



The Equity in OC (EiOC) Initiative was a limited-term project funded by the Centers for Disease Control and Prevention (CDC) under the National Initiative to Address COVID-19 Health Disparities Among Populations at High-Risk and Underserved, Including Racial and Ethnic Minority Populations and Rural Communities (CDC-RFA-OT21-2103). The initiative concluded in May 2024. This document and any associated EiOC branding were developed as part of that grant-funded effort.

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Addressing health inequities across Orange County by enabling system change.



Achieving Equity in Orange County

Health inequities are differences in health status or in the distribution of health resources among various populations. This is due to the social conditions in which people are born, grow, live, work, and age. Across Orange County (OC) we see differences in the length and quality of life; rates of disease, disability, and early death; severity of disease; and access to treatment because of these inequities.

Equity in OC is an OC Health Care Agency (HCA) initiative in collaboration and partnership with local Orange County community partners. Funded by a grant from the Centers for Disease Control and Prevention (CDC), the Equity in OC Initiative is a community-informed and data-driven initiative to address health inequities and disparities in Orange County by laying the foundation for creating a healthier, more resilient, and equitable Orange County.

Why Create Population Profiles?

These population profiles are snapshots of available data for various populations in Orange County. By laying out population-specific data in these profiles, we can identify systemic changes that can improve the quality of life within these communities. Since these population profiles are only the start of democratizing community-level data, we welcome feedback and input to further refine and improve this living document.

For more information go to www.equityinoc.com.

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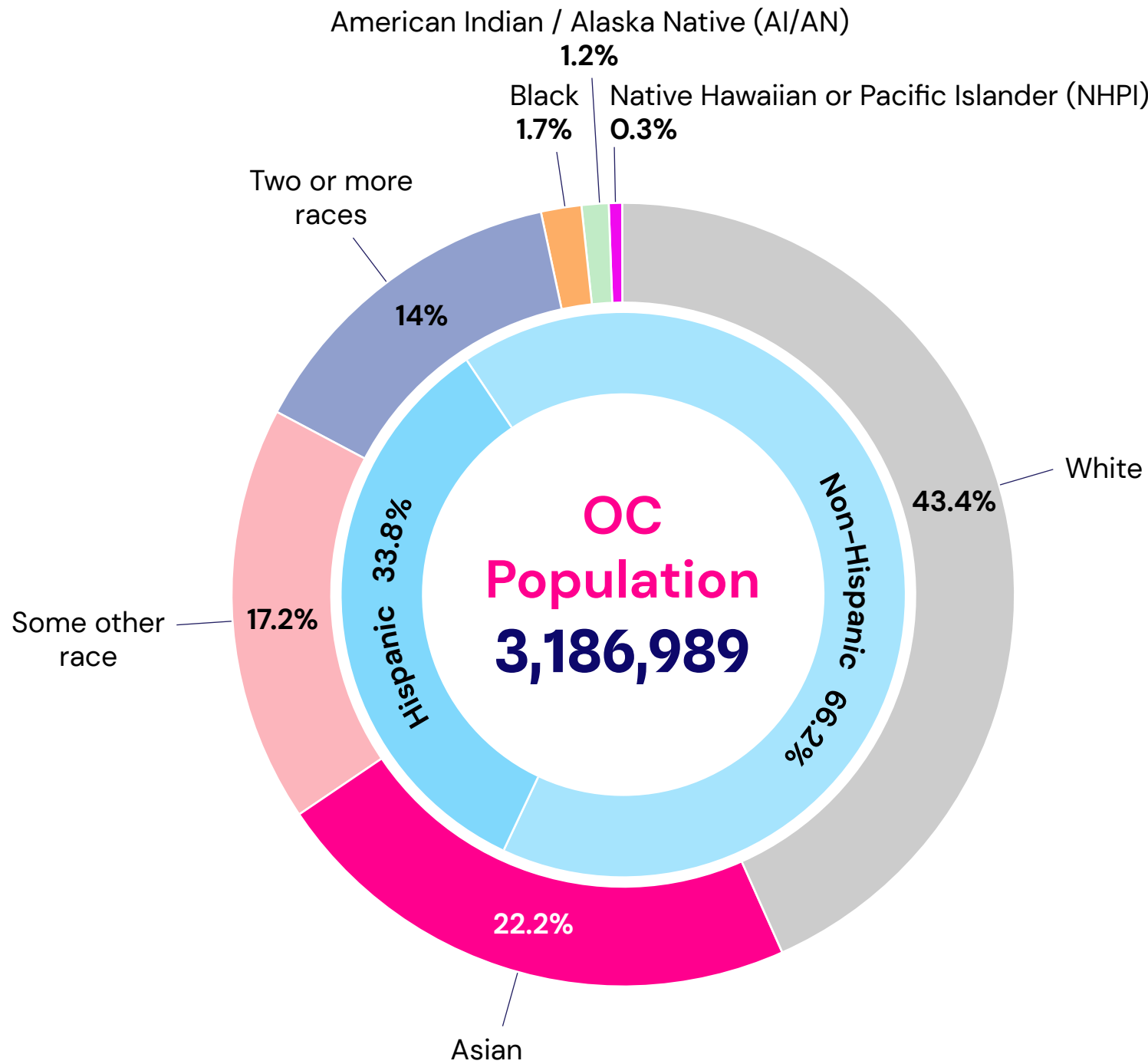
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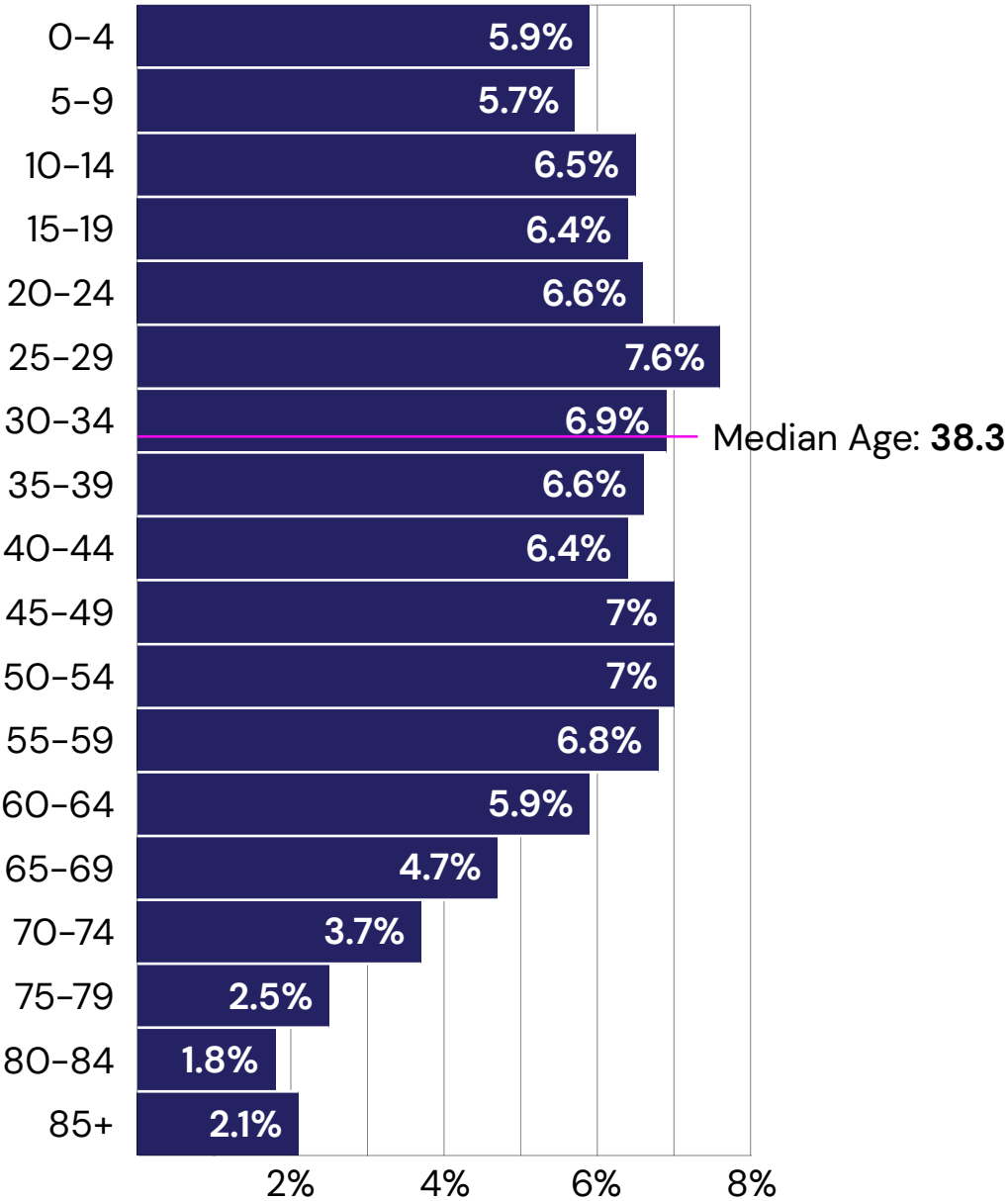
The United States (US) Census Bureau collects racial data according to guidelines by the US Office of Management and Budget (OMB), and these data are based on self-identification.

Racial categories in the census survey reflect a social definition of race in the US. It is not an attempt to define race biologically, anthropologically, or genetically. Also, categories of race include national origin or sociocultural groups. People who identify their origin as Hispanic, Latino, or Spanish may be of any race.

[About the Topic of Race \(census.gov\)](#)

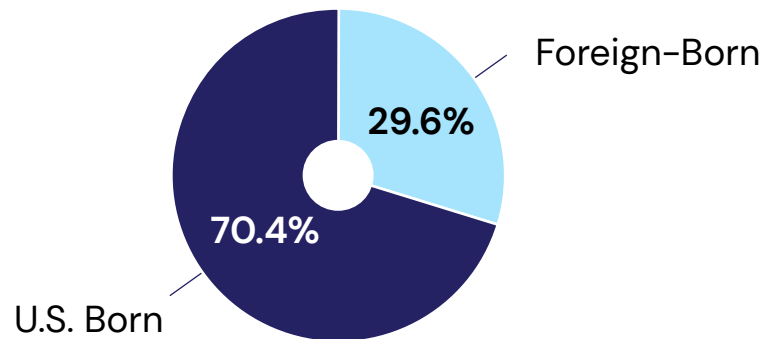
Source: [2020 Decennial Census](#)

Population by Age Group



Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)

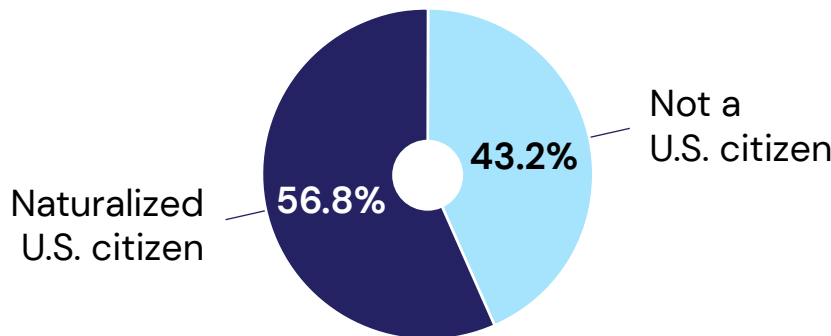
Population by Birth Origin



Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)

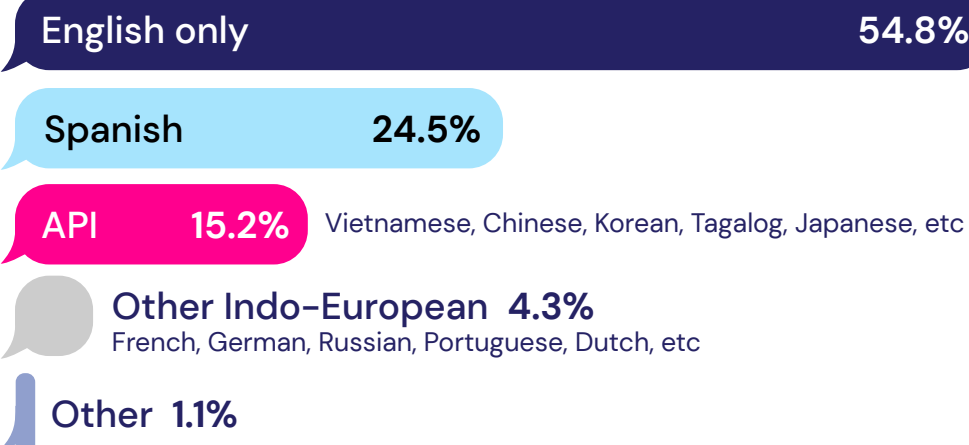
Population by Citizenship

of foreign-born residents



Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)

Languages Spoken at Home



Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)

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\$94,441
Median Household Income
 2020

Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)



56.9%
Home Ownership Rate
 as of March 2022

Source: [U.S. Bureau of Labor Statistics](#)



1,129,785
Total Housing Units
 2020

Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)



41.2%
Bachelor's Degree or Higher
 2020

Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)



10.1%
Persons in Poverty
 2020

Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)



3.1%
Unemployment Rate
 as of March 2022

Source: [U.S. Bureau of Labor Statistics](#)

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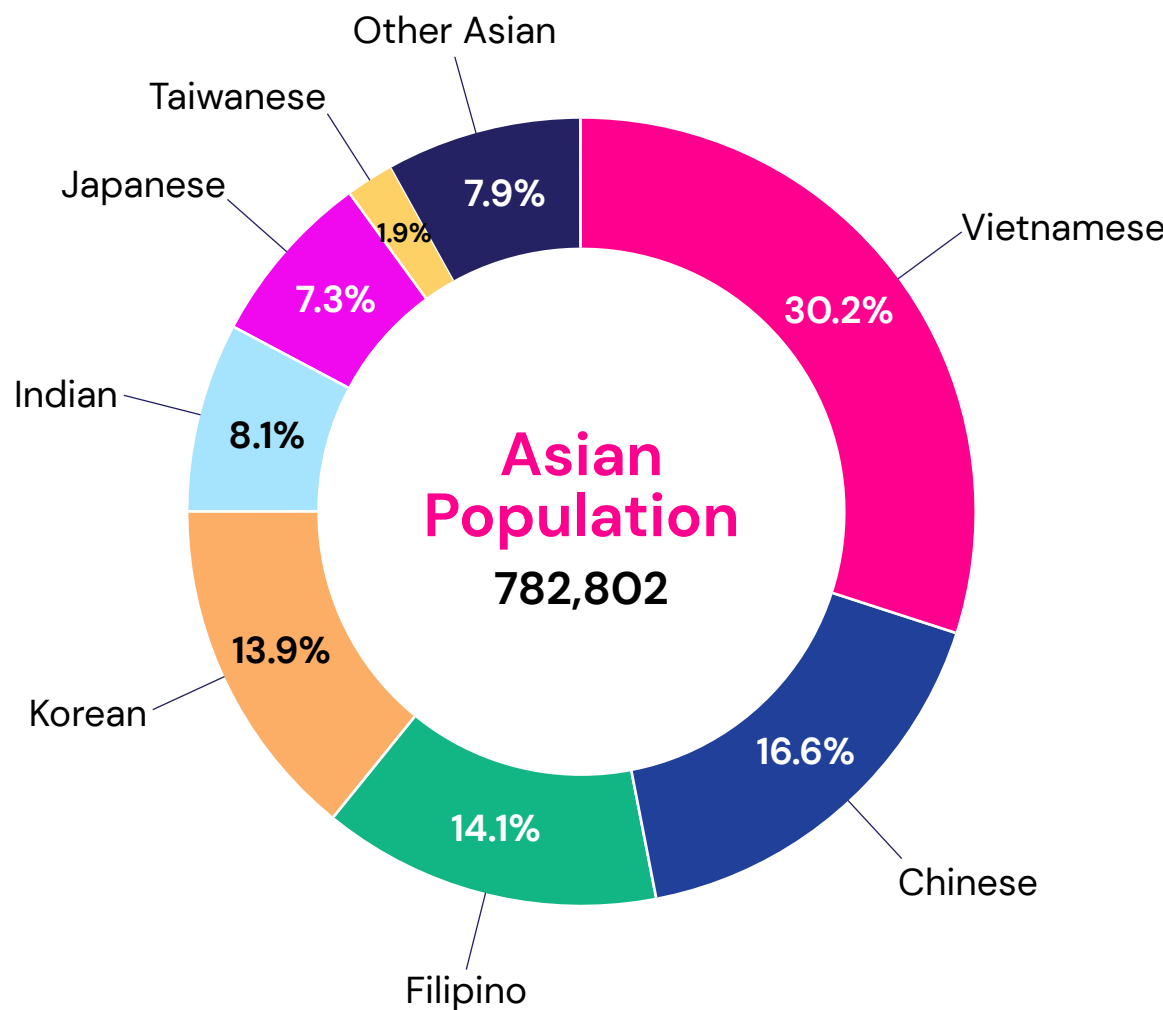
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Asian Population Overview in Orange County



Source: 2019 ACS 5-Year Data, U.S. Census Bureau

Understanding the term API, NHPI, and ANHPI

Asian and Pacific Islander (API) is a term used to describe people of Asian or Pacific Islander descent in the US. The pairing of these two populations started in the 1980 US Census. In more recent surveys, **Native Hawaiian and Pacific Islander (NHPI)** became more common and distinct since Pacific Islander communities face more significant health and socioeconomic disparities compared to Asians and other groups. In this document, we will refer to these two communities, when possible, as **Asian, Native Hawaiian, and Pacific Islander (ANHPI)**.

Asian Population by Ethnicity

Alone and in other combinations for Orange County, 2020, and percentage change since 2015

Vietnamese	236,810	+14.9%
Chinese	129,811	+25.6%
Filipino	109,977	+10.2%
Korean	108,693	+7.3%
Indian	63,309	+19.5%
Japanese	57,395	+14.2%
Other Asian	17,884	+1.0%
Taiwanese	14,806	+34.1%
Cambodian	11,160	+21.5%
Pakistani	7,374	+6.6%
Thai	7,069	+18.7%
Indonesian	6,434	+37.4%
Laotian	3,864	+9.0%
Sri Lankan	2,149	+15.3%
Hmong	1,718	+19.0%
Nepalese	1,359	+198.7%
Bangladeshi	1,308	+113.7%
Burmese	766	+4.5%
Malaysian	556	-43.5%
Mongolian	249	+170.7%
Okinawan	84	-9.7%

Source: 2020 ACS 5-Year Data, U.S. Census Bureau, AdvanceOC

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Asian Population: A Historical Context

According to the [Orange County Historical Society](#), the first people who arrived in Orange County came thousands of years ago. They lived by hunting, fishing, and gathering plants and seeds. Afterwards, Shoshonean-speaking people arrived who were the ancestors of the tribes we know today as the Juaneño and the Gabrielino.

Orange County was officially formed on August 1, 1889, and agriculture and oil played a key role in its development. As a result for the need of cheap labor, the earliest Asian immigrants to California were predominantly Chinese, Japanese, and Filipino.

