

UCSF

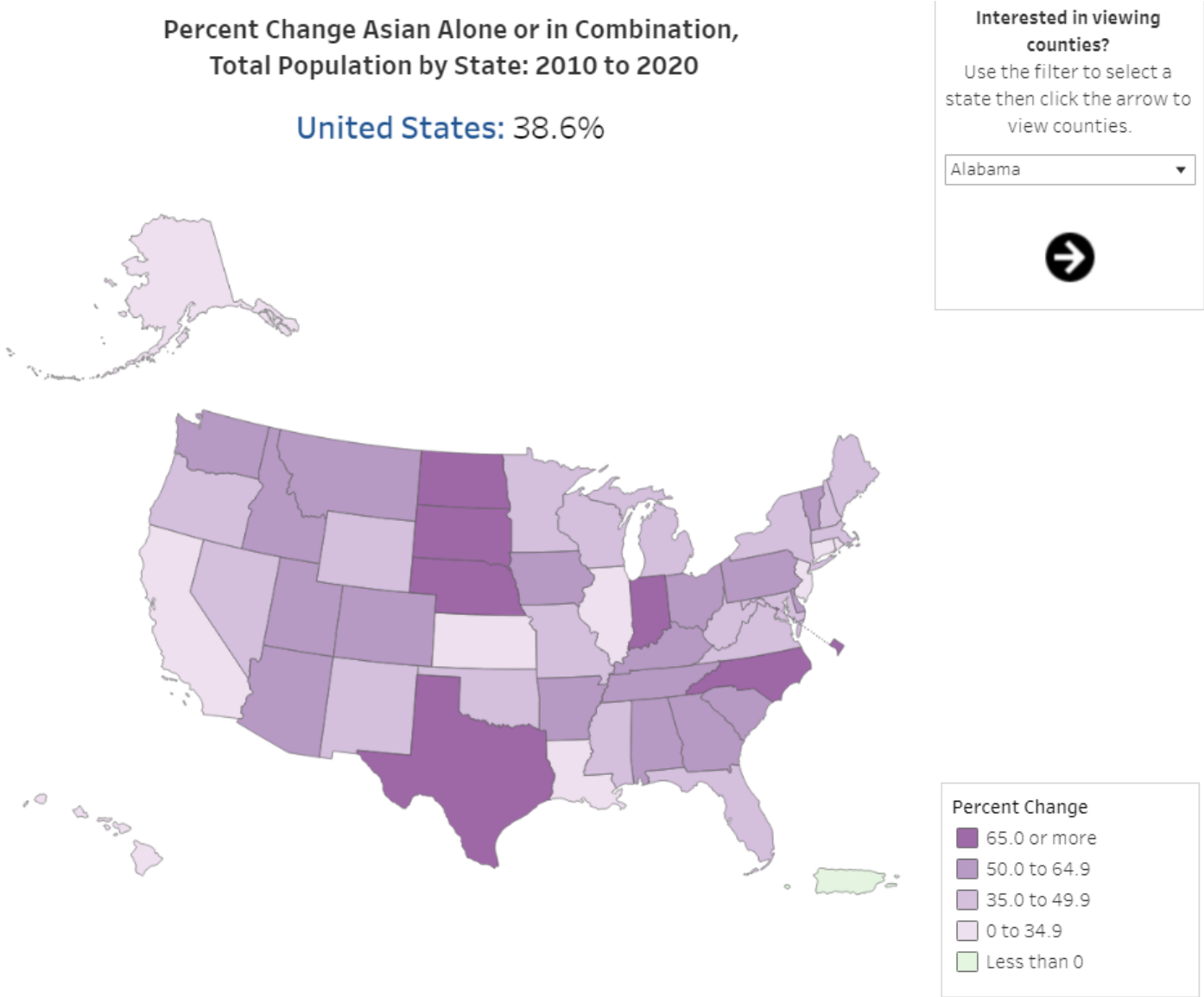
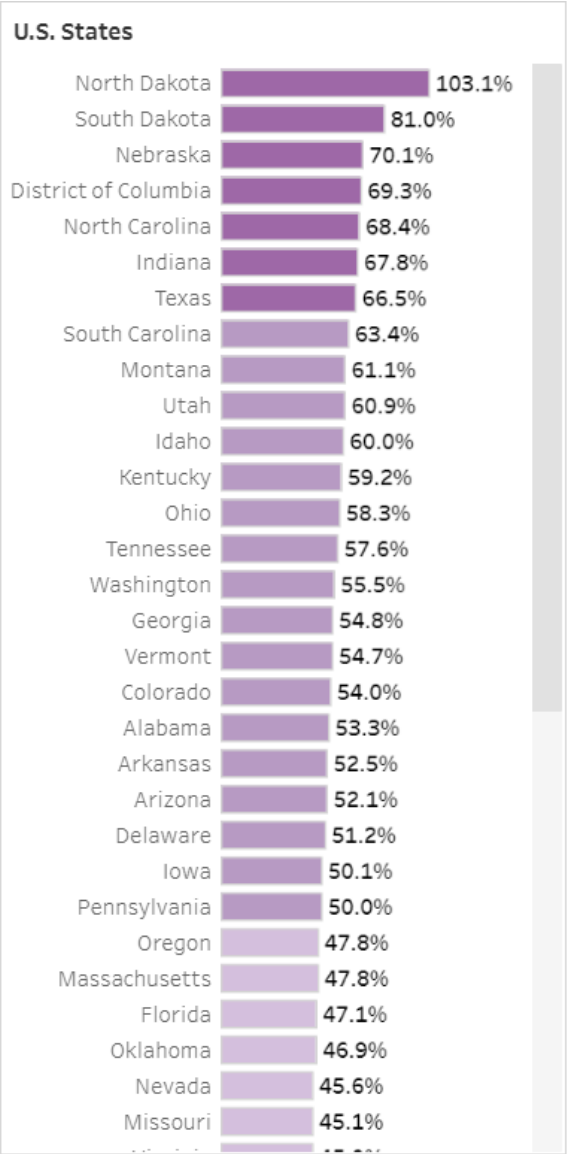
AAPI
HERITAGE MONTH

