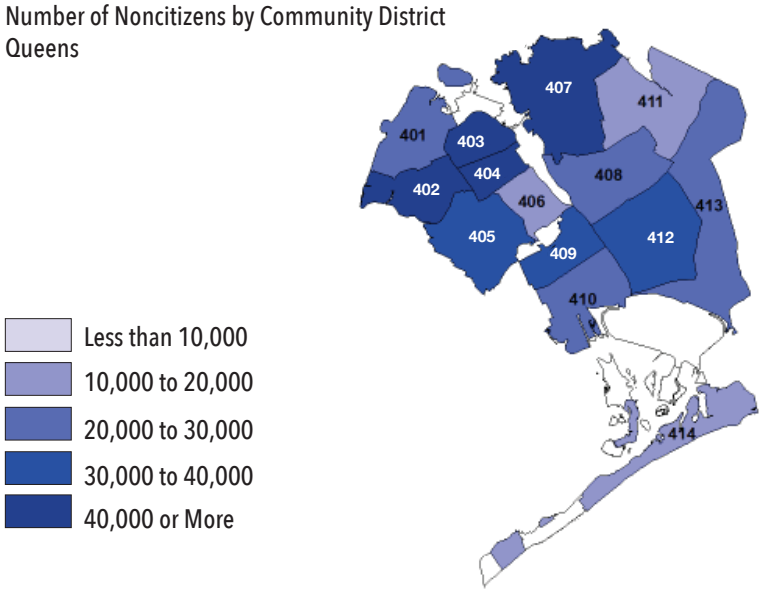
Country of birth	Number	Percent of NYC total
Total noncitizens	471,000	34
China[1]	79,000	45
Ecuador	46,000	62
Mexico	44,000	30
Dominican Republic	26,000	12
Bangladesh	24,000	64
India	21,000	61
Colombia	21,000	73
Guyana	21,000	60
Korea	18,000	65
Jamaica	17,000	29

[1] China includes Hong Kong

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

The neighborhoods in Queens with the largest numbers of noncitizens are CD 7 Flushing/Murray Hill/Whitestone (69,000) followed by CD 3 Jackson Heights/North Corona (63,000) and CD 4 Elmhurst/South Corona (48,000). Other large populations of noncitizens reside in CD 2 Sunnyside/Woodside (44,000) and CD 12 Jamaica/Hollis/St. Albans (38,000) (Figure 12).

Figure 12.
Number of Noncitizens by Community District
Queens



401	Astoria & Long Island City
402	Sunnyside & Woodside
403	Jackson Heights & North Corona
404	Elmhurst & South Corona
405	Ridgewood, Glendale & Middle Village
406	Forest Hills & Rego Park
407	Flushing, Murray Hill & Whitestone
408	Briarwood, Fresh Meadows & Hillcrest
409	Richmond Hill & Woodhaven
410	Howard Beach & Ozone Park
411	Bayside, Douglaston & Little Neck
412	Jamaica, Hollis & St. Albans
413	Queens Village, Cambria Heights & Rosedale
414	Far Rockaway, Breezy Point

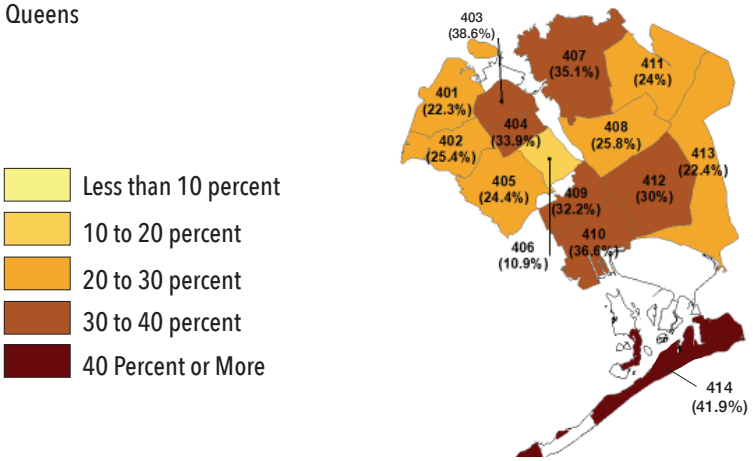
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Education