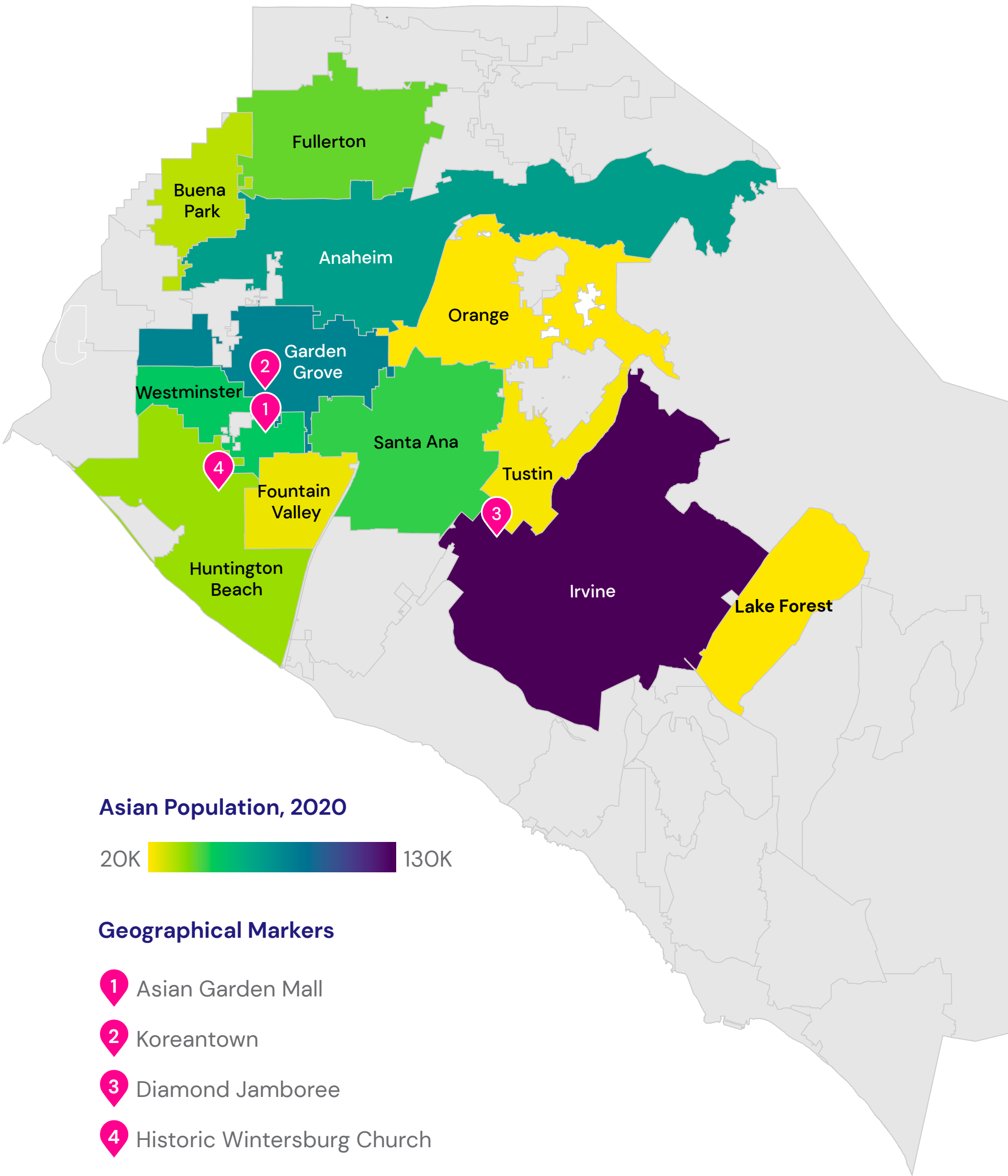
A Chinatown developed on 3rd St of Santa Ana in the 1880s and thrived for more than 20 years. The men who lived there had arrived to Orange County to build railroads, work in the local grape and celery fields, and start small businesses. On May 25, 1906, Chinatown suddenly vanished in flames. According to the OC historian Jim Sleeper, the fire had been ordered by the City Council. They justified this action since a man was found to have leprosy in Chinatown, and they deemed it a public health threat. During this period, the Chinese community were subjected to racially motivated hostilities including the [Chinese Exclusion Act of 1882](#).

Top Cities of Asian Residents

2020, with percentage changes since 2015

City	2020	City	2020
Irvine	136,809 +27%	Huntington Beach	34,001 +23%
Garden Grove	76,367 +7%	Buena Park	29,699 +17%
Anaheim	69,832 +12%	Fountain Valley	22,549 +6%
Westminster	49,985 +8%	Tustin	23,994 +26%
Santa Ana	44,402 +15%	Orange	22,099 +13%
Fullerton	38,699 +1%	Lake Forest	19,697 +36%

Source: [2020 ACS 5-Year Data](#), [U.S. Census Bureau](#), [AdvanceOC](#)



Source: AdvanceOC

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According to [OC History Land](#), the first Japanese immigrants settled in Orange County in the 1890s. Issei farm workers moved into the area and leased land to cultivate new crops such as tomatoes, beans, strawberries, and chili peppers. By 1942, Japanese immigrants and their children helped in making Orange County’s 795 square miles one of the nation’s richest agricultural areas. Unfortunately, Japanese Americans lost everything when they were forced into internment camps in 1942, following [Executive Order 9066](#) issued by President Roosevelt.

According to the [FilAm Tribune](#), the Filipino American population boom started after the Philippines became a US territory in 1898. They arrived as laborers, mostly working in the farms of Hawaii and California. In 1935, Congress passed the [Tydings–McDuffey Act](#), which granted the Philippines independence and reclassified Filipinos as aliens. The act also limited their immigration to 50 individuals per year. This quota was avoided at the start of World War II when the US recruited Philippine-born Filipinos to serve in the military. This led to another significant wave of Filipino immigration.

According to the [Center for Korean American Studies at UC Riverside](#), the first Korean settlement in the US was established in Riverside, CA in the early 1900s. American intervention in the Korean War between 1950 and 1953 triggered a second wave of Korean immigration. Around this time, sponsored Korean students arrived in the US. After 1965, students-turned professionals were able to apply for permanent residence under the [Hart–Cellar Act](#). This also allowed for close relatives to immigrate. According to the book [“Strangers from a Different Shore,”](#) Korean immigrants were mostly self-employed because of discrimination in the mainstream labor market. Also, the South Korean government offered capital to start businesses. In 1978, 80% of Koreans worked in the Korean ethnic economy.

According to the book, [“Vietnamese in Orange County,”](#) the Vietnamese American population has been generalized as “refugees” despite coming from diverse backgrounds. Their migration paths varied, and they struggled with resettling into new homelands and rebuilding their lives. They are dispersed throughout the US, and many have settled into central Orange County cities of Westminster, Garden Grove, and Santa Ana. In 1975, the first wave of refugees arrived, and many were first taken to Camp Pendleton, a Marine Corps base north of San Diego. Vietnamese refugees were required to have sponsors to resettle. Residents and churches in Orange County served this role, and many Vietnamese refugees made a permanent home in the area. Little Saigon in Orange County grew into a commercial and residential hub. It is now home to the largest Vietnamese population outside of Vietnam.

After the Immigration and Nationality Act of 1965, which put an end to a quota system limiting immigration from non-western European countries, the Asian American population grew and diversified.

*These historical summaries of the five largest Asian subgroups in Orange County are from reliable public sources. The Asian American diaspora is diverse, and these summaries only begin to describe the vibrant communities living in Orange County. For more information, please look at the sources provided and the resources available through cultural and educational institutions in Orange County.

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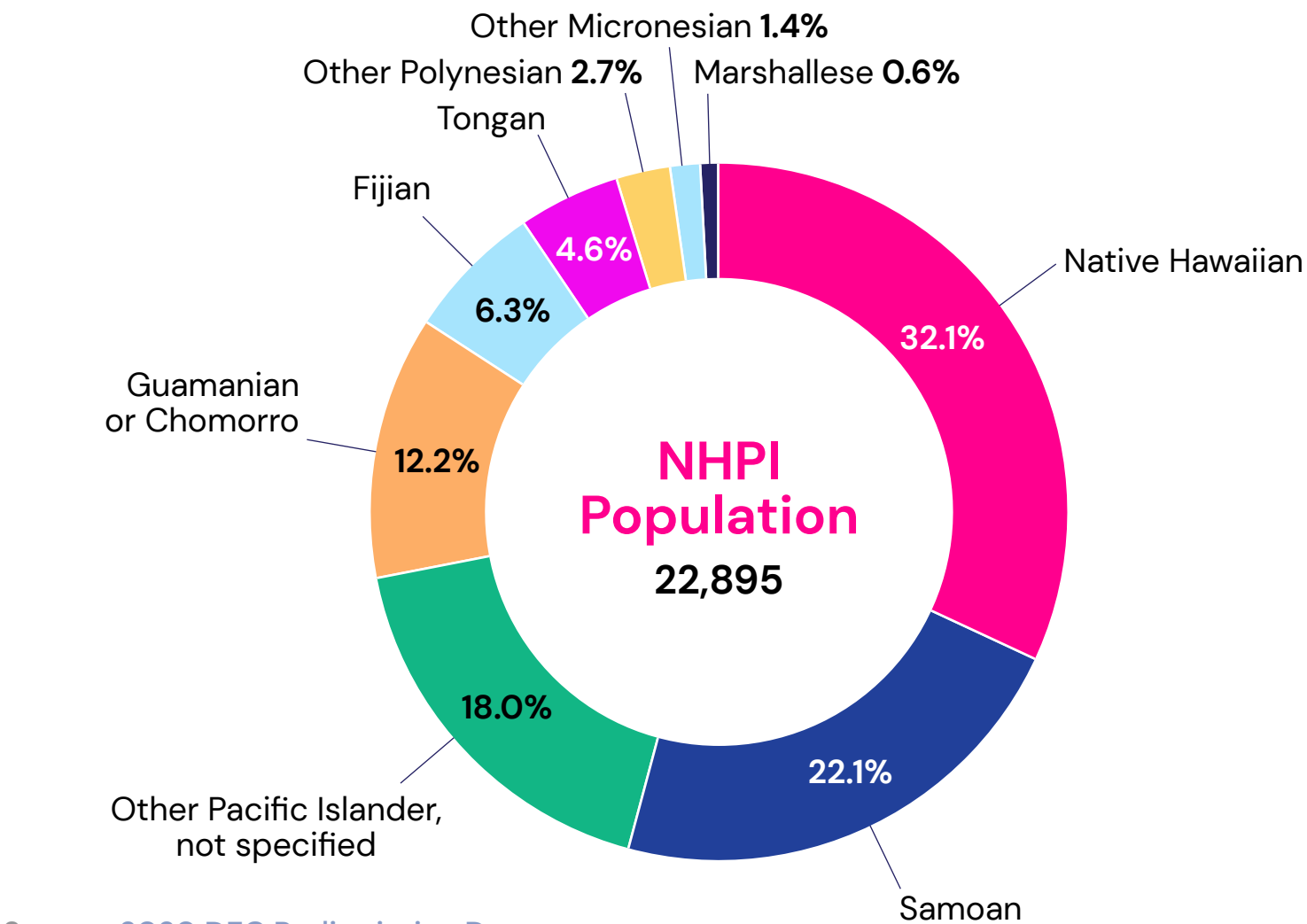
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NHPI Population Overview in Orange County

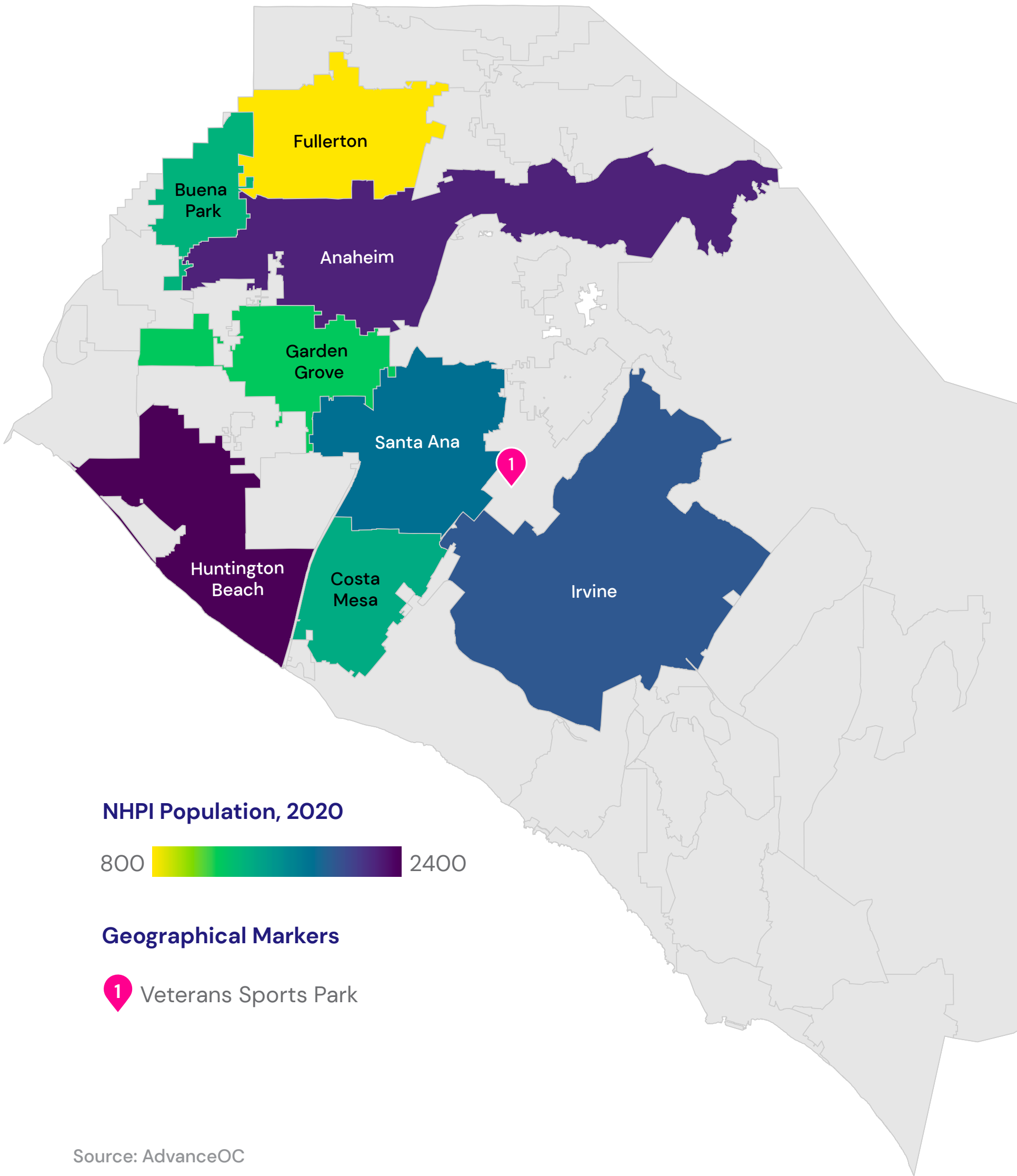


Source: 2020 DEC Redistricting Data

NHPI Population: A Historical Context

This population profile describes and groups Native Hawaiians and Pacific Islanders (NHPI) as distinct and separate when data are available.

The fusion of Pacific Islanders into a combined “Asian Pacific” term is historically charged. Pacific Islanders have long protested the marginalization and invisibility of their community. In 2009, they successfully advocated for their inclusion in the Native American and Indigenous Studies Association (NAISA). While Native Hawaiians and Pacific Islanders (NHPI) have been disaggregated from the “Asian American” racial category in the US Census, the White House Initiative on Asian Americans, Native Hawaiians, and Pacific Islanders (WHIAANHPI) has maintained a coalition approach. NHPI heritage month celebrations are observed in May with Asian Americans rather than in November with Native Americans.



Source: AdvanceOC

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In the 18th century, Hawaii and Pacific islands were exploited for resources and labor by US and European (Britain, France, Germany, Spain, Portugal, and the Netherlands) colonial interests.

Spain ceded control of Guam to the US at the end of the Spanish-American War in 1898. In 1899, Britain, Germany, and the US settled their power struggle over Samoa with the [Tripartite Convention](#). This divided the islands into Western Samoa (controlled by Germany) and American Samoa. In 1914, New Zealand seized Western Samoa and ruled it as a colony for several decades. [Hawaiians suffered a similar takeover](#) due to foreign sugar growers.

President William McKinley was eager to gain a strategic advantage for the US Navy and fulfilled his promise to annex the islands. He called for a joint resolution in Congress, and, in August 1898, Hawaii became a US territory. It would remain a territory for another 61 years until 1959 when Hawaii became the 50th US state.

Top Cities of NHPI Residents

Alone and in other combinations for Orange County, 2020, with percentage changes since 2015

City	2020	City	2020
Huntington Beach	2237 +25%	Costa Mesa	1229 +13%
Anaheim	2654 +12%	Buena Park	746 -26%
Irvine	2101 +138%	Garden Grove	1159 -11%
Santa Ana	1425 +2%	Fullerton	868 -12%

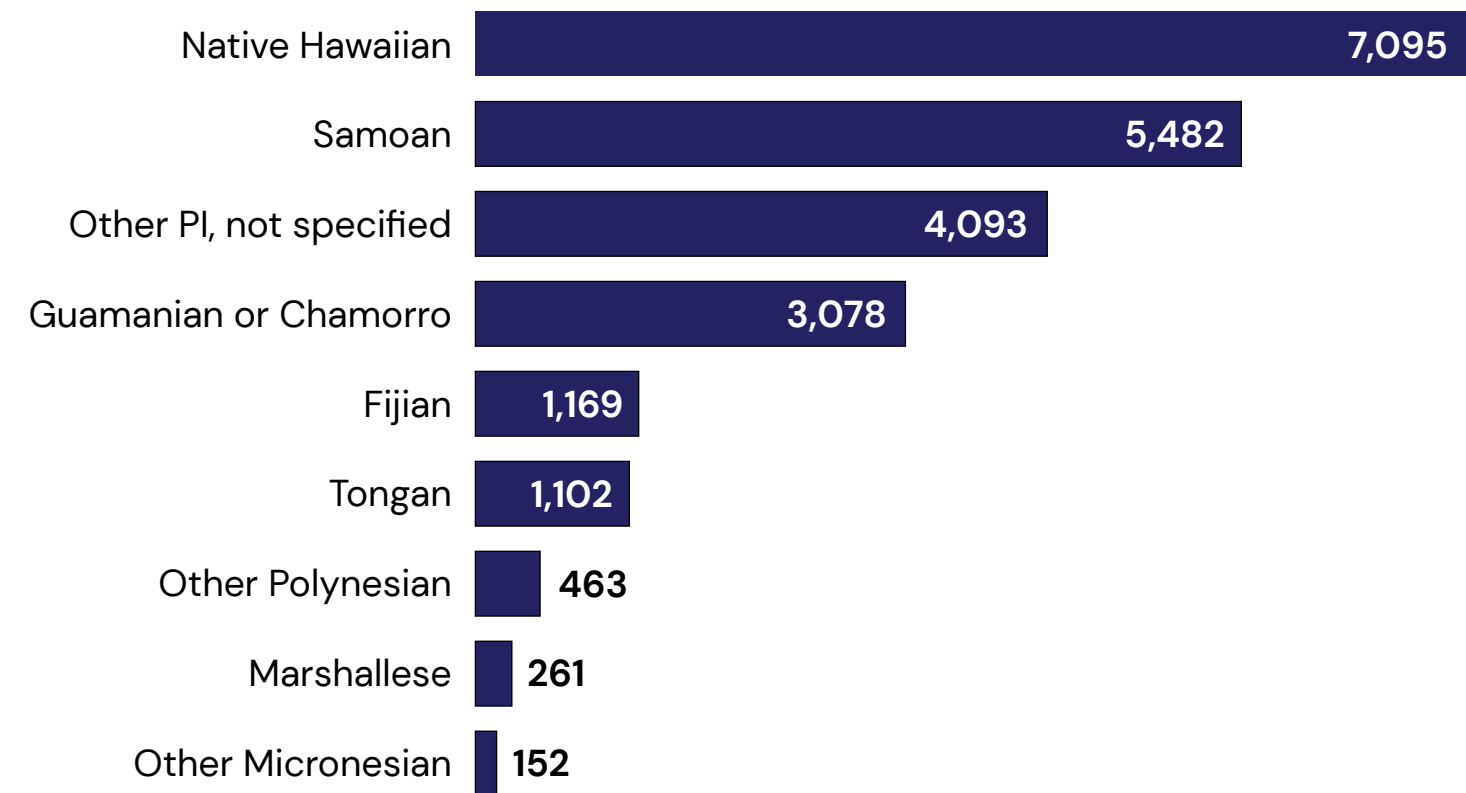
Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#), AdvanceOC

Legislation in 1950 granted citizenship to Guamanians/Chamorros, and similar legislation in 1951 made Samoa an unincorporated US territory. Guamanians/Chamorros and Samoans were free to move anywhere in the US. Tongans, Fijians, and other Pacific Islanders also chose to relocate to the US mainland since they had limited opportunities back home.