Emerging Cancer Health Disparities in Asian Americans

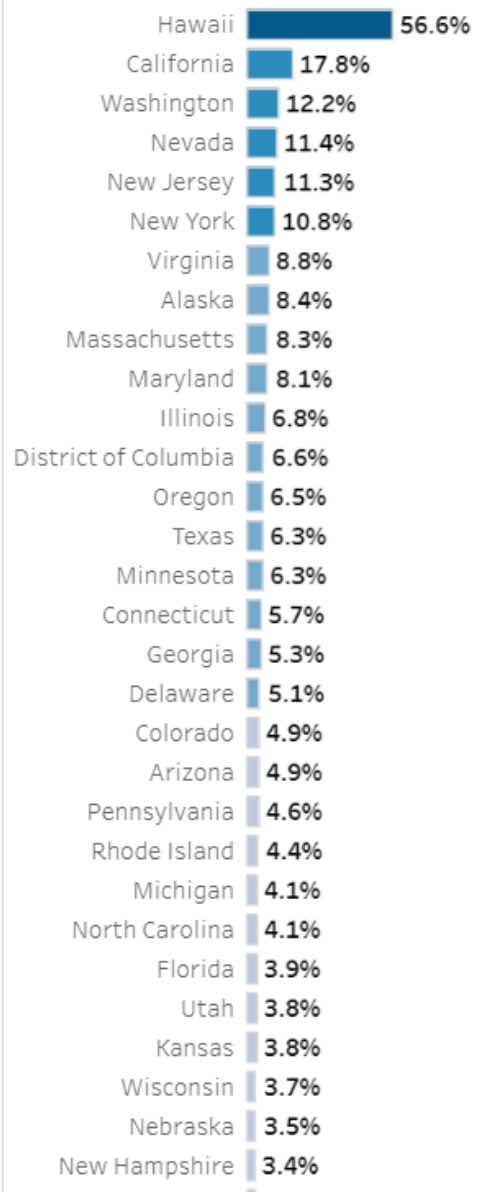
Scarlett Gomez, PhD, MPH



Asians are the most rapidly