There are wide disparities in educational attainment across the neighborhoods of Queens. Borough-wide, 30 percent of noncitizens have less than a high school education. Far Rockaway has the largest share of population without a high school degree (42 percent), and Forest Hills/Rego Park has the lowest percentage (11 percent) (Figure 13). Jackson Heights/North Corona has the second largest share of those without a high school education (39 percent). Flushing/Murray Hill/Whitestone, the neighborhood with the largest number of noncitizens in the borough, also has a disproportionate share of persons without a high school education (35 percent). Howard Beach ranks third in this indicator (37 percent) but, like Far Rockaway, is home to relatively smaller numbers of noncitizens than other CDs in Queens.[21]

[21] Far Rockaway has the smallest number and percent of noncitizens in Queens. Its fewer than 14,000 noncitizens comprise only 10 percent of the neighborhood's population. There are 21,000 noncitizens in Howard Beach (15 percent).

Figure 13.
Percent Noncitizens with Less than High School Degree
Queens



401	Astoria & Long Island City
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413	Queens Village, Cambria Heights & Rosedale
414	Far Rockaway, Breezy Point

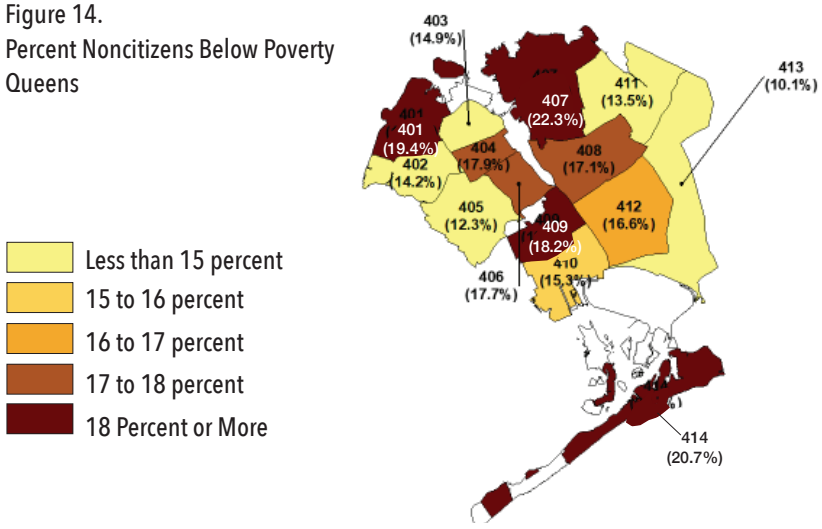
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Poverty

Queens has one of the lowest poverty rates of all the boroughs in the city. In the period from 2014 to 2018, the citywide poverty rate was 19 percent compared to 13 percent for Queens. The poverty rate for naturalized citizens was roughly equivalent to the poverty rate for those born in the US (11 and 12 respectively). Noncitizens have a poverty rate of 17, significantly higher than either of these groups and the borough-wide poverty rate.

Flushing/Murray Hill/Whitestone has the highest noncitizen poverty rate of all the CDs in the borough (22 percent) followed by Far Rockaway and Astoria (21 percent and 19 percent respectively) (Figure 14). Jackson Heights/North Corona, the neighborhood with the second largest concentration of noncitizens, has one of the lowest poverty rates (15 percent).

Figure 14.
Percent Noncitizens Below Poverty
Queens



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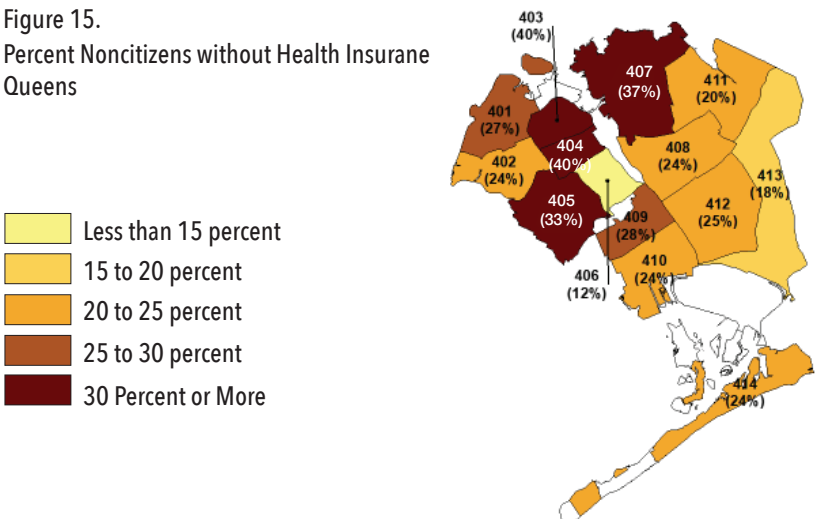
Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Health Insurance