Today, the US mainland is home to a large and diverse NHPI community. NHPI populations are concentrated in areas close to military bases, which allows for off-island migration. Pursuing higher education is another factor why many NHPIs come to the mainland. Lack of opportunities for advanced degrees back home and a general belief that education is better on the mainland attracts NHPI young adults and families.

NHPI Population by Ethnicity

Alone and in other combinations for Orange County, 2020



Source: [2020 ACS 5-Year Data, U.S. Census Bureau](#)

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ANHPI and COVID-19 in Orange County

According to the OC Health Care Agency as of May 10, 2022, over 500,000 cases and over 7,000 deaths have occurred in Orange County due to COVID-19 (SARS-CoV-2).

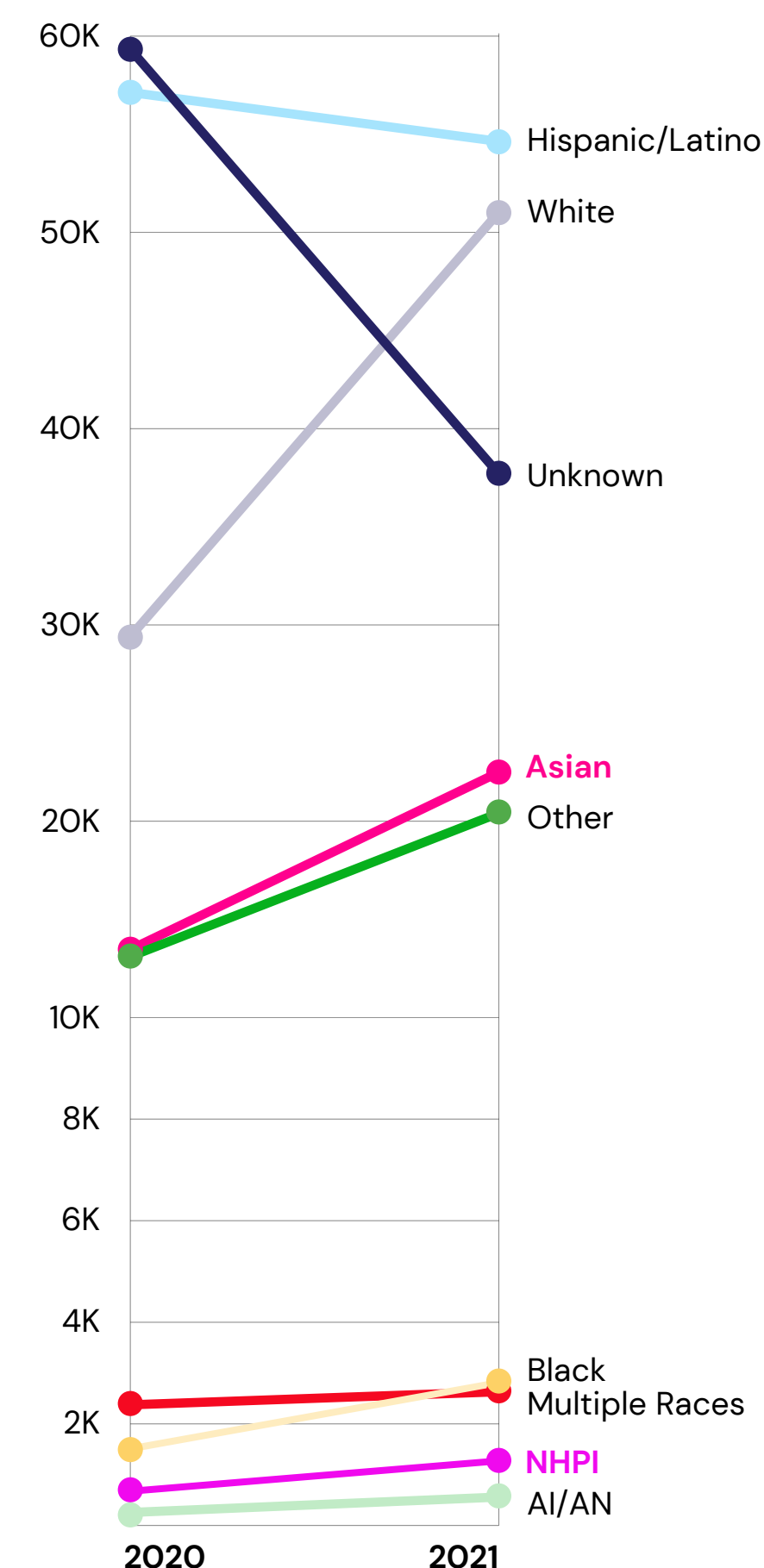
Among the 500,000 cases reported in Orange County, most of the COVID-19 cases are “unknown” since they did not have racial or ethnic classification. Unknown cases include those who did not identify with a particular racial or ethnic classification or may not have been asked for this information. With many unknown COVID-19 cases, generalizations about the impact of COVID-19 among various racial and ethnic groups should be avoided.

According to the California Immunization Registry, 76.3% of Orange County residents older than 5 years are fully vaccinated. The vaccination rate of California is 75.1%. Asians and Native Hawaiians and Pacific Islanders (NHPI) have the highest vaccination rates in Orange County.

To understand the impact of COVID-19 on the various populations of Orange County, a specific public health measurement is used: case or death rates per 100,000 people, which are the total

Total Cases

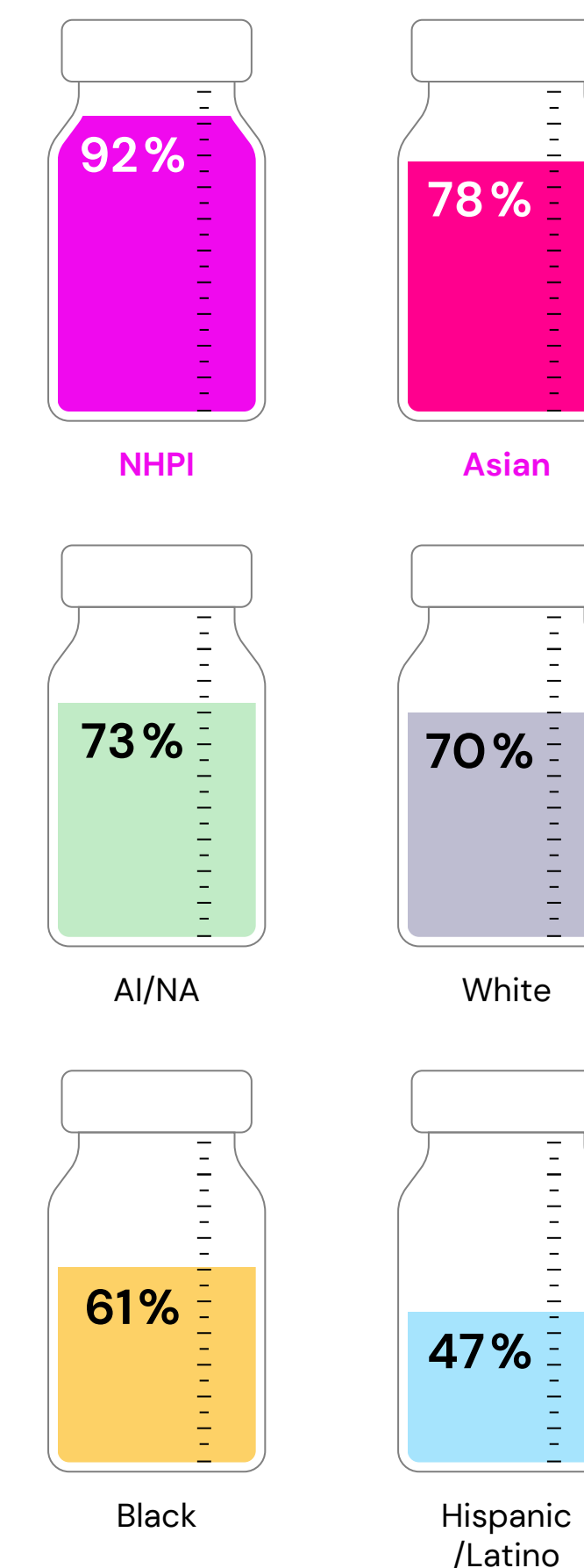
by race/ethnicity, 2020–2021



Source: OC Health Care Agency

Vaccination Rate

per 100K population, 2021



Source: OC Health Care Agency

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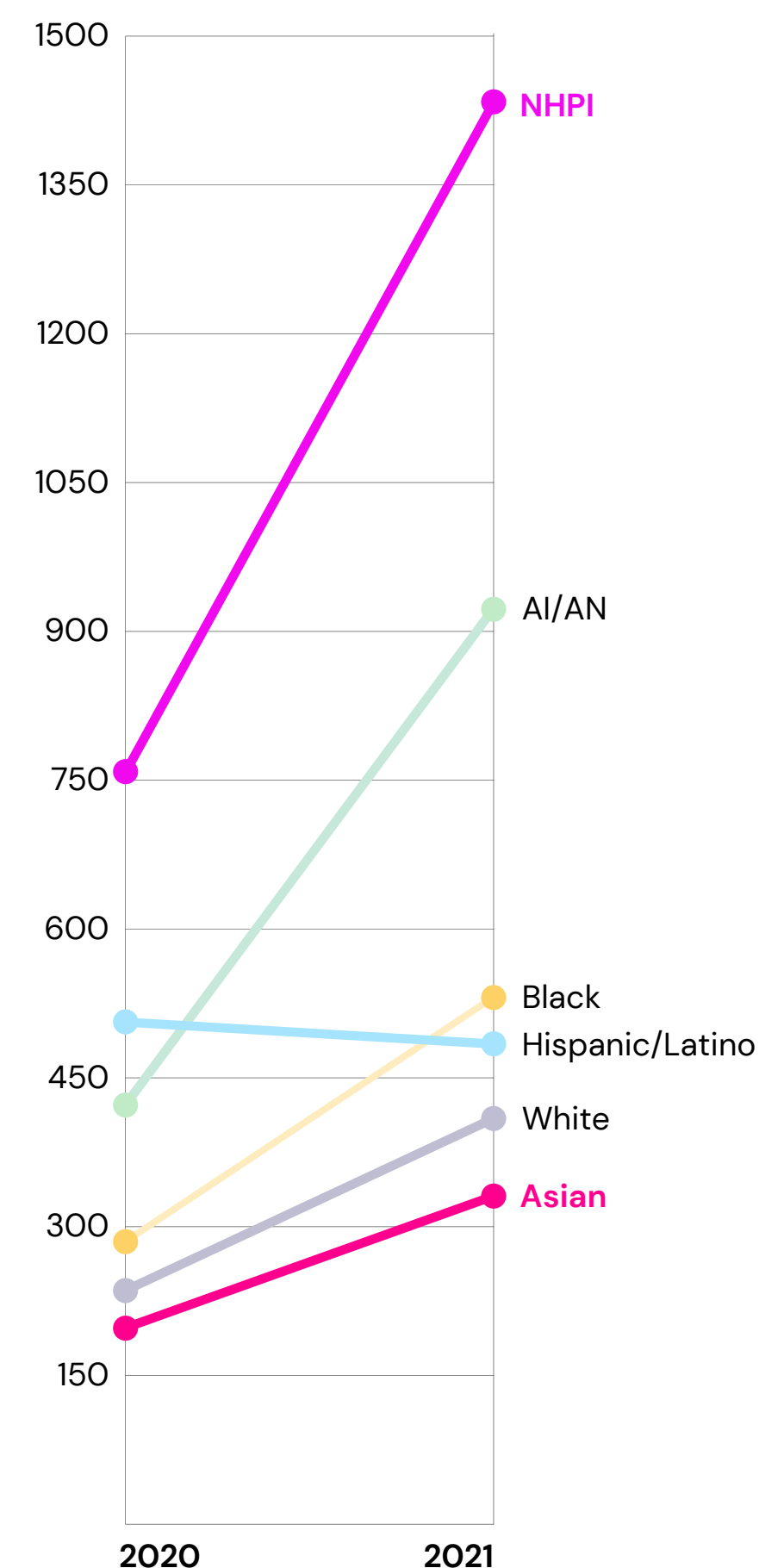
ANHPI and COVID-19 in Orange County (continued)

number of cases or deaths divided by the total population of a specific group and multiplied by 100,000. Using this standardized rate, Native Hawaiians and Pacific Islanders (NHPI) and American Indians and Alaska Natives (AI/AN) had the highest case and death rates in Orange County. However, the results of these calculations should be used with caution. Since the total population of these communities are small in Orange County, case and death rates can fluctuate depending on the reported number of cases and deaths.

The impact of COVID-19 on the Asian and Pacific Islander community was uneven, with some communities being more impacted such as low income and monolingual residents and ANHPI seniors. Isolated and vulnerable community members were left out of initial food distribution efforts and suffered from the lack of health information translated in different languages of the diaspora. As one of the highest groups to be vaccinated, the Asian and Pacific Islander community benefits from concerted outreach by a broad-based coalition of community-based organizations, faith-based groups, and healthcare providers.

Case Rate

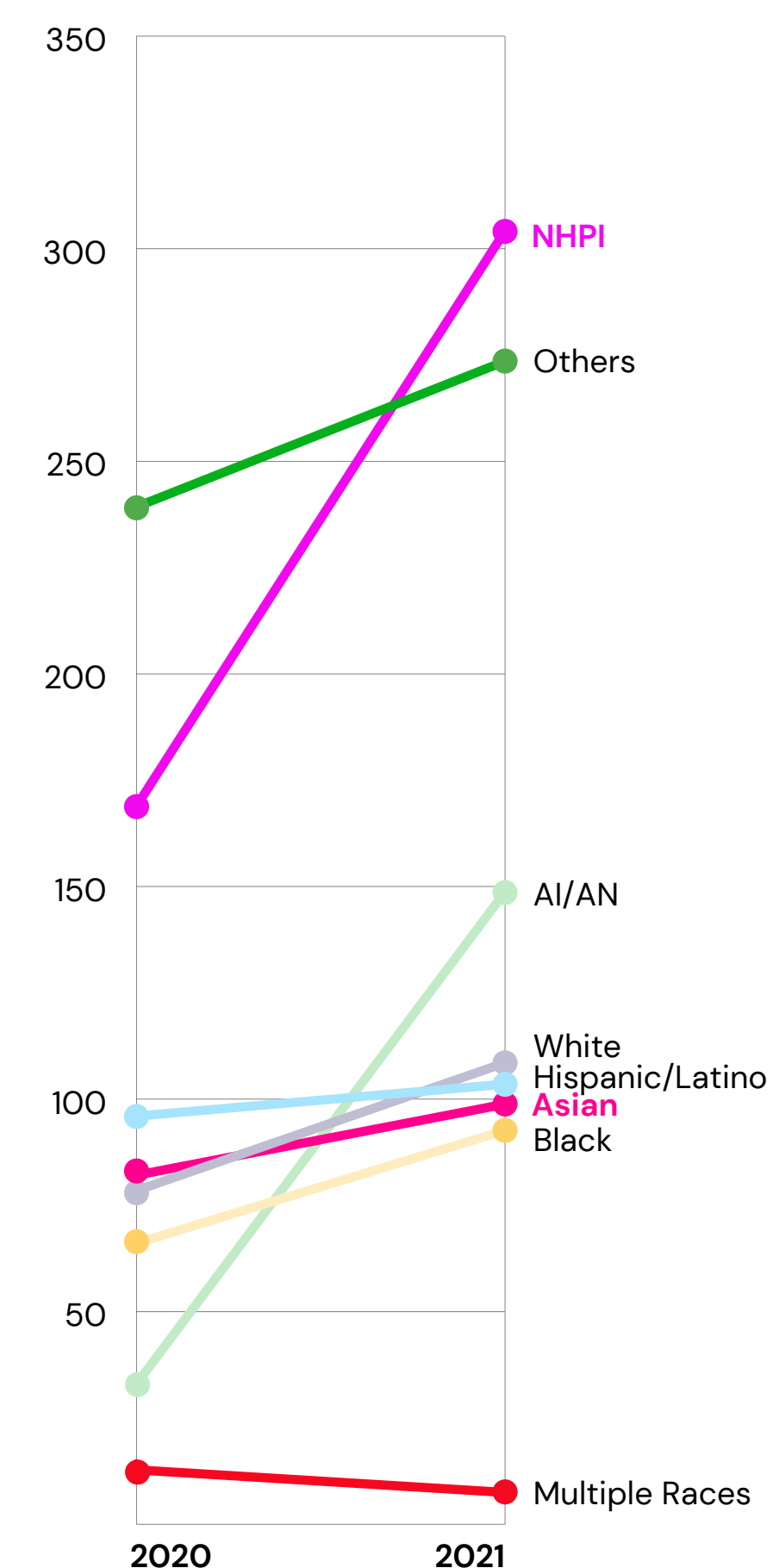
per 100K population by race/ethnicity, 2020–2021



Source: OC Health Care Agency

Death Rate

per 100K population, 2020–2021



Source: OC Health Care Agency

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Health and Mortality

According to the 2022 County Health Rankings, Asians in Orange County have a life expectancy of 87.2 years, which is the highest among racial and ethnic groups in the county.

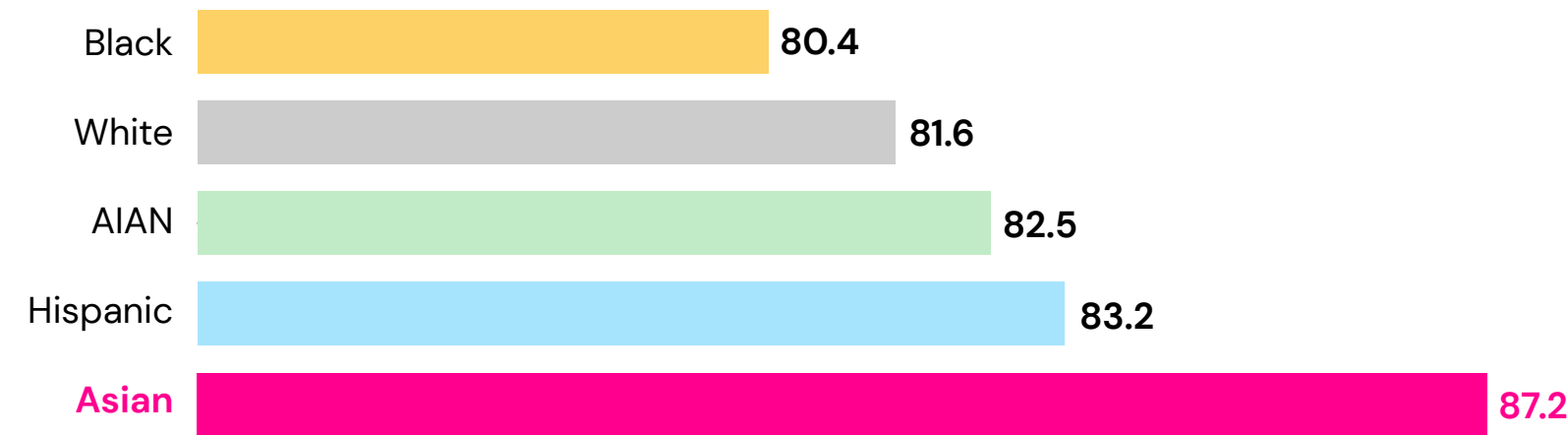
The “model minority” stereotype of the Asian community has left Asians out of public health and health policy conversations. Recently, [CHIS data](#) of Filipino, Vietnamese, Chinese, Japanese, and Korean individuals were analyzed, and the results were published in the American Journal of Public Health on February 20, 2020. Research showed that Asian American subgroups have more health problems and less access to health care when compared to non-Hispanic white adults.

