

# Asian and Pacific Islander Data Disaggregation Highlights

California Assembly Bill 1726 (2016)

July 2022



## California Department of Public Health

Center for Health Statistics and Informatics

Center for Infectious Diseases

Office of Health Equity

Office of Strategic Development and External Relations (Fusion Center)

# Table of Contents

- Introduction..... 3
- Tabulation of Deaths: An Alternative Approach ..... 8
- Novel Coronavirus (COVID-19) ..... 13
- Tuberculosis..... 17
- Poverty ..... 20
- Unemployment..... 22
- Educational Attainment..... 24
- Mortality Rates and Number of Deaths by Detailed Race and Ethnicity Categories ..... 26
- Leading Causes of Death for detailed Asian and Pacific Islander Groups ..... 28
- Excess Mortality ..... 31
- Population Distribution ..... 33
- APPENDIX A: Population Data Table - Detailed Race and Ethnicity Groups..... 36
- APPENDIX B: Detailed Race/Ethnicity Mapping System – Population, Death, Tuberculosis, and COVID-19 Data 38

## Introduction

### Overview

In anticipation of AB 1726 (2016), implementation, the California Department of Public Health (CDPH) presents this collection of fact sheets that highlight various health indicators among different Asian and Pacific Islander groups. Presenting data disaggregated into more detailed groups can illuminate health disparities that may be masked when collapsing data only into general categories. These fact sheets illustrate the benefits of disaggregation using existing data. Further disaggregation will be made possible through forthcoming updates to surveillance and reporting systems.

Multiple data sources have been leveraged to produce these fact sheets. Each source has unique limitations, which results in differences in disaggregated data available. Specific limitations for each source and general limitations related to disaggregation are discussed to support awareness and transparency.

AB 1726 requires that “to the extent funding is specifically appropriated for this purpose, the State Department of Public Health, on or after July 1, 2022, whenever collecting demographic data as to the ancestry or ethnic origin of persons for a report that includes rates for major diseases, leading causes of death per demographic, subcategories for leading causes of death in California overall, pregnancy rates, or housing numbers” collect data as specified in Section 8310.7 Subdivision (b) of the Government Code:

1. Additional major Asian groups, including, but not limited to, Bangladeshi, Hmong, Indonesian, Malaysian, Pakistani, Sri Lankan, Taiwanese, and Thai.
2. Additional major Native Hawaiian and other Pacific Islander groups, including, but not limited to, Fijian and Tongan.

This is in addition to the existing collection requirements in Section 8310.5 Subdivision (a) of the Government Code that specifies collection of the following Asian and Pacific Islander groups:

1. Each major Asian group, including, but not limited to, Chinese, Japanese, Filipino, Korean, Vietnamese, Asian Indian, Laotian, and Cambodian.
2. Each major Pacific Islander group, including, but not limited to, Hawaiian, Guamanian, and Samoan.

AB 1726 exempts “demographic data collected by other entities” including federal entities, state entities not covered by AB 1726, and third-party entities. As a result, CDPH may not be able to display disaggregated data to the level specified by AB 1726 if the source data (e.g., electronic health records) does not have this data or it is of poor quality. Nevertheless, CDPH will strive to produce data reports that go beyond the AB 1726 requirements by using non-CDPH data sources that illustrate health inequities within Asian and Pacific Islander populations, such as the California Health Interview Survey.

## Importance to Health Equity

Data disaggregation refers to the breaking down of collected data into smaller definable units to better illuminate the underlying patterns and trends. The complexity of factors affecting individuals' life chances and health outcomes, including immigration, socioeconomic status, nativity, and language, as well as the nuanced experiences of minoritized populations with structural and interpersonal racism, are obscured when data are aggregated to broad racial and ethnic categories such as Latino or Hispanic; White; Asian; Black or African American; American Indian or Alaska Native; and Native Hawaiian and Pacific Islander; based on the definitions of the federal Office of Management and Budget. For example, early in the pandemic, Filipino Americans, who represent about one-quarter of the Asian Americans in California, accounted for at least 35 percent of COVID-19 deaths in the state's Asian American population. This would not have been known without data disaggregation.

A first-of-its-kind National Commission to Transform Public Health Data Systems, established by the Robert Wood Johnson Foundation, has found that the absence of systematic data disaggregation - whether it be at the collection, analysis, or reporting stages - limits the ability of health and social services agencies to target resources effectively and equitably. For instance, combining all Hispanic or Latino persons – who self-identify as Mexican, Salvadorian, Nicaraguan, Guatemalan and others with strikingly diverse histories and cultures, and grouping Black or African Americans, most of whom have lived in the United States for generations while others immigrated recently from more than fifty countries in Africa and the Caribbean, perpetuates centuries of inequities in access to resources that improve health and well-being. Furthermore, broad groupings that lump together 562 federally recognized Indian nations, each with diverse cultural and linguistic heritage and residing both on and off tribal lands, causes them to remain invisible to decision makers, leaving their critical needs unmet while the broad classification of others as Native Hawaiians and Pacific Islanders limits the ability of population subgroup's access to economic, educational, health and social services. Similarly, people of Middle Eastern, North African, and Eastern European descent that are making up an increasing share of the White population that has been predominantly of Western European ancestry, are increasing the cultural and linguistic diversity and requiring data disaggregation to identify and address gaps in health.

Use of aggregated data in economic, and other social determinants of health research, is perpetuating the “model minority” myth for Asian Americans - namely, that Asian Americans are monolithically affluent, healthy, and well-educated – and obscuring their bimodal overrepresentation in both the top and bottom 10 percent of the income distribution for example. In sum, keeping race/ethnicity data aggregated is an unintentional, inequitable expression of systemic racism and can lead to the disproportionate exclusion of certain communities from access to opportunities and resources.

## CDPH Implementation Plans

The Center for Health Statistics and Informatics (CHSI) section within CDPH has implemented AB 1726 requirements in recent vital record system updates in the Electronic Birth Registration System (EBRS) and Electronic Death Registration System (EDRS). System enhancements for EDRS went live on April 27, 2022, and EBRS went live on June 18, 2022.

These enhancements include additional race categories that can be selected by users to indicate race of the decedent on death certificates and for the parent(s) on birth certificates. Specifically, the additional race categories expand the Asian subgroup to include Bangladeshi, Hmong, Indonesian, Malaysian, Pakistani, Sri Lankan, Taiwanese, and Thai as well as expand the Native Hawaiian/Pacific Islander subgroup to include Fijian and Tongan.

CHSI anticipates that this more detailed approach to disaggregate the Asian and Native Hawaiian/Pacific Islander subgroups will assist in CDPH's goal to assess public health trends and programs through a more equitable and accurate lens.

Another important tool to more accurately capture detailed race/ethnicity data is the California Reportable Disease Information Exchange (CalREDIE) within CDPH which has a function that allows for fields with detailed Asian and Native Hawaiian/Pacific Islander subgroups.

## Limitations

- Subgroup population denominator data may not be available for calculation of rates. In other words, we do not have an accurate tally of the total population of various Asian and Native Hawaiian/Pacific Islander subgroups so when we receive a response such as the number of Bangladeshi affected by a certain condition, we are not able to tell if that is a high or low percentage for the population compared to other population rates since the number of the total population of Bangladeshi is unknown. CDPH is currently researching denominator options to accurately calculate rates.
- These data are only comparable for deaths and births that occur within California. Out-of-state records will not be collected with the same methods and cannot be directly compared.
- Increasingly, many individuals will identify with more than one group. This can further complicate tabulation and presentation. Some possibilities are presented in this data brief, but a formal workgroup will be formed to develop more robust guidelines and standards for presenting and analyzing race and ethnicity. CDPH is emphasizing transparency to clearly describe different approaches and lean towards making data available even if numbers may not be exactly the same.
  - Asian and Pacific Islander groups alone or in combination with each other

- Multirace versus single race
- Intersection between Asian and Pacific Islander groups and Hispanic/Latino identity
- There are different perspectives around best practices and standards for terminology, including challenges around cultural and national identity. For this set of fact sheets the term “Asian” is used to encompass all people of Asian descent, including Asian Americans.
- The initial implementation is occurring in the middle of the data year, so there will not be a complete year of vital statistics data using the new collection methods until the 2023 data is finalized in fall 2024. Preliminary data may be available sooner.
- In some instances, the data available may be too small and limited to make meaningful inferences regarding the group. Data that may be released must follow the restriction in 8310.7 Subdivision (e) that CDPH “shall not report demographic data that would result in statistical unreliability.”
- Disaggregated data may not be able to be displayed due to privacy concerns, as small numbers carry the risk of accidentally identifying individuals. 8310.7 Subdivision (c) states that CDPH “shall not report demographic data that would permit identification of individuals.”
- Race and ethnicity information for deaths are collected by an informant whereas population data are largely based on self-reporting, which likely contributes to misalignment between the numerator and denominator for rates.

## References

1. [Tiffany Wong, Los Angeles Times, Little noticed, Filipino Americans are dying of COVID-19 at an alarming rate, July 2020,](https://www.latimes.com/california/story/2020-07-21/filipino-americans-dying-covid)  
(<https://www.latimes.com/california/story/2020-07-21/filipino-americans-dying-covid>)
2. Riley AR, Chen YH, Matthay EC, et al. Excess mortality among Latino people in California during the COVID-19 pandemic. *SSM Popul Health*. 2021;15:100860. Published 2021 Jul 2. doi:10.1016/j.ssmph.2021.100860
3. [PAHO, Pan American Health Organization, Why Data Disaggregation is key during a pandemic, 5 KNOWLEDGE TOOLS, 2020,](https://iris.paho.org) (<https://iris.paho.org>)
4. Kauh TJ, Read JG, Scheitler AJ. The Critical Role of Racial/Ethnic Data Disaggregation for Health Equity [published online ahead of print, 2021 Jan 8]. *Popul Res Policy Rev*. 2021;1-7. doi:10.1007/s11113-020-09631-6
5. [Tina J. Kauh, Racial Equity Will Not Be Achieved Without Investing In Data Disaggregation, HealthAffairs, November 2021,](https://www.healthaffairs.org/doi/10.1377/forefront.20211123.426054)  
(<https://www.healthaffairs.org/doi/10.1377/forefront.20211123.426054>)
6. [Alonzo Plough Gail C. Christopher, New Commission To Tackle How National Health Data Are Collected, Shared, And Used, HealthAffairs, May 2021,](https://www.healthaffairs.org/doi/10.1377/forefront.20210518.409206/full/)  
(<https://www.healthaffairs.org/doi/10.1377/forefront.20210518.409206/full/>)

## Tabulation of Deaths: An Alternative Approach

This table shows the number of deaths by Asian and Native Hawaiian or Pacific Islander (NHPI) groups alone or in any combination based on searching the text entered for any of the three-race free-entry text fields. In contrast to standard tabulations of death data by race and ethnicity, these groups are not exclusive except where stated. A record is counted as a death under all groups identified in the race text fields on the death certificate rather than counted under a single group.

- Other than Taiwanese and Indonesian, the groups added to the electronic death registration system (EDRS) in response to AB 1726 have fewer than 200 annual historical deaths based on free-text entry on the death certificate.
- It will not be possible to report more details on these groups unless the number of deaths significantly increases with the addition of these groups as selectable options in EDRS.

### Annual Deaths of California Residents by Asian and NHPI Groups Alone or in Any Combination, 2014-2020

| Race group alone or in any combination | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   |
|--|--------|--------|--------|--------|--------|--------|--------|
| Any Asian                              | 22,956 | 25,083 | 25,860 | 27,491 | 28,162 | 28,416 | 35,572 |
| Filipino                               | 6,019  | 6,450  | 6,678  | 7,212  | 7,329  | 7,406  | 9,567  |
| Chinese, except Taiwanese              | 6,105  | 6,819  | 6,892  | 7,214  | 7,494  | 7,222  | 8,825  |
| Japanese                               | 3,107  | 3,280  | 3,195  | 3,434  | 3,268  | 3,372  | 3,866  |
| Vietnamese                             | 2,234  | 2,372  | 2,544  | 2,732  | 2,811  | 3,011  | 3,864  |
| Korean                                 | 1,954  | 2,089  | 2,150  | 2,324  | 2,384  | 2,410  | 3,217  |
| Asian Indian                           | 1,120  | 1,374  | 1,414  | 1,479  | 1,515  | 1,671  | 1,983  |
| Cambodian                              | 435    | 447    | 468    | 531    | 531    | 482    | 688    |
| Hmong                                  | 334    | 336    | 368    | 421    | 394    | 410    | 501    |
| Laotian                                | 293    | 324    | 322    | 324    | 315    | 328    | 440    |
| Taiwanese*                             | 225    | 279    | 288    | 356    | 366    | 367    | 419    |
| Thai                                   | 165    | 176    | 183    | 195    | 243    | 239    | 273    |
| Indonesian*                            | 136    | 142    | 139    | 160    | 162    | 179    | 235    |
| Pakistani*                             | 101    | 119    | 112    | 119    | 117    | 118    | 182    |
| Bangladeshi*                           | 19     | 23     | 25     | 21     | 12     | 30     | 50     |
| Sri Lankan*                            | 32     | 21     | 27     | 23     | 35     | 38     | 36     |
| Malaysian*                             | 8      | 3      | 7      | 9      | 14     | 8      | 12     |
| Any NHPI                               | 1,065  | 1,211  | 1,217  | 1,260  | 1,365  | 1,377  | 1,730  |
| Samoan                                 | 250    | 297    | 310    | 293    | 336    | 358    | 439    |
| Native Hawaiian                        | 205    | 265    | 261    | 249    | 302    | 256    | 341    |
| Guamanian or Chamorro                  | 131    | 122    | 118    | 147    | 131    | 132    | 202    |
| Tongan*                                | 86     | 82     | 88     | 100    | 100    | 118    | 156    |
| Fijian*                                | 60     | 71     | 65     | 64     | 52     | 56     | 81     |

\* Groups added to EDRS in response to AB 1726 on April 27, 2022.