growing racial/ethnic group in the US

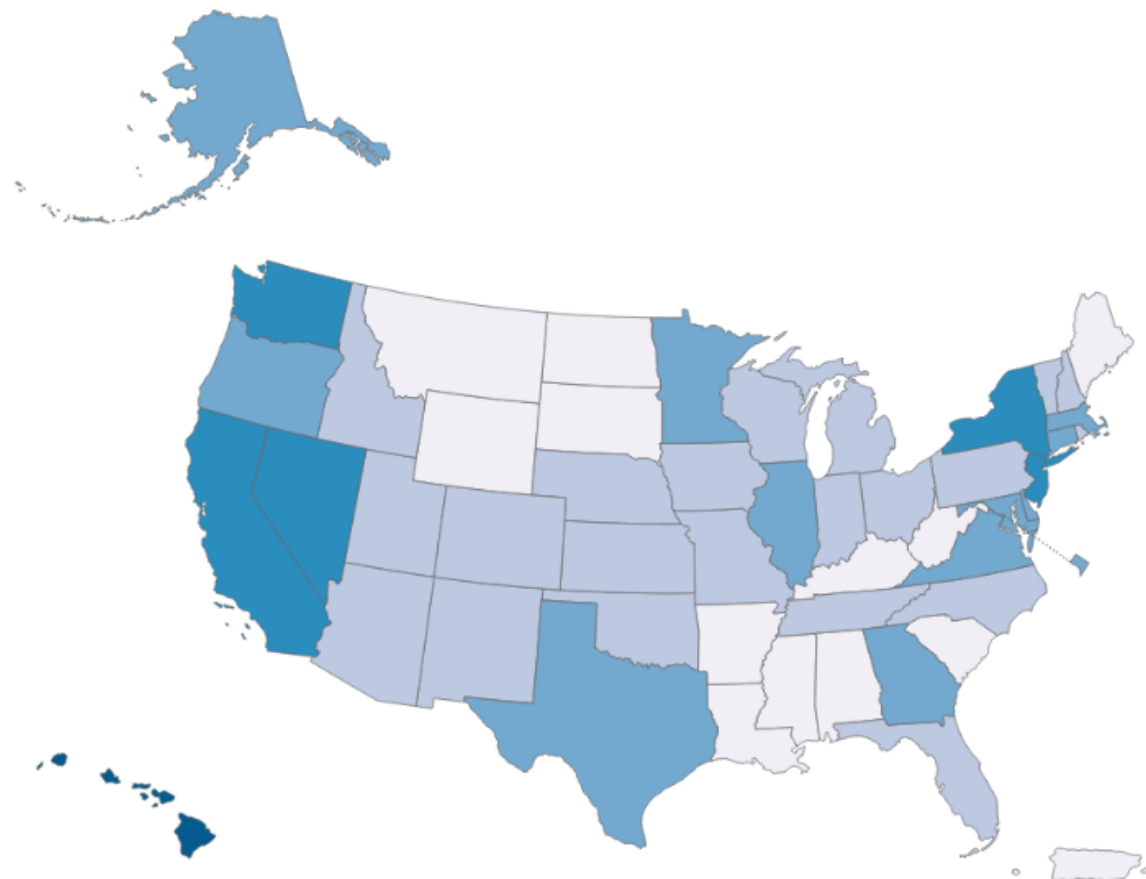


U.S. States



Percent Asian Alone or in Combination, Total Population by State: 2020