Specifically, Filipino adults appear to have worse health outcomes compared to the other Asian subgroups. Vietnamese adults also had reduced health outcomes, and many Koreans had delayed access to health care services. Chinese adults ranked highly in reduced visits to a doctor in the past year, and Japanese individuals tended to have high blood pressure.

Recent childhood obesity data in Orange County show that Asian students in grades 5, 7, and 9 have the lowest childhood obesity rates. Meanwhile, Native Hawaiian and Pacific Islander (NHPI) students in the same grades show high rates of childhood obesity. Most NHPI students in grade 7 (53%) and grade 9 (54%) are classified as obese. Among Asian subgroups, Filipino students have higher rates of childhood obesity.

Life Expectancy at Birth in Orange County

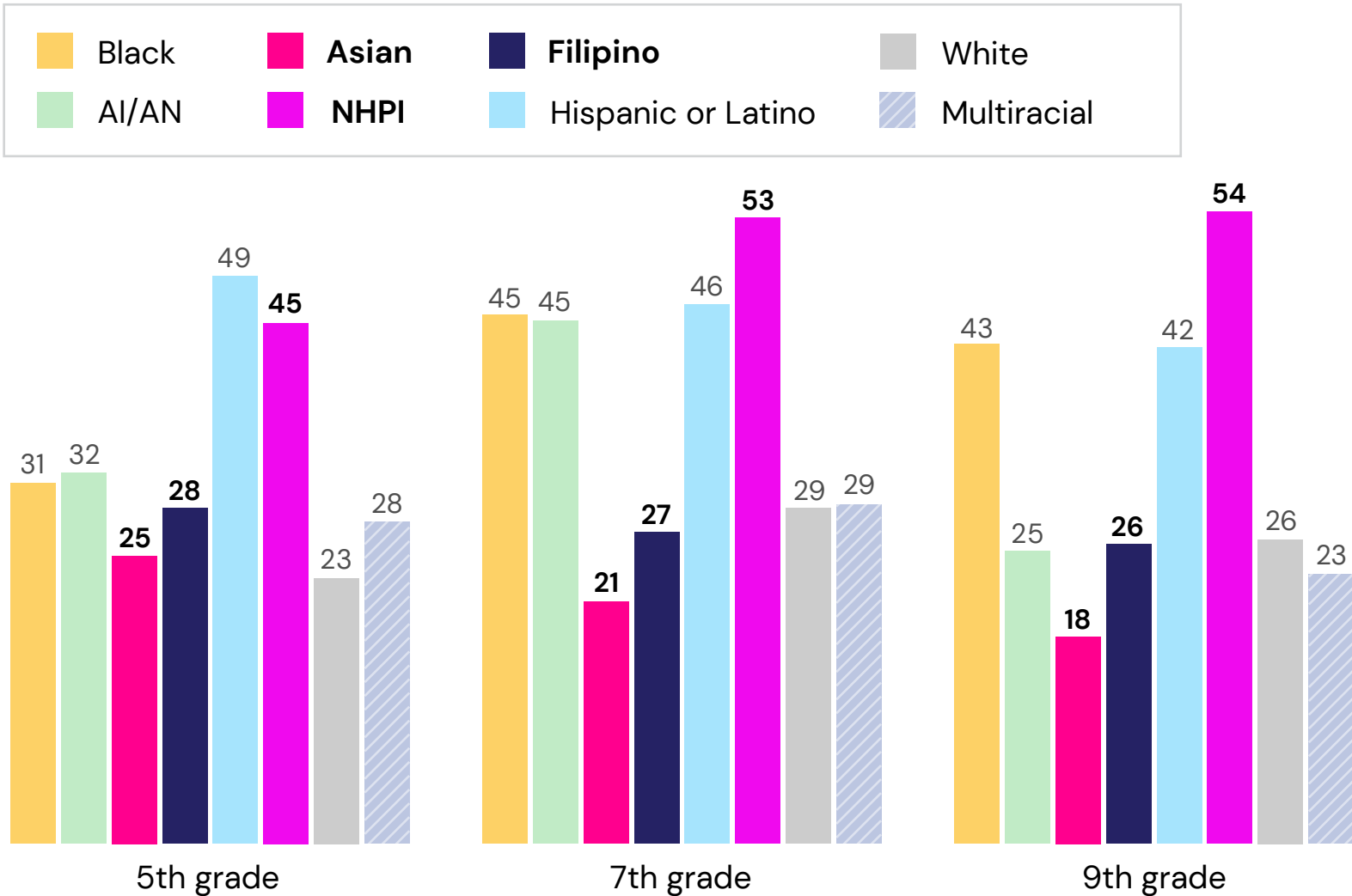
2020



Source: [County Health Rankings](#)

Childhood Obesity in Orange County

Percentage by Race/Ethnicity and Grade Level, 2019



Source: [Kidsdata.org](#)

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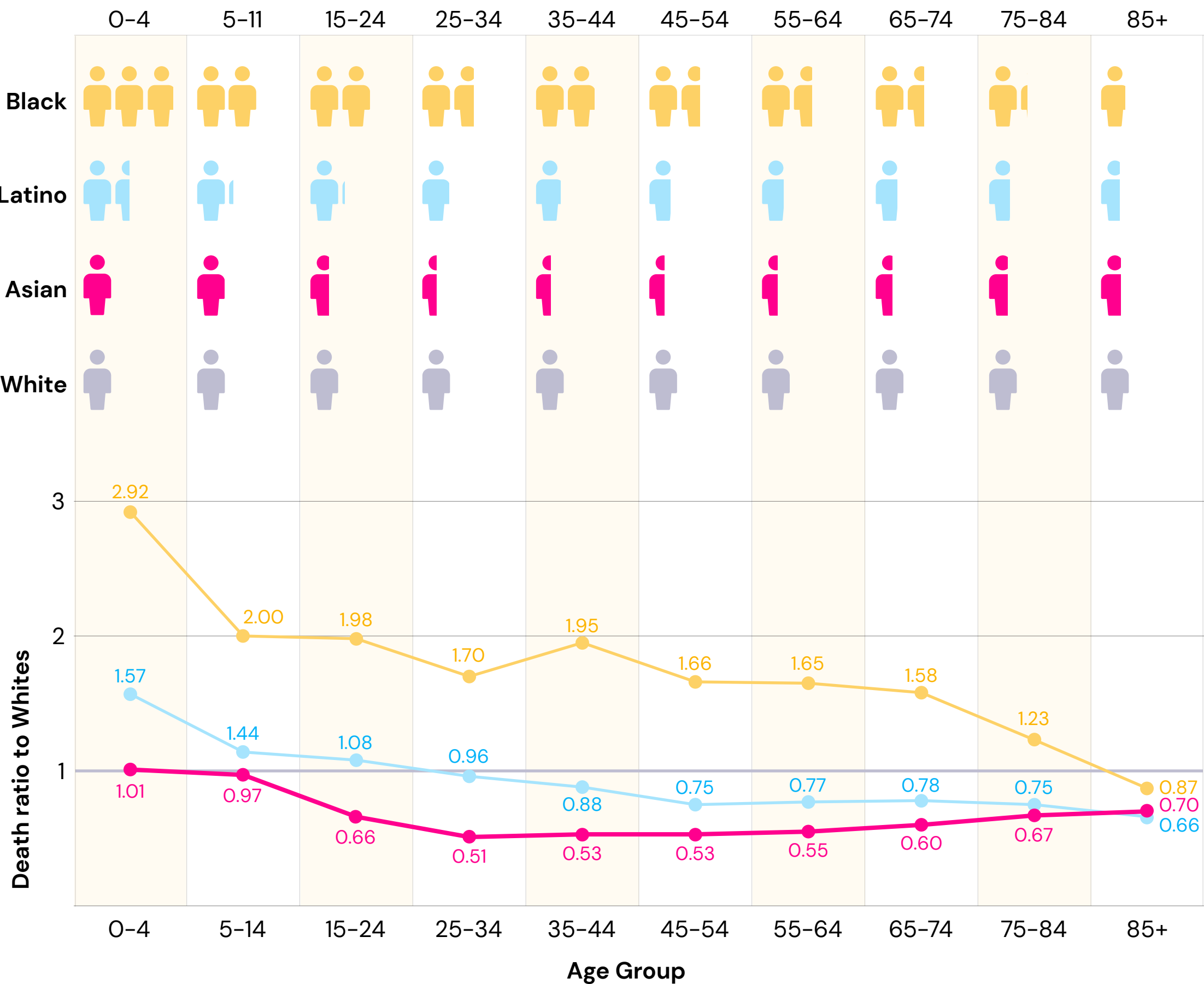
The California State of Public Health Report 2021 reports all-cause death rates and rate ratios of Asian, Black, Latino, and White residents. Whites are the reference group since they have been historically the largest group in the state. A rate ratio of 1.0 means that the rates are the same for both groups.

Asians have relatively similar or better outcomes than Whites. However, patterns and trends in Asian American mortality is unclear when all Asian subgroups are grouped together. Another factor to consider is whether the Asian population being assessed is born in the US or foreign born.

Although the US Census started disaggregating Asian subgroups in 1980, disaggregating death records occurred in 2003. In California, [AB 1726](#) requires the California Department of Public Health to break down data by ethnicity and ancestry for Asians, Native Hawaiians, and Pacific Islanders. This mirrors the information collected by the US Census Bureau. AB 1726 takes effect in 2022.

California Deaths by Age Group

Ratio of the age-specific Asian, Black and Latino rates to White rates. A ratio of 1.0 means the rates are the same.



Source: [California State of Public Health Report 2021](#)

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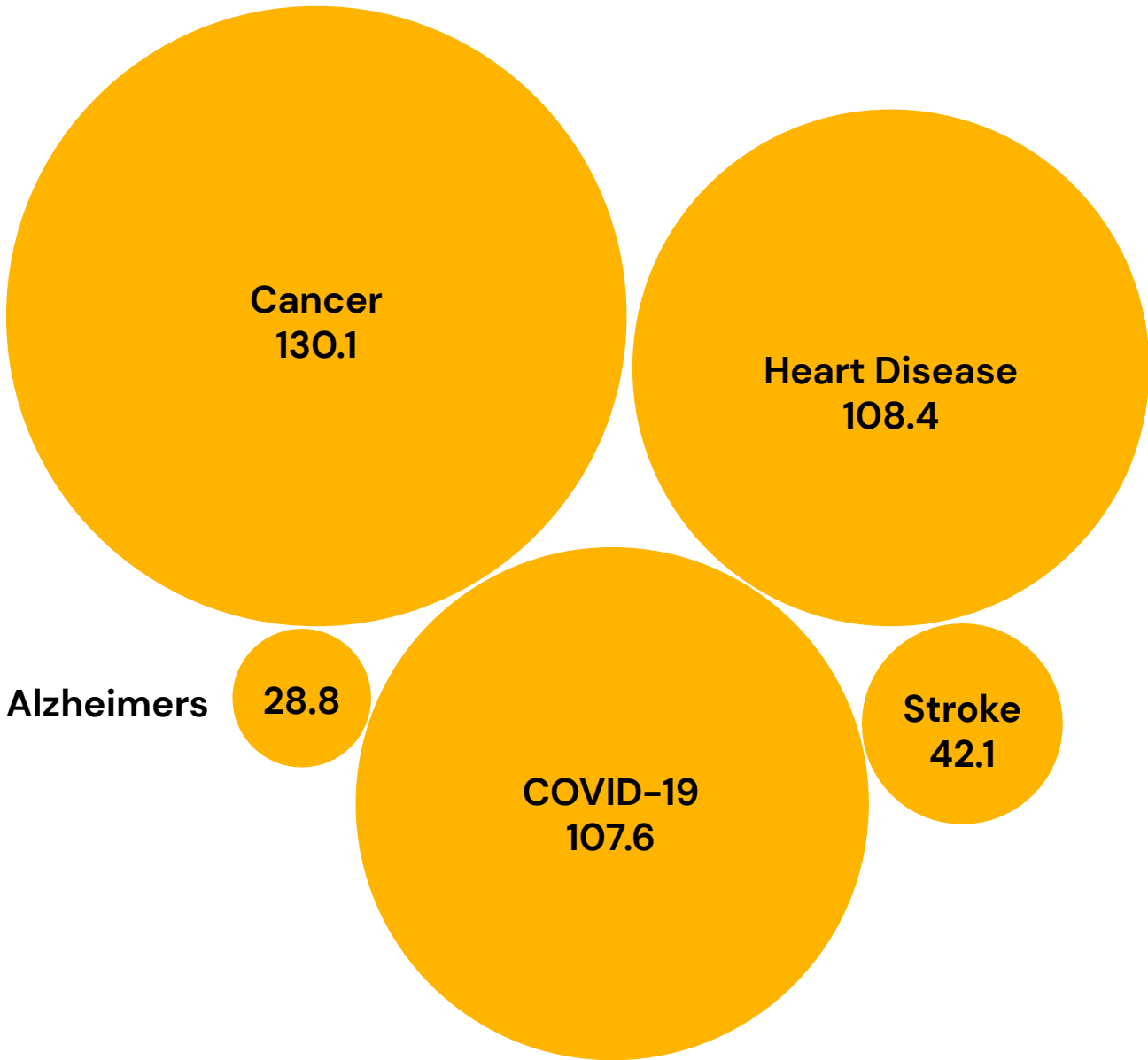
In Orange County, the five leading causes of death in 2021 among Asians are cancer, heart disease, COVID-19, stroke, and Alzheimer’s disease.

According to the May 2021 [Medical Policy Brief](#) by the US Department of Health and Human Services (HHS), Asians, Native Hawaiians, and Pacific Islanders (ANHPI) the lowest cancer incidence rates and the lowest or second lowest rate of risk factors for heart disease among racial groups in the US. Even though ANHPIs have the lowest cancer incidence rates, research shows that they have high rates of liver cancer and stomach cancer. Cervical cancer incidence rates were 7 to 10 times higher for Vietnamese, Samoans, and Laotians when compared to non-Hispanic Whites in 1998–2002.

Asians across the US are at high risk for cardiometabolic diseases (CMDs), which includes type 2 diabetes, hypertension, coronary artery disease, and stroke. In the same Medical Policy Brief, ANHPIs have the highest hepatitis B-related mortality rate and incidence of tuberculosis. The rate of diagnosed diabetes was 9.2% for Asians when compared to 7.6% for non-Hispanic Whites in 2017–18. In specific Asian subgroups, diabetes rate is the highest among Indians (12.2%) and Filipinos (10.4%). The rate of undiagnosed diabetes was 4.6% for Asian Americans when compared to 2.5% for non-Hispanic Whites in 2013–2016.

Top 5 Leading Causes of Death Among Asians in Orange County

2021, and crude rate per 100,000 Asian population



Risk Factors for Cause of Death

- | | | |
|--|--|---|
| <ul style="list-style-type: none"> ● Cancer
age alcohol use, tobacco use, poor diet, hormones, sun exposure | <ul style="list-style-type: none"> ● COVID-19
Immuno-compromised, unvaccinated, preexisting conditions | <ul style="list-style-type: none"> ● Stroke
high blood pressure, high cholesterol, smoking, lack of exercise, older age, genetics |
| <ul style="list-style-type: none"> ● Heart Disease
high blood pressure, high cholesterol, smoking, age, family history | <ul style="list-style-type: none"> ● Alzheimers
increasing age, Family history, head injuries/trauma, cognitive impairment | |

Source: OC Health Care Agency

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Health & Mortality (continued)

In Orange County, the five leading causes of death in 2021 among Native Hawaiians and Pacific Islanders (NHPI) are COVID-19, heart disease, cancer, accidents, and stroke.

NHPIs have 10% greater risk for heart disease than non-Hispanic Whites. Death from heart disease among NHPIs is 10% lower for men and is no different for women when compared to non-Hispanic Whites. The risk for high blood pressure is similar between NHPIs and non-Hispanic Whites. However, NHPIs are four times more likely to have a stroke and are 30% more likely to die from a stroke than non-Hispanic Whites.

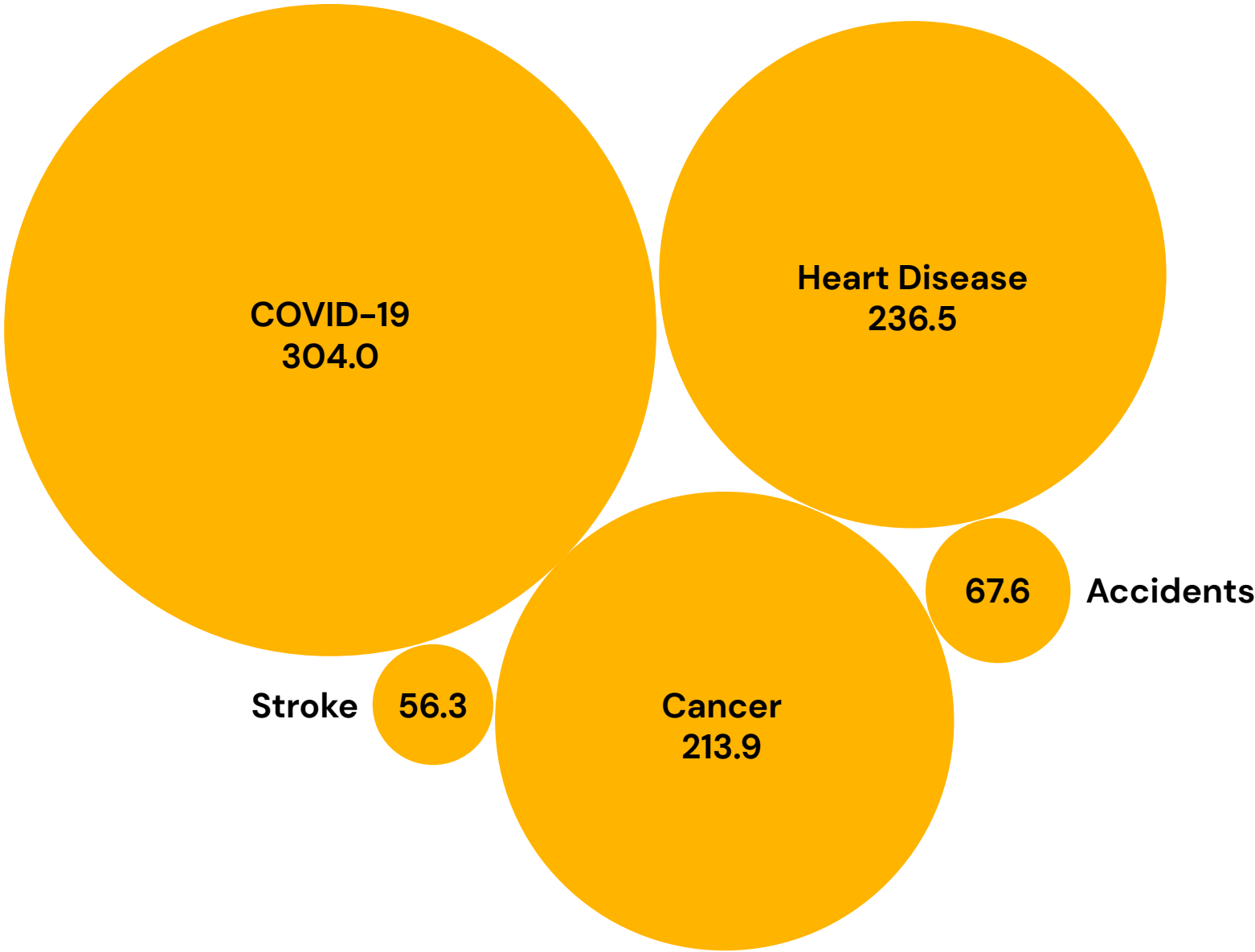
In terms of cancer, NHPIs are less likely to be diagnosed with cancer than non-Hispanic Whites. However, NHPIs have higher rates of lung and stomach cancer. NHPI men are more likely to develop liver cancer, while NHPI women are more likely to develop breast and cervical cancer. Cancer death rates are higher among NHPIs than for non-Hispanic Whites, especially death rates for lung, liver, stomach, breast, and cervical cancer.