The percent of the population in Queens without health insurance was higher than the Citywide average – 11 percent compared to 8 percent. While uninsured rates have fallen across the city, the number without health insurance is still substantial. In Queens, 141,000 noncitizens lack health insurance, which is attributable in part to a large undocumented population that is not eligible for most insurance programs. As noted, undocumented immigrants cannot purchase health insurance on the Health Insurance Market Place and with few exceptions are not eligible for Medicaid. Undocumented immigrants without health insurance account for approximately 40 percent of the total uninsured population in Queens.

Jackson Heights/North Corona and Elmhurst/South Corona are the neighborhoods with the largest share of noncitizens without health insurance – 40 percent each, compared to the borough-wide average of 30 percent (Figure 15). Flushing/Murray Hill/Whitestone follows closely behind with an uninsured rate of 37 percent for noncitizens. These three neighborhoods all have relatively large numbers of undocumented immigrants.

Figure 15.
Percent Noncitizens without Health Insurane
Queens



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410	Howard Beach & Ozone Park
411	Bayside, Douglaston & Little Neck
412	Jamaica, Hollis & St. Albans
413	Queens Village, Cambria Heights & Rosedale
414	Far Rockaway, Breezy Point

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

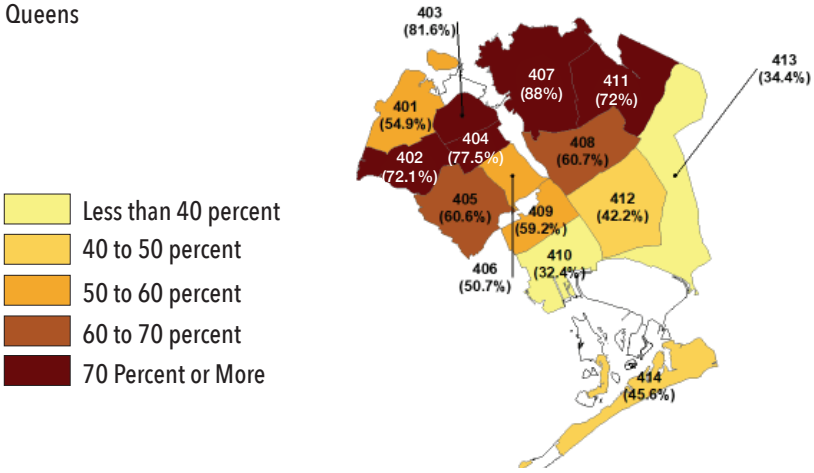
Limited English Proficiency (LEP)

Sixty-five percent of the noncitizen population in Queens has LEP, compared to 29 percent of the total Queens population. Of this LEP population, the top five languages spoken by noncitizens are Spanish, Chinese,[22] Hindi and related languages, Korean, and Polish.

Figure 16 shows the large swath in northwestern Queens where noncitizens have limited English proficiency. More than 80 percent of those living in Flushing/Murray Hill/Whitestone and Jackson Heights/North Corona are LEP. Elmhurst/South Corona, Sunnyside/Woodside, and Bayside also have large shares of noncitizens who are LEP (78, 72, and 72 percent respectively).

[22] Chinese includes the languages of Mandarin and Cantonese.

Figure 16.
Percent Noncitizens with Limited English Proficiency
Queens



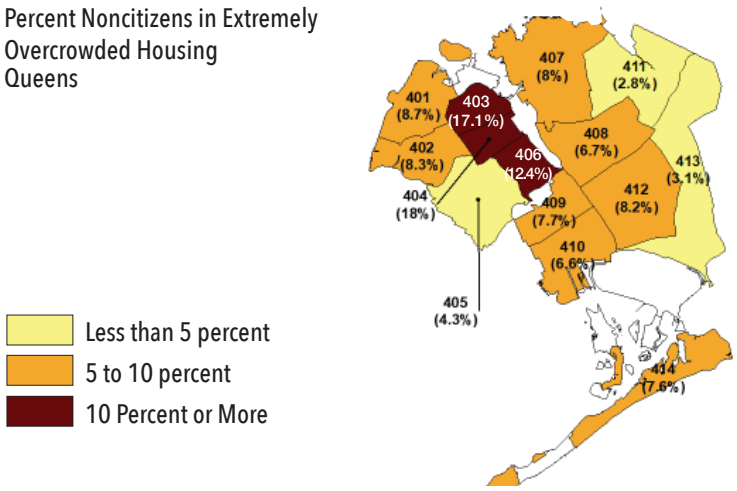
401	Astoria & Long Island City
402	Sunnyside & Woodside
403	Jackson Heights & North Corona
404	Elmhurst & South Corona
405	Ridgewood, Glendale & Middle Village
406	Forest Hills & Rego Park
407	Flushing, Murray Hill & Whitestone
408	Briarwood, Fresh Meadows & Hillcrest
409	Richmond Hill & Woodhaven
410	Howard Beach & Ozone Park
411	Bayside, Douglaston & Little Neck
412	Jamaica, Hollis & St. Albans
413	Queens Village, Cambria Heights & Rosedale
414	Far Rockaway, Breezy Point