**Crude Death Rate of California Residents by Asian and NHPI Groups  
Alone or in Any Combination, 2020**

| <b>Race group alone or in any combination</b> | <b>Deaths</b> | <b>Population</b> | <b>Crude Rate</b> |
|---|---------------|-------------------|-------------------|
| <i>California Total</i>                       | 319,830       | 39,283,497        | 814.2             |
| Any Asian                                     | 35,572        | 6,799,259         | 523.2             |
| Filipino                                      | 9,567         | 1,637,872         | 584.1             |
| Chinese, except Taiwanese                     | 8,825         | 1,768,088         | 499.1             |
| Japanese                                      | 3,866         | 461,292           | 838.1             |
| Vietnamese                                    | 3,864         | 751,621           | 514.1             |
| Korean  | 3,217         | 540,561           | 595.1             |
| Asian Indian                                  | 1,983         | 843,922           | 235.0             |
| Cambodian                                     | 688           | 111,760           | 615.6             |
| Hmong   | 501           | 101,069           | 495.7             |
| Laotian                                       | 440           | 78,096            | 563.4             |
| Taiwanese*                                    | 419           | 85,550            | 489.8             |
| Thai  | 273           | 76,594            | 356.4             |
| Indonesian*                                   | 235           | 45,269            | 519.1             |
| Pakistani*                                    | 182           | 71,968            | 252.9             |
| Bangladeshi*                                  | 50            | 12,087            | 413.7             |
| Sri Lankan*                                   | 36            | 12,942            | 278.2             |
| Malaysian*                                    | 12            | 7,349             | 163.3             |
| Any NHPI                                      | 1,730         | 332,371           | 520.5             |
| Samoaan                                       | 439           | 63,075            | 696.0             |
| Native Hawaiian                               | 341           | 84,096            | 405.5             |
| Guamanian or Chamorro                         | 202           | 49,751            | 406.0             |
| Tongan*                                       | 156           | 25,519            | 611.3             |
| Fijian*                                       | 81            | 35,068            | 231.0             |

Note: The California total deaths and crude death rate include a nearly complete count of California resident deaths, including records with unknown or unspecified race. Caution is advised when directly comparing this rate and the race group alone and in any combination rates.

Sources: California Department of Public Health, Center for Health Statistics and Informatics, *California Comprehensive Master Death Files (Static)*; U.S. Census Bureau, *2015-2019 American Community Survey 5-year Estimates*

Prepared by: California Department of Public Health, Center for Health Statistics and Informatics, Vital Statistics Branch

The following two tables show the percentage of deaths within each text-search-based Asian or NHPI group alone or in any combination that were assigned each multi-race code value. This provides insight into groups that may be masked by the current standards for tabulating race and ethnicity based on the U.S. Office of Management and Budget (OMB) race categories.

- A notable percentage of Indonesian (21.7%) and Japanese (5.5%) decedents would have been coded as *Two or More Races* using OMB race categories (see Technical Notes).

- Of decedents with Filipino listed as a race, 4.5% would have been coded as *Two or More Races* and 3.8% would have been coded as *Hispanic or Latino* using OMB race categories (see Technical Notes).

**Percentage of Deaths of California Residents for Asian Groups Alone or in Any Combination by Coded Multi-Race Category, 2020**

| <b>Asian race group alone or in any combination based on text search</b> | <b>Asian Code</b> | <b>Two or More Races Code</b> | <b>Hispanic or Latino Code</b> | <b>Another Race Code</b> |
|--|-------------------|-------------------------------|--------------------------------|--------------------------|
| Any Asian  | 95.4              | 2.9                           | 1.4                            | 0.2                      |
| Indonesian*  | 74.5              | 21.7                          | 0.4                            | 3.4                      |
| Malaysian*   | 83.3              | 8.3†                          | 0.0                            | 8.3†                     |
| Filipino   | 91.7              | 4.5                           | 3.8                            | 0.0                      |
| Japanese   | 93.3              | 5.5                           | 1.1                            | 0.1                      |
| Sri Lankan*  | 94.4              | 5.6†                          | 0.0                            | 0.0                      |
| Pakistani*   | 95.1              | 2.7                           | 2.2                            | 0.0                      |
| Thai   | 95.2              | 3.7                           | 0.7                            | 0.4                      |
| Asian Indian   | 96.8              | 1.5                           | 0.8                            | 0.9                      |
| Chinese, except Taiwanese  | 97.6              | 1.7                           | 0.7                            | 0.0                      |
| Bangladeshi*   | 98.0              | 0.0                           | 0.0                            | 2.0†                     |
| Korean   | 98.0              | 1.5                           | 0.4                            | 0.0                      |
| Cambodian  | 98.1              | 0.7                           | 0.6                            | 0.6                      |
| Taiwanese*   | 98.3              | 1.2                           | 0.0                            | 0.5                      |
| Laotian  | 98.4              | 0.9                           | 0.5                            | 0.2                      |
| Vietnamese   | 99.4              | 0.5                           | 0.1                            | 0.0                      |
| Hmong  | 100.0             | 0.0                           | 0.0                            | 0.0                      |

**Percentage of Deaths of California Residents for NHPI Groups Alone or in Any Combination by Coded Multi-Race Group, 2020**

| <b>NHPI race group alone or in any combination based on text search</b> | <b>NHPI Code</b> | <b>Two or More Races Code</b> | <b>Hispanic or Latino Code</b> | <b>Another Race Code</b> |
|---|------------------|-------------------------------|--------------------------------|--------------------------|
| Any NHPI  | 75.2             | 19.0                          | 3.9                            | 1.9                      |
| Native Hawaiian   | 38.7             | 53.1                          | 7.3                            | 0.9                      |
| Guamanian or Chamorro   | 79.7             | 10.9                          | 7.9                            | 1.5                      |
| Fijian*   | 81.5             | 3.7†                          | 0.0                            | 14.8                     |
| Samoaan   | 88.6             | 8.4                           | 2.1                            | 0.9                      |
| Tongan*   | 96.8             | 1.9                           | 0.6                            | 0.6                      |

\* Groups added to EDRS in response to AB 1726 on April 27, 2022.

† These values of 2% or more represent three or fewer deaths.

Source: California Department of Public Health, Center for Health Statistics and Informatics, *California Comprehensive Master Death Files* (Static)

Prepared by: California Department of Public Health, Center for Health Statistics and Informatics, Vital Statistics Branch

# Technical Notes

## Methods and Limitations:

- A record with multiple race text entries may be counted under multiple groups using this race alone or in any combination methodology. However, a single record is never counted more than once for a given group. For example, a record with race text entries “Filipino” and “Japanese” would be counted once under each of the three groups *Any Asian*, *Filipino*, and *Japanese*. Likewise, a record with race text entries of “Fijian” and “Pakistani” would be counted once under each of the four groups of *Any Asian*, *Any NHPI*, *Fijian*, and *Pakistani*. A record with race text entries of “Pacific Islander” and “Samoan” would be counted once under each of the two groups of *Any NHPI* and *Samoan*.
- Death certificate data is entered by an informant after death and therefore may not reflect how the individual would have identified themselves.
- Data include only deaths to California residents that occurred in California.
- The basis for the text search terms and grouping of the race detail groups is Appendix F of the [2020 Census State Redistricting Data Summary File Technical Documentation](https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.2020.html) (<https://www.census.gov/programs-surveys/decennial-census/about/rdo/summary-files.2020.html>).
- Attempts were made to capture spelling variations and alternate terminology for groups, but some variations may have been missed or misclassified.

## Notes on race and ethnicity groups and classifications:

- For consistency with how the U.S. Census Bureau reports these race detail groups, the *Chinese*, except *Taiwanese* and *Taiwanese* groups are mutually exclusive. Death records with text indicating *Taiwanese* are not included in *Chinese*, except *Taiwanese*.
- *Any Asian* includes records with generic terms such as “Asian,” terms for the specific Asian groups presented here, and terms for specific Asian groups not presented here such as “Burmese” and “Singaporean.” It does not include records with terms only indicating “Central Asian” and “West Asian”.
- *Asian Indian* only includes records with text clearly indicating “Asian Indian” and not “American Indian,” which may undercount these deaths. For example, a record with a single race text entry of “Indian” would be excluded from the counts of *Asian Indian* due to ambiguity, whereas a record with a single race text entry of “India” or “East Indian,” or the text “Indian” in one race field and “Asian” in another race field would be included in counts for *Asian Indian*.
- Records with variations of “Fiji Indian” and “Indo Fijian” have been included in counts for both *Asian Indian* and *Fijian*.
- *Indonesian* includes records listing variations of “*Dutch Indo*” and “*Indonesian Dutch*” but not “*Indo*” alone.
- *Malaysian* does not include records only listing variations of “*Malay*” or “*Malayan*.”
- *Sri Lankan* includes records listing variations of *Ceylonese* and *Sinhalese*.
- The standard methodology for tabulation presents exclusive race and ethnic group categories based on the [1997 revision of the OMB Statistical Policy Directive 15](https://www.federalregister.gov/documents/1997/10/30/97-28653/revisions-to-the-standards-for-the-classification-of-federal-data-on-race-and-ethnicity) (<https://www.federalregister.gov/documents/1997/10/30/97-28653/revisions-to-the-standards-for-the-classification-of-federal-data-on-race-and-ethnicity>). These are *Hispanic or Latino*, *American Indian or Alaska Native*, *Asian*, *Black or African American*, *Native Hawaiian or Other Pacific Islander*, *White*, *Some Other Race*, and *Two or More Races*. Death records where the informant responded “Yes” to “Was decedent Hispanic/Latino(a)/Spanish?” are counted as *Hispanic or Latino* (sometimes labeled as either *Hispanic* or *Latino* independently) regardless of race. For those not classified as *Hispanic or Latino*, the records are classified based on the race group if there is only one group specified or the same group listed multiple times. If two or more different race groups are listed the record is counted as *Two or More Races* (sometimes labeled as *Multiracial* or *Multi-Race*).

## Novel Coronavirus (COVID-19)

Since the emergence and widespread transmission of COVID-19 across the world and United States, over 8.6 million confirmed COVID-19 infections have been reported in California. The epidemiology of COVID-19 in California has demonstrated racial and ethnic disparities for COVID-19 case and deaths rates, including among Asian persons. Relative case and death rates of COVID-19 have varied across racial and ethnic groups throughout the pandemic as the virus evolved and public health interventions were implemented. Based on 2020 population estimates of California, 15.4% of the overall population is Asian, and 0.3% are Native Hawaiian and Pacific Islander. Approximately 5% of cases and 12% of deaths in California occurred among Asian persons, and 0.4% of cases and 0.5% of deaths occurred among Native Hawaiian and Pacific Islander (NHPI) persons. The tables below show counts and rates of cases and deaths of COVID-19 among Asian and NHPI persons in California in 2020 by detailed race group. Of note, race and ethnicity information is missing for 21.8% of COVID-19 cases overall. In 2020, the overall case rate of COVID-19 in California was 6,275/100,000 and the overall death rate of COVID-19 in California was 114.4/100,000.

### Asian Population:

- Approximately 89% of cases and 16% of deaths reported as Asian are missing detailed race information.
- Among Asian patients with known race, the largest number of cases occurred within in *Filipino, Indian, Chinese, and Vietnamese* groups.
- The largest number of deaths occurred within the *Filipino, Chinese and Vietnamese* groups. The highest deaths rates were within the *Cambodian, Japanese and Filipino* groups.

### Native Hawaiian and Pacific Islander Population:

- Approximately 93% of cases reported as Native Hawaiian and Pacific Islander are missing detailed race information. No deaths reported as Native Hawaiian and Pacific Islander are missing detailed race information.
- Among NHPI patients with known race, the largest number of cases occurred within the *Tongan and Samoan* groups.
- The largest number of deaths occurred within the *Samoan and Tongan* groups. The highest death rates were within the *Marshallese and Samoan* groups.