United States: 7.2%



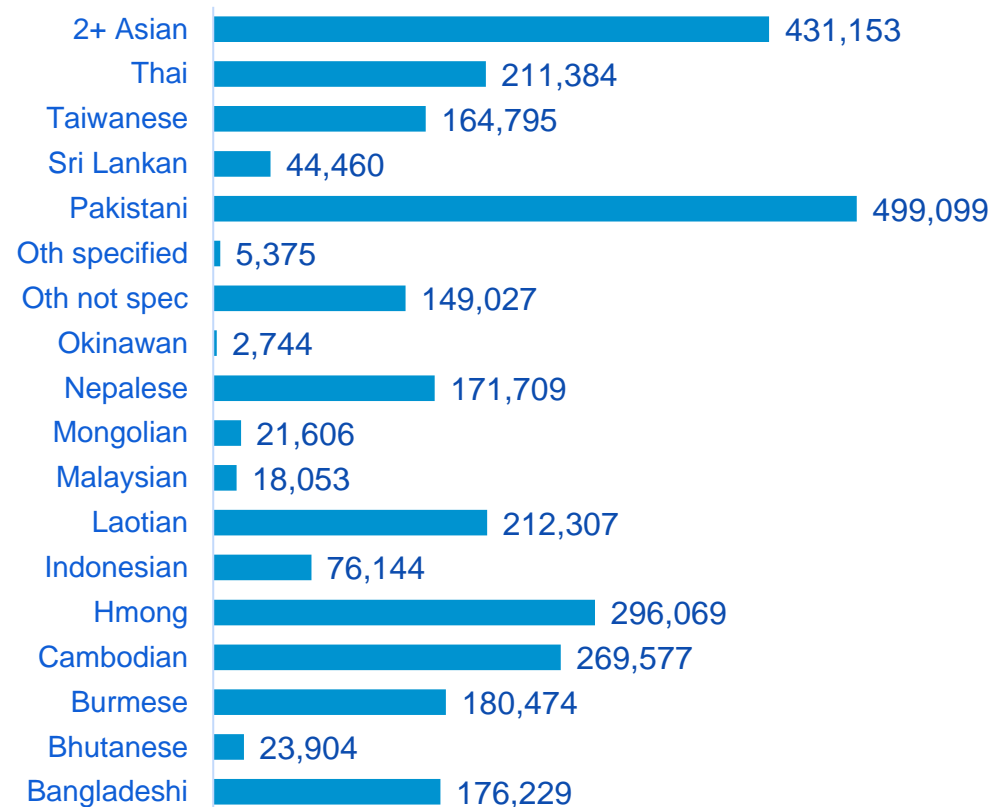
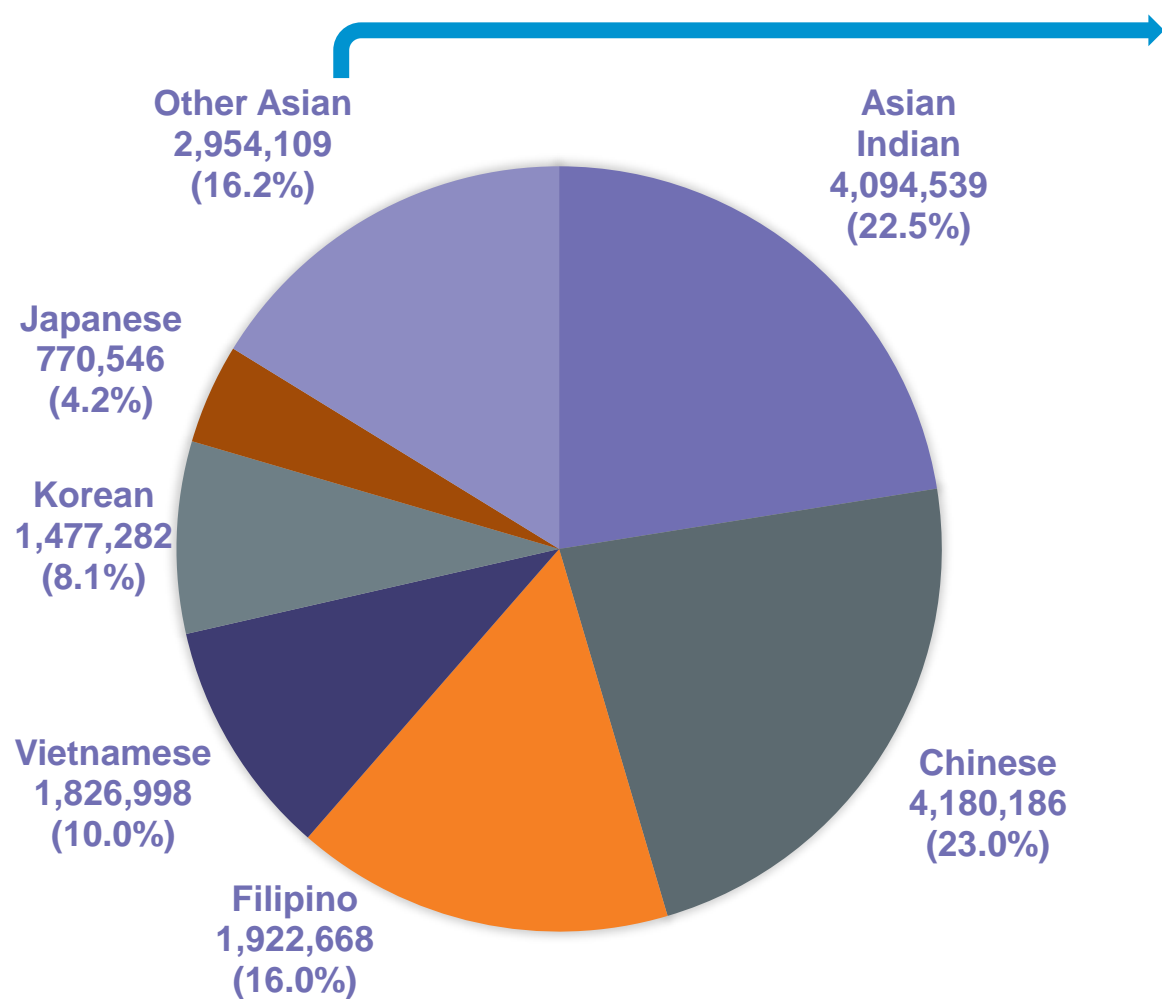
Interested in viewing counties?