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Overcrowding

Roughly 10 percent of noncitizens in Queens (45,000) live in extremely overcrowded households. This share is twice the rate in Queens for US citizens, both native-born and naturalized, (5 percent each). Elmhurst/South Corona has the highest share of noncitizens in overcrowded households (18 percent), followed by Jackson Heights/North Corona (17 percent). The CD of Forest Hills/ Rego Park also has a larger than average share of noncitizens living in overcrowded housing (12 percent), although the number of noncitizens in this neighborhood is small compared to other neighborhoods in Queens (Figure 17).

Figure 17.
Percent Noncitizens in Extremely Overcrowded Housing
Queens



401	Astoria & Long Island City
402	Sunnyside & Woodside
403	Jackson Heights & North Corona
404	Elmhurst & South Corona
405	Ridgewood, Glendale & Middle Village
406	Forest Hills & Rego Park
407	Flushing, Murray Hill & Whitestone
408	Briarwood, Fresh Meadows & Hillcrest
409	Richmond Hill & Woodhaven
410	Howard Beach & Ozone Park
411	Bayside, Douglaston & Little Neck
412	Jamaica, Hollis & St. Albans
413	Queens Village, Cambria Heights & Rosedale
414	Far Rockaway, Breezy Point

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

Undocumented Immigrants

Queens has a large share and number of undocumented immigrants in New York City. As with Brooklyn, estimates of the size of the population are not shown for security and privacy reasons. However, the percentages of the undocumented population residing in each CD in Queens were used as a health indicator.

Queens Neighborhoods at Risk for Poor Health Outcomes

The three neighborhoods that rank the highest for the six indicators combined are Elmhurst/South Corona (CD 4), Jackson Heights/North Corona (CD 3), and Flushing/Murray Hill/Whitestone (CD 7) (Table 5).

Table 5. Community Districts Rank Ordered by Selected Health Indicators for Noncitizens, Queens

Note: CDs that ranked the *highest* are neighborhoods with noncitizens that were *most at risk* of adverse health outcomes based on these determinants

		Percent Noncitizen[1]					
		Less than HS, Age 18+	LEP[2], Age 5+	Below Poverty	Undoc. Rank	Extremely Overcrowded[3]	No Health Insurance
Rank	Community District						
14	Elmhurst & South Corona (CD 4)	34	78	18	13	17	40
13	Jackson Heights & North Corona (CD 3)	39	82	15	14	18	40
12	Flushing, Murray Hill & Whitestone (CD 7)	35	88	22	12	8	37
11	Richmond Hill & Woodhaven (CD 9)	32	59	18	10	8	28
10	Sunnyside & Woodside (CD 2)	25	72	14	11	9	24
9	Astoria & Long Island City (CD 1)	22	55	19	8	8	27
8	Far Rockaway, Breezy Point & Broad Channel (CD 14)	42	46	21	2	8	24
7	Jamaica, Hollis & St. Albans (CD 12)	30	42	17	7	4	25
6	Briarwood, Fresh Meadows & Hillcrest (CD 8)	26	61	17	6	8	24
5	Ridgewood, Glendale & Middle Village (CD 5)	24	61	12	9	7	32
4	Howard Beach & Ozone Park (CD 10)	37	32	15	5	12	24
3	Forest Hills & Rego Park (CD 6)	11	51	18	3	7	12
2	Bayside, Douglaston & Little Neck (CD 11)	24	72	14	4	3	20
1	Queens Village, Cambria Heights & Rosedale (CD 13)	22	34	10	1	3	18

[1] For every health indicator, with the exception of undocumented immigrants, the percent noncitizen is computed as the number of noncitizens for that health indicator divided by the total noncitizen. For example, percent "Less than HS" is computed as the number of noncitizens who have not completed high school (18 and over) divided by all noncitizens (18 and over). For undocumented immigrants, the CDs are rank ordered by the percent undocumented.

