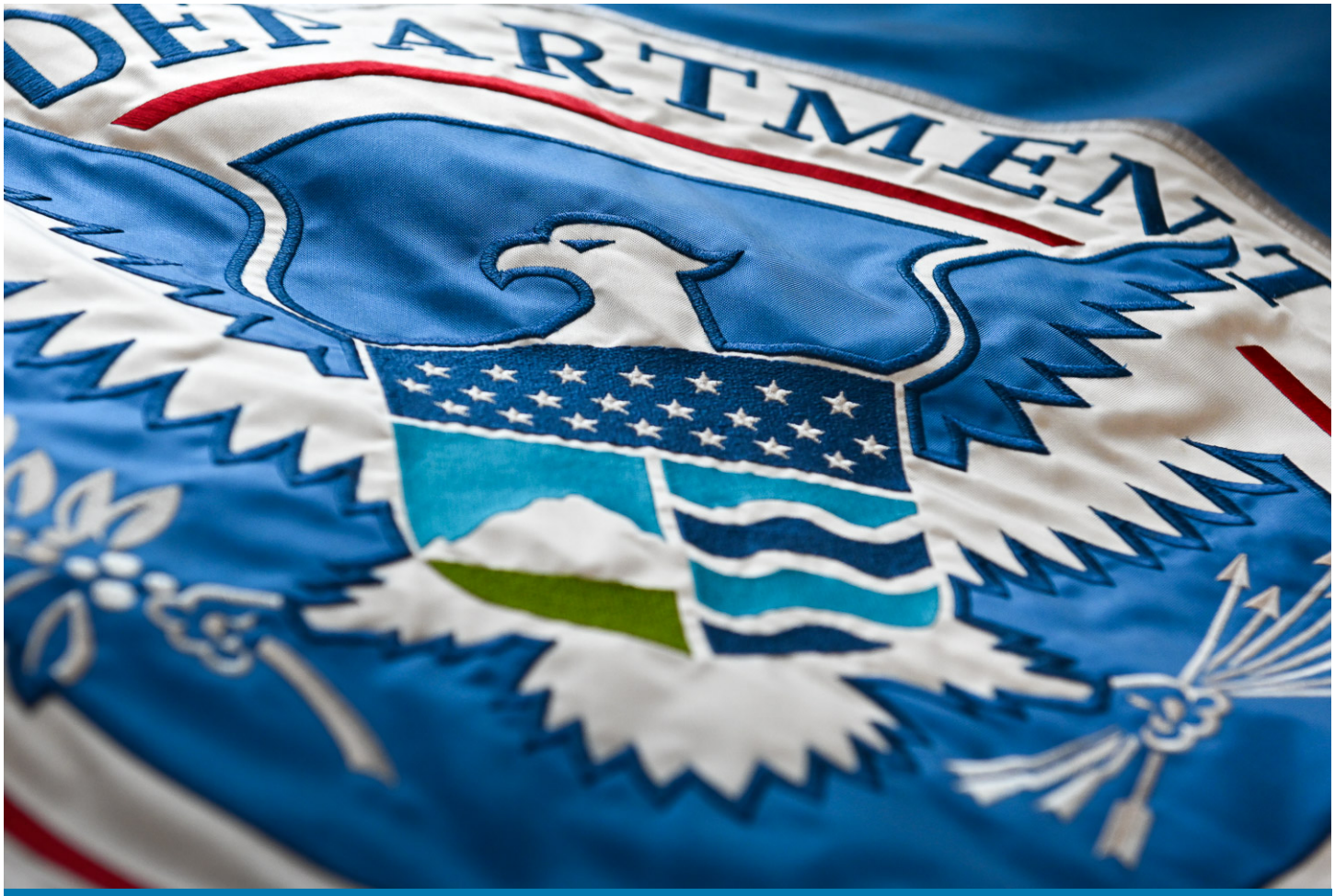

COVID-19 Vulnerability by Immigration Status

Status-Specific Risk Factors and Demographic Profiles

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Homeland Security

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Introduction

Foreign-born noncitizens[1] in the United States have different COVID-19 vulnerabilities and outreach requirements than the U.S.-born population. Noncitizens are especially vulnerable due to comparatively limited healthcare and financial assistance options, lower health insurance enrollment rates, greater fear of seeking care and enrolling in public benefit programs, higher employment in high-risk occupations, limited English proficiency, and higher levels of poverty than U.S. citizens. However, the noncitizen population tends to be younger and healthier on average than the citizen population.

Vulnerabilities, demographics, and COVID-19 risk factors in noncitizen populations vary with immigration status; age and sex profiles of noncitizens may be factors in vaccine planning and public health programs. Primary languages spoken in communities may also impact the design of vaccine and public health outreach campaigns.

This report presents population estimates by four categories of immigration status – lawful permanent residents (LPRs), resident nonimmigrants, refugees and asylees, and unauthorized immigrants – and addresses risks each status group may face. Refugee and asylee estimates are provided separately in a standalone subsection.[2] The term "noncitizen" hereafter only refers to these four status groups. This report summarizes the high-level findings and describes reasons for elevated COVID-19 risk to the noncitizen population as well as status-specific risk factors and demographic profiles for each status group. The report is accompanied by detailed online appendices:

- Appendix "State Age-Sex" provides status-specific, state-level breakdowns of noncitizens by age and sex to support COVID-19 vulnerability analysis; and
- Appendix "State COB" provides status-specific, state-level breakdowns of noncitizens by country of birth (as a proxy for primary language) to support COVID-19 outreach planning.

Notably, anyone can receive the COVID-19 vaccine for free in the United States regardless of immigration status or whether they have health insurance.

Methodology

As no precise count of the noncitizen population exists, this report draws from a combination of Department of Homeland Security (DHS) administrative data, Census Bureau American Community Survey (ACS) datasets, and statistical modeling to produce population estimates. As such, the numbers are educated approximations, not precise counts, and precision decreases as specificity increases (e.g., aggregate state numbers are more precise than age group breakouts within a state).

Acknowledgments: Special thanks to Randy Capps from Migration Policy Institute, Tanya Broder from National Immigration Law Center, and Samantha Artiga from KFF (Kaiser Family Foundation) for their review and feedback.

1 Though a person can be both an immigrant (a foreign national having come to the United States from abroad) and a U.S. citizen (having naturalized, and therefore gained U.S. citizenship), this paper focuses on those immigrants who are not U.S. citizens.

2 Given the historically low level of refugee and asylee arrivals in FY 2019 (approximately 76 thousand), this paper describes COVID-19 vulnerability for this status group but does not provide a numeric breakout of the refugee and asylee population in summary tables or the appendix. Standalone tables on this population may be found in the refugee and asylee subsection of "COVID-19 Vulnerability by Immigration Status."