Use the filter to select a state
then click the arrow to view
counties.

Alabama

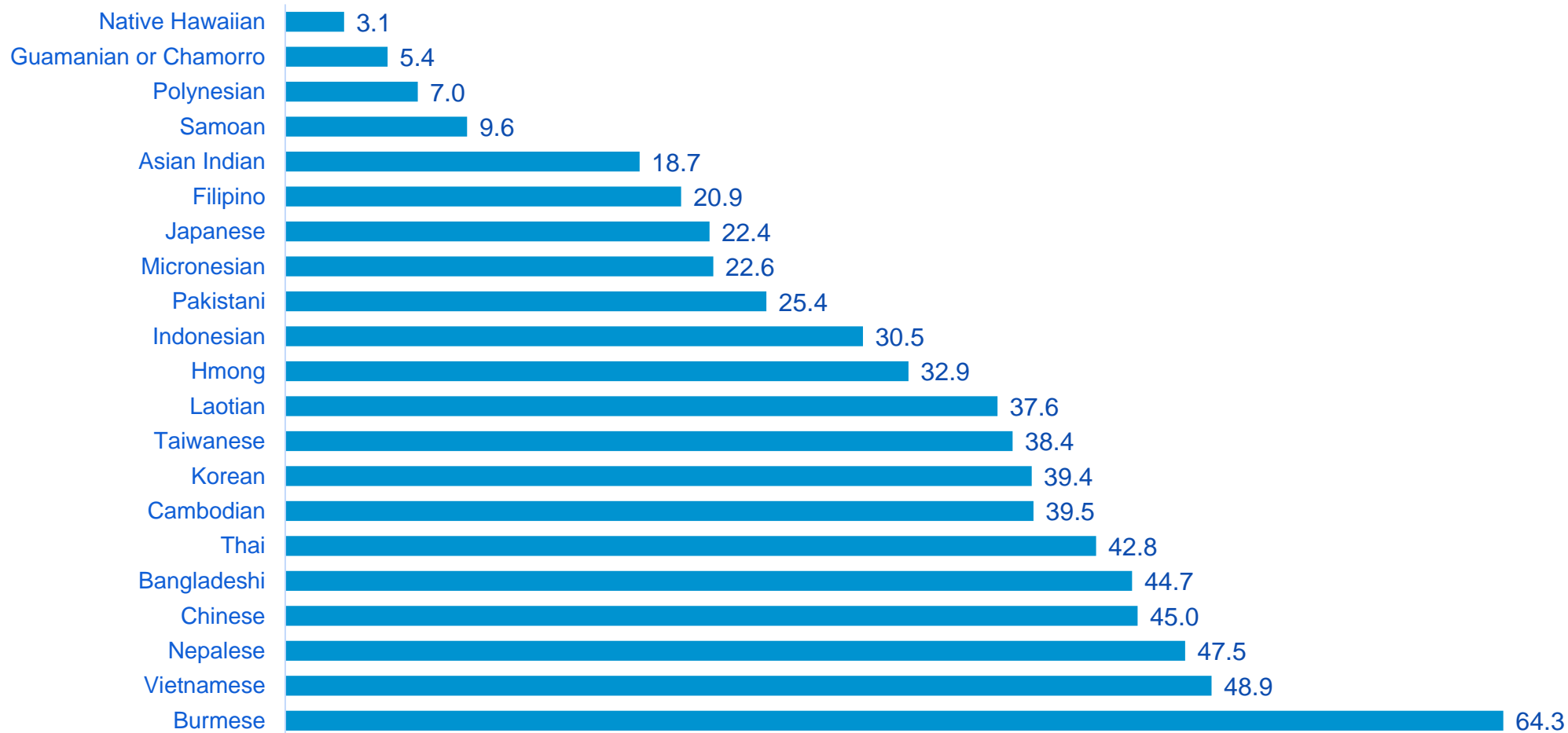