**COVID-19 Cases and Deaths among Asian Persons in California, 2020**

| <b>Asian Race Group<br/>(15.4% overall CA population)</b> | <b>Cases<br/>Count</b> | <b>Cases - Rate<br/>per 100,000*</b> | <b>Deaths<br/>Count</b> | <b>Deaths - Rate<br/>per 100,000</b> |
|---|------------------------|--------------------------------------|-------------------------|--------------------------------------|
| Asian, Total <b>(15.4% of CA pop)</b>                     | 126,545                | 2044.5                               | 5,433                   | 87.8                                 |
| Bangladeshi <b>(0.2% of Asian pop)</b>                    | 26                     | -                                    | 14                      | 98.1                                 |
| Burmese <b>(0.3%)</b>                                     | 30                     | -                                    | 12                      | 69.4                                 |
| Cambodian <b>(1.6%)</b>                                   | 593                    | -                                    | 126                     | 129.8                                |
| Chinese <b>(26.5%)</b>                                    | 1,642                  | -                                    | 811                     | 49.5                                 |
| Filipino <b>(22.1%)</b>                                   | 5,110                  | -                                    | 1,583                   | 115.7                                |
| Hmong <b>(1.7%)</b>                                       | 637                    | -                                    | 97                      | 92.9                                 |
| Indian <b>(13.9%)</b>                                     | 1,787                  | -                                    | 199                     | 23.2                                 |
| Indonesian <b>(0.5%)</b>                                  | 115                    | -                                    | 32                      | 98.9                                 |
| Japanese <b>(4.6%)</b>                                    | 598                    | -                                    | 363                     | 126.2                                |
| Korean <b>(8.3%)</b>                                      | 810                    | -                                    | 496                     | 96.4                                 |
| Laotian <b>(1.0%)</b>                                     | 217                    | -                                    | 66                      | 102.7                                |
| Malaysian <b>(0.1%)</b>                                   | <11                    | -                                    | -                       | -                                    |
| Nepalese <b>(0.3%)</b>                                    | 38                     | -                                    | <11                     | -                                    |
| Pakistani <b>(1.2%)</b>                                   | 155                    | -                                    | 27                      | 37.0                                 |
| Sri Lankan <b>(0.2%)</b>                                  | 15                     | -                                    | <11                     | -                                    |
| Taiwanese <b>(1.4%)</b>                                   | 171                    | -                                    | 71                      | 84.9                                 |
| Thai <b>(0.9%)</b>  | <11                    | -                                    | <11                     | -                                    |
| Vietnamese <b>(11.7%)</b>                                 | 1,581                  | -                                    | 603                     | 83.2                                 |
| Other Asian <b>(0.5%)</b>                                 | <11                    | -                                    | -                       | -                                    |
| Multiple Asian Races <b>(3.0%)</b>                        | 152                    | -                                    | 56                      | 30.1                                 |
| Asian, not specified                                      | 112,865                | -                                    | 871                     | -                                    |
| Total CA All Races  | 2,518,087              | 6,275                                | 45,925                  | 114.4                                |

**COVID-19 Cases and Deaths among Native Hawaiian and Pacific Islander  
Persons in California, 2020**

| <b>Native Hawaiian and Pacific<br/>Islander Race Group<br/>(0.3% overall CA population)</b> | <b>Cases Count</b> | <b>Cases -<br/>Rate per<br/>100,000*</b> | <b>Deaths<br/>Count</b> | <b>Deaths -<br/>Rate per<br/>100,000</b> |
|---|--------------------|--|-------------------------|--|
| NHPI, Total <b>(0.3% of CA pop)</b>   | 10,204             | 7518.4                                   | 225                     | 165.8                                    |
| Fijian <b>(19.6% of NHPI pop)</b>   | 65                 | -  | SC**                    | -  |
| Guamanian or Chamorro <b>(15.5%)</b>  | 30                 | -  | 18                      | 85.6                                     |
| Marshallese <b>(0.9%)</b>   | 57                 | -  | <11                     | -  |
| Native Hawaiian <b>(14.2%)</b>  | 62                 | -  | 13                      | 67.6                                     |
| Samoan <b>(26.1%)</b>   | 214                | -  | 64                      | 180.8                                    |
| Tongan <b>(13.1%)</b>   | 220                | -  | 20                      | 112.4                                    |
| Other NHPI <b>(10.6%)</b>   | 34                 | -  | 93                      | 648.2                                    |
| Multiple NHPI Races   | 15                 | -  | -                       | -  |
| NHPI, not specified   | 9,507              | -  | -                       | -  |
| Total CA All Races  | 2,518,087          | 6,275                                    | 45,925                  | 114.4                                    |

\*Case rates not calculated for racial subgroups due to missing data

SC\*\* Suppressed count due to small count in group

Rate not calculated for Other NHPI, Multiple NHPI Races and Not Specified groups for both Asian and NHPI due to lack of denominator information

Small counts and corresponding rates are suppressed in compliance with privacy guidelines

Source: California Reportable Disease Information Exchange (CalREDIE), Los Angeles Department of Public Health, San Diego County Health & Human Services Agency

Prepared by: California Department of Public Health (CDPH), Coronavirus Science Branch

# Technical Notes

## Methods and Limitations:

- Data was submitted through electronic laboratory reporting as collected at testing sites at the time of testing or updated by local health jurisdictions upon case investigation.
- Case data from Los Angeles County and San Diego County are not reported through CalREDIE but are submitted separately by each county. Detailed race information for race subgroups is not available from Los Angeles County.
- Race and ethnicity data reported above is for confirmed COVID-19 cases and deaths only. It includes only those who tested positive on a COVID-19 molecular test. In 2020, only one confirmed case was recorded per individual.
- Additional data on race and ethnicity information for COVID-19 associated deaths is supplemented using vital records data. Individuals are matched from the COVID-19 case registry to death certificate files to identify missing or unknown race and ethnicity information.
  - There is an expected delay in submission of death certificates following a death, meaning recent COVID-19 associated deaths may be missing race and ethnicity information more frequently than older COVID-19 associated deaths.
  - Free-text fields in vital records, which included spelling variations and alternative terminology of detailed race, were reviewed to classify patients. Some variations may have been missed or misclassified.
- There is currently no process to supplement missing or unknown race and ethnicity information for COVID-19 case data. Additionally, COVID-19 death determination and surveillance require extensive follow up from local health jurisdictions. This leads to more complete race and ethnicity data for deaths than for cases. There is an expected delay in submission of death certificates following a death, meaning recent COVID-19 associated deaths reported by CDPH may be missing race and ethnicity information more frequently than older COVID-19 associated deaths until death certificates are received for recent deaths.

### **Methods and Limitations (cont.):**

- Denominators for computing rates are from the California Department of Finance, P-3 Population Projections Race/Ethnicity and Sex by Individual Years of Age, 2010 to 2060; and the U.S. Census Bureau, American Community Survey (ACS). The proportion of the total CA population for each detailed Asian and NHPI race group from the ACS was applied to the California Department of Finance's estimate of the main race group to establish these denominators. ACS 2019 data were used for 2020 as ACS 2020 data were not yet available.

### **Notes on race and ethnicity groups and classifications:**

- The *Not Specified* groups for both *Asian* and *NHPI* include those who did not specify a more detailed race other than their larger racial group. Those in the *Other* category for both *Asian* and *NHPI* reported *Other* without specification or reported subgroups for which there was no specific denominator information available from ACS. We did not calculate a rate for the *Not Specified* groups for both *Asian* and *NHPI*, *Other Native Hawaiian and Pacific Islander* and *Multiple NHPI Races* because there were no appropriate denominators available.



## Tuberculosis

Each year approximately 2,000 people in California are reported with tuberculosis (TB), a life-threatening airborne respiratory infectious disease. The epidemiology of TB in California reveals severe racial and ethnic disparities particularly among Asian persons and people born outside the United States. Approximately half of cases occur among Asian people, more than 95% of whom are born outside the United States.

The tables below show cases and rates of TB in California during 2016-2020 by race and ethnicity and among Asian persons by detailed race group regardless of place of birth.

- By race and ethnicity, the largest number and highest rate occurred among Asian people.

### Tuberculosis by race and ethnicity in California, 2016-2020

| Race Groups                      | Cases  | Rate per 100,000 |
|----------------------------------|--------|------------------|
| <i>California Total</i>          | 10,030 | 5.1              |
| American Indian/Alaska Native    | 8      | 0.8              |
| Asian                            | 5237   | 17.6             |
| Black, Not Hispanic              | 477    | 4.0              |
| Hispanic                         | 3600   | 4.7              |
| Native Hawaiian/Pacific Islander | 66     | 9.7              |
| White, Not Hispanic              | 620    | 0.8              |
| Multi-race                       | 21     | 0.5              |

Source: [California Tuberculosis Registry](#)

Prepared by: California Department of Public Health, Tuberculosis Control Branch

- Among Asian people, the largest number of cases occurred among people in Filipino, Vietnamese, Chinese, and Asian Indian groups. The highest rates were among Burmese and Nepalese groups.

### Tuberculosis Among Asian Persons in California, 2016-2020

|                    | Cases | Rate per 100,000 |
|--------------------|-------|------------------|
| <i>Asian Total</i> | 5237  | 17.6             |
| Asian Indian       | 612   | 15.4             |
| Bangladeshi        | 18    | 27.3             |
| Bhutanese          | 1     | .                |
| Burmese            | 63    | 77.3             |
| Cambodian          | 127   | 28.5             |
| Chinese            | 807   | 10.5             |
| Filipino           | 1863  | 28.6             |
| Hmong              | 62    | 13.0             |
| Indonesian         | 41    | 26.9             |

|                     | <b>Cases</b> | <b>Rate per 100,000</b> |
|---------------------|--------------|-------------------------|
| Japanese            | 26           | 2.0                     |
| Korean              | 207          | 8.8                     |
| Laotian             | 67           | 22.2                    |
| Malaysian           | 5            | 26.7                    |
| Nepalese            | 40           | 51.3                    |
| Pakistani           | 55           | 16.7                    |
| Sri Lankan          | 3            | .                       |
| Taiwanese           | 48           | 12.1                    |
| Thai                | 39           | 14.3                    |
| Vietnamese          | 1006         | 29.6                    |
| Other/Not Specified | 147          | .                       |

Rate not calculated where number of cases is less than 5 or for Other/Not Specified group.

Source: California Tuberculosis Registry.

Prepared by: California Department of Public Health, Tuberculosis Control Branch

## Technical Notes

### Methods and Limitations:

- Data was collected by local TB control programs on CDC's Report of Verified Case of Tuberculosis.
- 2020 is the latest year for which final case numbers and rates are available.
- Denominators for computing rates are from the California Department of Finance, E-2 California County Population Estimates and Components of Change by Year, July 1, 2010-2020; P-3 Population Projections Race/Ethnicity and Sex by Individual Years of Age, 2010 to 2060; and the U.S. Census Bureau, American Community Survey (ACS). The proportion of the total CA population for each Asian race group from the ACS was applied to the California Department of Finance's estimate of the total CA population to establish these denominators. ACS 2019 data were used for 2020 as ACS 2020 data were not yet available.

### Notes on race and ethnicity groups and classifications:

- [Race groups were defined according to CDC instructions](https://www.cdc.gov/tb/programs/rvct/instructionmanual.pdf) (<https://www.cdc.gov/tb/programs/rvct/instructionmanual.pdf>) by the National Electronic Disease Surveillance System (NEDSS).
- Only one detailed Asian race group was able to be recorded per person in the TB Registry. The ability to record multiple Asian races per person has been added for cases reported in 2022 and forward.
- The "Other/not specified" group includes people that did not specify a more detailed race than Asian, reported "Other" without specification, or reported a race for which there was no denominator information available from ACS.

We did not calculate a rate for the Other/not specified group because there was no appropriate denominator available.

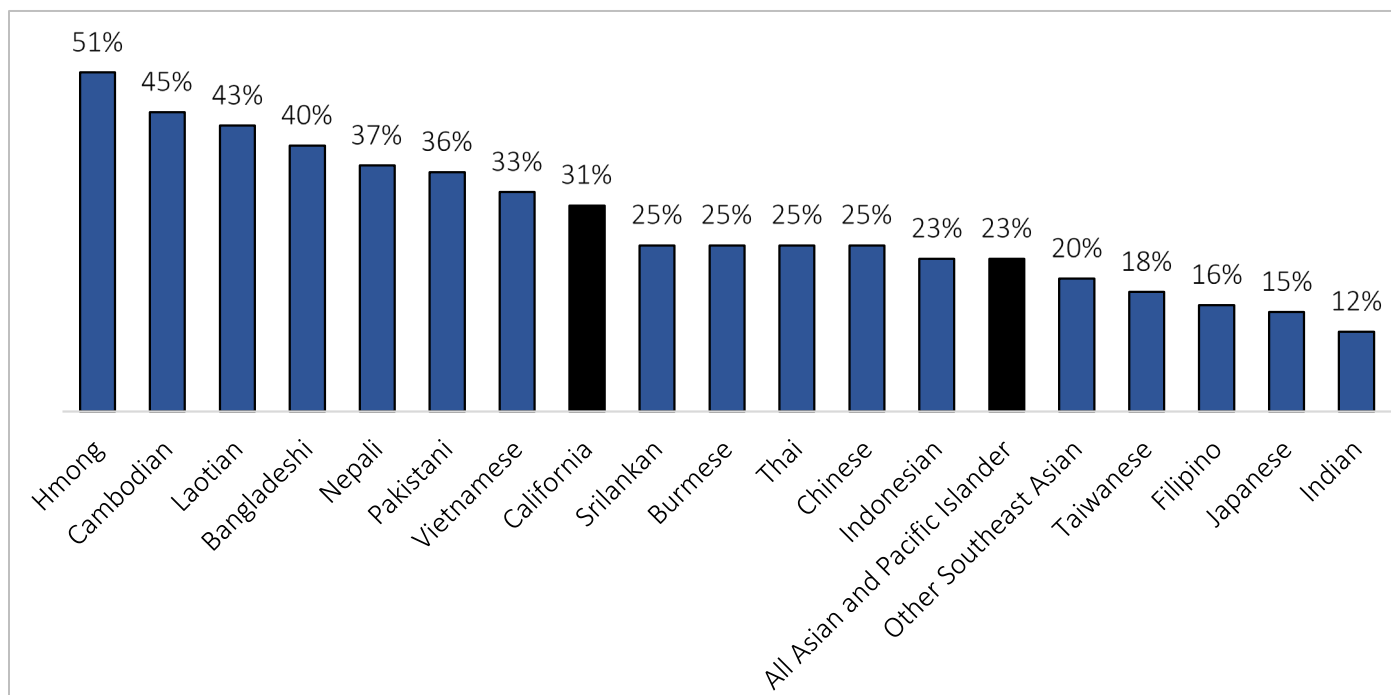
## Poverty

Poverty limits access to basic material necessities such as housing, food, education, jobs and transportation, and thereby limits the ability to live a healthy life (1). While disparities in poverty exist across racial and ethnicity groups, it is important to further explore poverty among Asian and Pacific Islander residents. Asian and Pacific Islander and White residents experience the lowest poverty rates, 23 and 20 percent, respectively, compared to other racial and ethnic groups (e.g., 44% of Latino people experience poverty).