Noncitizen estimates are partially based on the most recent DHS Office of Immigration Statistics (OIS) estimates and partially based on a new approach that is better suited to producing state-level estimates.[3] Specifically, this report aligns the 2019 5-Year ACS Public Use Microdata Sample with the most recent OIS population estimates for LPRs, resident nonimmigrants, and unauthorized immigrants.[4]

First, OIS national-level population estimates were used to calculate the ratios of LPRs to resident nonimmigrants to unauthorized immigrants for each of the ten most common countries of birth for unauthorized immigrants.[5] These ratios were also calculated for the pool of all other countries.[6] The ACS noncitizen total was divided into status groups based on these ratios.[7]

Second, state-level population estimates for each status group were generated by calculating weighted-average status ratios based on the mix of the noncitizen population by country of origin in each state. In effect, the core assumption of this methodology is that the national-level ratio of LPRs to nonimmigrants to unauthorized immigrants within each nationality group applies across all U.S. states. For example, within each state, the ratio of Mexican LPRs to Mexican nonimmigrants to Mexican unauthorized immigrants is the same as the ratio at the national level. By applying ratios to each of the top ten and all other countries of origin, the state-level mix of noncitizen nationalities predicts the mix of immigration statuses within the state.

Third, status-specific country ratios were also used to calculate state by age by sex tables, based on the same assumption that national-level status ratios within nationality groups apply to age and sex groupings within states. Due to both rounding and ACS cells with zeroes, resulting totals for LPR, resident nonimmigrant, and unauthorized immigrant statuses may not directly align when comparing country tables and age by sex tables.

Finally, the refugee and asylee population estimate is based on the OIS 2019 refugee and asylee flow report (Baugh 2020). Refugees are required to apply for LPR status after 1 year, and such adjustments of status had an average processing time of 9.5 months in fiscal years 2019 and 2020.[8] Asylees are eligible for LPR status after 1 year, and such adjustments of status had an average processing time of 9.9 months in fiscal year 2019 and 17.2 months in 2020. This paper therefore assumes all refugees and asylees adjust to LPR status approximately 2 years after arrival (12 months of holding original status plus about 10-17

3 This estimate does not supersede previously published population estimates at the aggregate level, but is designed for improved interpretation at the state level.

4 Detailed information on data nuances and estimation approaches for the unauthorized immigrant estimate may be found in Baker 2021 (b), for the resident nonimmigrants estimate in Baker (forthcoming), and for the LPR estimate in Baker 2021 (a). For ACS data, see U.S. Census Bureau/MDAT 2021.

5 OIS estimates that the top ten countries of origin for unauthorized immigrants are Mexico, El Salvador, Guatemala, India, Honduras, China, Philippines, Colombia, Brazil, and Venezuela.

6 Ratios were only calculated for the top ten countries (and the all other category) because OIS's unauthorized immigrant methodology does not support more granular estimates by nationality.

7 The OIS estimates of the noncitizen population add up to a larger noncitizen population and a smaller naturalized citizen population than estimated in the ACS. For the purpose of calculating status ratios, this paper aligned the OIS and ACS totals by uniformly scaling down LPRs in the OIS estimate so that the OIS noncitizen total matched the ACS noncitizen total. This modeling approach assumed that LPRs are more likely than nonimmigrants or unauthorized immigrants to misidentify as naturalized citizens. After applying the ratios to the ACS, the LPR population in the ACS was scaled up so that the total number of noncitizens aligned with the OIS total number of noncitizens.

8 Information on processing times for refugee and asylee adjustments of status taken from U.S. Citizenship and Immigration Services website; see U.S. Citizenship and Immigration Services September 20, 2020.

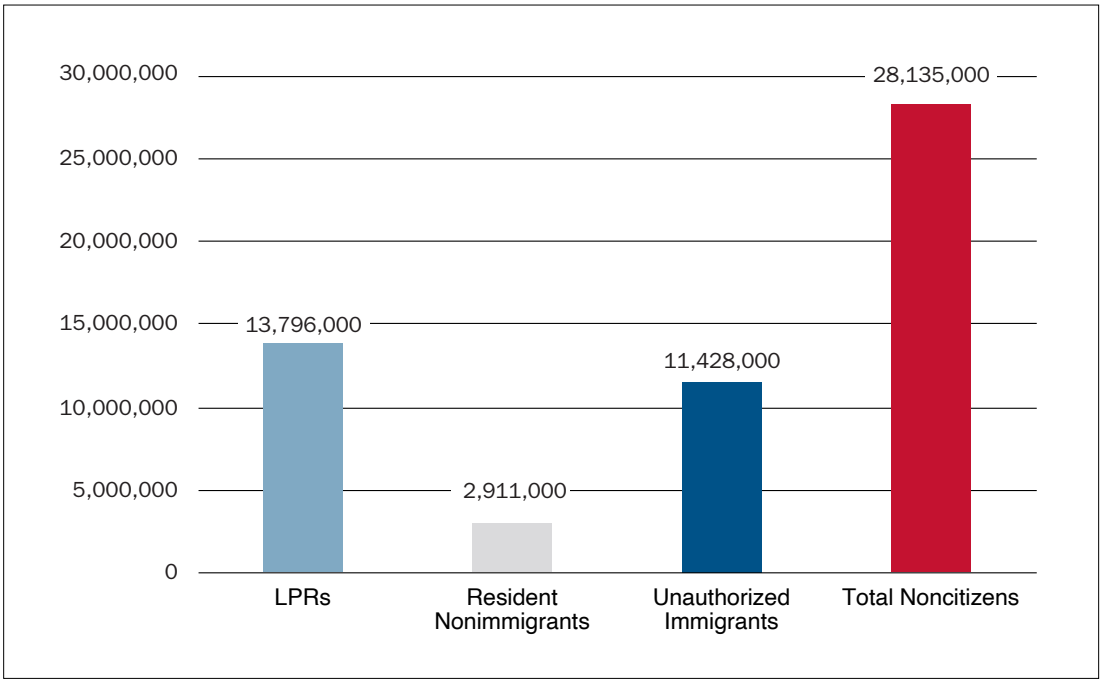
months to adjust to LPR status). Given the historically low level of refugee arrivals and grants of asylum in fiscal year (FY) 2019 (approximately 76 thousand),[9] this paper describes COVID-19 vulnerability for this status group but does not provide a numeric breakout of the refugee and asylee population in summary tables or the appendix. Standalone tables on this population may be found in the refugee and asylee subsection of "COVID-19 Vulnerability by Immigration Status."