Diabetes incidence and death rates among NHPIs are more than twice those of non-Hispanic Whites.

Source: [U.S. Dept of Health and Human Services, Office of Minority Health.](#)

Top 5 Leading Causes of Death Among Pacific Islanders in Orange County

2021, and crude rate per 100,000 Pacific Islander population



Risk Factors for Cause of Death

- | | | |
|--|---|---|
| <p>● COVID-19</p> <p>Immuno-compromised, unvaccinated, preexisting conditions</p> | <p>● Cancer</p> <p>age alcohol use, tobacco use, poor diet, hormones, sun exposure</p> | <p>● Stroke</p> <p>high blood pressure, high cholesterol, smoking, lack of exercise, older age, genetics</p> |
| <p>● Heart Disease</p> <p>high blood pressure, high cholesterol, smoking, age, family history</p> | <p>● Accidents</p> <p>Unintentional injuries, falls, excessive drinking, substance abuse, unintentional poisonings</p> | |

Source: OC Health Care Agency

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Health & Mortality (continued)

Access to Mental Health Services

During COVID-19 pandemic, survey data show that Orange County’s Asian community (namely Cambodian, Chinese, Filipino, and Vietnamese) were most likely to see mental health advertisements on the internet, social media, or television. Billboards, buses, and bus shelters were the least likely places for them to see mental health advertisements.

Asian respondents were most likely to see advertisements with information to raise mental health awareness, available mental health services or resources, and suicide prevention.

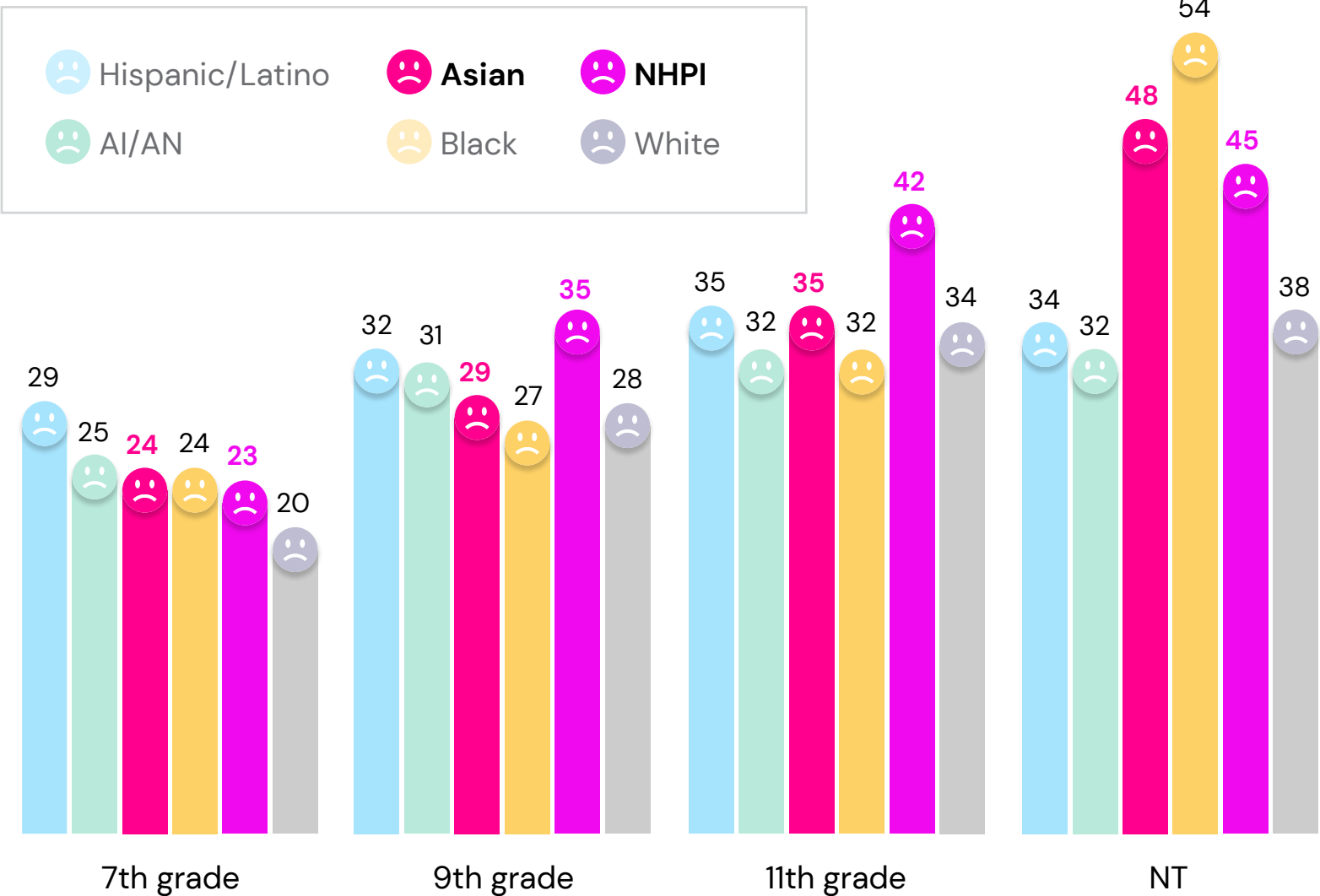
After viewing the advertisements, Asian respondents became aware of available resources and were more likely to share the information. When asked about challenges faced if offered a telehealth appointment for mental health or substance use services, Asian respondents were more comfortable sharing information and connecting with their doctor in person. Other challenges included feeling comfortable in their ability to use telehealth and technology, as well as privacy issues.

When asked about visit preference with their doctor, Asian respondents preferred a combination of telehealth and in-person visits. This trend is similar to the visit preference among Asian ethnic groups.

These findings suggest that a hybrid model for mental health services might be more popular and effective for Asian community.

Chronic Sadness or Hopelessness in Orange County Schools

percentage in the past 12 months by grade level, 2017-2019



Percentage of students that felt so sad or hopeless almost every day for two weeks or more that they’ve stopped doing some usual activities during the past 12 months.

7th grade	9th grade	11th grade	NT
25%	30%	35%	36%

Percentage of students that seriously considered attempting suicide during the past 12 months.

7th grade	9th grade	11th grade	NT
13%	15%	15%	19%

* NT includes continuation, community day, and other alternative school types
Source: [California Healthy Kids Survey](#)

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What are Social Determinants of Health?

The World Health Organization (WHO) defines social determinants of health (SDoH) as the conditions in which people are born, live, learn, work, play, worship, and age that impact health outcomes of a person or community. These circumstances are shaped by the distribution of money, power, and resources at the global, national, and local levels. These forces are outside the control of an individual or community and can greatly affect their overall health and well-being. Addressing these SDoH requires collective community action on a systemic level. The following pages highlight the status of the Asian, Native Hawaiian, and Pacific Islander population in Orange County across three social factors:

Health and Mortality

Comparing how long a group lives and determining their quality of life to the population at large can be a baseline for whether systemic disparities exist and how these disparities impact the community.

Economics and Education

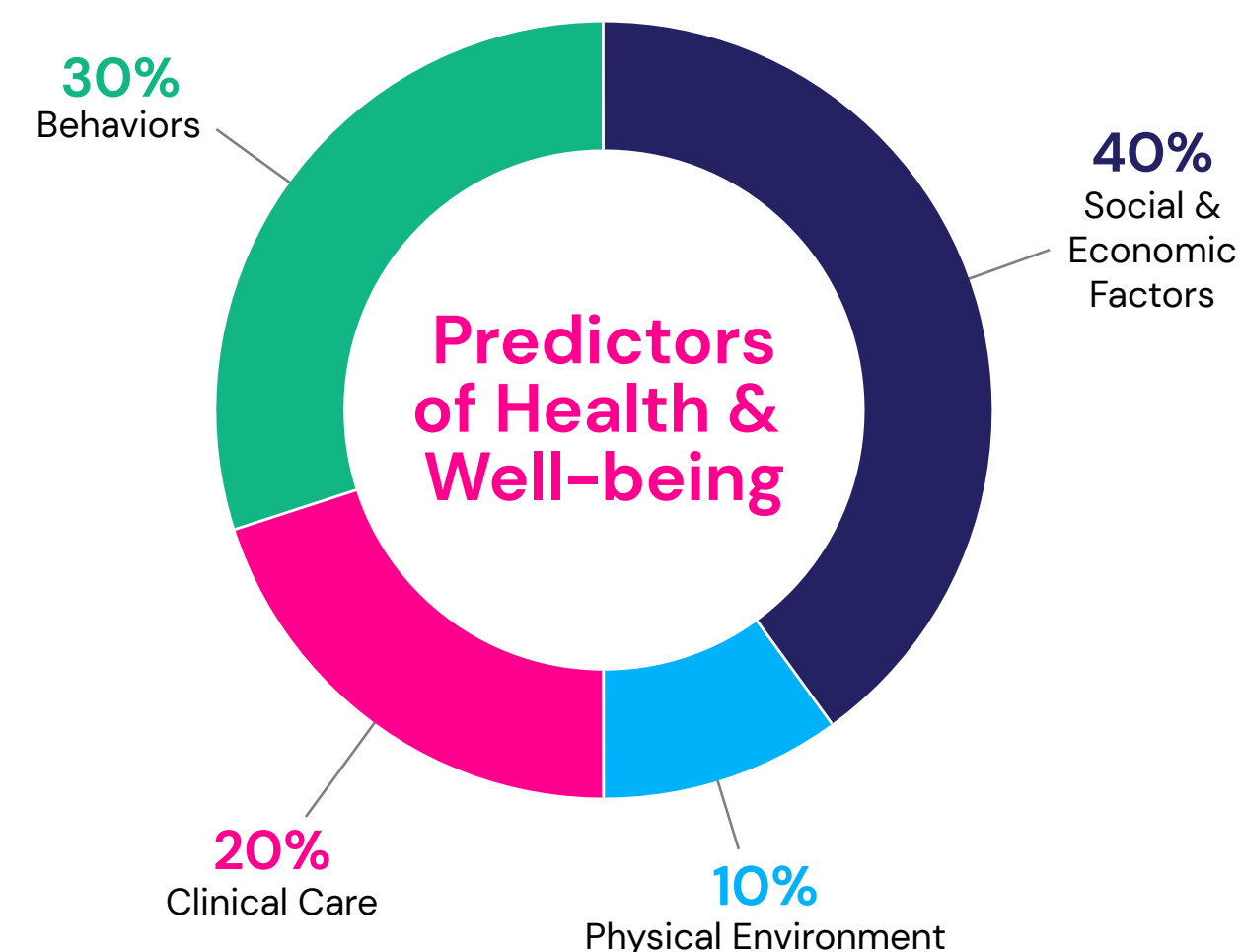
Education does more than determine one's income. Individuals with higher education are more likely to be healthier and live longer. Improving education in various communities can bring significant health benefits to everyone.

Built Environment and Social Context

Where someone lives, how an individual gets around, and what is going on in a person's community can greatly impact both individual and community health and well-being. Things like neighborhood walkability, cleanliness of air and water, and even the age of buildings in the community can affect quality of life.

It is unreasonable to expect that people will change their behavior easily when so many forces in the social, cultural, and political environment conspire against such change.

National Academy of Medicine



Source: [County Health Rankings](#)

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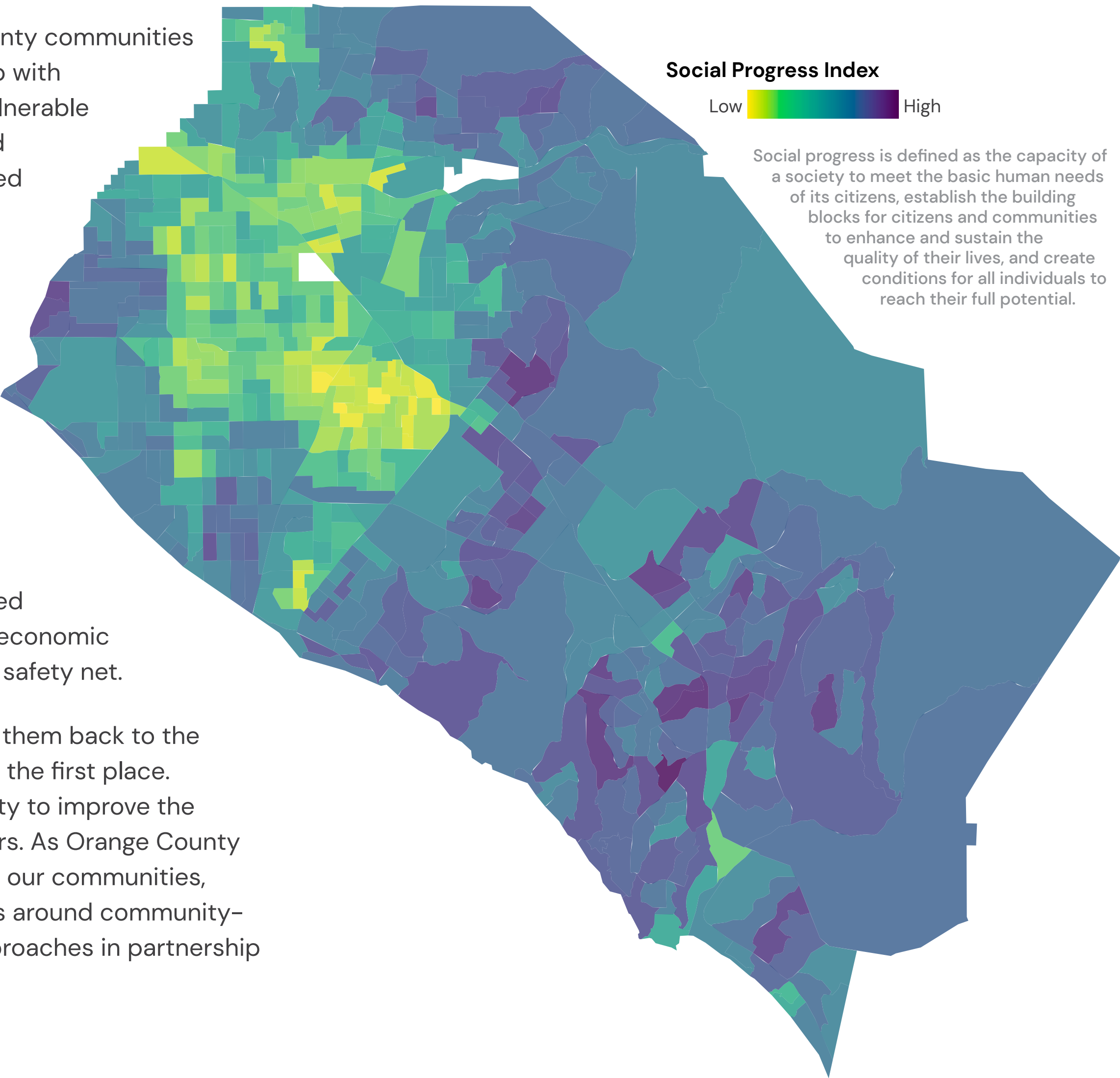
Mapping the Disparity

The COVID-19 pandemic impacted Orange County communities unequally and disproportionately. In partnership with AdvanceOC, a local non-profit, we identified vulnerable communities using comorbidity risk factors and social vulnerability. This rigorous analysis resulted in the Orange County Equity Map and guided the county’s response and management of the pandemic.

What We Learned

The OC Equity Map measures social progress in various census tracts of the county. Analyzing and layering COVID-19 cases in Orange County showed that higher concentrations of COVID-19 cases occurred in low social progress areas. The pandemic exposed and magnified existing racial, gender, and socioeconomic inequities, including flaws in the county’s social safety net.

We cannot treat and heal individuals then send them back to the systems and conditions that made them sick in the first place. Orange County sees COVID-19 as an opportunity to improve the health and well-being of all community members. As Orange County charts a path forward to rebuild and strengthen our communities, the Health Care Agency will center these efforts around community-informed, data-driven, and equity-oriented approaches in partnership and collaboration with community members.



Source: [OC Equity Map](#), [AdvanceOC](#)

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SDoH Impacting Asian and NHPI Communities

Asians, Native Hawaiians, and Pacific Islanders (ANHPI) are the fastest growing racial and ethnic groups in the US. They represent 24 million people, nearly 100 different ethnic groups, and over 250 languages and dialects. ANHPIs vary in their demographic and socioeconomic characteristics.

Public insurance programs allow many low- and middle-income ANHPI children and families to have health insurance access and coverage. Nearly 17% of Asians and 28% of NHPIs rely on Medicaid. These programs are important for the Burmese, Bhutanese, and Marshallese communities since they have higher rates of poverty compared to other Asian and NHPI populations.

Since the ANHPI community is a largely immigrant community, restrictions on accessing health care services and programs due to immigration status has long-lasting impacts. Due to these restrictions, immigration and residency status is a major determinant of health status and health insurance coverage for the ANHPI population.

Asians are at high risk for cardiometabolic diseases (CMD), which include type 2 diabetes, hypertension, coronary artery disease, and stroke. Large observational studies suggest Asians may be disproportionately affected by CMDs. Even with the growth of Asians in the US, gaps still exist in understanding CMDs across Asian subgroups, and little is known about CMDs in disaggregated Asian subgroups.



2022 Tet Celebration at the Asian Garden Mall in Westminster, California. Photo courtesy of Gaston Castellanos.

Acculturation is a highly examined social factor for its influence on CMDs, and years lived in the US is associated with a higher risk of CMDs. Even though data are limited, South Asians and Filipinos have increased CMD risk.

The effect of English proficiency on CMD risk deserves further attention. Groups with limited English proficiency (LEP) may be at higher risk of poor health outcomes. However, a study highlights a gap in understanding how LEP affects CMD health among Asian

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subgroups. This is likely tied to health literacy, and one study found that Japanese individuals with low health literacy had an increased risk of hypertension. Addressing LEP and health literacy in the Asian community can further uncover health-related needs and gaps.

Educational attainment was associated with a higher risk of hypertension among Koreans, Filipinos, and Chinese and a higher risk of diabetes among Chinese, South Asians, and Japanese. This may reflect the varying immigration patterns of these Asian communities. For example, South Asians were more likely to immigrate to the US after the 1965 Immigrant Act, which favored immigrants with professional degrees. In 2015, 40% of Indians had a master’s degree or higher. There is also a phenomenon known as the “healthy immigrant effect,” and recent immigrants tend to be healthier even if they have lower socioeconomic status.