Figures 1 and 2 show the distribution of poverty among Asian (Figure 1) and Pacific Islander (Figure 2) people, respectively.

- Among Asian Californians, Hmong (51%) and Cambodian (45%) persons are more likely to live in poverty compared to Indian (12%) and Japanese (15%) Americans

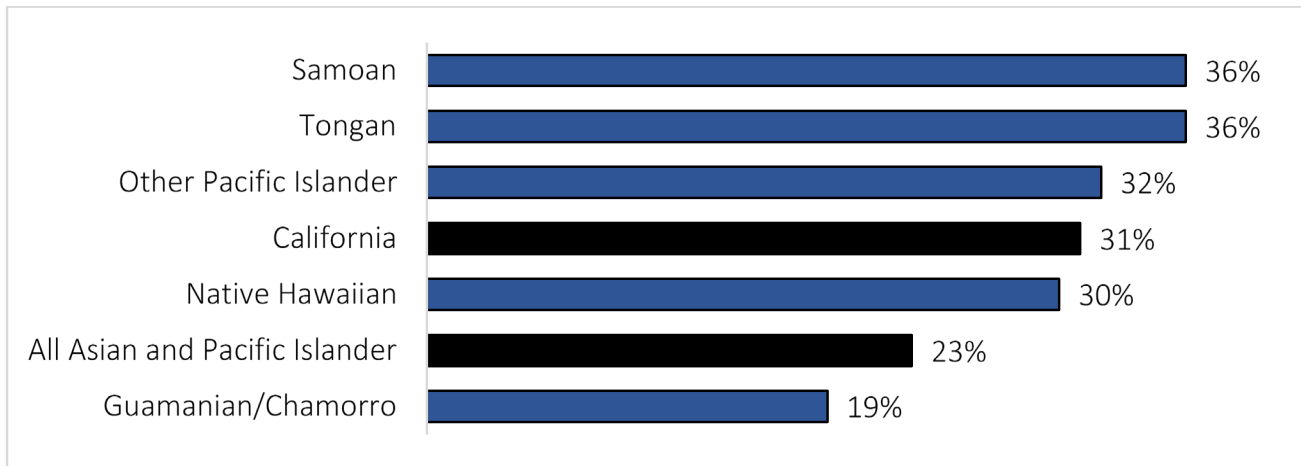
**Figure 1: Poverty rate in California by Asian sub-categories, 2015-2019**



Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019. Prepared by: California Department of Public Health, Office of Health Equity

- Among Pacific Islander Californians, Samoan (36%) and Tongan (36%) persons are more likely to experience poverty compared to Guamanian/Chamorro (19%) residents

### Poverty Rate in California by Pacific Islander sub-categories, 2015-2019



Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019. Prepared by: California Department of Public Health, Office of Health Equity

## Technical Notes

### Methods and Limitations:

- Poverty measure is from integrated public use microdata series (IPUMS USA) microdata, and defined as less than 200% of the Federal Poverty Level
- These data are based on samples and are subject to a margin of error
- The American Community Survey poverty estimates exclude people who live in institutional group quarters (for example nursing homes and hospitals) and non-institutional group quarters (example, military barracks and college dormitories)

### References:

1. [California Department of Public Health, Office of Health Equity, Healthy Communities Data and Indicators Project: Poverty. 2019. \(PDF\)](http://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HRSU/HCI%20One%20Page%20Poverty%20Fact%20Sheet%20June%202019%20LM.pdf)  
(www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HRSU/HCI%20One%20Page%20Poverty%20Fact%20Sheet%20June%202019%20LM.pdf)
2. [National Equity Atlas. Poverty by Ancestry in California. 2019.](https://nationalequityatlas.org/indicators/poverty#/?breakdown=5&geo=02000000000006000&povlev01=99)  
(nationalequityatlas.org/indicators/poverty#/?breakdown=5&geo=02000000000006000&povlev01=99)

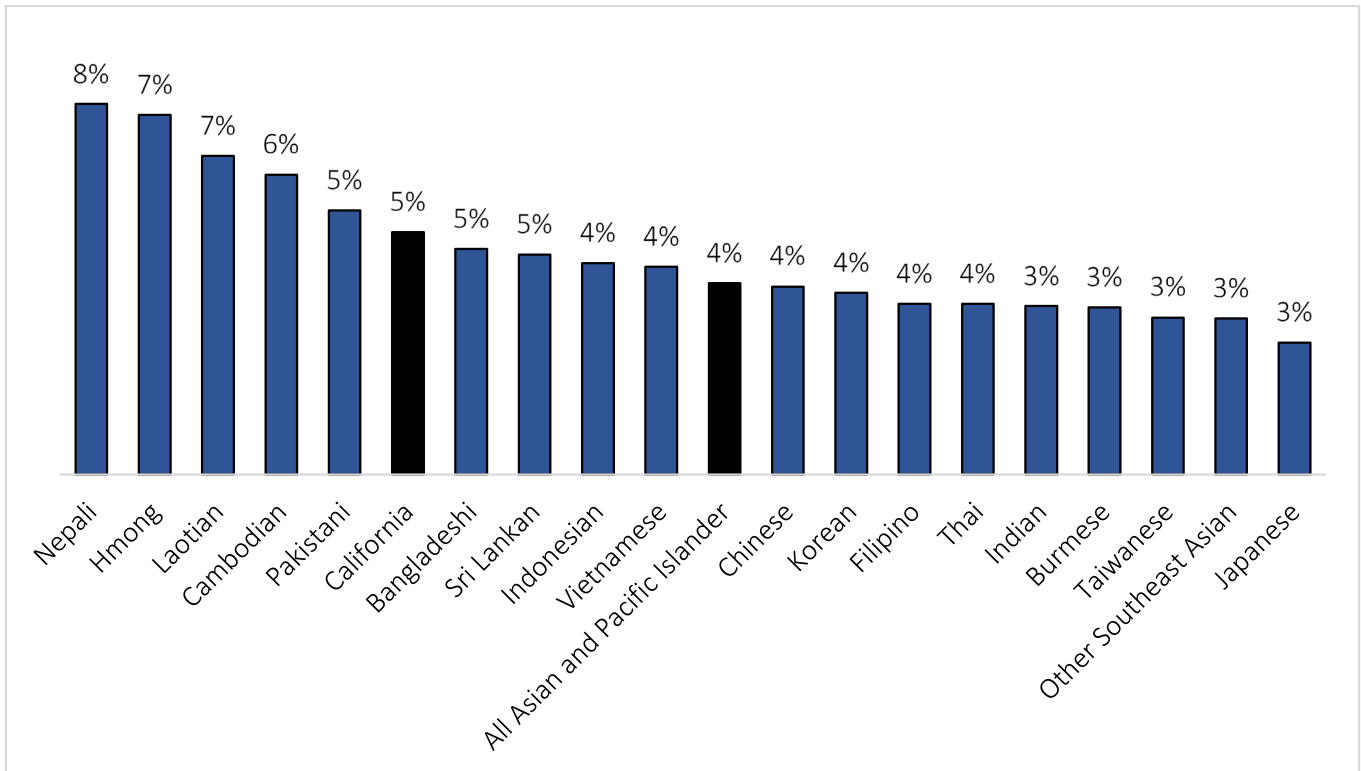
## Unemployment

Unemployment leads to immediate and long-term consequences that are associated with adverse physical and mental health outcomes (1). In addition to increased financial stress, job loss can also reduce access to health care services and treatment as many Americans purchase health insurance through an employer (2). Stress-related illnesses are also associated with unemployment, including increased risk of stroke and heart attack as well as depression and anxiety (3). While disparities in unemployment exist across race and ethnicity groups (e.g., 4% in Asian and Pacific Islander people compared to 9% in Native American residents), it is important to further explore unemployment among Asian and Pacific Islander residents, a diverse group that is often reflected under a single identity.

Figures 1 and 2 show the distribution of unemployment among Asian and Pacific Islander persons, respectively.

- Among Asian Californians, Nepali (8%) and Hmong (7%) residents have higher unemployment compared to Other Southeast Asian (3%) and Japanese (3%) residents

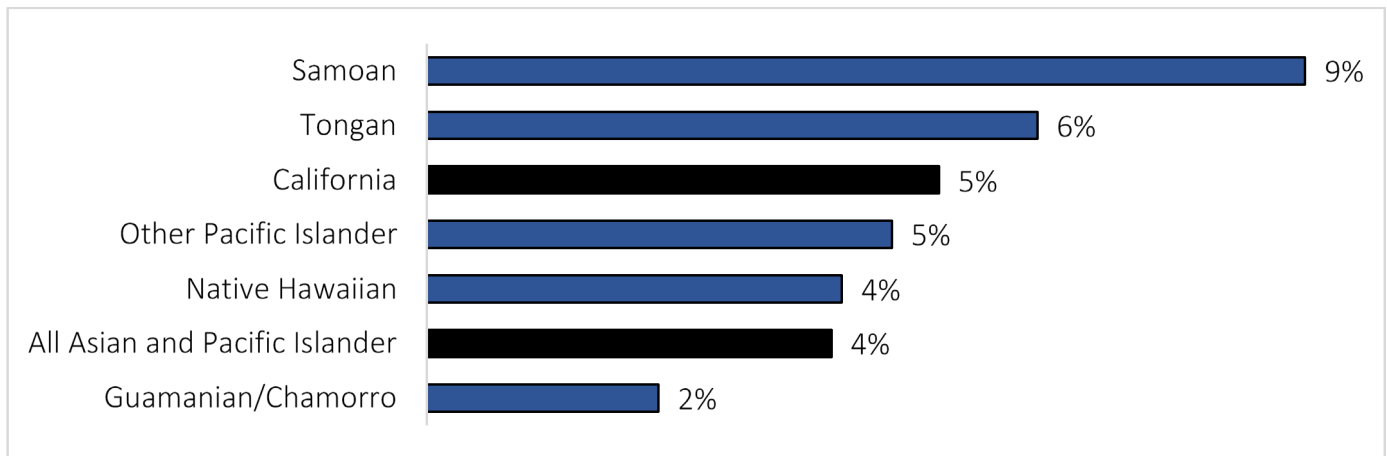
**Figure 1: Unemployment in California by Asian Sub-categories, 2015-2019**



Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019. Prepared by: California Department of Public Health, Office of Health Equity

- Among Pacific Islander Californians, Samoan (9%) persons have higher unemployment compared to Guamanian/Chamorro (2%) persons

**Figure 2: Unemployment in California by Pacific Islander Subcategories, 2015-2019**



Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019. Prepared by: California Department of Public Health, Office of Health Equity

## Technical Notes

### Methods and Limitations:

- Unemployment indicator measure is from integrated public use microdata series (IPUMS USA) microdata
- Unemployment indicator consists of non-institutionalized population ages 25-64 years
- These data are based on samples and are subject to a margin of error

### References:

1. [California Department of Public Health, Office of Health Equity, Healthy Communities Data and Indicators Project: Unemployment, 2020.](https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/Unemployment/ADA_HCI_Unemployment_fact_sheet_2021_v2.pdf)  
([https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/Unemployment/ADA\\_HCI\\_Unemployment\\_fact\\_sheet\\_2021\\_v2.pdf](https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/Unemployment/ADA_HCI_Unemployment_fact_sheet_2021_v2.pdf))
2. Robert Wood Johnson Foundation. Work matters for health. 2008.
3. Healthy People 2020. Social Determinants of Health, Interventions and Resources. Employment. 2021.
4. [National Equity Atlas. Unemployment by Ancestry in California. 2019.](https://nationalequityatlas.org/indicators/Unemployment#/?breakdown=6&geo=02000000000006000)  
(<https://nationalequityatlas.org/indicators/Unemployment#/?breakdown=6&geo=02000000000006000>)