[2] LEP refers to Limited English Proficiency.

[3] Extremely overcrowded is defined as more than 1.5 persons per room.

Source: Center for Migration Studies
Calculations using data from the 2014-2018 American Community Survey IPUMS

CD 4 Elmhurst and South Corona

The neighborhood with the largest concentration of immigrants in the city is Elmhurst/South Corona (CD 4). This neighborhood is home to 140,000 persons, of which 63 percent (88,000) are foreign-born. They are from a diverse array of countries, and have resided in the United States an average of 21 years. More than one-third (49,000) of the population live in mixed-status households, defined as having at least one undocumented immigrant present and one other person with lawful status. Roughly 30 percent of those in mixed-status households are children under the age of 18, and the overwhelming majority are US citizens.

Elmhurst/South Corona has 48,000 noncitizens, comprising 35 percent of the neighborhood's population. The community district ranks the highest in Queens for percent living in overcrowded households. Approximately 9,000 persons or 17 percent of the noncitizens in this neighborhood live in extremely overcrowded housing.

Elmhurst/South Corona ranks second for two health indicators: percent with no health insurance and percent undocumented. Approximately 19,000 noncitizens did not have health insurance, the majority of whom are undocumented. Lastly, 84 percent of noncitizens in this neighborhood are essential workers, and, as a result, it has been one of the areas hardest hit by COVID-19 in New York City.

Of the noncitizens that live in this neighborhood, three-quarters are not proficient in English. Of those, the top five languages are Spanish, Chinese, Hindi and related languages, Filipino/ Tagalog, and Dravidian. The top five countries of origin are Ecuador, Mexico, China, Dominican Republic, and Colombia.

CD 3 Jackson Heights and North Corona

Jackson Heights/North Corona, is north of and contiguous with Elmhurst/South Corona. The neighborhood has the largest concentration of noncitizens in Queens (36 percent), and a sizable proportion of its residents lack immigration status. Like Elmhurst/South Corona, Jackson Heights/ North Corona has large concentrations of Ecuadorians, Mexicans, Dominicans, Colombians, and Bangladeshis.

This CD ranks the highest for share without health insurance, those living in extremely overcrowded households, and the highest percent of undocumented immigrants. Of the 25,000 noncitizens who lack health insurance, the overwhelming majority are undocumented (78 percent). The neighborhood ranks second in Queens for LEP and educational attainment.

Almost 51,000 noncitizens are not proficient in English (82 percent), and an overwhelming majority speak Spanish (83 percent). This neighborhood also has a relatively large share of noncitizens without a high school degree (39 percent).

Jackson Heights/North Corona has a considerably lower poverty rate than noncitizens in other CDs in Queens, 15 percent compared to 22 percent in nearby Flushing/Murray Hill/Whitestone. This may be attributed, in part, to the larger number of workers per household that contribute

to the household income. A higher median household income for noncitizens, particularly for undocumented, corroborates this finding (data not shown).

Approximately 65,000 (38 percent) residents of this neighborhood live in mixed-status households, including 16,000 US citizen children.

CD 7 Flushing, Murray Hill and Whitestone

Flushing/Murray Hill/Whitestone ranks third on the six combined health determinants. The neighborhood is home to the largest number of immigrants in the city (139,000). The foreign-born make up more than half (57 percent) of its population. Flushing/Murray Hill/Whitestone has the largest concentration of Asians in New York City. More than twice as many Chinese immigrants live in Flushing/Murray Hill/Whitestone than in the first established Chinatown of lower Manhattan (64,000 compared to 30,000). The Chinese immigrants in Flushing/Murray Hill/Whitestone have not resided in the United States as long as those in Manhattan's Chinatown (17 years on average compared to 28 years).

Flushing/Murray Hill/Whitestone has the highest poverty rate for noncitizens in all the CDs in Queens: 22 percent compared to 17 percent for all noncitizens in the borough. This neighborhood also has the highest percent of those with LEP (88 percent). Chinese speakers account for two-thirds (41,000) of those with limited English proficiency, followed by those who speak Korean (8,000).