Social support influences CMD outcomes among various immigrant groups and other US-born populations. Several interventions with Filipinos and Koreans show that social support can assist in diabetes prevention, self-management, and physical activity.

Health insurance coverage rate for Native Hawaiians and Pacific Islanders (NHPI) is lower than most racial groups in the US. In 2008, one in four NHPIs (24.3%) under 65 years of age lacked health insurance coverage. This percentage is higher than most racial groups except for American Indians/Alaska Natives (30.7%) and Latinos (34.1%).

Two in three NHPIs (63.3%) aged 65 or older only had Medicare and lacked supplemental insurance. This percentage is higher than other racial groups, especially Whites (28.9%). While Medicare provides some basic coverage, it does not cover all health and medical expenses. Medicare beneficiaries may have significant out-of-pocket costs of uncovered services, which includes most routine preventive care, immunization, dental care, hearing aids, eyeglasses,

outpatient prescription drugs, and long-term care. For a large proportion of NHPI seniors, this lack of supplemental insurance may be a barrier to accessing needed medications and health care.

LEP patients are vulnerable to disparities in health care access and quality. Effective communication between the patient and medical provider is important for the delivery of effective, high-quality care. Language barriers can affect patient-provider communications and can lead to inappropriate treatment or errors in diagnosing symptoms. Limited English proficiency can be a barrier to accessing quality care for linguistically diverse NHPIs.

Language access services ensure effective communication between LEP individuals and English speakers and are critical components of culturally and linguistically competent care. Language access services can include medical or health interpretation (oral) and translation (written) services. One in five NHPI adults (19.9%) in California reported that they found it “somewhat difficult” or “very difficult” to understand written information from their doctor.

The health insurance coverage rate for NHPIs is lower than most for other racial groups...

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Anti-Asian Hate

While racism towards Asian Americans is not new in US history, ANHPIs in Orange County have been vulnerable to increased hate crimes and incidents due to tense US-China relations and the politicization of COVID-19.

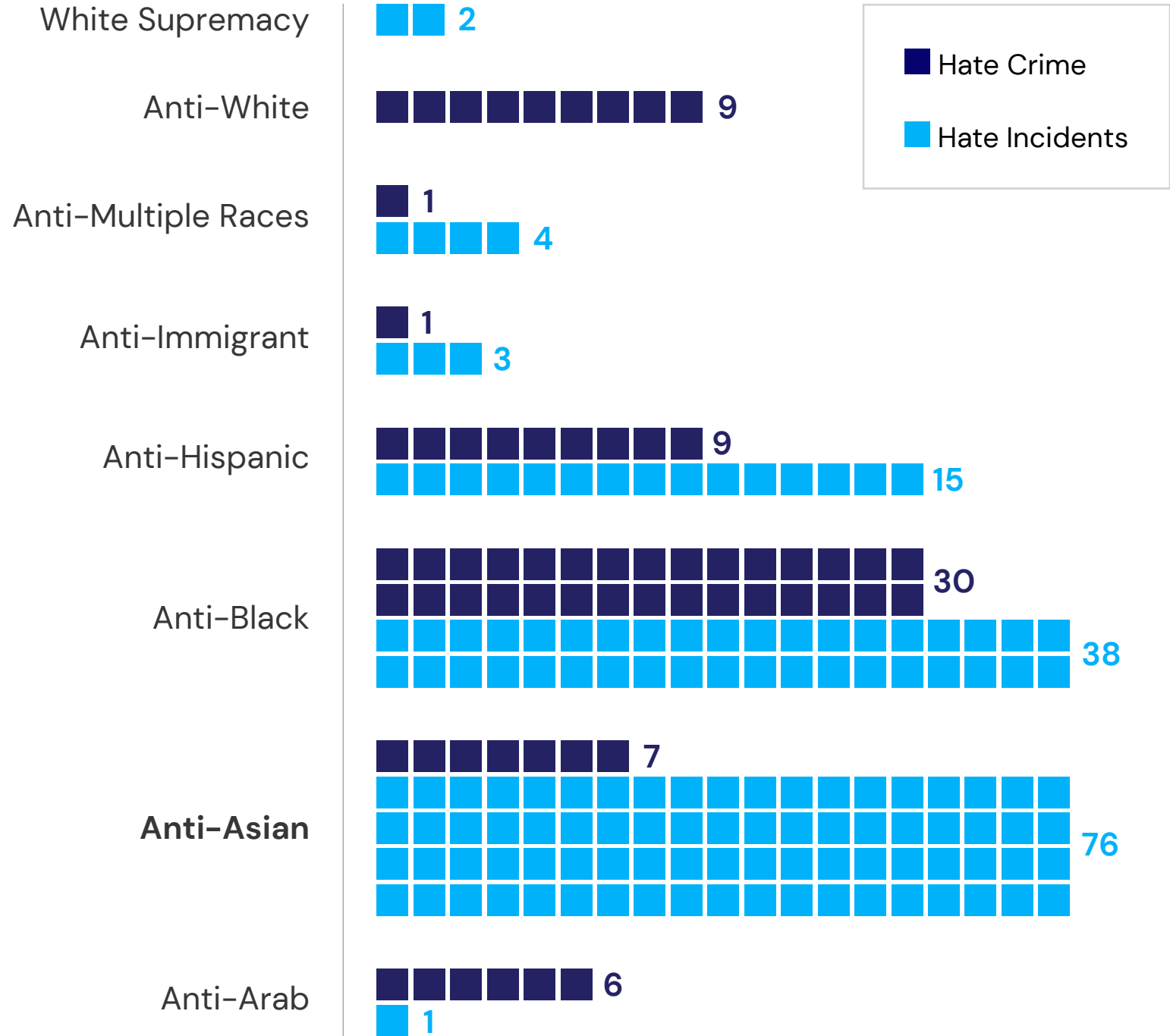
According to a 2021 Orange County Human Relations Commission report, 112 hate crimes were reported in Orange County, a 35% increase from 2019. A hate crime is defined as a crime motivated by bias against another person’s race, color, disability, religion, national origin, sexual orientation, or gender identity. Hate crimes can include assaulting, injuring, or even touching someone in an offensive way because of their perceived protected class.

263 hate incidents were reported in Orange County, a 69% increase from 2019. A hate incident is defined as any hostile expression that may be motivated by another person’s race, color, disability, religion, national origin, sexual orientation, or gender identity. Hate incidents can be verbal, physical, or visual behavior that contributes to or creates an unsafe or unwelcoming environment. Hate incidents can include name calling, using a racial or ethnic slur to identify someone, or using degrading language.

According to the May 2021 Stop Anti-AAPI Hate Mental Health Report, Asian who have experienced racism are more stressed by anti-Asian hate than the COVID-19 pandemic itself. One in five Asians who have experienced racism show racial trauma, which is the psychological and emotional harm caused by racism. They also have heightened symptoms of depression, anxiety, stress, and physical distress. Experiences of racism during the COVID-19 pandemic is more strongly associated with symptoms of post-traumatic stress disorder (PTSD).

Hate Crimes & Hate Incidents in Orange County

2020



69%

increase of hate incidents

in Orange County since 2019

1800%

increase of anti-Asian hate incidents

in Orange County since 2019

Source: [OC Human Relation Report](#)

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Economics and Education

Educational Attainment in Orange County

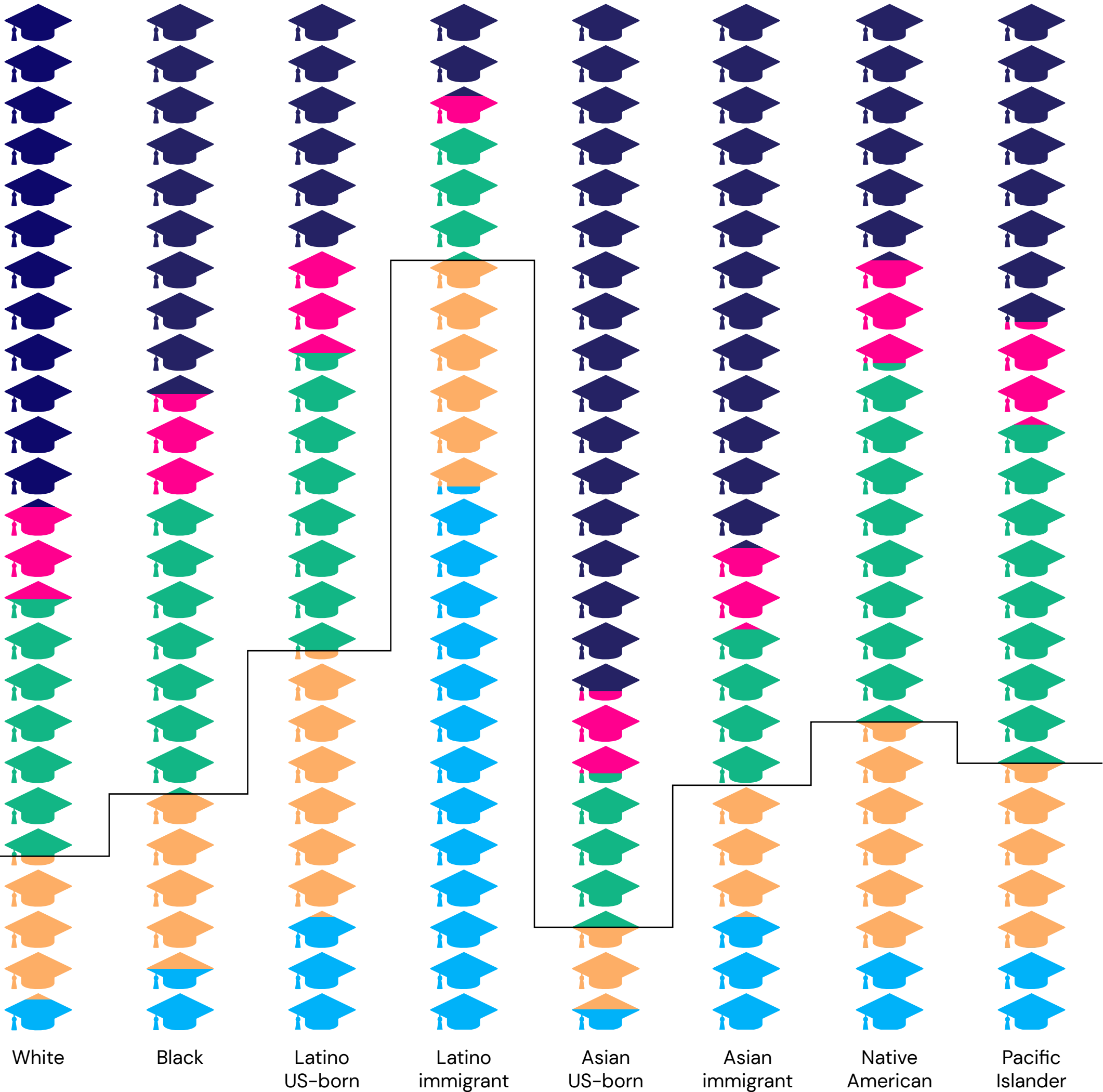
Time of measurement: 2016

According to the 2019 US Census, 87.8% of all Asians in the US who are 25 years and older had at least a high school diploma when compared to 93.3% of non-Hispanic Whites. Similarly, 88.7% of Native Hawaiians and Pacific Islanders (NHPI) had high school diplomas or higher.

55.6% of Asians had earned at least a bachelor’s degree when compared to 36.9% of non-Hispanic Whites.

- BA degree or higher
- Associate’s degree
- Some college
- High school diploma
- Less than HS diploma

Source: [Steven Ruggles, Sarah Flood, Ronald Goeken, Megan Schouweiler and Matthew Sobek. IPUMS USA: Version 12.0 \[dataset\]. Minneapolis, MN: IPUMS, 2022. https://doi.org/10.18128/D010.V12.0](#)



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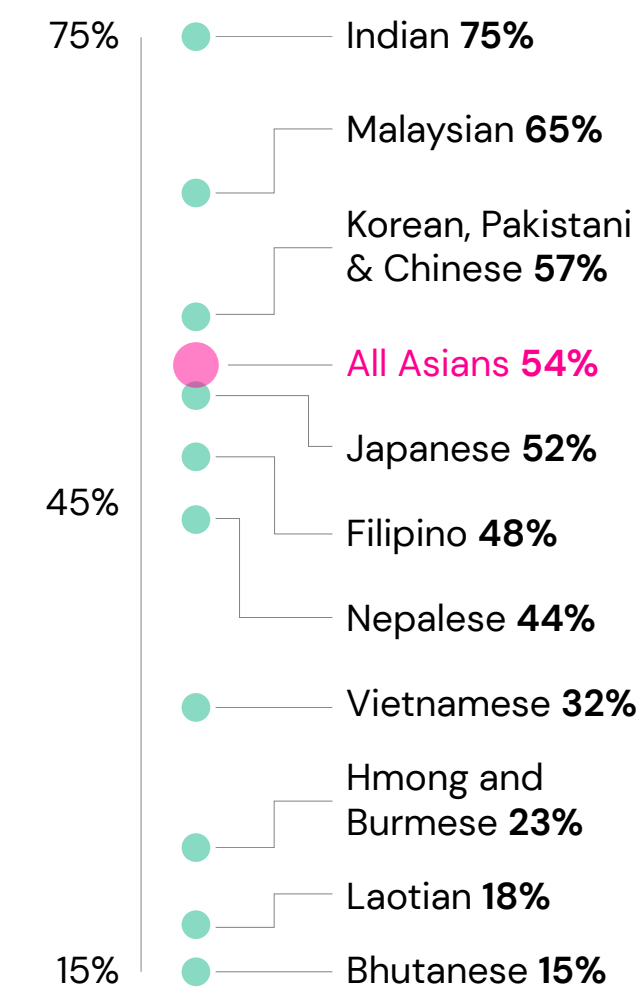
The share of Asians aged 25 years and older with at least a bachelor's degree varies greatly within the community. Indians (75%), Malaysians (65%), Mongolians (60%), and Sri Lankans (60%) are more likely to have at least a bachelor's degree. By comparison, fewer than one in five Laotians (18%) and Bhutanese (15%) had at least a bachelor's degree. Roughly a third of all Americans aged 25 years and older had a bachelor's degree or more in 2019.

Differences in educational attainment among Asian subgroups partly reflect the education levels those immigrants bring to the US. For example, three-quarters of Indians had a bachelor's degree or more education in 2019. Through visas for high-skilled workers, many of them already had a bachelor's degree when they arrived in the US. Since 2001, half of H-1B visas, which require a bachelor's degree or equivalent, were given to Indians.

According to the Pew Research Center, Asians are the most likely racial or ethnic group to move up from a lower income tier. Conversely, Asians are least likely to move down from an upper income tier. However, the reality of the socioeconomic status of Asians is one of disparities in education, income, wealth, and employment. Addressing assumptions of Asians' economic status is key to understanding the disparities within the group.

Educational Attainment by Asian Subgroups Nationally

Percentage of those ages 25 and older with a bachelor's degree or more

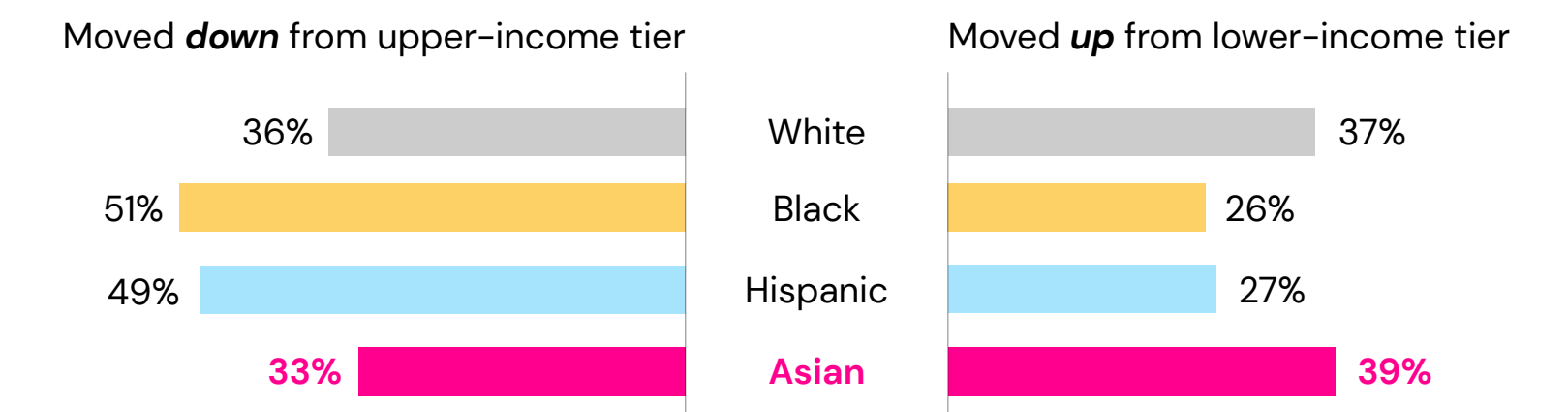


Note: Data not available for all Asian origin groups. "Chinese" includes those identifying as Taiwanese. See methodology for more.

Source: [Pew Research Center analysis of 2017-2019 American Community Survey \(IPUMS\)](#)

Income Tier Movement Nationally

Percentage of adults who moved up from the low-income tier or down from the upper-income tier, average of annual turnovers from 2000-2001 to 2020-2021



Source: [Pew Research Center](#)

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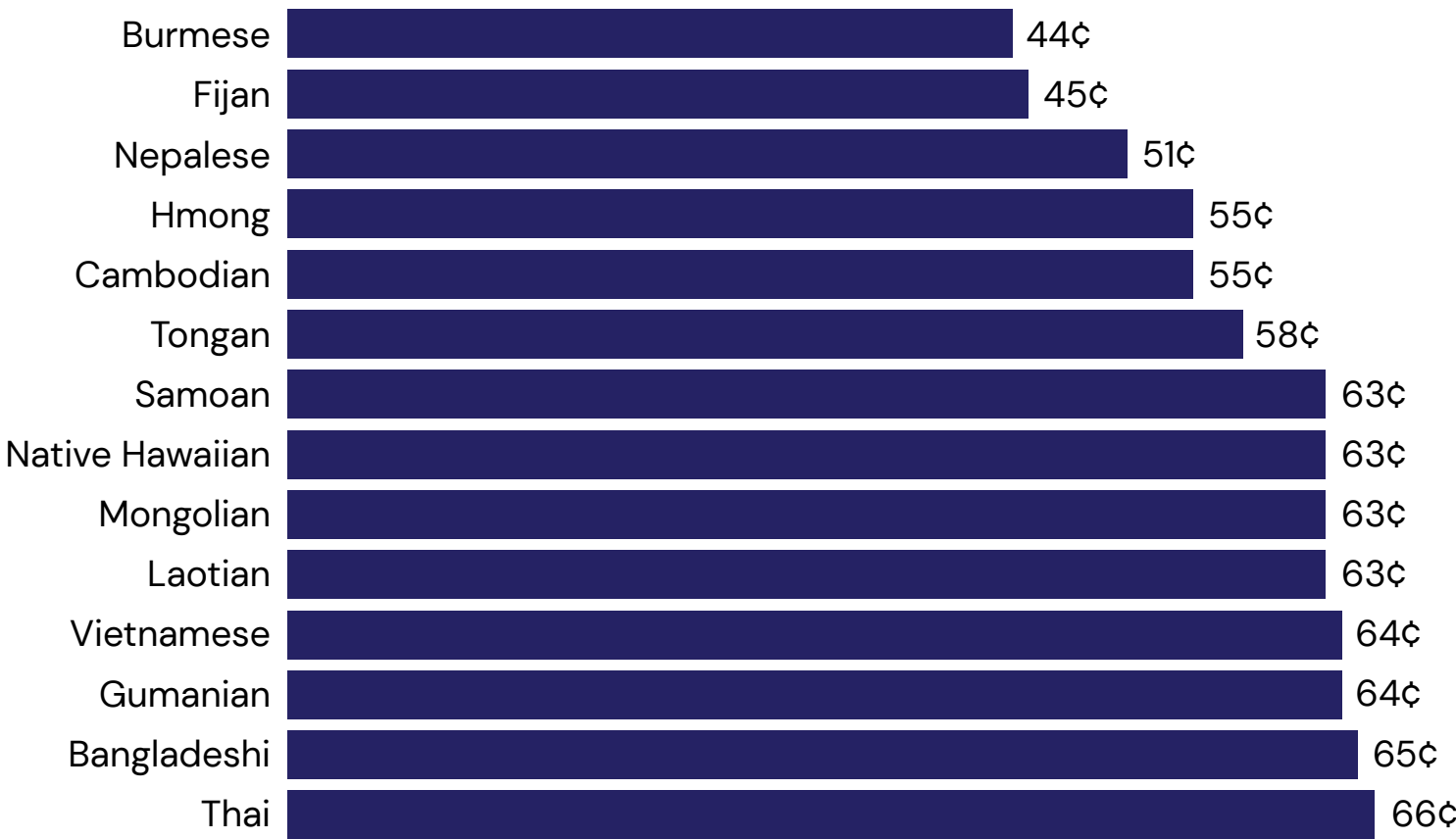
In the US, women earn \$0.82 for every \$1.00 earned by men of all races. Compared to non-Hispanic White men, non-Hispanic White women earn \$0.79 for every \$1.00. Asian women earn \$0.90 for every \$1.00 earned by non-Hispanic White men. However, within the Asian, Native Hawaiian, and Pacific Islander (AHNPI) community, this gap is widely different. Thai women earn \$0.66 compared to non-Hispanic White men and Burmese women earn \$0.44. In between, Vietnamese women earn \$0.65, Native Hawaiian and Samoan women earn \$0.63, Hmong women earn \$0.55, and Fijian women earn \$0.45.