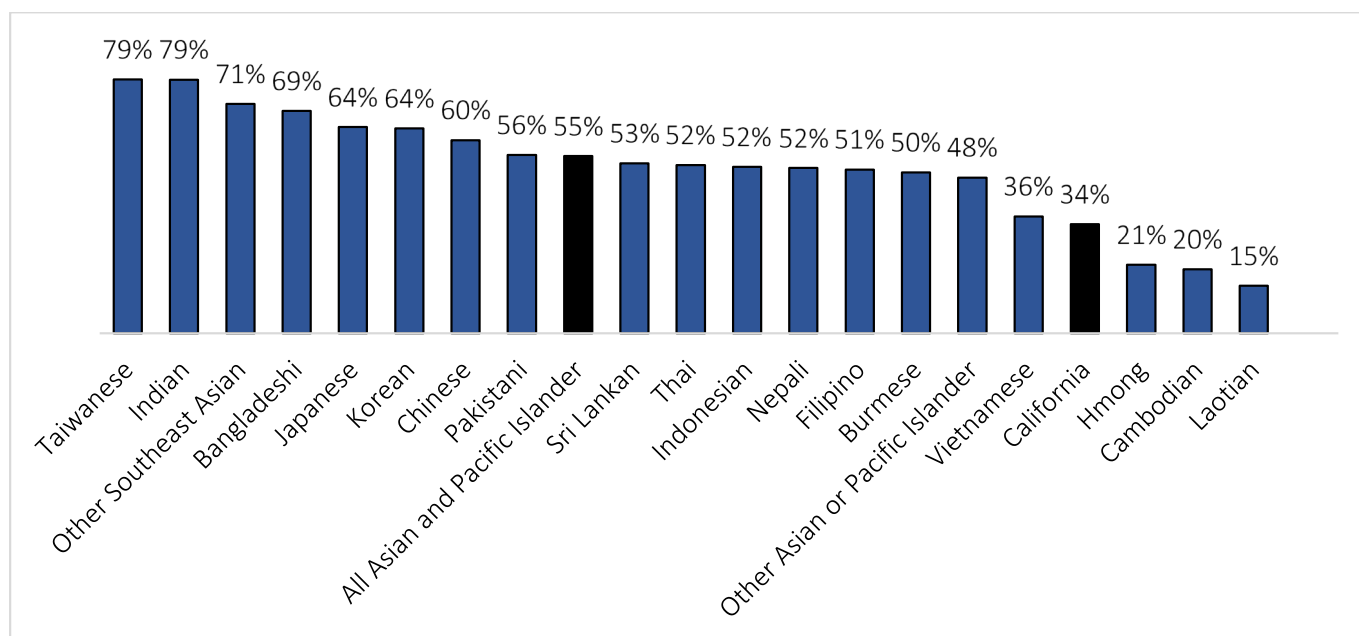
## Educational Attainment

Educational levels of the working age population (25-64 years) have broad impacts on standards of living and social interactions, with consequences for the health of individuals and communities. Education is a key pathway to employment and access to healthier and higher paying jobs that can provide food, housing, transportation and health insurance and other necessities (1). Collectively Asian and Pacific Islander persons have higher educational attainment of a four-year college degree or higher (55%) compared to other racial/ethnic groups (e.g., 13% in Latino persons).

Figures 1 and 2 show the distribution of educational attainment among Asian (Figure 1) and Pacific Islander (Figure 2) residents, respectively.

- Among Asian Californians, less Laotian (15%), Cambodian (20%), and Hmong (21%) persons have a 4-year college degree or higher compared to 79% of Taiwanese and Indian Americans

**Figure 1: Educational Attainment in California by Asian Subcategories, 2015-2019**

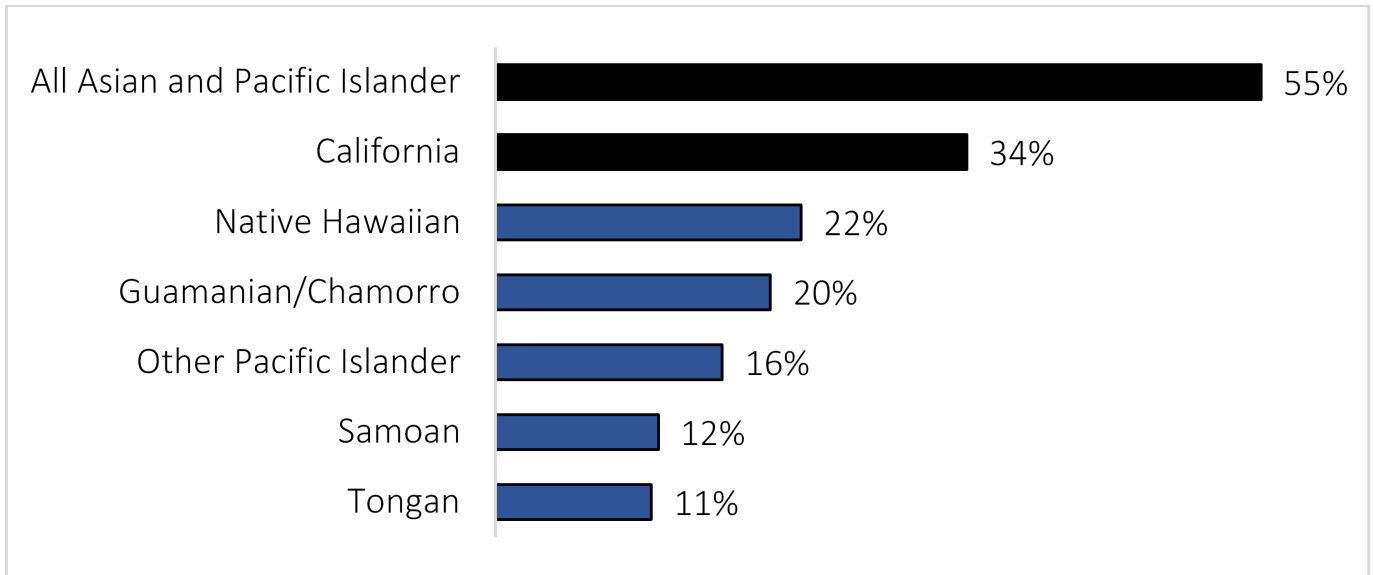


Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019.  
 Prepared by: California Department of Public Health, Office of Health Equity

- Among Pacific Islander Californians, Samoan (12%) and Tongan (11%) persons have lower educational attainment compared to Native Hawaiian (22%) and Guamanian/Chamorro (20%) residents



**Figure 2: Educational Attainment in California by Pacific Islander Subcategories, 2015-2019**



Source: National Equity Atlas analysis of U.S. Census Bureau, American Community Survey Data, 2015-2019. Prepared by: California Department of Public Health, Office of Health Equity

## Technical Notes

### Methods and Limitations:

- Educational Attainment measure is from integrated public use microdata series (IPUMS USA) microdata
- These data are based on samples and are subject to a margin of error

### References:

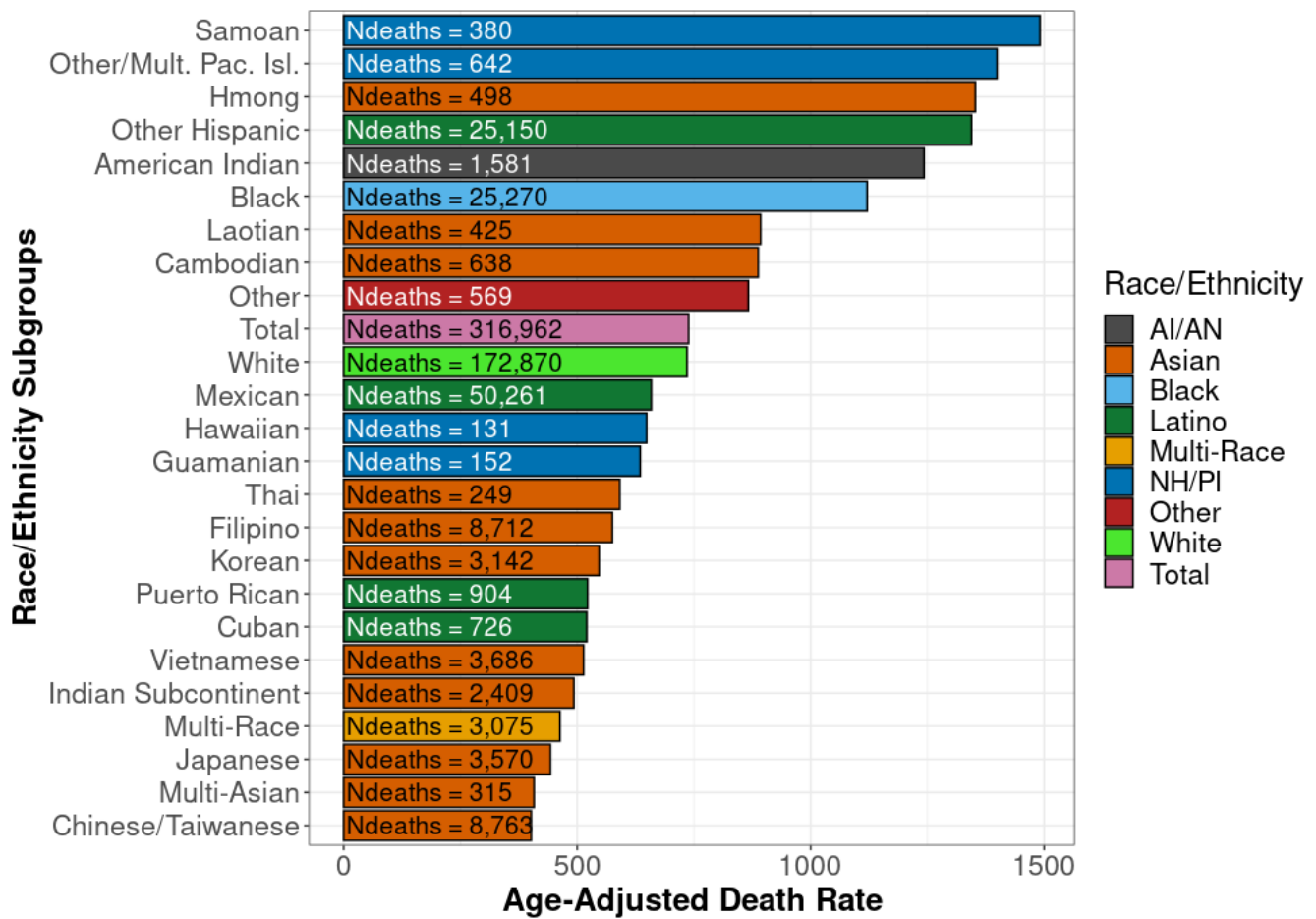
1. [California Department of Public Health, Office of Health Equity, Healthy Communities Data and Indicators Project: Educational Attainment. 2019.](https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/ADA%20Compliant%20Documents/HCI_EducationaAttainment_Narrative_355_8-8-17-ADA.pdf)  
([https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/ADA%20Compliant%20Documents/HCI\\_EducationaAttainment\\_Narrative\\_355\\_8-8-17-ADA.pdf](https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/HCI/ADA%20Compliant%20Documents/HCI_EducationaAttainment_Narrative_355_8-8-17-ADA.pdf))
2. [National Equity Atlas. Educational Attainment by Ancestry in California. 2019.](https://nationalequityatlas.org/indicators/Educational-attainment#/?breakdown=5&geo=02000000000006000)  
(<https://nationalequityatlas.org/indicators/Educational-attainment#/?breakdown=5&geo=02000000000006000>)

## Mortality Rates and Number of Deaths by Detailed Race and Ethnicity Categories

This chart shows all-cause age-adjusted death rates for detailed race and ethnicity groups in California in 2020. The chart includes all race and ethnic groups including detailed Asian and Pacific Islander groups (the focus of AB 1726).

- Death rates vary by a factor of almost three across disaggregated race/ethnic groups. For example, the death rate among *Samoan* (1,491.1 per 100,000) is more than 3 times higher than the death rate among *Chinese/Taiwanese* (401.7 per 100,000)
- There is great variability in death rates within the broad race/ethnicity groups. For examples, among the broad Asian group, *Hmong* have very high rates (1,352.7 per 100,000) whereas *Japanese* (442.9 per 100,000) and *Chinese/Taiwanese* (401.7 per 100,000) have very low rates. Among Native Hawaiian/Pacific Islanders, *Samoans* (1,491.1 per 100,000) have very high rates, whereas *Hawaiians* (648.9 per 100,000) and *Guamanians* (635.1 per 100,000) have much lower rates.

## Age-Adjusted Death Rates by Detailed Race/Ethnicity in California, 2020



Note: 'AI/AN' refers to 'American Indian/Alaska Native', and 'NH/PI' refers to 'Native Hawaiian/Pacific Islander'

Source: The death data in the charts are from the California Vital Statistics system and the population denominators are from the U.S. Census American Community Survey Public Use Microdata Sample.

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)

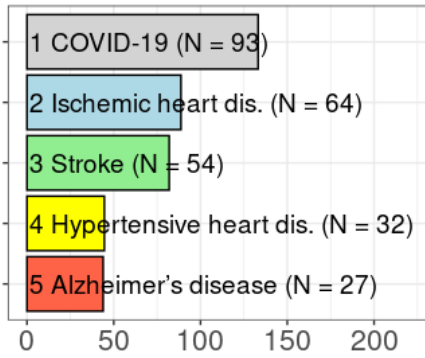
## Leading Causes of Death for detailed Asian and Pacific Islander Groups

This chart shows the leading causes of death (based on age-adjusted death rates) for all detailed Asian and Pacific Islander groups (the focus of AB 1726).