Throughout this report and associated tables and appendices, numbers are rounded to the nearest thousand, and percentages are rounded to the nearest whole percent. Numbers are rounded after calculations are completed with raw numbers, so totals and percentages within and between tables may not directly align.

Summary of Findings

Nearly one in ten U.S. residents (9 percent) is a noncitizen.[10] Within the noncitizen population, 49 percent are LPRs, 10 percent are resident nonimmigrants, and 41 percent are unauthorized immigrants (Figure 1).

Figure 1: Noncitizen Population of the United States by Immigration Status (FY 2019)



Source: DHS Office of Immigration Statistics.

9 Numbers for refugees and asylees are slightly different than those of Baugh 2020 due to data updates and including only populations within the fifty states and District of Columbia. This number does not include derivative asylum, as data on this subset is limited at the state level. In FY 2019, there were approximately 3,300 individuals granted derivative asylum status while residing in the United States and approximately 6,300 individuals approved for derivative asylum abroad. For more information, please see "Refugees and Asylees: 2019" (Baugh 2020).

10 Total U.S. population based on a U.S. population of 328,239,523, as noted in 2019 Census U.S. estimates as of July 1 (U.S. Census Bureau 2019), while total noncitizen population based on OIS estimates.

As Table 1 summarizes, noncitizens are concentrated in certain states, with especially high numbers in California, Texas, New York, and Florida. Approximately 42 percent of unauthorized immigrants live in California and Texas, and these two states also hold the highest proportion of unauthorized immigrants as percentages of their state populations (7 percent and 6 percent, respectively). Over a quarter (26 percent) of the unauthorized immigrant population resides in California. California also hosts a fifth of LPRs (20 percent), nearly twice the number of LPRs as any other state. Per capita, however, more than one out of every twenty people is an LPR in nine states – New York, California, New Jersey, Florida, Hawaii, Massachusetts, Nevada, Texas, and Connecticut – and the District of Columbia. Resident nonimmigrants are not as concentrated, with no single state being home to 20 percent or more of the nonimmigrant population.

Table 1: Noncitizen Population by Top Ten States of Residence (FY 2019)

State	LPRs	Resident Nonimmigrants	Unauthorized Immigrants	Total Noncitizens
California	2,828,000	552,000	2,963,000	6,343,000
% of state population	7%	1%	7%	16%
% of status within U.S.	20%	19%	26%	23%
Texas	1,548,000	273,000	1,859,000	3,680,000
% of state population	5%	1%	6%	13%
% of status within U.S.	11%	9%	16%	13%
New York	1,478,000	325,000	744,000	2,547,000
% of state population	8%	2%	4%	13%
% of status within U.S.	11%	11%	7%	9%
Florida	1,423,000	269,000	841,000	2,533,000
% of state population	7%	1%	4%	12%
% of status within U.S.	10%	9%	7%	9%
New Jersey	594,000	165,000	366,000	1,125,000
% of state population	7%	2%	4%	13%
% of status within U.S.	4%	6%	3%	4%
Illinois	527,000	117,000	468,000	1,111,000
% of state population	4%	1%	4%	9%
% of status within U.S.	4%	4%	4%	4%
Georgia	358,000	82,000	309,000	750,000
% of state population	3%	1%	3%	7%
% of status within U.S.	3%	3%	3%	3%
Massachusetts	388,000	105,000	218,000	712,000
% of state population	6%	2%	3%	10%
% of status within U.S.	3%	4%	2%	3%
Washington	357,000	89,000	262,000	709,000
% of state population	5%	1%	3%	9%
% of status within U.S.	3%	3%	2%	3%
Arizona	287,000	52,000	315,000	655,000
% of state population	4%	1%	4%	9%
% of status within U.S.	2%	2%	3%	2%
All Other States	4,008,000	882,000	3,082,000	7,971,000
% of status within U.S.	29%	30%	27%	28%
Total	13,796,000	2,911,000	11,428,000	28,135,000

Note: Percentages of state refer to the proportion of each state's population that fall under a specific status, e.g., 7 percent of California's population is LPRs. Percentages of status refer to the total proportion of each status within the listed states, e.g., 20 percent of LPRs reside in California. To calculate percent of state rows, 2019 Census state population data was used (as the denominator); see U.S. Census Bureau 2019.
Source: DHS Office of Immigration Statistics.

Though noncitizens have many status-specific vulnerabilities, as discussed in the following section, COVID-19 risk strongly increases with age, and the noncitizen population is younger on average than the U.S. citizen population, which has a median age of 38 (Table 2).[11] Nonimmigrants are especially young, with a median age of 36. LPRs and unauthorized immigrants are older, both with median ages of 38, but smaller proportions are in older age groups than U.S. citizens.

In terms of sex, noncitizens as a whole are evenly split between female and males (49 percent and 51 percent respectively), though the unauthorized immigrant population is slightly more skewed toward males. As the Centers for Disease Control and Prevention (CDC) reports that males are somewhat more vulnerable to COVID-19 hospitalization and death, this may put unauthorized immigrants at a somewhat elevated health risk.[12] At the same time, noncitizen females have experienced higher job loss and unemployment during the COVID-19 pandemic compared to male noncitizens, male citizens, and female citizens, putting noncitizen females at elevated risk of losing healthcare access.[13]

Table 2: COVID-19 Risk and Noncitizen Population by Age and Sex (FY 2019)

Age Group	COVID-19 Risk			LPRs			Resident Nonimmigrants		
	Cases	Hospitalization	Death	Total	Female	Male	Total	Female	Male
0-4	<1x	2x	2x	1%	1%	1%	2%	1%	2%
5-17	Baseline	Baseline	Baseline	8%	8%	8%	8%	8%	8%
18-29	3x	7x	15x	20%	19%	20%	22%	21%	22%
30-39	2x	10x	45x	24%	23%	25%	27%	26%	28%
40-49	2x	15x	130x	20%	20%	21%	18%	17%	19%
50-64	2x	25x	400x	18%	19%	18%	16%	16%	15%
65-74	2x	35x	1100x	6%	6%	5%	5%	6%	5%
75-84	2x	55x	2800x	2%	3%	2%	2%	3%	2%
85+	2x	80x	7900x	1%	1%	1%	1%	1%	1%
Total				13,796,000	6,907,000	6,889,000	2,911,000	1,449,000	1,462,000

Note: Percentages shown are column percentages, e.g., 1 percent of LPRs are ages 0-4. Risk information taken from CDC, based on information updated February 18, 2021 (see Centers for Disease Control and Prevention 2021).
Source: DHS Office of Immigration Statistics and Centers for Disease Control and Prevention.