Ethnicity and national origin of the Asian American population, US, 2017



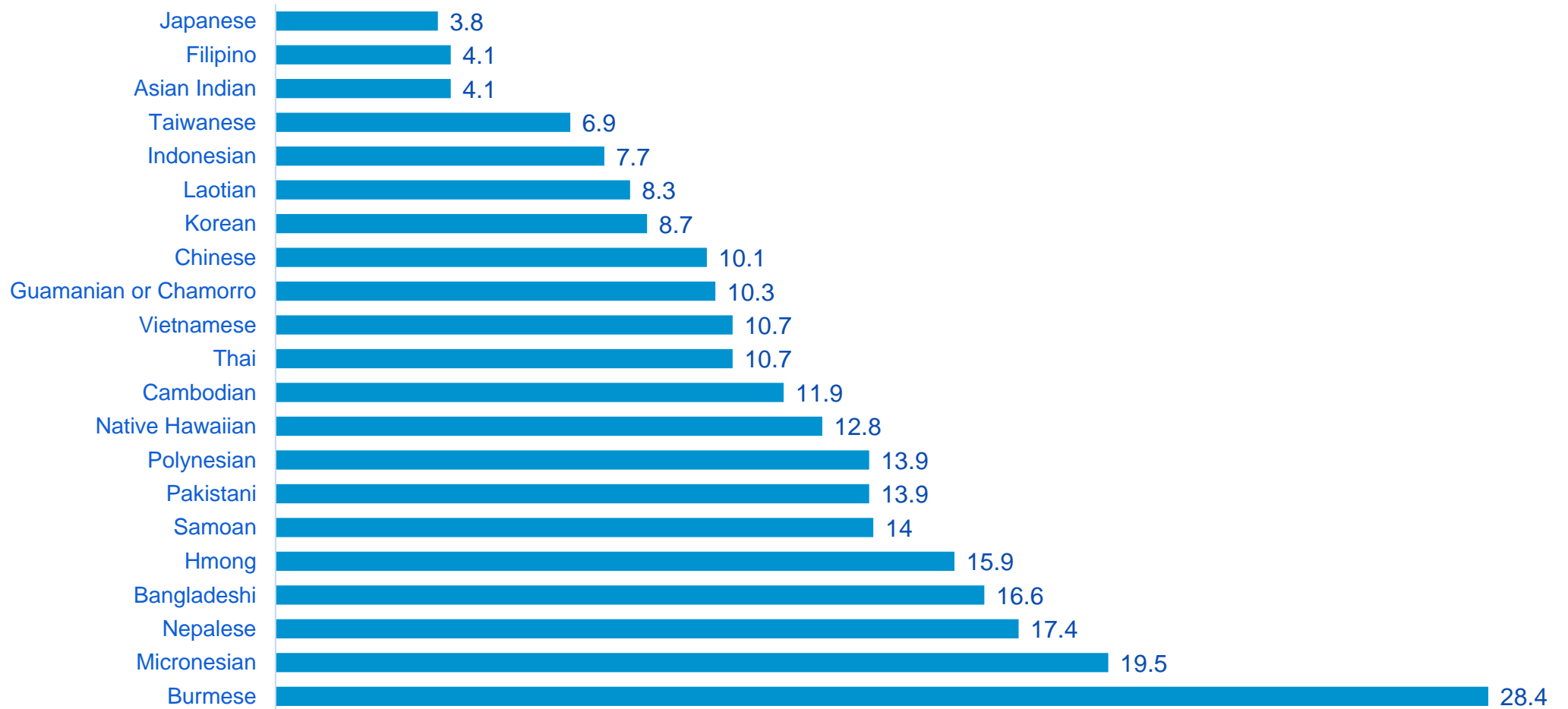
Origins from more than 30 countries, 100 languages