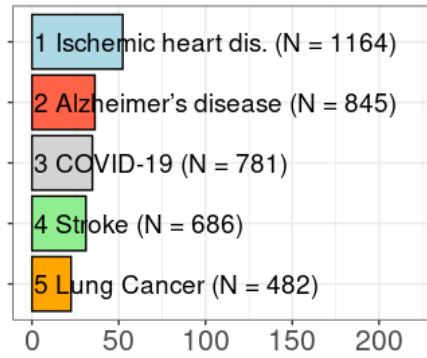
- The death rates of the leading causes of death among Cambodians, Hmongs, Laotians, Samoans, and Other/Multiracial Pacific Islander are much higher compared to the rest of the groups.
- Ischemic heart disease, Alzheimer's disease, COVID-19, Hypertensive heart disease, and Stroke are leading causes of death in most groups.
- Some causes of death only appear among the top five in a few groups. For example, Lung Cancer is one of the five leading causes of death only among Chinese/Taiwanese and Thai. Deaths from kidney disease are among the top five for several groups, but not all.

## Leading Causes of Death by Detailed Asian Groups in California, 2020

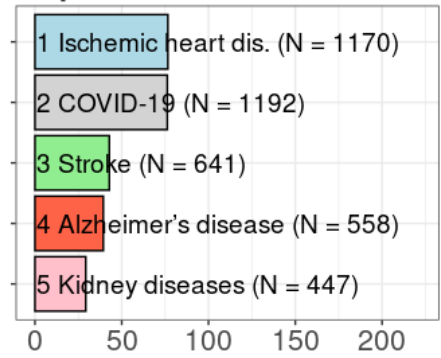
### Cambodian



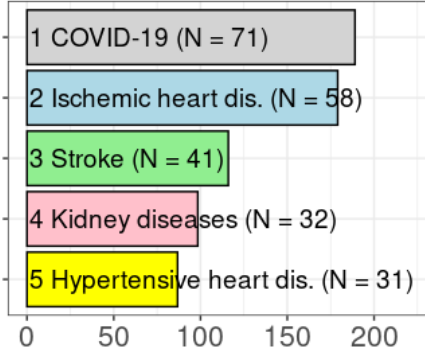
### Chinese/Taiwanese



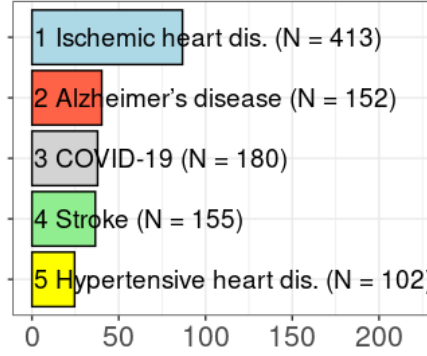
### Filipino



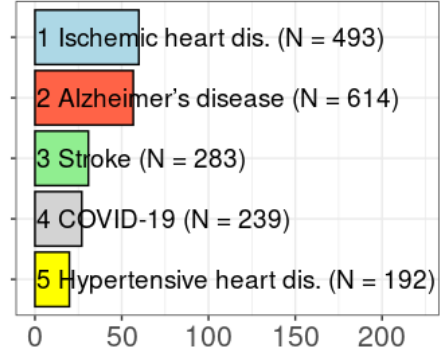
### Hmong



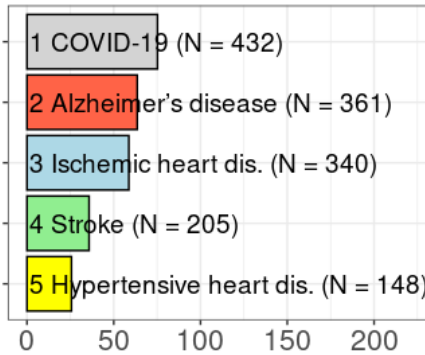
### Indian Subcontinent



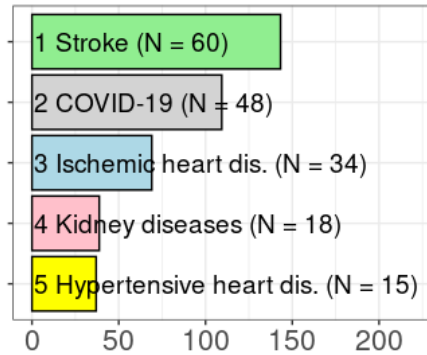
### Japanese



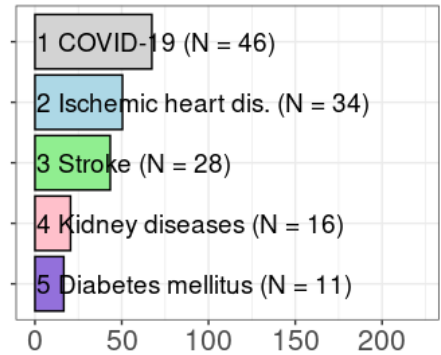
### Korean



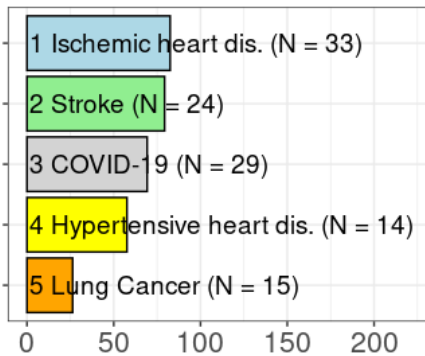
### Laotian



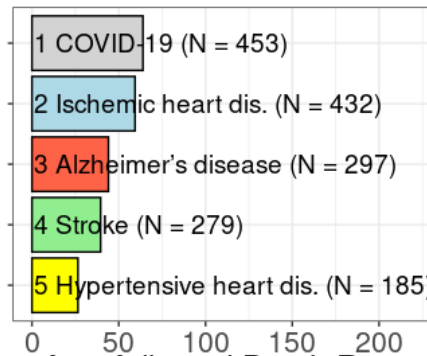
### Multi-Asian



### Thai



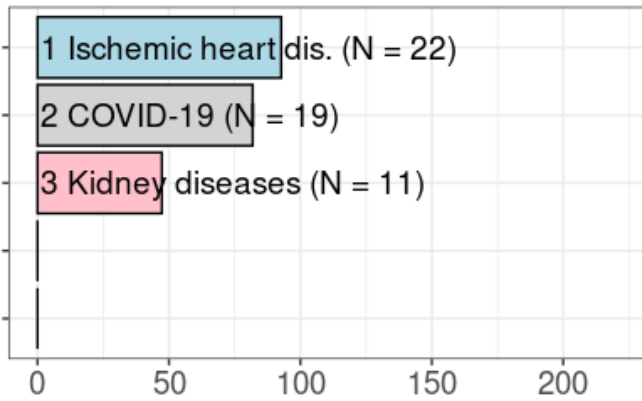
### Vietnamese



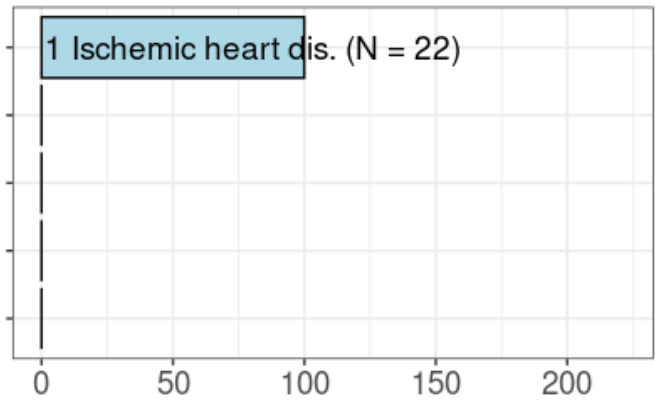
Age-Adjusted Death Rate

## Leading Causes of Death by Detailed Asian Groups in California, 2020

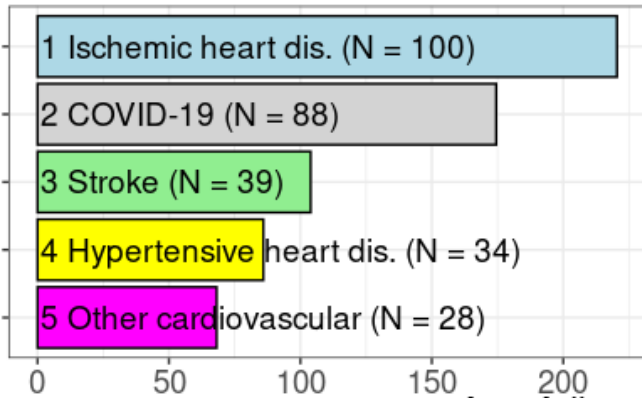
### Guamanian



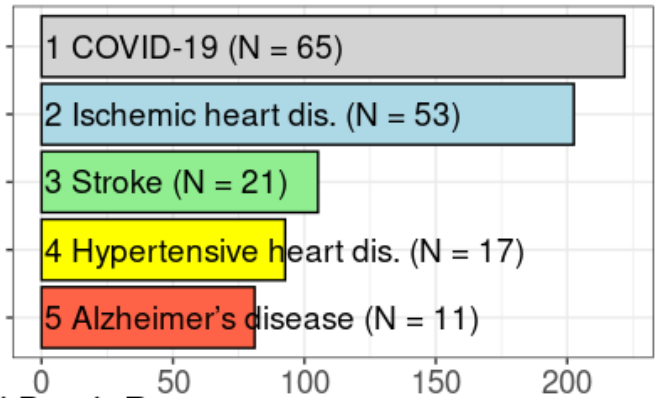
### Hawaiian



### Other/Mult. Pac. Isl.



### Samoan



Age-Adjusted Death Rate

Note: The same x-axis scale is applied across all groups.

Note: Data with fewer than 11 deaths are suppressed per the California Health and Human Services Agency Data De-Identification Guidelines

Source: The death data in the charts are from the California Vital Statistics system and the population denominators are from the U.S. Census American Community Survey Public Use Microdata Sample.

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)

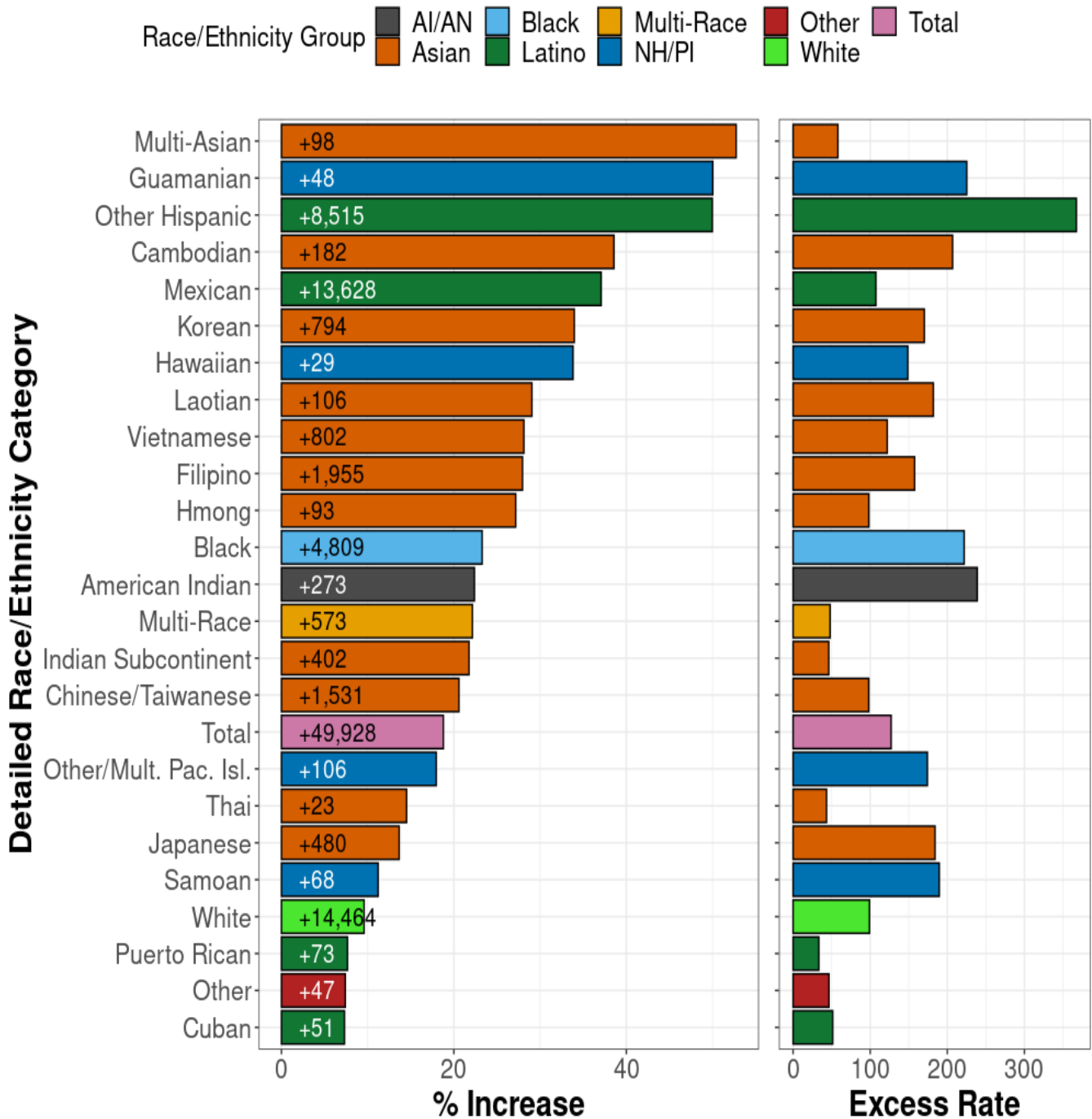
## Excess Mortality

This figure shows excess mortality by detailed race and ethnicity groups in California using two different methods for calculating excess mortality. Excess mortality measures how much higher (or lower) mortality is in one time-period or group compared to another. In this brief, excess mortality is based on comparing deaths in the first year of the COVID-19 pandemic (2020), to the prior year (2019).