11 United States Census Bureau/MDAT 2021.

12 Griffith et al. 2020.

13 Gelatt, Batalova, and Capps 2020.

Table 2 cont.: COVID-19 Risk and Noncitizen Population by Age and Sex (FY 2019)

Age Group	COVID-19 Risk			Unauthorized Immigrants			Total Noncitizens		
	Cases	Hospitalization	Death	Total	Female	Male	Total	Female	Male
0-4	<1x	2x	2x	1%	1%	1%	1%	1%	2%
5-17	Baseline	Baseline	Baseline	7%	7%	7%	7%	8%	8%
18-29	3x	7x	15x	19%	19%	20%	20%	21%	22%
30-39	2x	10x	45x	26%	25%	27%	25%	26%	28%
40-49	2x	15x	130x	23%	22%	23%	21%	17%	19%
50-64	2x	25x	400x	17%	18%	17%	18%	16%	15%
65-74	2x	35x	1100x	4%	5%	4%	5%	6%	5%
75-84	2x	55x	2800x	2%	2%	1%	2%	3%	2%
85+	2x	80x	7900x	1%	1%	0%	1%	1%	1%
Total				11,428,000	5,498,000	5,930,000	28,135,000	1,449,000	1,462,000

Note: Percentages shown are column percentages, e.g., 1 percent of LPRs are ages 0-4. Risk information taken from CDC, based on information updated February 18, 2021 (see Centers for Disease Control and Prevention 2021).
Source: DHS Office of Immigration Statistics and Centers for Disease Control and Prevention.

Over 44 percent of noncitizens come from Spanish-speaking countries, but the population as a whole is highly diverse (Table 3). The majority of unauthorized immigrants (over 68 percent) were born in predominately Spanish-speaking countries.[14] By far the most common country of birth for unauthorized immigrants is Mexico (50 percent, compared to the next highest country of birth, El Salvador, at 6 percent). There is no single dominant language background of LPRs or nonimmigrants. Though over 30 percent of LPRs come from Spanish-speaking countries, the top ten LPR countries also include China, India, and the Philippines – all countries with diverse language profiles (e.g., hundreds of dialects are spoken in China). In addition, over half of the LPR population comes from a diverse range of other countries. About a quarter of resident nonimmigrants (24 percent) come from India, with the next most common countries comprising 14 percent (China) and 10 percent (Mexico) of the population respectively.

14 Throughout this report, national origin is used as a proxy for language. However, all citizens of a country may not necessarily speak that country's dominant language.

Table 3: Noncitizen Population by Estimated Immigration Status, Top Ten Unauthorized Immigrant Countries of Birth (FY 2019)

Country of Birth	LPRs	Resident Nonimmigrants	Unauthorized Immigrants	Total Noncitizens
Mexico	3,266,000	288,000	5,668,000	9,223,000
% of status	24%	10%	50%	33%
India	471,000	698,000	433,000	1,602,000
% of status	3%	24%	4%	6%
China	689,000	399,000	365,000	1,453,000
% of status	5%	14%	3%	5%
El Salvador	321,000	3,000	735,000	1,059,000
% of status	2%	0%	6%	4%
Philippines	468,000	20,000	295,000	783,000
% of status	3%	1%	3%	3%
Guatemala	176,000	6,000	601,000	782,000
% of status	1%	0%	5%	3%
Honduras	109,000	4,000	439,000	553,000
% of status	1%	0%	4%	2%
Colombia	182,000	23,000	178,000	382,000
% of status	1%	1%	2%	1%
Brazil	101,000	57,000	165,000	324,000
% of status	1%	2%	1%	1%
Venezuela	73,000	17,000	165,000	254,000
% of status	1%	1%	1%	1%
All Other	7,926,000	1,403,000	2,385,000	11,714,000
% of status	58%	48%	21%	42%
Total	13,782,000	2,918,000	11,429,000	28,129,000

Note: Percentages refer to the proportion of each nationality, e.g., 24 percent of LPRs are Mexican. Again, due to methodological approach, status breakouts are only available for the top ten unauthorized immigrant countries of birth.
Source: DHS Office of Immigration Statistics.

COVID-19 Vulnerability by Immigration Status

In general, noncitizens are more vulnerable than citizens in terms of healthcare access. About 32 percent of noncitizens lack health insurance, compared to only 7 percent of people born in the United States.[15] A Kaiser Family Foundation (KFF) study found that the main reason uninsured noncitizens chose to go without healthcare was due to affordability.[16] Noncitizens experience higher levels of poverty compared to citizens, with 16 percent of noncitizens living below poverty compared to 10 percent of U.S. citizens.[17] Language barriers also complicate healthcare access for noncitizens; about 37 percent of noncitizens speak English not well or not at all, compared to less than 0.5 percent of native-born citizens.[18]

Fear of seeking care additionally complicates noncitizen engagement with healthcare. Numerous studies have documented how policy changes between 2017 and 2020 exacerbated noncitizen fears relating to healthcare access,[19] particularly the "public charge" rule penalizing access for certain noncitizen groups to public benefits such as Medicaid.[20] Though the public charge rule only applied to certain noncitizen groups and is no longer implemented, the rule resulted in lower healthcare and benefits access by noncitizens of all statuses. In particular, the public charge rule was linked to a decrease in 260,000 child Medicaid enrollments from 2017-2020; 16% of immigrant households in 2020 reported that immigration fears had stopped at least one member in the household from getting testing and treatment when the person(s) fell ill with COVID-19; and participation in Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), and Medicaid declined twice as quickly from 2016 to 2020 for U.S. citizen children in households that included noncitizens as it did for U.S. citizen children in households that only included other U.S. citizens.[21] In addition, a 2019 KFF study noted that fear in noncitizen families was causing changes in healthcare access and decreased participation in Children's Health Insurance Program (CHIP) and related programs.[22]

Noncitizens generally have limited access to public benefits compared to citizens, though access varies by immigration status, as discussed in the below subsections. Access to healthcare also varies by state of residence, as states differ in their participation in federal options and their provision of state funds to expand coverage to noncitizen groups (Table 4).[23] Notably, among the top ten most common states of residence for noncitizens, Georgia and Arizona do not offer CHIP or Medicaid to lawfully residing children or pregnant women without a waiting period, while California, New York, Illinois, Massachusetts, and Washington provide health coverage to children and pregnant residents regardless of immigration status.[24]

15 United States Census Bureau 2021.

16 Artiga and Ubri 2017.

17 U.S. Census Bureau Current Population Survey 2019 and 2020.

18 United States Census Bureau/MDAT 2021.

19 Protecting Immigrant Families 2021.

20 From 2019-2021, the public charge rule could deny noncitizens visas or entry into the United States if they were deemed likely to require public benefits either at present or in the future and could put applications for LPR status at risk of denial (U.S. Citizenship and Immigration Services September 22, 2020).