In addition to the pay gap experienced by all women, Asians are more likely to work at gig jobs than non-Hispanic Whites or most American adults. In terms of any kind of gig work, 19% of Asians work in the gig economy when compared to 16% of all adults.

Source: [American Progress](#)

Gender Pay Gap Nationally

On average, Asian American women earn 85 cents for every \$1.00 a white man earns. The following represents what women in different Asian subgroup populations earn relatively.

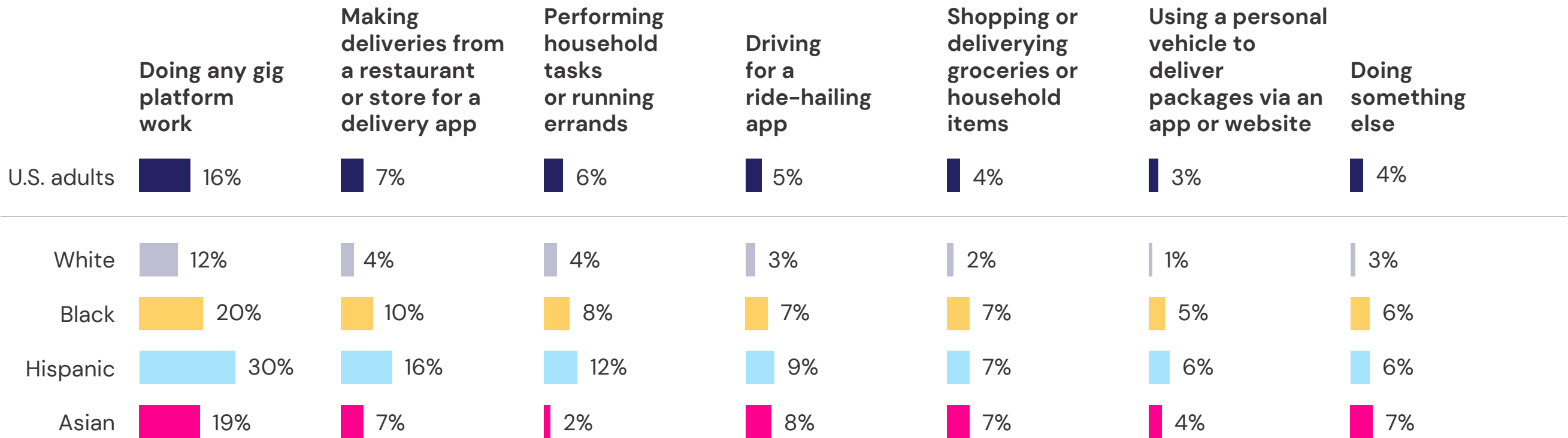


Source: [National Asian Pacific American Women’s Forum](#)

Gig Workers by Race/Ethnicity Nationally

Percentage of adults who say they have ever earned money by...

Source: [Pew Research Center](#)



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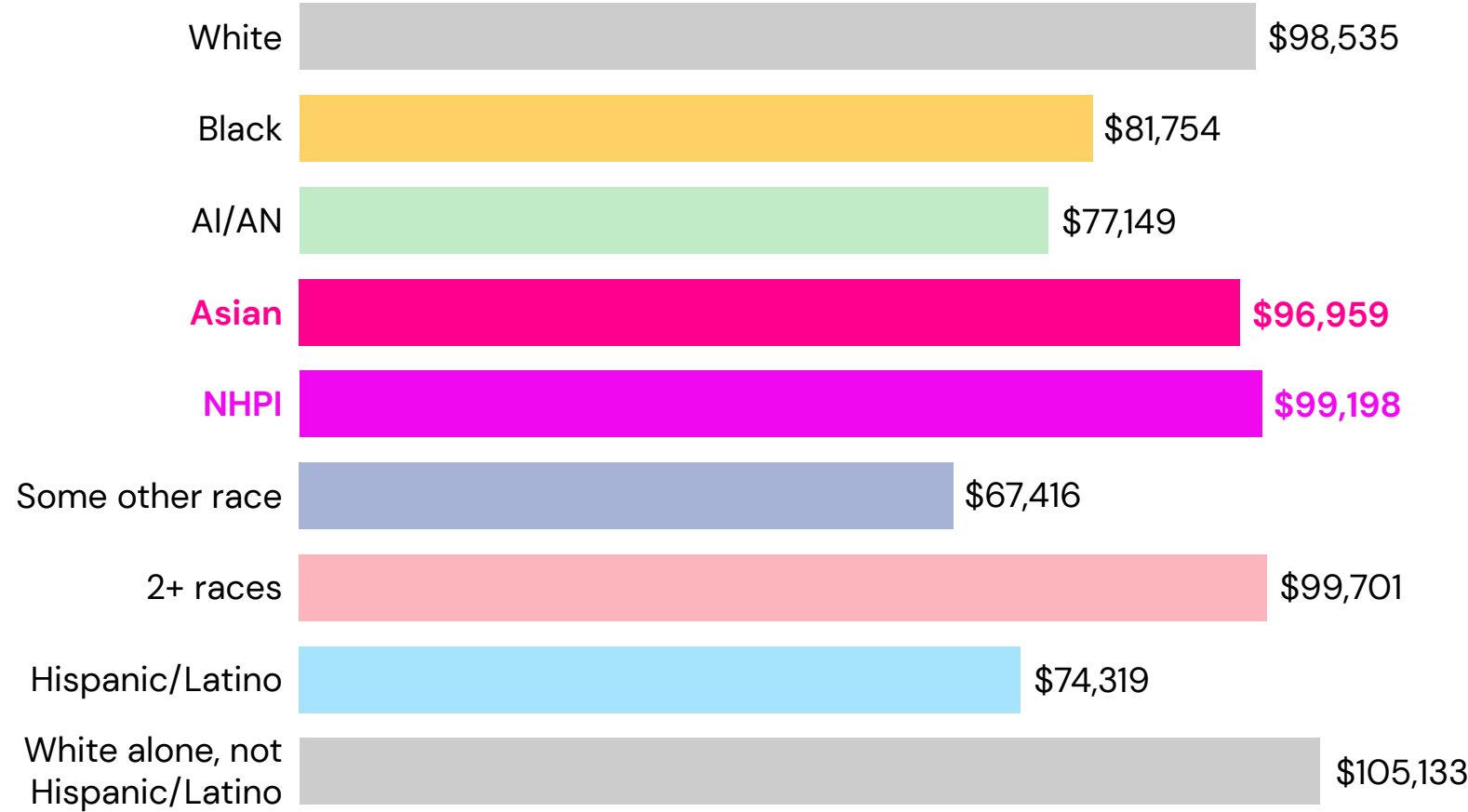
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Economics and Education (continued)

Wide disparities in income exist in the Asian community. Asian households in the US had a median annual income of \$85,800 in 2019 and is higher than the \$61,800 among all US households. Two Asian subgroups had household incomes that exceeded the median for Asian Americans overall: Indians (\$119,000) and Filipinos (\$90,400). Most of the Asian subgroups were below the national median for Asian Americans, including the two lowest median household incomes: Burmese (\$44,400) and Nepalese (\$55,000).

Median Household Income by Race/Ethnicity in Orange County

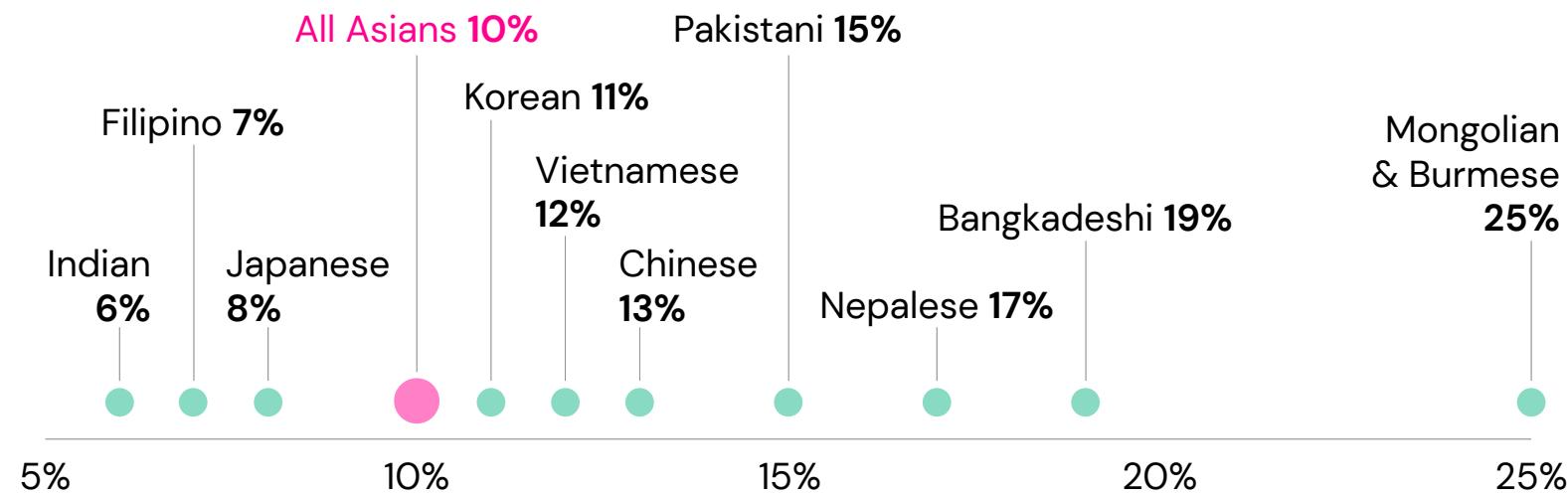
2020



Source: [Steven Ruggles, Sarah Flood, Ronald Goeken, Megan Schouweiler and Matthew Sobek. IPUMS USA: Version 12.0 \[dataset\]. Minneapolis, MN: IPUMS, 2022. https://doi.org/10.18128/DO10.V12.0](#)

Asian Americans in Poverty by Origin Group Nationally

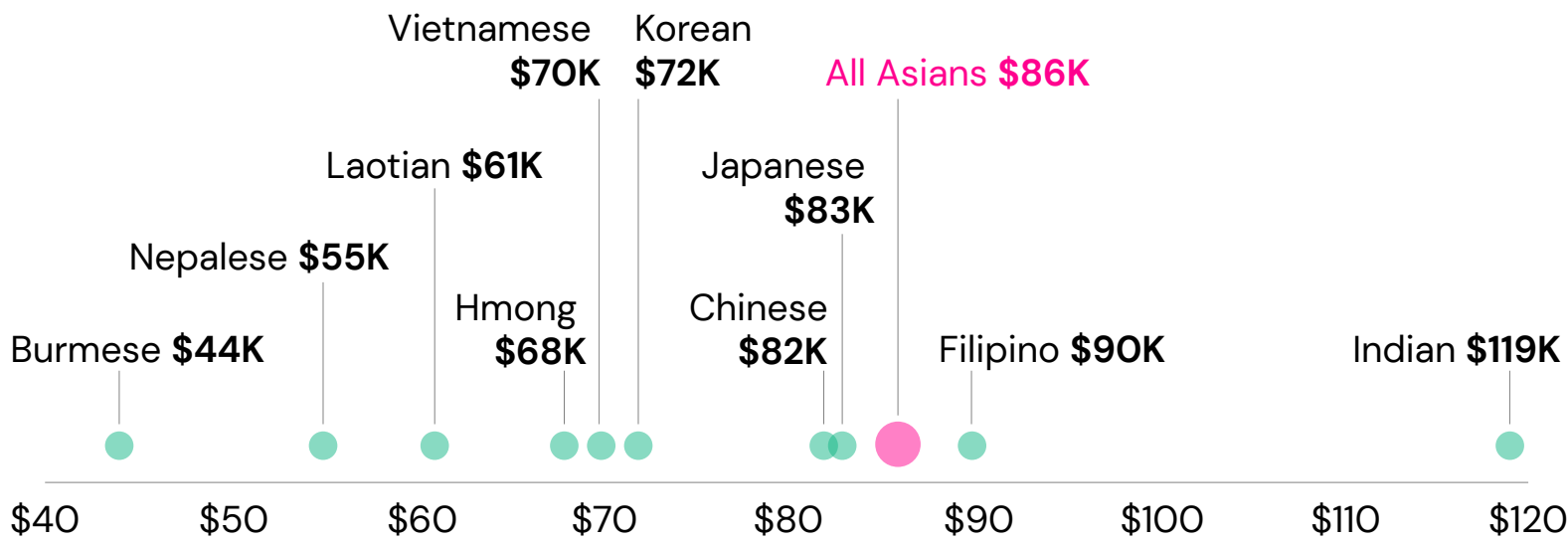
2020



Source: [Pew Research Center](#)

Median Household Income by Origin Group Nationally

2020



Source: [Pew Research Center](#)

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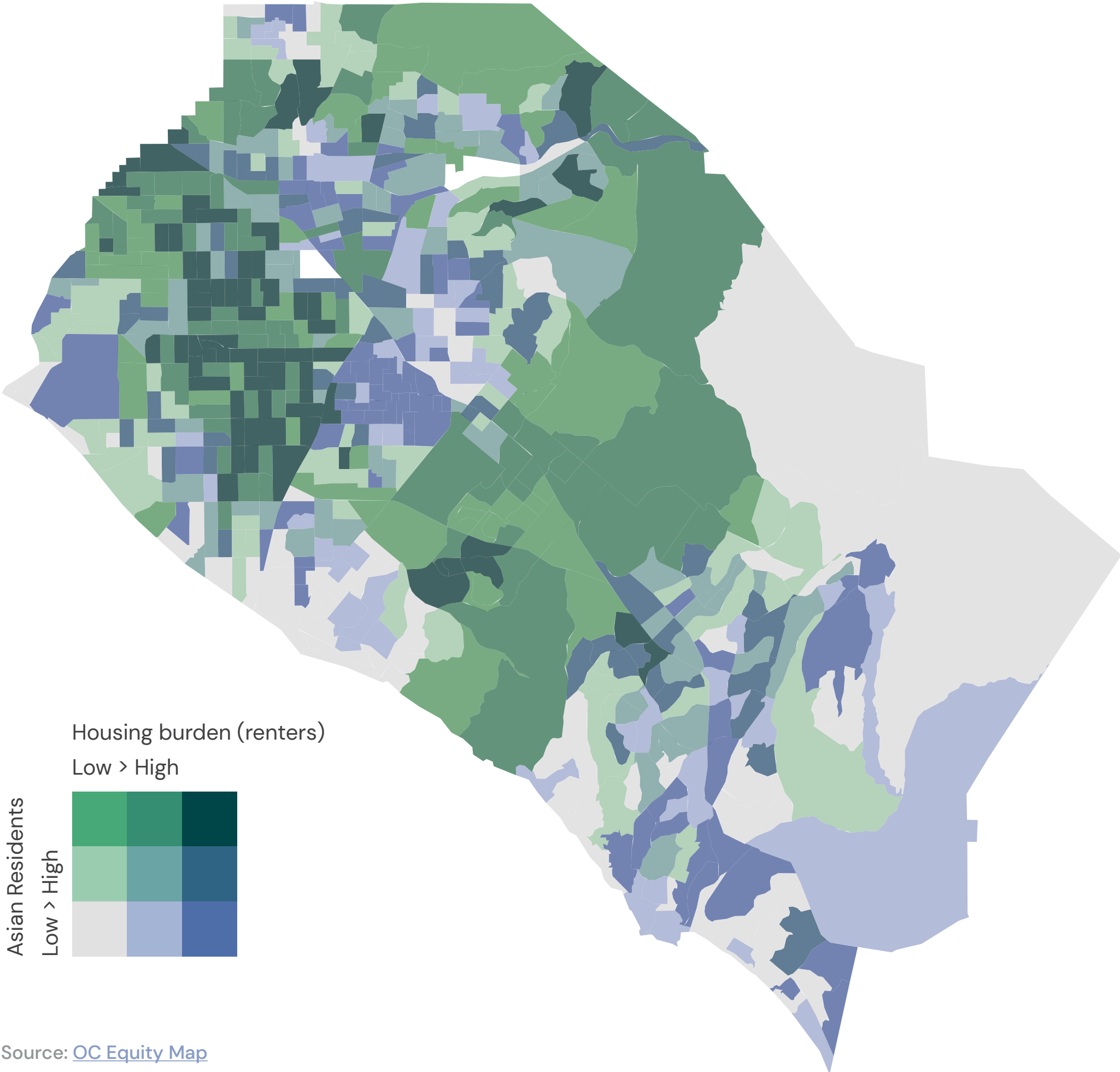
Built Environment and Social Context

Asians, Native Hawaiians, and Pacific Islanders (ANHPI) struggle to find stable and affordable housing. Nearly half of Asians in Orange County pay more than 30% of their income on housing. Vietnamese and Koreans are most likely to spend more of their income on housing costs than the ANHPI population. Nearly half of NHPI homeowners in the county struggle to manage housing costs. By dedicating so much of their incomes to housing, these groups may have difficulty affording necessities, such as food and medical care. When they do seek medical care, they may already be in worse health situations.

Asian business owners sometimes operate exclusively in cash. Some first-generation Asian immigrants also “under bank.” Since they don’t trust financial systems, they tend to hoard cash in their household. This lack of traceable income can make it difficult to get financial assistance for their business or when trying to find housing.