The chart on the left calculates excess mortality as the **percent increase** in age-adjusted death rates from 2019 to 2020, while the chart on the right calculates excess mortality as the increase in the **number** of deaths from 2019 to 2020 divided by the population size. The conclusions from the two methods differ because of the different ways the methods take into account the rate in the baseline period and the population size. Both of these methods are reasonable and provide different insights.

- There are substantial differences in excess mortality within broad Asian and Pacific Islander groups. For example, among Asians, Cambodians appear to have high excess mortality whereas Thais appear to have low excess mortality.
- Some groups can rank relatively higher on the approach in the chart on the right, if 1) their age-adjusted death rates were quite high prior to COVID-19, due at least in part to historical disadvantage and/or 2) if their crude death rates were relatively high prior to COVID-19, due to having an overall older population, and therefore many deaths.

## Excess Mortality by Detailed Race and Ethnicity Categories, 2020 compared to 2019



Note: 'AI/AN' refers to 'American Indian/Alaska Native', and 'NH/PI' refers to 'Native Hawaiian/Pacific Islander'

Source: The death data in the charts are from the California Vital Statistics system and the population denominators are from the U.S. Census American Community Survey Public Use Microdata Sample.

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)



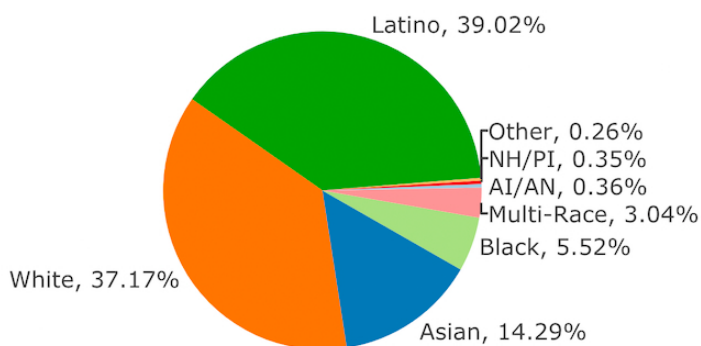
## Population Distribution

This chart shows the population distribution of the grouped race/ethnicity, detailed Asian race, detailed Pacific Islander race, and detailed Latino categories.

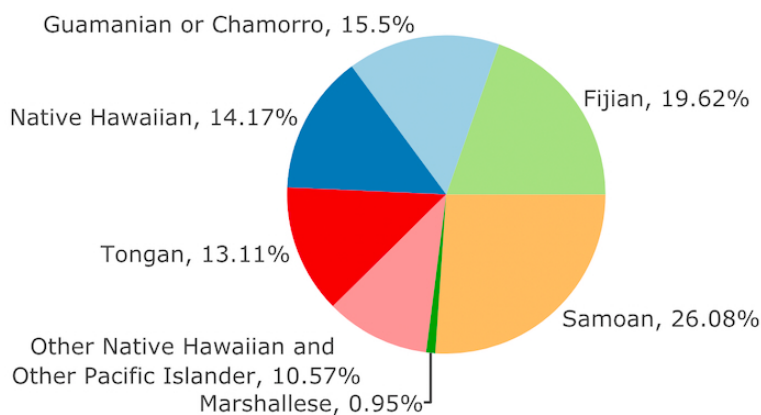
- Asians make up 14.29% of California's population; Native Hawaiian/Pacific Islanders (NH/PI) make up 0.35%.
- The largest groups among Asians are Chinese (26.45%), Filipino (22.1%), and Asian Indian (13.87%).
- The largest groups among Pacific Islanders are Samoan (26.08%), Fijian (19.62%), and Guamanian or Chamorro (15.5%).

### Population Distribution by Detailed Race and Ethnicity Groups

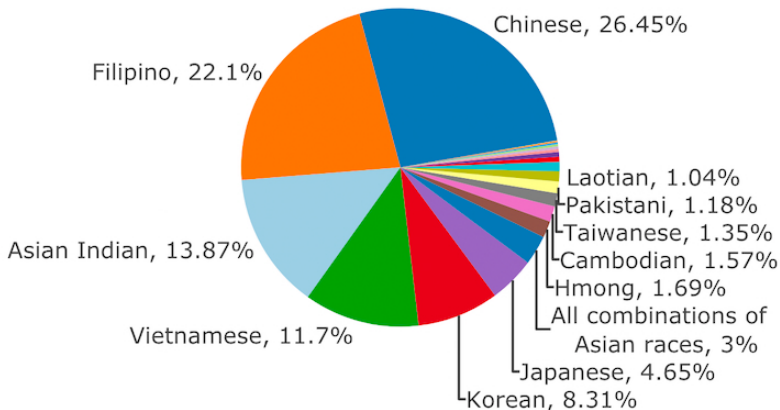
All Race/Ethnicity Groups



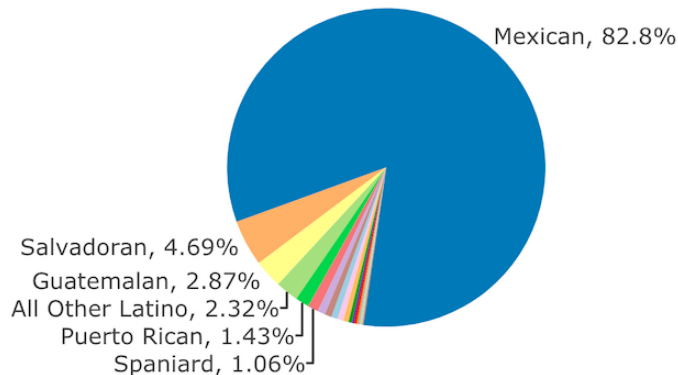
Detailed Pacific Islander Race



Detailed Asian Race



Detailed Latino



Note: Detailed Asian and Latino groups less than 1% of their respective populations are not labeled in the figure above.

Source: The population data in the charts are from the U.S. Census American Community Survey Public Use Microdata Sample (ACS PUMS).

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)

# Technical Notes

## Methods and Limitations:

- There are differences in collection of race/ethnicity information for deaths (family or MD informant) versus population data (self-report via survey), which likely contribute to some numerator/denominator misalignment.
- There are some differences in race/ethnicity groupings and codes between death and population data. Some minor assumptions were required about mapping to a common list for purposes of this analysis. Efforts are underway to improve and identify appropriate standards for the most effective mapping. The mapping system used in this Brief can be found in the Appendix.
- *Other Asian* (which includes persons of an unspecified detailed Asian race, and no other races, and not *Hispanic*) is not included in any of the death data charts above due to concerns of numerator/denominator misalignment.
- The population data (2015-2019, American Community Survey Public Use Microdata Sample) are not as current as the death data (2020).
- All data with fewer than 11 deaths are suppressed per the California Health and Human Services Agency Data De-Identification Guidelines
- Age-Adjusted Death Rate takes into account or “controls” for the age distribution of the population where the rate is being assessed. It is the rate that would have existed if the population had the same age distribution as a reference population. This allows for comparisons between populations with differences in age distributions, accounting for the fact that age itself is generally correlated with higher mortality.

## Notes on race and ethnicity groups and classifications:

- Grouped and detailed races (and ethnicities) are based on a mutually exclusive and exhaustive sequential grouping where persons are classified 1) as *Latino* or some detailed Hispanic group regardless of any information on race then if not, 2) as *Multi-Race* if they are of more than one race (except not counting *Other*) then if not, 3) as a single race or detailed race group.
- Based on the population data source the Other Hispanics category is 62% Central American. 2020 California death data included codes for Mexican, Cuban, Puerto Rican, and Other Hispanic.
- *Indian Subcontinent* consists of Asian Indians, Pakistanis, Bangladeshis, and Sri Lankans.
- Multi-Asian includes persons of more than one detailed Asian race, but not *Other Asian* (unspecified detailed Asian race), and no other races, and not *Hispanic*.

- Multi-race includes persons of more than one race group, but not Other, and not Hispanic.
- Other/Mult. Pac. Isl. includes persons of another detailed Pacific Islander race or of more than one detailed Pacific Islander race, and no other races, and not Hispanic.
- Other indicates another race without specifying what race, and not Hispanic.

## APPENDIX A: Population Data Table - Detailed Race and Ethnicity Groups

| Race/Ethnicity                                   | Race/Ethnicity Group      | Population | Percent |
|--|---------------------------|------------|---------|
| AI/AN  | Grouped Race/Ethnicity    | 139,709    | 0.36%   |
| Asian  | Grouped Race/Ethnicity    | 5,612,635  | 14.29%  |
| Black  | Grouped Race/Ethnicity    | 2,167,914  | 5.52%   |
| Latino   | Grouped Race/Ethnicity    | 15,327,837 | 39.02%  |
| Multi-Race                                       | Grouped Race/Ethnicity    | 1,194,519  | 3.04%   |
| NH/PI  | Grouped Race/Ethnicity    | 137,550    | 0.35%   |
| Other  | Grouped Race/Ethnicity    | 100,917    | 0.26%   |
| White  | Grouped Race/Ethnicity    | 14,602,416 | 37.17%  |
| All combinations of Asian races only             | Detailed Asian            | 168,579    | 3.00%   |
| Asian Indian alone                               | Detailed Asian            | 778,248    | 13.87%  |
| Bangladeshi alone                                | Detailed Asian            | 12,937     | 0.23%   |
| Bhutanese alone                                  | Detailed Asian            | 135        | 0.00%   |
| Burmese alone                                    | Detailed Asian            | 15,673     | 0.28%   |
| Cambodian alone                                  | Detailed Asian            | 87,989     | 1.57%   |
| Chinese, except Taiwanese, alone                 | Detailed Asian            | 1,484,553  | 26.45%  |
| Filipino alone                                   | Detailed Asian            | 1,240,353  | 22.10%  |
| Hmong alone                                      | Detailed Asian            | 94,688     | 1.69%   |
| Indonesian alone                                 | Detailed Asian            | 29,350     | 0.52%   |
| Japanese alone                                   | Detailed Asian            | 260,812    | 4.65%   |
| Korean alone                                     | Detailed Asian            | 466,410    | 8.31%   |
| Laotian alone                                    | Detailed Asian            | 58,274     | 1.04%   |
| Malaysian alone                                  | Detailed Asian            | 3,368      | 0.06%   |
| Mongolian alone                                  | Detailed Asian            | 6,032      | 0.11%   |
| Nepalese alone                                   | Detailed Asian            | 14,815     | 0.26%   |
| Other Asian alone                                | Detailed Asian            | 27,374     | 0.49%   |
| Pakistani alone                                  | Detailed Asian            | 66,089     | 1.18%   |
| Sri Lankan alone                                 | Detailed Asian            | 11,157     | 0.20%   |
| Taiwanese alone                                  | Detailed Asian            | 75,859     | 1.35%   |
| Thai alone                                       | Detailed Asian            | 53,058     | 0.95%   |
| Vietnamese alone                                 | Detailed Asian            | 656,882    | 11.70%  |
| Fijian alone                                     | Detailed Pacific Islander | 26,990     | 19.62%  |
| Guamanian or Chamorro alone                      | Detailed Pacific Islander | 21,316     | 15.50%  |
| Marshallese alone                                | Detailed Pacific Islander | 1,300      | 0.95%   |
| Native Hawaiian alone                            | Detailed Pacific Islander | 19,492     | 14.17%  |
| Other Native Hawaiian and Other Pacific Islander | Detailed Pacific Islander | 14,540     | 10.57%  |
| Samoan alone                                     | Detailed Pacific Islander | 35,879     | 26.08%  |

| Race/Ethnicity                    | Race/Ethnicity Group      | Population | Percent |
|-----------------------------------|---------------------------|------------|---------|
| Tongan alone                      | Detailed Pacific Islander | 18,033     | 13.11%  |
| All Other Spanish/Hispanic/Latino | Detailed Hispanic         | 355,412    | 2.32%   |
| Argentinean                       | Detailed Hispanic         | 52,308     | 0.34%   |
| Bolivian                          | Detailed Hispanic         | 14,259     | 0.09%   |
| Chilean                           | Detailed Hispanic         | 28,762     | 0.19%   |
| Colombian                         | Detailed Hispanic         | 82,250     | 0.54%   |
| Costa Rican                       | Detailed Hispanic         | 25,080     | 0.16%   |
| Cuban                             | Detailed Hispanic         | 99,221     | 0.65%   |
| Dominican                         | Detailed Hispanic         | 17,777     | 0.12%   |
| Ecuadorian                        | Detailed Hispanic         | 39,821     | 0.26%   |
| Guatemalan                        | Detailed Hispanic         | 440,226    | 2.87%   |
| Honduran                          | Detailed Hispanic         | 91,783     | 0.60%   |
| Mexican                           | Detailed Hispanic         | 12,692,077 | 82.80%  |
| Nicaraguan                        | Detailed Hispanic         | 119,984    | 0.78%   |
| Other Central American            | Detailed Hispanic         | 17,772     | 0.12%   |
| Other South American              | Detailed Hispanic         | 4,763      | 0.03%   |
| Panamanian                        | Detailed Hispanic         | 19,199     | 0.13%   |
| Paraguayan                        | Detailed Hispanic         | 1,692      | 0.01%   |
| Peruvian                          | Detailed Hispanic         | 106,061    | 0.69%   |
| Puerto Rican                      | Detailed Hispanic         | 218,440    | 1.43%   |
| Salvadoran                        | Detailed Hispanic         | 719,274    | 4.69%   |
| Spaniard                          | Detailed Hispanic         | 162,926    | 1.06%   |
| Uruguayan                         | Detailed Hispanic         | 4,366      | 0.03%   |
| Venezuelan                        | Detailed Hispanic         | 14,384     | 0.09%   |

Source: The population data are from the [2015-2019 U.S. Census American Community Survey Public Use Microdata Sample](#) (ACS PUMS).