21 These findings were pulled from numerous different studies outlined in the resource Protecting Immigrant Families 2021.

22 Tolbert, Artiga, and Pham 2019.

23 For more information on the specific provisions for noncitizens in each state, see National Immigration Law Center January 2021.

24 In order to receive Medicaid, CHIP, or state assistance with health coverage, noncitizens must still meet the same eligibility requirements (e.g., in terms of income) as citizens. Specifically, California, New York, Illinois, Massachusetts, and Washington use state funds to provide health coverage to low-income noncitizen children and pregnant women who do not qualify for Medicaid and CHIP due to immigration status.

Table 4. Healthcare Access Options for Noncitizens by Top Ten States of Residence (2021)

State	Lawfully Residing Children	Children	Lawfully Residing Pregnant Women	Pregnant Women
California	X	X	X	X
Texas	X		X*	X*
New York	X	X	X	X
Florida	X			
New Jersey	X		X	
Illinois	X	X	X*	X*
Georgia				
Massachusetts	X	X	X	X
Washington	X	X	X	X
Arizona				

* Texas and Illinois offer prenatal care to women regardless of status via CHIP, but this technically covers the fetus.
Note: "X" indicates that the option is available. Healthcare options offered include: Medicaid/CHIP for column "Lawfully residing children"; medical coverage for column "Children"; Medicaid for column "lawfully residing pregnant women"; and Medicaid, CHIP, or other medical coverage for column "Pregnant women."
Source: OIS analysis of National Immigration Law Center 2018 and 2020; Brooks et al. 2021.

In addition to their limited access to healthcare, noncitizens are more likely than the U.S.-born population to be exposed to high-risk COVID-19 environments at work. Noncitizens are overrepresented in high-risk occupations; a recent study by the Global Migration Center estimated that foreign-born persons are up to three times more likely than the U.S.-born to be essential workers and have above-average participation in essential sectors such as agriculture, food, distribution, and healthcare.[25]

Hispanic noncitizens, in particular, (which again make up about half – over 45 percent – of the noncitizen population) face notable barriers. KFF found that 49 percent of Hispanic adults say it is difficult to find healthcare that they can afford, and 30 percent say it is difficult to find healthcare at a location that is easy to access.[26] Perhaps as a result, as of February 2021 the Hispanic population had the lowest vaccination rate compared to White, Asian, and Black populations.[27] In addition, CDC data show that Hispanics die at higher rates due to COVID-19 compared to Whites, Blacks, and Asians across age bands, suggesting that the younger demographics of this group do not offset COVID-19 vulnerabilities.[28] Hispanics have the highest rates of COVID-19 cases, hospitalizations, and deaths out of these four races/ethnicities; specifically compared to Whites, Hispanics have 1.3 times the case rate, 3.1 times the hospitalization rate, and 2.3 times the death rate.[29]

The remainder of this section discusses COVID-19 vulnerabilities and healthcare access limitations by immigrant status group in order of increasing vulnerability: LPRs, resident nonimmigrants, refugees and asylees, and unauthorized immigrants.

25 Peri and Wiltshire 2020. For an estimate of the number of noncitizens in the essential workforce during COVID-19, please see Fwd.us 2020.

26 Hamel et al. 2020.

27 For comparison, the rate of vaccinations as a share of the total population was 3 percent for Hispanics compared to 10 percent for Whites, 8 percent for Asians, and 5 percent for Blacks (Ndugga et al. 2021).

28 Centers for Disease Control and Prevention 2020.

29 Centers for Disease Control and Prevention March 2021.

Lawful Permanent Residents (LPRs)

LPR status (also known as "green card" status) allows an immigrant to permanently live in the United States. LPRs may live and work permanently anywhere in the United States, own property, join the Armed Forces, and attend schools, colleges, and universities. OIS estimates that there are approximately 13.8 million LPRs in the United States, making up about 4 percent of the U.S. population. Among noncitizens, LPRs have the fewest overall barriers to obtaining healthcare and are likely to be less concentrated in certain high-risk jobs, but they are also somewhat older and thus more vulnerable to COVID-19.

In terms of access to public benefits, LPRs are eligible for enrollment in the Affordable Care Act (ACA) Marketplace and may access premium tax credits and subsidies to help purchase private coverage.[30] Medicaid and CHIP rules vary by state, but typically LPRs must hold their status for at least 5 years[31] before becoming eligible for Medicaid or CHIP (this waiting period is waived for children and/or pregnant women in certain states).[32] This 5-year requirement also applies to Medicare eligibility (though again there are some exceptions).[33]

LPRs are less likely than other noncitizens to be to be uninsured and low-income, but they are more likely than citizens to be vulnerable as a result of these factors. KFF estimates that 23 percent of nonelderly lawfully present immigrants[34] were uninsured in 2018, compared to 9 percent of U.S. citizens.[35] In other words, nonelderly LPRs may be over twice as likely to be uninsured than nonelderly U.S. citizens.[36] KFF estimated that as of 2018 over a third (41 percent) of nonelderly lawfully present immigrants had an income of less than 200 percent above the federal poverty level, compared to 30 percent of nonelderly U.S. citizens.[37]

These findings are important for vaccination programs across many states, as ten different states have populations in which at least 5 percent of residents hold LPR status. In addition, data in Table 1 indicate that LPRs are highly concentrated in certain states, particularly California; this concentration means certain state policies have a large influence on LPR access to COVID-19 vaccines and healthcare access generally. For example, Texas, which is the second most common state of residence for LPRs, denies Medicaid to most LPR adults who entered the country on or after August 22, 1996.[38]

30 HealthCare.gov.

31 There are some exceptions to this waiting period, including LPRs who were former refugees or asylees.

32 For more information on the specific provisions for noncitizens in each state, see National Immigration Law Center January 2021.

33 After LPRs reside continuously in the U.S. for 5 years, they are eligible for Medicare's "buy-in" program. LPRs may also be eligible for "premium-free" Medicare if they or their spouse has worked for at least ten years in the United States (Burke and Kean 2019).

34 The lawfully present immigrant group in the KFF study includes LPRs and other immigrant classes, but LPRs are the largest proportion of this group.

35 Kaiser Family Foundation 2020.

36 Artiga, Ndugga, and Pham 2021.

37 Kaiser Family Foundation 2020.

38 National Immigration Law Center January 2021.

In terms of age, LPRs are generally not at high risk of COVID-19. The LPR population is largely concentrated in the 30-49 age group, which makes up nearly half (44 percent) of the population (Table 2). Adults ages 30-39 are the largest single age group and alone make up about a quarter of the population (24 percent). Elderly adults aged 75 and over make up the smallest proportion of the LPR population (3 percent). Males outnumber females in younger age groups, but females outnumber males in older age groups, with the comparative proportion of females increasing drastically at each age band 50-64 and above. The median age is 39 for LPR females and 38 for males.