Housing Burdened for Renters and the Asian Population in Orange County

2019



Source: [OC Equity Map](#)

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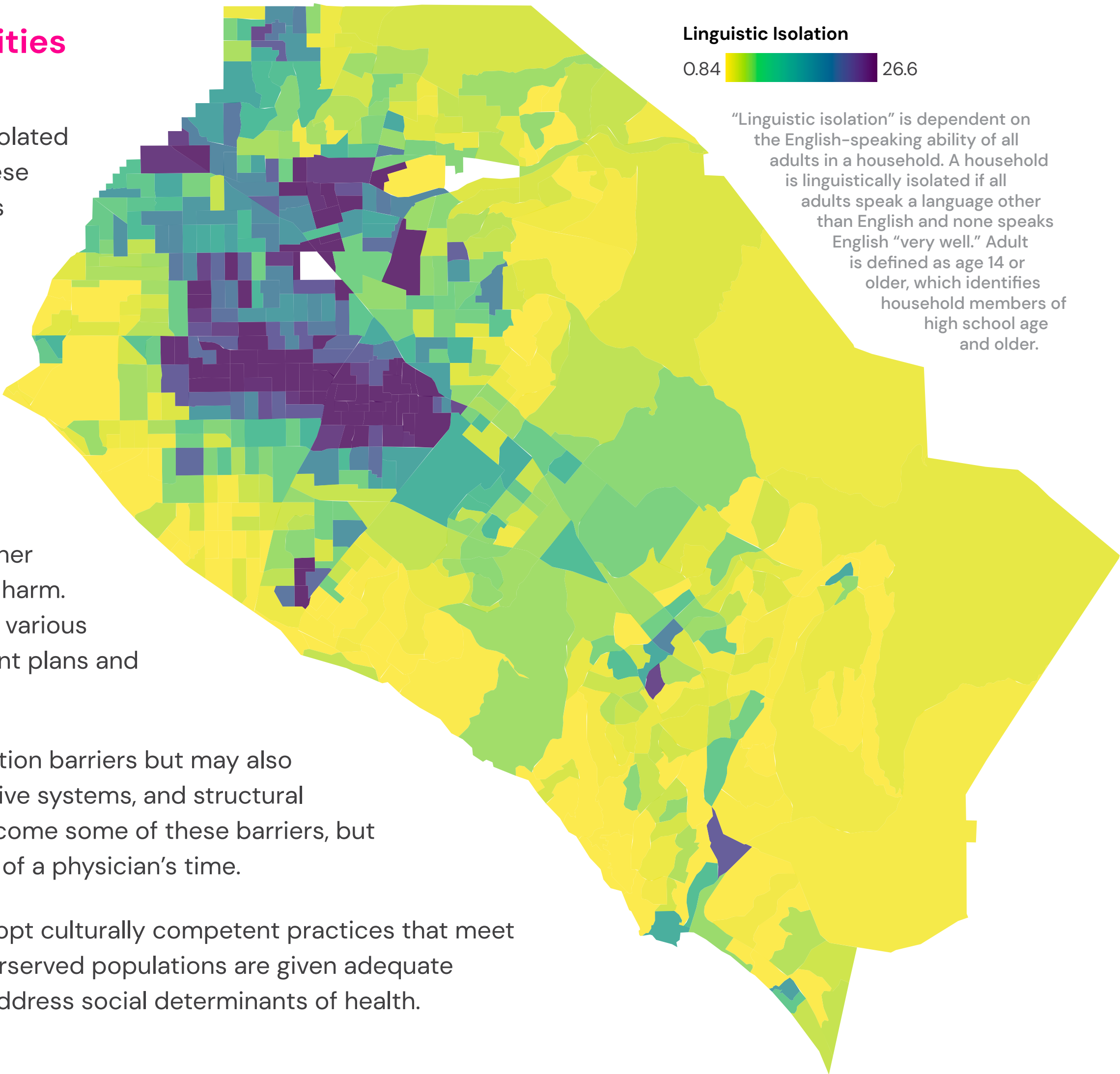
Orange County Language Opportunities and Services

Orange County residents who live in linguistically isolated communities are often from immigrant families. These immigrant families tend to gather in ethnic enclaves as a means of survival because of discriminatory practices or due to being shunned from other parts of the county.

People with limited English proficiency (LEP) are defined by the US Census as those who speak English less than “very well.” In 2020, 8.7% of Orange County residents are LEP. They experience high rates of medical errors with worse clinical outcomes than English-proficient patients. This higher incidence of medical errors could result in physical harm. LEP individuals also receive lower quality of care on various measures and are less likely to understand treatment plans and disease processes.

These disparities are rooted in obvious communication barriers but may also reflect cultural differences, clinician biases, ineffective systems, and structural barriers. Medical interpreter services can help overcome some of these barriers, but they have associated costs financially and in terms of a physician’s time.

We must strive to remove language barriers and adopt culturally competent practices that meet residents where they are. This will ensure that underserved populations are given adequate resources to access healthcare and services that address social determinants of health.



Source: [OC Equity Map](#), AdvanceOC

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Built Environment and Social Context (continued)

Air Pollution Exposure in Orange County

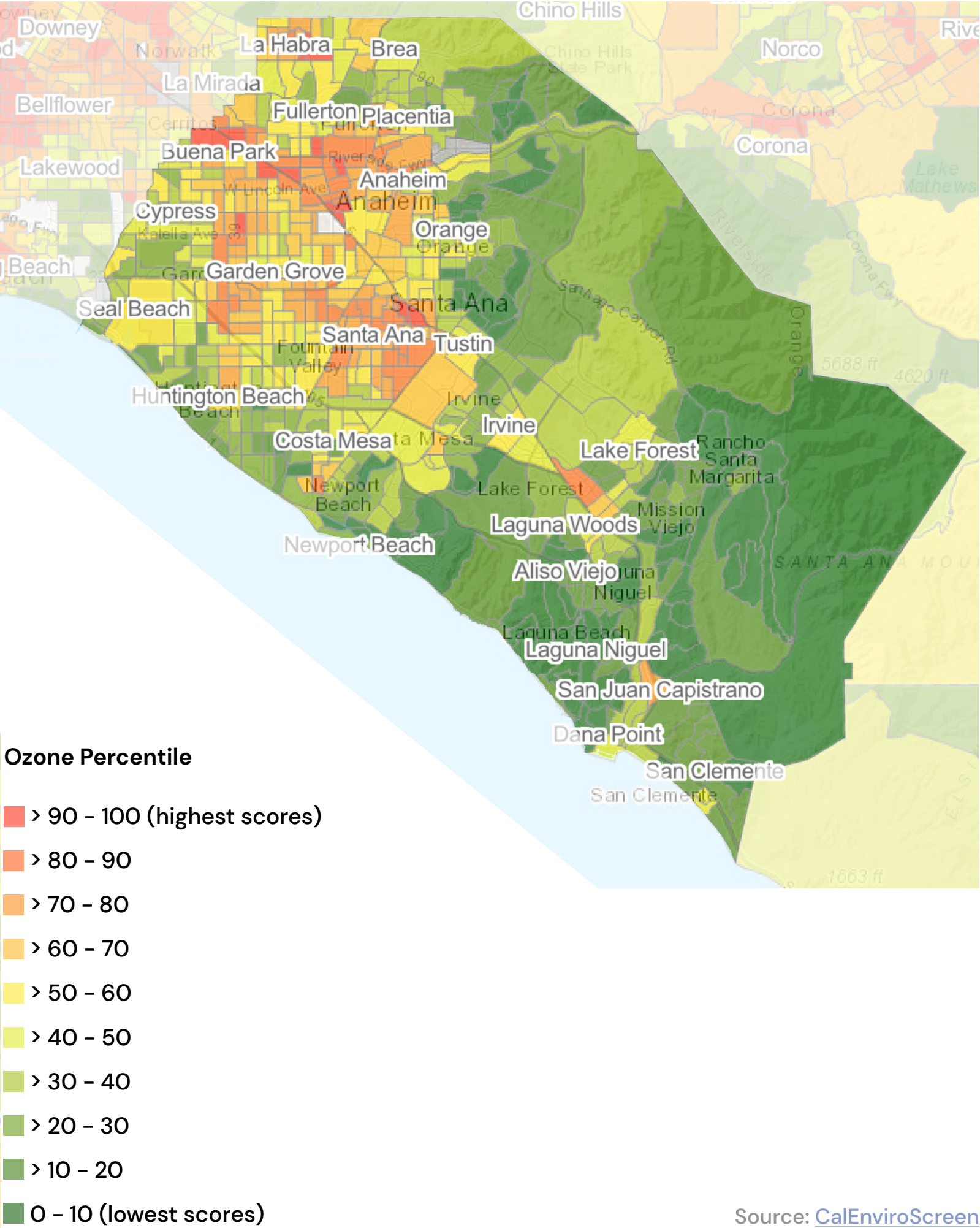
In California, environmental quality has improved over the last few decades. This is seen in improved water quality, reduced air pollution, decrease in pesticide use, continued cleanup of hazardous waste sites, increased recycling, and reduction of solid waste going into landfills. However, pollution reduction and the resulting health and environmental benefits are not uniformly distributed across the state, within a region, or among all population segments. Many communities continue to bear a disproportionate burden of pollution not only from multiple nearby sources but also from pollution in various forms, such as air and water.

Ozone pollution causes adverse health effects including respiratory irritation and worsening of lung disease. Adverse effects of ozone have been studied extensively since the late 1960s, and ongoing exposure to ozone shows inflammation and cell and tissue injury. People with asthma and chronic obstructive pulmonary disease (COPD) are considered sensitive to the effects of ozone. Studies also show that long-term ozone exposure affects respiratory and cardiovascular mortality. A 2019 study estimates 13,700 deaths in California in the year 2012 were due to long-term ozone exposure.

Of these deaths, 7,300 were from respiratory causes, and 6,400 were from cardiovascular causes. The CalEnviroScreen 4.0 draft ozone map of Orange County shows high levels of ozone pollution scores in north and central Orange County. In the OC Equity Map, these communities have low Social Progress Index scores.

Ozone Levels by Pollution Score

2021



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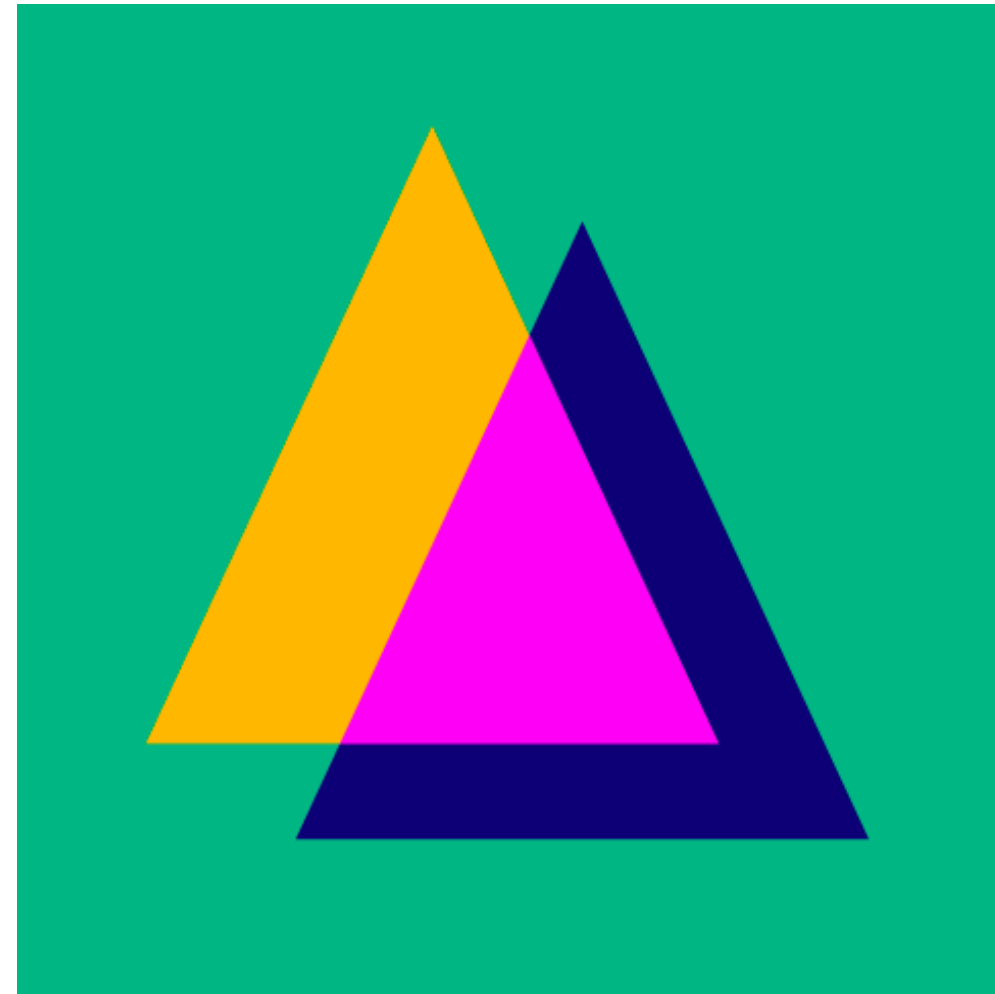
Built Environment and Social Context ▶

Get Involved ▶

Health is a shared value.

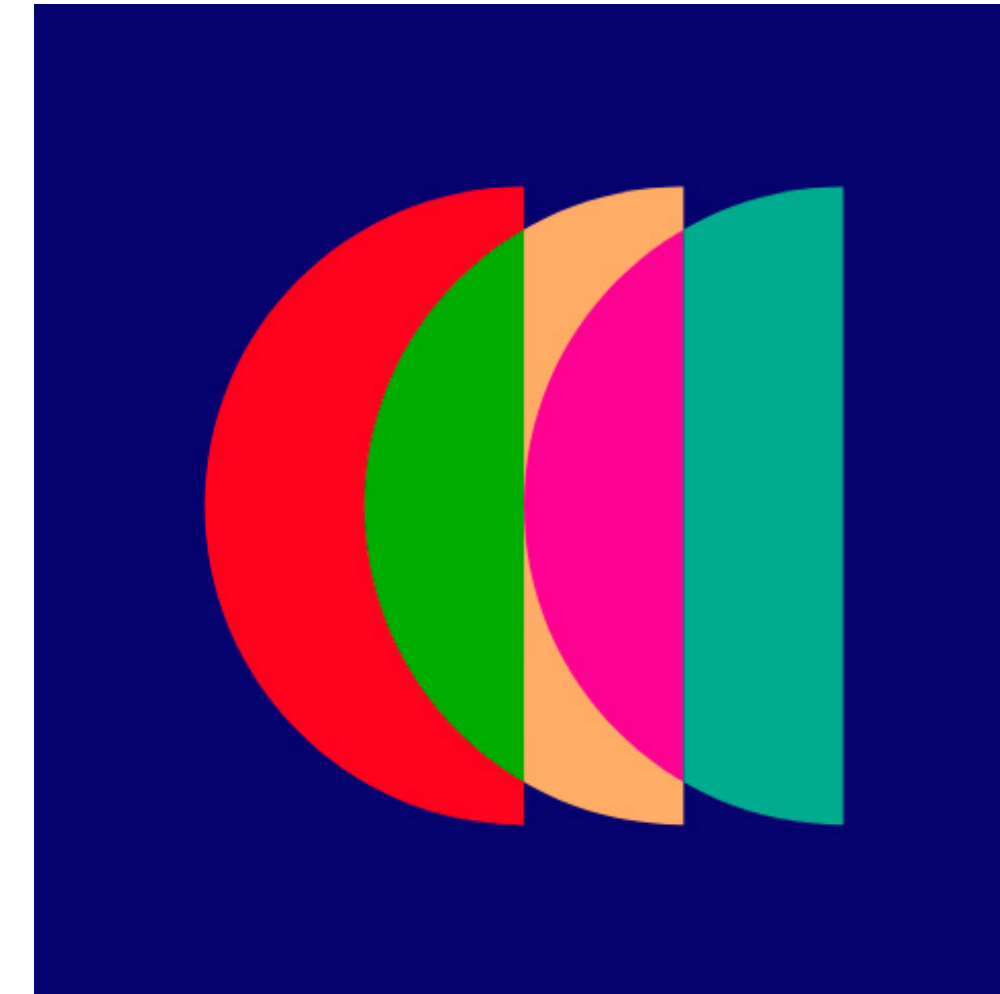
Your involvement will help create a healthier, more resilient, and equitable Orange County.

Here's how you can get involved:



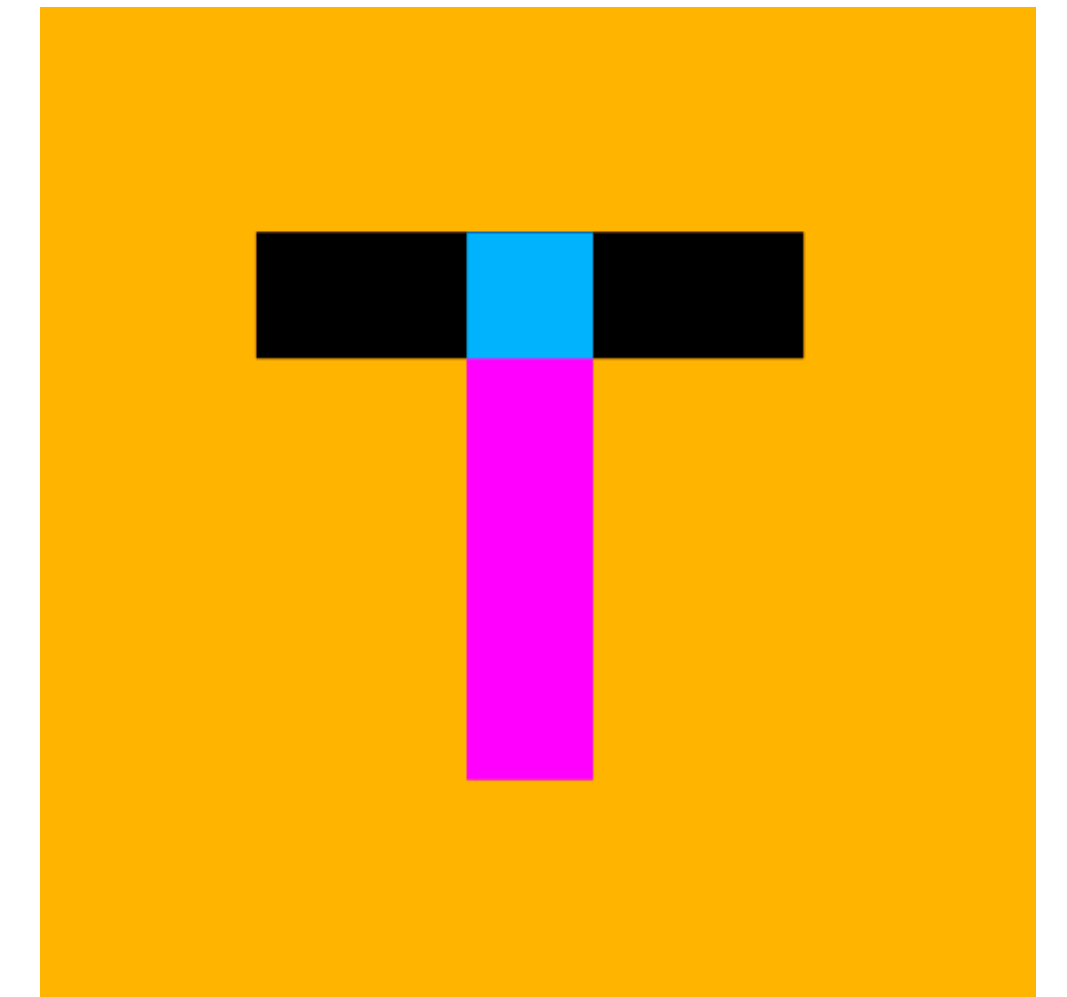
Participate in the EiOC Action and Learning Community

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[View Events](#)