% who speak English less than very well, by AAPI ethnicity, US, 2017



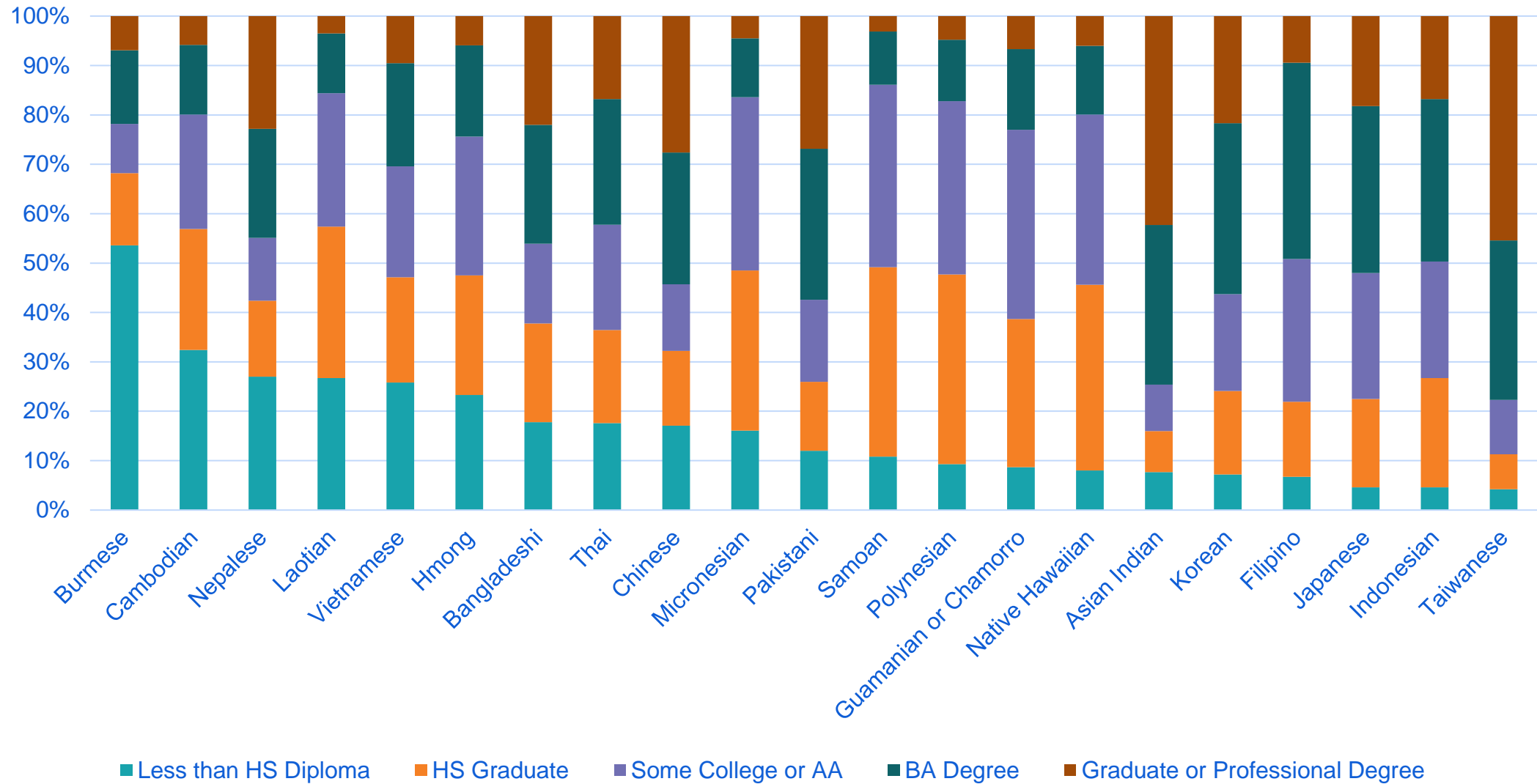
From AAPI Data, based on ACS 2017 1 year file