However, the intersection of age with race/ethnicity increases the vulnerability of the LPR population. Over 30 percent of LPRs are Hispanic, as indicated by their country of origin, which puts them at higher risk of death from COVID-19 across age groups (see introduction to this section). In addition, the Hispanic population has relatively low vaccination rates as described earlier (see introduction to this section).

Resident Nonimmigrants

Nonimmigrants are foreign nationals admitted into the United States for specific, temporary purposes. Nonimmigrants' duration of stay and scope of lawful activities—such as employment, travel, and accompaniment by dependents—are governed by their respective classes of admission. This subsection focuses exclusively on resident nonimmigrants who are admitted for purposes associated with temporary residence, specifically temporary workers, students, and exchange visitors. There are approximately 2.9 million resident nonimmigrants in the United States, equivalent to just under 1 percent of the U.S. population. Within the total population of resident nonimmigrants, approximately 52 percent are temporary workers and families, 35 percent are foreign students, and 11 percent are exchange visitors.[39] Each of these nonimmigrant classes may be authorized to remain in the United States for several years.

Health insurance is a requirement of some nonimmigrant visa classes (including all exchange visitor visas[40]) while optional for others. Generally, resident nonimmigrants may enroll in the ACA Marketplace[41] and may also be eligible for tax credits and subsidies for the purchase of private coverage if their income is below certain thresholds. In addition, certain states provide Medicaid and/or CHIP to nonimmigrant children and pregnant women (Table 4). Resident nonimmigrants that do not fall into either of these two categories typically must hold a qualified immigration status for at least 5 years before being eligible for Medicaid or CHIP. In 2019, rules were introduced stating that to the extent a noncitizen could become eligible for such programs, using them could be considered negatively in a "public charge" determination, making it more difficult to extend, change, or improve their immigration status. [42] While ACA Marketplace enrollment was never relevant in a public charge determination, Medicaid for non-pregnant adults, and enrollment in certain nutrition, housing, and cash assistance programs were potentially considered in a "public charge" decision under these rules. Although the DHS

39 Percentage breakdown for categories of admission taken from the 2019 nonimmigrant population estimate (Baker (forthcoming)).

40 See 22 CFR § 62.14.

41 HeathCare.gov 2021.

42 From 2019-2021, the public charge rule could deny noncitizens visas or entry into the United States if they were deemed likely to require public benefits either at present or in the future, and could put applications for LPR status at risk of denial (U.S. Citizenship and Immigration Services September 22, 2020).

"public charge" rules were blocked in March 2021,[43] research has found that due to pervasive fear and uncertainty created by their introduction and implementation, noncitizens and their U.S. citizen family members are likely to continue avoiding such healthcare options (see introduction to this section).[44]

In practice, nonimmigrants' access to healthcare is also likely strongly related to their class of admission. In the case of access to health insurance and healthcare, for example, universities typically offer insurance options to students. Temporary workers may also potentially access health insurance and/or healthcare through their employers, though such access is likely limited in the case of agricultural and seasonal workers.[45]

Nonimmigrant access to care also depends on state of residence. In Florida and Georgia, both among the most common host states for resident nonimmigrants, pregnant women with nonimmigrant status cannot receive Medicaid without a waiting period, and in Georgia and Arizona nonimmigrant children cannot access CHIP or Medicaid without a waiting period. [46]

In terms of age, resident nonimmigrants have lower COVID-19 vulnerability than most other noncitizen populations (Table 2). About 27 percent are between the ages of 30-39, making up the largest age band, and only 8 percent are ages 65 and above. In general, male nonimmigrants outnumber females until age bands 50-64 and above. The median age of resident nonimmigrant females is 37 and for males is 36.

Resident nonimmigrants are the least concentrated noncitizen status in terms of their country of origin, as less than a quarter come from any one country. However, in broad terms of region, over a third (more than 38%) of resident nonimmigrants come from Asia. Though a recent study showed Asians had lower vaccination rates (8 percent) compared to Whites (10 percent), Asians had higher vaccination rates compared to other ethnicities, suggesting resident nonimmigrants may be less vulnerable than other minority groups in terms of race/ethnicity.[47]

43 On March 9, 2021, DHS announced it would no longer defend Inadmissibility on Public Charge Grounds, 84 Fed. Reg. 41,292 (Aug. 14, 2019) (2019 rule), and instead would be applying the 1999 interim field guidance which does not consider most healthcare benefits in a public charge determination: "Under the 1999 interim field guidance, DHS will not consider a person's receipt of Medicaid (except for Medicaid for long-term institutionalization), public housing, or Supplemental Nutrition Assistance Program (SNAP) benefits as part of the public charge inadmissibility determination. In addition, medical treatment or preventive services for COVID-19, including vaccines, will not be considered for public charge purposes" (Department of Homeland Security 2021).

44 Protecting Immigrant Families 2021.

45 Knight 2020. Specifically, agricultural and seasonal visa classes that may have limited healthcare access include H-2A and H-2B. For more information on agricultural worker healthcare access, see Farmworker Justice resources at https://www.farmworkerjustice.org/resource-categories/health-insurance/. In contrast, resident nonimmigrants with H-1B visa classes are legally required to be offered the same benefits as all equivalent U.S. workers.

46 For a full list of CHIP and Medicaid availability for nonimmigrants by state, see National Immigration Law Center, January 2018 and 2020, and Brooks et al. 2020.

47 For comparison across races/ethnicities, the rate of vaccinations as a share of the total population was 3 percent for Hispanics compared to 10 percent for Whites, 8 percent for Asians, and 5 percent for Blacks (Ndugga et al. 2021).

Refugees and Asylees

A refugee or asylee is a person who is unable or unwilling to return to her or his country of nationality because of persecution or a well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion.[48] Applicants for refugee status apply outside the United States, whereas applicants seeking asylum apply either within the United States or upon arriving at a U.S. port of entry.[49] OIS estimates that there were approximately 76 thousand refugees and asylees in the United States as of 2019, making up 0.02 percent of the U.S. population.[50] However, recent numbers are not representative, as refugee admissions in 2019 were at their lowest level at least since passage of the 1980 Refugee Act (when current data categories were created), and likely their lowest level at least since World War II. While the number of asylum grants have increased in recent years, this increase has not offset the drastic decrease of refugee status grants. This subsection analyzes refugee and asylee COVID-19 vulnerability and access to healthcare in light of potential increases to refugee admissions.