Flushing/Murray Hill/Whitestone ranks third for noncitizens with no insurance and in the percent of undocumented residents. The neighborhood has a relatively low ranking for overcrowding possibly due to its large geographic area that encompasses less dense areas outside downtown Flushing/Murray Hill/Whitestone. This neighborhood has a smaller share living in mixed-status households compared to Elmhurst/South Corona and Jackson Heights/North Corona. Only 21 percent of this CD's population live in mixed-status households compared to more than one-third for Elmhurst/South Corona and Jackson Heights/North Corona.

Findings

The literature review established the link between adverse health outcomes and the social and economic characteristics described in this report. CMS has identified the community districts most at risk by compiling and sorting large amounts of data. In particular, we identify the CDs whose noncitizens have high rates of poverty, low English proficiency, low levels of educational attainment, overcrowding, high percentages of undocumented residents, and no health insurance. The identification of the most vulnerable CDs will assist health care providers and immigrant serving organizations in developing programs to address these determinants and, in this way, prevent negative health outcomes.

Immigrants are a heterogenous group with many different legal statuses. In New York City, naturalized citizens are much more likely to resemble native-born citizens than noncitizens. Naturalized citizens have the lowest poverty rate of all of these groups; 15 percent compared to

19 percent for the US born. The poverty rate for noncitizens is 22 percent citywide.

An important finding is that commonly used health indicators for the general population are not applicable to immigrant populations. For example, the homicide rate, a universally accepted health indicator, is quite low in the most vulnerable immigrant communities. This shows the importance of collecting health-related data separately by immigration legal status.

Many of these health determinants are highly correlated. For example, neighborhoods with disproportionate shares of undocumented immigrants are more likely to be without health insurance as they are not eligible for most health insurance plans. Likewise, those without a high school education are more likely to have limited English proficiency.

The number of persons without health insurance has dropped dramatically since the enactment of the Affordable Care Act in 2010.[23] In New York City, the uninsured rate dropped from 25 percent in 2010 to 7 percent in 2018. However, the uninsured rates for noncitizens in both boroughs remain high. In Queens, there were 141,000 uninsured noncitizens (30 percent) and in Brooklyn 96,000 (25 percent).

In general, immigrants have lower educational attainment than persons born in the United States. In Brooklyn, 25 percent of foreign-born lack a high school degree compared to 12 percent of the native-born. For noncitizens, the share is even higher at 32 percent.

The COVID-19 pandemic has laid bare large disparities and inequalities across many sectors of our society. Early in the pandemic it became apparent that immigrant communities shouldered a disproportionate burden because they are more likely to be working on the front lines in retail, transportation, and health care industries. More than 80 percent of noncitizen workers in two at-risk communities, Elmhurst/South Corona and Bushwick, are essential workers. Not surprisingly, neighborhoods with disproportionate shares of essential workers, such as Flushing/Murray Hill/Whitestone and Jackson Heights/North Corona, have some of the highest COVID-19 death rates in New York City.

While Brooklyn and Queens have the largest immigrant populations in the city, each borough has its own unique mix of immigrant groups and settlement patterns. Queens is home to the largest number and share of noncitizens. About 471,000 (21 percent) of Queens residents are noncitizens. Brooklyn, the most populous borough, has 384,000 noncitizens, comprising 15 percent of its population.

The Neighborhoods

Sunset Park/Windsor Terrace (CD 7): Noncitizens in this neighborhood, home to New York City's third Chinatown, were found to be the most vulnerable to adverse health outcomes in Brooklyn. Although Sunset Park/Windsor Terrace is not the largest immigrant neighborhood in Brooklyn, it is home to the largest number of noncitizens in the borough. Chinese make up 42 percent of

[23] The Affordable Care Act (ACA), formally known as the Patient Protection and Affordable Care Act, was signed into law by President Barack Obama in 2010. For more information see: https://www.hhs.gov/healthcare/about-the-aca/index.html.

noncitizens in this neighborhood, and Mexicans comprise 26 percent. The CD had the highest percent of LEP and those lacking a high school education.

Bushwick (CD 4) was the next neighborhood most at risk for adverse health outcomes in Brooklyn. The majority of noncitizens in this neighborhood are Hispanic (75 percent), many of them from Mexico, the Dominican Republic, and Ecuador. Bushwick has the highest share of noncitizens without health insurance and of undocumented immigrants. Sunset Park/Windsor Terrace and Bushwick are the only two neighborhoods in Brooklyn where the numbers of noncitizens exceed the naturalized population.