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)

## Technical Notes

- The table above contains California population numbers for all non-Hispanic races and total Hispanic ethnicity, non-Hispanic detailed Asian groups, non-Hispanic detailed Pacific Islander groups, and detailed Hispanic groups.
  - Grouped and detailed races (and ethnicities) are based on a mutually exclusive and exhaustive sequential grouping where persons are classified 1) as “Latino/Hispanic” or some detailed Hispanic group regardless of any information on race then if not, 2) as “Multi-Race” if they are of more than one race (except not counting “Other”) then if not, 3) as a single race or detailed race group.

## APPENDIX B: Detailed Race/Ethnicity Mapping System – Population, Death, Tuberculosis, and COVID-19 Data

| Race/Ethnicity Names used in American Community Survey Public Use Microdata Sample (population data) | Race/Ethnicity Names used in Death (Pre-2022) Data - California Vital Statistics CDPH Center for Health Statistics and Informatics* | Race/Ethnicity Mapping (Population and Death Data) - Detailed Race/Ethnicity Grouping used by CDPH Fusion Center | Broad Race /Ethnicity Grouping used by CDPH Fusion Center | Race/Ethnicity Names used in Tuberculosis Data - CDPH TB Control Branch (CaIREDIE) | Race/Ethnicity Names used in COVID-19 Data - CDPH Covid Sciences Branch (CaIREDIE) |
|--|---|--|---|--|--|
| American Indian, ALL TRIBES and tribe not specified  | AMERICAN INDIAN / NATIVE AMERICAN   | American Indian  | AI/AN   |  |  |
| Yup'ik alone   | ESKIMO  | Ala. Nat.  | AI/AN   |  |  |
| Aleut alone  | ALEUT   | Ala. Nat.  | AI/AN   |  |  |
| Other Alaska Native  |   | Ala. Nat.  | AI/AN   |  |  |
| Other American Indian and Alaska Native specified  | Two or more of any American Indian/Alaska Native race, and NO other race [CALCULATED]**<br>*  | Other/Mult. AIAN   | AI/AN   |  |  |
| American Indian and Alaska Native, not specified   |   | Other/Mult. AIAN   | AI/AN   |  |  |
| Cambodian alone  | ASIAN-CAMBODIAN   | Cambodian  | Asian   | Cambodian  | Cambodian  |
| Chinese, except Taiwanese, alone   | ASIAN-CHINESE   | Chinese/Taiwanese  | Asian   | Chinese  | Chinese  |
| Filipino alone   | FILIPINO  | Filipino   | Asian   | Filipino   | Filipino   |
| Hmong alone  | ASIAN-HMONG   | Hmong  | Asian   | Hmong  | Hmong  |
| Japanese alone   | ASIAN-JAPANESE  | Japanese   | Asian   | Japanese   | Japanese   |
| Korean alone   | ASIAN-KOREAN  | Korean   | Asian   | Korean   | Korean   |
| Laotian alone  | ASIAN-LAOTIAN   | Laotian  | Asian   | Laotian  | Laotian  |
| Thai alone   | ASIAN-THAI  | Thai   | Asian   | Thai   | Thai   |
| Vietnamese alone   | ASIAN-VIETNAMESE  | Vietnamese   | Asian   | Vietnamese   | Vietnamese   |
| Asian Indian alone   | INDIAN (EXCLUDES AMERICAN INDIAN, ALEUT & ESKIMO)   | Indian Subcontinent  | Asian   | Asian Indian   | Indian   |
| Bangladeshi alone  | INDIAN (EXCLUDES AMERICAN INDIAN, ALEUT & ESKIMO)   | Indian Subcontinent  | Asian   | Bangladeshi  | Bangladeshi  |
| Bhutanese alone  |   | Other Asian  | Asian   | Bhutanese  | Bhutanese  |
| Burmese alone  |   | Other Asian  | Asian   | Burmese  | Burmese  |
| Indonesian alone   |   | Other Asian  | Asian   | Indonesian   | Indonesian   |
| Malaysian alone  |   | Other Asian  | Asian   | Malaysian  | Malaysian  |
| Mongolian alone  |   | Other Asian  | Asian   |  |  |
| Nepalese alone   |   | Other Asian  | Asian   | Nepalese   | Nepalese   |
| Pakistani alone  | INDIAN (EXCLUDES AMERICAN INDIAN, ALEUT & ESKIMO)   | Indian Subcontinent  | Asian   | Pakistani  | Pakistani  |

| Race/Ethnicity Names used in American Community Survey Public Use Microdata Sample (population data) | Race/Ethnicity Names used in Death (Pre-2022) Data - California Vital Statistics CDPH Center for Health Statistics and Informatics* | Race/Ethnicity Mapping (Population and Death Data) - Detailed Race/Ethnicity Grouping used by CDPH Fusion Center | Broad Race /Ethnicity Grouping used by CDPH Fusion Center | Race/Ethnicity Names used in Tuberculosis Data - CDPH TB Control Branch (CaREDIE) | Race/Ethnicity Names used in COVID-19 Data - CDPH Covid Sciences Branch (CaREDIE) |
|--|---|--|---|---|---|
| Sri Lankan alone   | INDIAN (EXCLUDES AMERICAN INDIAN, ALEUT & ESKIMO)   | Indian Subcontinent  | Asian   | Sri Lankan  | Sri Lankan  |
| Taiwanese alone  | ASIAN-CHINESE   | Chinese/Taiwanese  | Asian   | Taiwanese   | Taiwanese   |
|  |   |  | Asian   |   | Singaporean   |
| Other Asian alone  | ASIAN-SPECIFIED **  | Other Asian  | Asian   | Other/Not Specified   |   |
| All combinations of Asian races only   | Two or more of any ASIAN race, and NO other race [CALCULATED]** *   | Multi-Asian  | Asian   | Cell intentionally blank  |   |
| Native Hawaiian alone  | HAWAIIAN  | Hawaiian   | NH/PI   | Hawaiian  | Native Hawaiian   |
| Samoaan alone  | SAMOAN  | Samoaan  | NH/PI   | Samoaan   | Samoaan   |
| Guamanian or Chamorro alone  | GUAMANIAN   | Guamanian  | NH/PI   | Guamanian/Chamorro  | Chamorro or Guamanian   |
|  |   | Guamanian  | NH/PI   |   | Chamorro  |
|  |   | Guamanian  | NH/PI   |   | Guamanian   |
| Tongan alone   |   | Other/Mult. Pac. Isl.  | NH/PI   | Tongan  | Tongan  |
| Marshallese alone  |   | Other/Mult. Pac. Isl.  | NH/PI   |   | Marshallese   |
| Fijian alone   |   | Other/Mult. Pac. Isl.  | NH/PI   | Fijian  | Fijian  |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   | Micronesian   | Micronesian   |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   | Polynesian  | Polynesian  |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   |   | Palauan   |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   |   | Pohnpeian   |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   |   | Soloman Islander  |
|  |   | Other/Mult. Pac. Isl.  | NH/PI   |   | Yapese  |
| Other Native Hawaiian and Other Pacific Islander   | PACIFIC ISLANDER (EXCLUDES HAWAIIAN, GUAMANIAN, SAMOAN)   | Other/Mult. Pac. Isl.  | NH/PI   | Other/Not Specified   | Other Native Hawaiian and Other Pacific Islander                                  |
|  | Two or more of any Pacific Islander race, and NO other race [CALCULATED]** *  | Other/Mult. Pac. Isl.  | NH/PI   |   |   |
| Black or African American alone  | BLACK   | Black  | Black   |   |   |
| White alone  | WHITE   | White  | White   |   |   |
| Some Other Race alone  | OTHER-SPECIFIED   | Other  | Other   |   |   |
|  | UNKNOWN   | Unknown  | Unknown   |   |   |
| Two or More Races  | Two or more race groups,  | Multi-Race   | Multi-Race  |   |   |

| Race/Ethnicity Names used in American Community Survey Public Use Microdata Sample (population data) | Race/Ethnicity Names used in Death (Pre-2022) Data - California Vital Statistics CDPH Center for Health Statistics and Informatics* | Race/Ethnicity Mapping (Population and Death Data) - Detailed Race/Ethnicity Grouping used by CDPH Fusion Center | Broad Race /Ethnicity Grouping used by CDPH Fusion Center | Race/Ethnicity Names used in Tuberculosis Data - CDPH TB Control Branch (CalREDIE) | Race/Ethnicity Names used in COVID-19 Data - CDPH Covid Sciences Branch (CalREDIE) |
|--|---|--|---|--|--|
|  | and NOT Hispanic [CALCULATED]**<br>*  |  |   |  |  |
| Mexican  | MEXICAN   | Mexican  | Latino  |  |  |
| Puerto Rican   | PUERTO RICAN  | Puerto Rican   | Latino  |  |  |
| Cuban  | CUBAN   | Cuban  | Latino  |  |  |
| Dominican  |   | Other Hispanic   | Latino  |  |  |
| Costa Rican  |   | Other Hispanic   | Latino  |  |  |
| Guatemalan   |   | Other Hispanic   | Latino  |  |  |
| Honduran   |   | Other Hispanic   | Latino  |  |  |
| Nicaraguan   |   | Other Hispanic   | Latino  |  |  |
| Panamanian   |   | Other Hispanic   | Latino  |  |  |
| Salvadoran   |   | Other Hispanic   | Latino  |  |  |
| Other Central American   |   | Other Hispanic   | Latino  |  |  |
| Argentinean  |   | Other Hispanic   | Latino  |  |  |
| Bolivian   |   | Other Hispanic   | Latino  |  |  |
| Chilean  |   | Other Hispanic   | Latino  |  |  |
| Colombian  |   | Other Hispanic   | Latino  |  |  |
| Ecuadorian   |   | Other Hispanic   | Latino  |  |  |
| Paraguayan   |   | Other Hispanic   | Latino  |  |  |
| Peruvian   |   | Other Hispanic   | Latino  |  |  |
| Uruguayan  |   | Other Hispanic   | Latino  |  |  |
| Venezuelan   |   | Other Hispanic   | Latino  |  |  |
| Other South American   |   | Other Hispanic   | Latino  |  |  |
| Spaniard   |   | Other Hispanic   | Latino  |  |  |
| All Other Spanish/Hispanic/Latino  | OTHER HISPANIC  | Other Hispanic   | Latino  |  |  |

\*Based on California Comprehensive Death File (CCDF) fields 37, and 45-47: Hispanic Ancestry/Origin (Code), Final Race Code #1, Final Race Code #2, and Final Race Code #3

\*\*Records with both ASIAN-SPECIFIED and known Asian group codes, and not Hispanic were classified as known Asian group (e.g. Filipino, ASIAN-SPECIFIED, and not Hispanic -> Filipino)

\*\*\*Race/Ethnicity groups calculated based on the three final race code and Hispanic ancestry/origin (code) fields in the California Comprehensive Death File (CCDF)

Source: [2015-2019 U.S. Census American Community Survey Public Use Microdata Sample](#); California Vital Statistics System based on death certificates/reports transmitted to the California Department of Public Health, Center for Health Statistics and Informatics (CHSI); California Reportable Disease Information Exchange (CalREDIE); California Tuberculosis Registry

Prepared by: California Department of Public Health, Office of Strategic Development & External Relations (Fusion Center)



## Technical Notes

- The table above shows the available detailed race/ethnicity groups in multiple data systems: American Community Survey data, CDPH vital statistics death data, CDPH Tuberculosis Control Branch data, and COVID-19 case surveillance data. This table also shows a common list of detailed race/ethnicity groupings (column three) between the population and death data. Information on the available detailed race/ethnicity groups in the Tuberculosis and COVID-19 data is limited to Asian and Pacific Islander (the focus of AB 1726) in the table above.
  - There are some differences in race/ethnicity groupings and codes between the death and population data. Some minor assumptions were required about mapping to a common list for purposes of this analysis. Efforts are underway to improve appropriate standards for the most effective mapping.
- Grouped and detailed races (and ethnicities) are based on a mutually exclusive and exhaustive sequential grouping where persons are classified 1) as “Latino/Hispanic” or some detailed Hispanic group regardless of any information on race then if not, 2) as “Multi-Race” if they are of more than one race (except not counting “other”) then if not, 3) as a single race or detailed race group.