Refugees and asylees may purchase health insurance on the ACA Marketplace and are eligible for Medicaid and CHIP without a waiting period.[51] Given the nature of refugee and asylum status, the majority of this population is likely to enter the United States without a job waiting for them, meaning refugees and asylees must initially rely on programs such as Medicaid and/or CHIP as they transition to self-sufficiency. Refugees and asylees who are not eligible for Medicaid are eligible for federally-funded, short-term medical care through the Refugee Medical Assistance program for up to eight months.[52] After this short-term coverage expires, the CDC estimates that up to half of refugees and asylees may be uninsured.[53]

The CDC also notes that refugees and asylees may be at increased risk during the pandemic due to living conditions, communication difficulties, work circumstances, underlying medical conditions, and limited access to healthcare.[54] Mental health is a particular concern; studies suggest that about a third of refugees and asylees have high rates of post-traumatic stress disorder, depression, and anxiety.[55] Traditionally, refugees have been selected for admission to the United States specifically due to vulnerabilities, including acute medical needs, meaning those that are so selected are by definition at higher COVID-19 risk.[56]

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48 See section 101(a)(42) of the Immigration and Nationality Act (INA) for the official definition of a refugee. Congress expanded this definition in the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, providing that persons who have been forced to abort a pregnancy or undergo involuntary sterilization or who have been persecuted for failure or refusal to undergo such a procedure or for other resistance to a coercive population control program shall be deemed to have been persecuted on account of political opinion.

49 There are two general types of asylum: affirmative and defensive. Affirmative asylum is granted through a U.S. Citizenship and Immigration Services asylum officer, while defensive asylum is granted in removal proceedings before an immigration judge of the Department of Justice's Executive Office for Immigration Review. Both affirmative and defensive asylum offer the same benefits.

50 After 1 year, refugees and asylees are eligible for LPR status. For the purposes of this study, it is assumed all refugees and asylees achieve this status after approximately 2 years due to processing times (see Methodology section). Numbers here are slightly different to OIS numbers previously published (Baugh 2020) due to data updates.

51 HealthCare.gov.

52 Office of Refugee Resettlement 2020.

53 Centers for Disease Control and Prevention February 2, 2021.

54 Centers for Disease Control and Prevention 2021 February 2, 2021.

55 Song and Teicholtz.

56 United Nations High Commissioner for Refugees 2019.

Notably, as refugees and asylees have a shorter path to LPR status (approximately 2 years, see Methodology section) than other noncitizens, their health vulnerabilities will likely continue even after they gain LPR status. These vulnerabilities are already recognized in the form of increased healthcare access allowances, including that the typical 5-year waiting period for CHIP and Medicaid for LPRs is waived for those who were former refugees or asylees. However, it is additionally important that healthcare professionals recognize that a subpopulation of LPRs includes former refugees and asylees who likely have increased vulnerabilities compared to the broader LPR population.

Over half of the total refugee and asylee population (62 percent) live in ten states (Table 5). California hosts a fifth (19 percent) of refugees and asylees, the largest portion of any state. Texas and New York, the next most common states of residence, both host 7 percent of the population. While no state hosts more than 8 percent of refugees, asylees are much more highly concentrated, as over a third of asylees live in California.

Table 5. Refugees and Asylees by Top Ten States of Residence (FY 2019)

State	Refugees	Asylees*	Total
California	6%	34%	19%
Texas	8%	7%	7%
New York	6%	8%	7%
Florida	2%	9%	6%
New Jersey	1%	9%	5%
Illinois	3%	5%	4%
Washington	7%	2%	4%
Ohio	5%	2%	4%
Pennsylvania	4%	3%	3%
Kentucky	5%	0%	3%
All Other	53%	21%	38%
Total	30,000	28,000	58,000

* Asylees data are limited to affirmative asylees.
Note: Percentages refer to the total proportion of each status within the listed states, e.g., 6 percent of refugees reside in California. Numbers of refugees and asylees may be slightly different than that of previously published reports due to rounding, different filtering, and expanded data sources.
Source: DHS Office of Immigration Statistics.

Refugees and asylees are the least COVID-19-vulnerable noncitizens in terms of age, and refugees have an especially young age profile (Table 6). Children make up the largest age group of refugees, comprising nearly half (44 percent) of the population, and young adults make up about a quarter (25 percent) of the population. Comparatively, the largest age band for asylees is 30-39 (27 percent). Very few refugees and asylees fall into older age groups – only 1 percent of the population is above age 64.

Age groups are split relatively equally between sexes for refugees, with slightly more males in age groups under 50, and slightly more females in age groups 50 and over. The median age for females is 21, while the median age for males is 20. These sex and age distributions are representative of general refugee population trends over recent years. Sex in the asylee population appears to be less evenly distributed across age bands, particularly in age bands 50-84. The median age for both male and female asylees is 30.

Table 6. COVID-19 Risk and the Refugee and Asylee Population by Age and Sex (FY 2019)

Age Group	COVID-19 Risk			Refugees			Asylees*			Total		
	Cases	Hospital-ization	Death	Total	Female	Male	Total	Female	Male	Total	Female	Male
0-4	<1x	2x	2x	13%	13%	13%	3%	3%	3%	8%	8%	8%
5-17	Baseline	Baseline	Baseline	31%	30%	31%	19%	19%	19%	25%	25%	25%
18-29	3x	7x	15x	25%	25%	24%	25%	24%	26%	25%	25%	25%
30-39	2x	10x	45x	15%	15%	16%	27%	27%	27%	21%	21%	21%
40-49	2x	15x	130x	8%	7%	8%	16%	16%	17%	12%	12%	12%
50-64	2x	25x	400x	6%	6%	6%	8%	9%	7%	7%	7%	6%
65-74	2x	35x	1100x	2%	2%	2%	1%	1%	1%	1%	2%	1%
75-84	2x	55x	2800x	1%	1%	0%	0%	0%	0%	0%	0%	0%
85+	2x	80x	7900x	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total				30,000	15,000	15,000	28,000	14,000	14,000	58,000	28,000	29,000

* Asylee data are limited to affirmative asylees.
Note: Percentages shown are column percentages, e.g., 13 percent of refugees are ages 0-4. Risk information taken from CDC, based on information updated February 18, 2021 (see Centers for Disease Control and Prevention 2021). Numbers of refugees and asylees may be slightly different than that of previously published reports due to rounding, different filtering, and expanded data sources.
Source: DHS Office of Immigration Statistics and Centers for Disease Control and Prevention.