The third most vulnerable neighborhood in Brooklyn is Bay Ridge/Dyker Heights. This neighborhood's noncitizens come from China (37 percent) and Mexico (13 percent), with a small presence of Egyptians and Polish. The majority of noncitizens speak Chinese and Spanish, and 10 percent speak Arabic. The noncitizens in Bay Ridge/Dyker Heights have the highest poverty rate of all CDs in Brooklyn.

In Queens, the most vulnerable neighborhood is Elmhurst/South Corona (CD 4), followed by Jackson Heights/North Corona (CD 3). These neighborhoods are contiguous and share many of the same characteristics. They have among the highest shares of overcrowding, uninsured, and percent undocumented. There is also a large Hispanic presence of noncitizens in both neighborhoods, coming primarily from Ecuador, Mexico, Dominican Republic, and Colombia.

Flushing/Murray Hill/Whitestone (CD 7) has the highest poverty rate in Queens and the highest percent with limited proficiency in English. Most of the noncitizen population in this neighborhood is Asian (83 percent), primarily Chinese, followed by Korean. Of the 60,000 noncitizens with limited English proficiency, 72 percent speak either Chinese or Korean.

All three of these Queens neighborhoods have been particularly hard hit by COVID-19 and have higher than average death rates. In Elmhurst/South Corona 84 percent of noncitizens are essential workers.

Sizeable shares of the total population in the neighborhoods of Jackson Heights/North Corona, Elmhurst/South Corona, and Sunset Park/Windsor Terrace live in mixed-status households, ranging from 38 percent in Jackson Heights/North Corona to 27 percent in Sunset Park/Windsor Terrace.

Recommendations

Findings from this research align with the literature on health outcomes. The health-related variables described here should be used by organizations to target specific geographic areas to address the challenges immigrants face in maintaining their health and wellbeing. In addition, the large amount of supplementary information the study made available should be used to tailor programs to the unique needs at the neighborhood level in order to improve health outcomes for these vulnerable populations.

Lack of health insurance is one of the most pressing issues facing immigrants in general and noncitizens in particular. More than 220,000 New Yorkers are uninsured and not eligible for most health insurance coverage plans because they lack immigration status. Undocumented

persons can receive health insurance through work, but few do. NYC Care, a health care access program provided by the city, guarantees low-cost and no-cost services to New Yorkers who do not qualify for or cannot afford health insurance.[24] This is a step in the right direction, but the program should be expanded and its services made more comprehensive. In addition, policy makers should be challenged to find creative solutions to reach this most vulnerable population and ensure that they have access to health insurance.

Immigrants who qualify for the Deferred Action for Childhood Arrivals (DACA) and Temporary Protected Status (TPS) programs are eligible for Medicaid in New York State. There is evidence that the new public charge rule[25] has created a widespread chilling effect on the receipt of such benefits (Bernstein et al. 2019). Eliminating the public charge rule would be a positive step in removing this barrier to health care access. And outreach efforts should continue to inform immigrants of their eligibility for Medicaid despite the fear of public charge.

Findings from this report show that naturalized citizens have socioeconomic profiles that are more similar to native-born citizens than noncitizens. In 2018, about 622,000 persons living in New York City were eligible for naturalization.[26] Programs that promote citizenship are essential for helping noncitizens take advantage of the full range of benefits that become available after naturalization. The data presented here should be used to target locations with high concentrations of those who are eligible to naturalize.

Many community-based agencies and programs in New York City offer naturalization assistance and citizenship services. CUNY Citizenship Now!, for example, is a program that provides free, high quality, and confidential immigration law services to individuals on their path to citizenship. This program was created in 1997 and has helped more than 15,000 immigrants a year.[27] In addition, through the NYCitizenship program, the Mayor's Office of Immigrant Affairs works with not-for-profit organizations to provide free legal help and financial counseling to people filing citizenship applications at selected public library branches.[28] These two programs are examples of innovative models for how to overcome the barriers many immigrants face with the

[24] NYC Care is not an insurance plan. It is a health care access program that guarantees services offered by NYC Health + Hospitals to New Yorkers who do not qualify for insurance, or are unable to afford insurance. For more information, see https://www.nyccare.nyc/.

[25] In 2019 Department of Homeland Security published new rules related to public charge rule. As of the publication of this report, the rule is still being litigated. https://www.ilrc.org/sites/default/files/resources/2020.09_public_charge-a_quick_legal_background.pdf.