The majority (82 percent) of refugees and asylees came from ten countries (Table 7). Refugees are highly concentrated in certain nationalities, with 43 percent from the Democratic Republic of the Congo. Comparatively, the most common nationality for asylees is Chinese (16 percent). However, overall, the linguistic and national makeup of the refugee and asylee population is diverse; the top ten countries of nationality include the geographic regions of Africa, Asia, South America, Eastern Europe, Central America, and the Middle East. It is difficult to draw conclusions about the impact of race/ethnicity on vaccination as national origins have varied over recent years.

Table 7. Refugee and Asylee Population by Status, Top Ten Countries of Nationality (FY 2019)

State	Refugees	Asylees	Total
Democratic Republic of the Congo	43%	0%	17%
China	0%	16%	10%
Venezuela	0%	15%	9%
Burma	16%	0%	7%
Ukraine	15%	1%	6%
El Salvador	1%	7%	5%
Guatemala	0%	6%	4%
India	0%	5%	3%
Eritrea	6%	1%	3%
Egypt	0%	5%	3%
All Other	18%	45%	34%
Total	30,000	46,000	76,000

Note: Percentages refer to the proportion of each nationality, e.g., 43 percent of refugees are from Democratic Republic of the Congo. Numbers of refugees and asylees may be slightly different than that of previously published reports due to rounding, different filtering, and expanded data sources.
Source: DHS Office of Immigration Statistics.

Unauthorized Immigrants

Unauthorized immigrants are foreign-born persons without any immigration status in the United States. OIS estimates that there are approximately 11.4 million unauthorized immigrants in the United States, making up 3 percent of the U.S. population. Unauthorized immigrants likely have the greatest overall barriers to accessing healthcare of any noncitizen group, though their age profile makes them relatively less vulnerable to hospitalization and death.

Unauthorized immigrants are generally prohibited from receiving Medicare, Medicaid,[57] CHIP, and coverage through the ACA Marketplaces. However, this varies by state: California, New York, Illinois, Massachusetts, and Washington (among others) use state funds to offer health coverage to low-income children irrespective of status; California extends coverage to young adults until age 26; and Illinois covers residents over age 65 regardless of immigration status.[58] In addition, some unauthorized immigrants have access to health insurance through other avenues, such as through an employer, spouse, school, as a dependent, or through private coverage outside of the ACA Marketplace. Overall, about half of the unauthorized immigrant population is estimated to be uninsured.[59]

57 In emergency situations, Medicaid will cover treatment for those who would be eligible excluding their immigration status (HealthCare.gov).

58 For more information, see Artiga and Diaz 2019; National Immigration Law Center January 2021.

59 The Migration Policy Institute (MPI) estimates that 52 percent of unauthorized immigrants are uninsured, while KFF estimates 46 percent are uninsured; see MPI's profile of the unauthorized immigrant population (Migration Policy Institute) and KFF study by Artiga and Diaz 2019.

Apart from low insurance rates, unauthorized immigrants face numerous additional barriers to accessing healthcare. MPI estimates that 43 percent of unauthorized immigrants speak English not well or not at all.[60] Recent reports also indicate that unauthorized immigrants are increasingly less likely to access healthcare and more likely to feel they have to work even when sick.[61] This aversion is partially because many believe they risk exposing their status if they engage in the local healthcare system, and many often work positions with low flexibility to take time off to seek healthcare. Unauthorized immigrants depend more heavily than U.S. citizens on working to survive because they are not eligible for federal stimulus checks or unemployment benefits.[62] MPI estimates that over a quarter (26 percent) of unauthorized immigrants have an income below the federal poverty level.[63]

The unauthorized population has increased COVID-19 vulnerability given that the majority of unauthorized immigrants are Hispanic (over 68 percent) (see introduction to this section). In addition, recent surveys report that the likelihood of receiving the vaccine is lower for Hispanic populations in California and Texas, which together host 42 percent of unauthorized immigrants. As of February 16, 2021, Hispanics comprised 40 percent of California's total population, but 46 percent of COVID-19 deaths, 55 percent of COVID-19 cases, and only 18 percent of COVID-19 vaccinations.[64] As of the same date in Texas, Hispanics comprised 40 percent of the total population but 47 percent of COVID-19 deaths, 42 percent of COVID-19 cases, and only 20 percent of COVID-19 vaccinations. However, the heavy concentration of unauthorized immigrants in a small number of states means that vaccination efforts targeting this population in areas where it is heavily concentrated would likely have significant impact on the vaccination of unauthorized immigrants generally.

Unauthorized immigrants do not have high COVID-19 vulnerability in terms of age (Table 2). The largest age group in the unauthorized immigrant population is adults ages 30-39, which make up about a quarter (26 percent) of the unauthorized immigrant population. Very few unauthorized immigrants (less than 8 percent) are over the age of 64. Within the unauthorized population, there are slightly more males than females in younger age categories (ages 0-64), and more females than males in older age categories (ages 65 and above). The median age for unauthorized immigrant females is 39 and for males is 38.

60 See MPI's profile of the unauthorized immigrant population (Migration Policy Institute).

61 Jordan 2020.

62 Artiga and Diaz 2019.

63 See MPI's profile of the unauthorized immigrant population (Migration Policy Institute).

64 Ndugga et al. 2021.

Conclusion

COVID-19 mitigation strategies require planning factors that account for complicated and interrelated variables, and noncitizens have unique characteristics that correlate with immigration status. These characteristics are critical to understanding both the preexisting risks faced by noncitizens and how best to mitigate these risks when establishing policy and public health interventions. Immigration status-specific COVID-19 risk factors in the age and sex profiles of noncitizens may be factors in vaccine planning and public health programs. In addition, primary languages spoken in these communities may impact the design of vaccine and public health outreach campaigns.

United States and State Tables

For status-specific noncitizen populations by state, see Appendix tab "U.S. Noncitizens by State." Numbers are rounded to the nearest thousand after calculations are completed with raw numbers, so column totals within and between tables may not directly align.

For status-specific noncitizen population by age and sex, see Appendix tabs "U.S. Age-Sex" and "State Age-Sex." Age group breakouts are the same as those used in Table 2. Numbers are rounded to the nearest thousand after calculations are completed with raw numbers, so column totals within and between tables may not directly align.

For status-specific noncitizen population by country of birth, see Appendix tabs "U.S. COB" and "State COB." In the U.S. COB table, all countries of birth are listed, and status breakouts are available for every country. In state COB tables, the top twenty-five most common countries of birth for each state are listed, with an additional category for all other countries; status breakouts are only provided for top ten unauthorized immigrant countries (see methodology). Numbers are rounded to the nearest thousand after calculations are completed with raw numbers, so column totals within and between tables may not directly align.

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