[26] Estimates of the number of noncitizens who are eligible for naturalization in New York City are made available by NYC Mayor's Office of Immigrant Affairs at https://www1.nyc.gov/assets/immigrants/downloads/pdf/Elig-to-natz-fact-sheet-2019-12-18.pdf

[27] See *Citizenship Now! 2017 In Review* for more information on the history and implementation of this program. http://www1.cuny.edu/sites/citizenship-now/wp-content/uploads/sites/12/media-assets/Year-In-Review.pdf

[28] *NYCitizenship is no longer accepting new applications for this program. New applicants are referred to ActionNYC, NYC's initiative to provide access to free, safe, immigration legal help to all New Yorkers regardless of immigration status. For information on NYCitizenship see:* https://www1.nyc.gov/site/immigrants/help/legal-services/citizenship.page. *An evaluation of this program can be found here:* https://www1.nyc.gov/assets/opportunity/pdf/evidence/nycitizenship-evaluation-report-2020.pdf

naturalization process. However, neither program was intended to provide citizenship services at scale. Existing public and private programs should be supported to expand services to all those eligible for citizenship.

This study shows that noncitizens and undocumented residents work in essential jobs at higher rates than the native-born population. But many have been excluded from the federal CARES relief program to provide assistance to Americans during the pandemic. Financial support for all essential workers regardless of immigration status, which the Fund Excluded Workers bill (Senate Bill S8277B) would provide, should be a high priority.

In addition, immigrant workers in precarious jobs should be protected by legislation that increases their wages, provide benefits such as paid sick leave, unemployment insurance and hazardous pay. Worker co-ops, owned and self-managed by its workers, are a good model for protecting workers, particularly undocumented immigrants, and should be supported in their efforts to promote job security and safer working conditions.

Affordable housing is one of the most pressing needs facing New Yorkers today, particularly noncitizens who are much more likely than citizens to face poor housing conditions. This study suggests that improving the housing situation of immigrants, especially reducing overcrowding, would improve health outcomes.

Different communities have different needs and health determinants are often correlated. In Sunset Park/Windsor Terrace, for example, there are large shares of noncitizens without a high school education and who are also LEP. This suggests that English language programs should be tailored in order to accommodate immigrants who might not be literate in their own language. The high correlation between the health determinants examined in this study suggests that public, private, and charitable agencies should seek to address intersecting determinants in neighborhoods that are vulnerable to adverse health outcomes. Support should be given to stakeholders such as faith communities, community centers, and even workplaces to build capacity and reach isolated immigrant communities (Kerwin et al. 2017).

Programs intended to serve immigrants that provide wraparound services should be promoted. CUNY Citizenship Now! is an example of a program that provides citizenship assistance while also providing English language classes in a community college setting, thus addressing three health determinants – education, language proficiency, and naturalization – at once.

More research is needed to determine the health status of immigrants, to assess their needs, and to devise programs to improve their health outcomes. The review of health indicators for this study revealed that health statistics in New York City are not available separately by immigration status at a neighborhood level. The data shown in this report indicates that the actual health status of immigrants is obscured in statistics that also include naturalized and native-born citizens. More research is needed to better delineate the needs of immigrants with regard to their legal status. It is understood that the privacy of the individual is paramount, however, for research purposes some kind of proxy could be created whereby legal status is inferred and information could be gleaned that in the end could result in better serving these most vulnerable of vulnerable populations. This should be an imperative at any time, but particularly during the COVID-19 pandemic.

A significant number of undocumented immigrants are potentially eligible for immigration relief but do not know it. ActionNYC, a partnership between the Mayor's Office of Immigrant Affairs and the City University of New York, is a program that offers free and safe immigration legal help regardless of immigration status.[29] Increased support for programs such as this could put large numbers of undocumented immigrants on a path to legal status, even without a change in immigration law (Kerwin et al. 2017).

Lastly, the importance of attaining legal status cannot be overstated. Undocumented immigrants are much more likely to be at risk of adverse health outcomes described by the health determinants in this study. The Trump administration sought to terminate DACA and rescind TPS for a number of designated national groups but the Biden administration has committed to revitalizing these programs. Any administrative action or federal legislation that allows persons to gain permanent residence and citizenship should be viewed as addressing a key determinant of health. To ensure a permanent solution, federal legislation should provide a path to citizenship for DACA recipients, long-term TPS beneficiaries, essential workers, and other undocumented populations (Aleinikoff and Kerwin 2020).

29 For information on ActionNYC see: https://www1.nyc.gov/site/immigrants/help/legal-services/actionnyc.page

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