% in poverty, by AAPI ethnicity, US, 2017



From AAPI Data, based on ACS 2017 1 year file

Highest educational attainment, by AAPI ethnicity, US, 2017

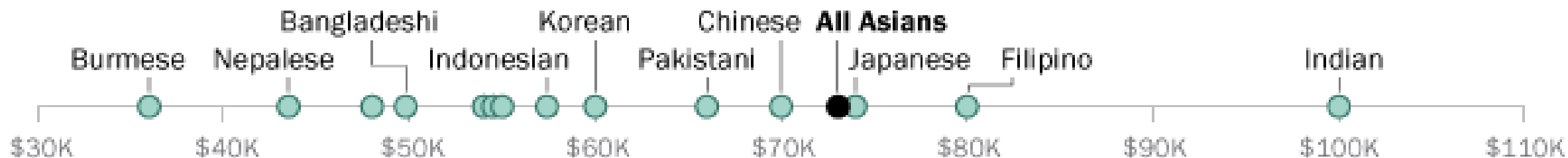


From AAPI Data, based on ACS 2017 1 year file

Asian Americans have the largest income spread

U.S. Asians have a wide range of income levels

Median annual household income, 2015



These two groups also have the highest and lowest income of entire U.S. population

Unique & heterogeneous cancer patterns

Cancer Disparities: Unique & Unequal Patterns

- Cancer: Leading cause of mortality for 4 decades (in most Asian American populations)
 - Among the highest incidence in the world for cancers of infectious origin
 - Liver (Southeast Asians)
 - Gastric (Koreans)
 - Cervical (Vietnamese)
 - Higher incidence relative to other populations: NPC, never smoker lung cancer, thyroid
 - Rapidly increasing incidence trends: breast, uterine, thyroid cancers
 - Low cancer screening rates
 - Unique healthcare access barriers
-

Lung cancer

Lung cancer is a leading cause of cancer mortality among AA populations

Rank (based on age-adj mortality rate) & % (of all cancer deaths) of top 5 cancer sites, 1990-2008

| Male | | | | | | |
|---------------|---------------------|------------------|------------------|------------------|------------------|-------------------|
| (rank) | Asian Indian | Chinese | Filipino | Japanese | Korean | Vietnamese |
| 1 | Lung 19.0% | Lung 28.13% | Lung 30.7% | Lung 23.9% | Lung 22.8% | Lung 28.1% |
| 2 | Colorectal 8.3% | Liver 11.7% | Colorectal 10.8% | Colorectal 13.1% | Stomach 14.6% | Liver 22.3% |
| 3 | Prostate 8.1% | Colorectal 10.4% | Prostate 8.9% | Prostate 8.9% | Liver 12.9% | Colorectal 7.9% |
| 4 | Pancreas 7.0% | Stomach 6.5% | Liver 7.6% | Stomach 8.8% | Colorectal 11.0% | Stomach 6.5% |
| 5 | Leukemia 6.3% | Pancreas 5.9% | Pancreas 5.7% | Pancreas 8.4% | Pancreas 7.4% | Pancreas 4.4% |
| Female | | | | | | |
| (rank) | Asian Indian | Chinese | Filipino | Japanese | Korean | Vietnamese |
| 1 | Breast 19.8% | Lung 22.2% | Breast 19.5% | Lung 21.4% | Lung 18.5% | Lung 21.7% |
| 2 | Ovary 9.7% | Breast 11.8% | Lung 18.1% | Colorectal 12.9% | Stomach 11.6% | Breast 10.3% |
| 3 | Lung 9.3% | Colorectal 11.9% | Colorectal 9.0% | Breast 10.7% | Colorectal 11.4% | Colorectal 9.6% |
| 4 | Colorectal 6.8% | Pancreas 7.2% | Pancreas 6.7% | Pancreas 9.6% | Pancreas 8.2% | Liver 9.3% |
| 5 | Pancreas 5.9% | Stomach 5.4% | Ovary 6.0% | Stomach 6.5% | Liver 7.2% | Stomach 6.3% |

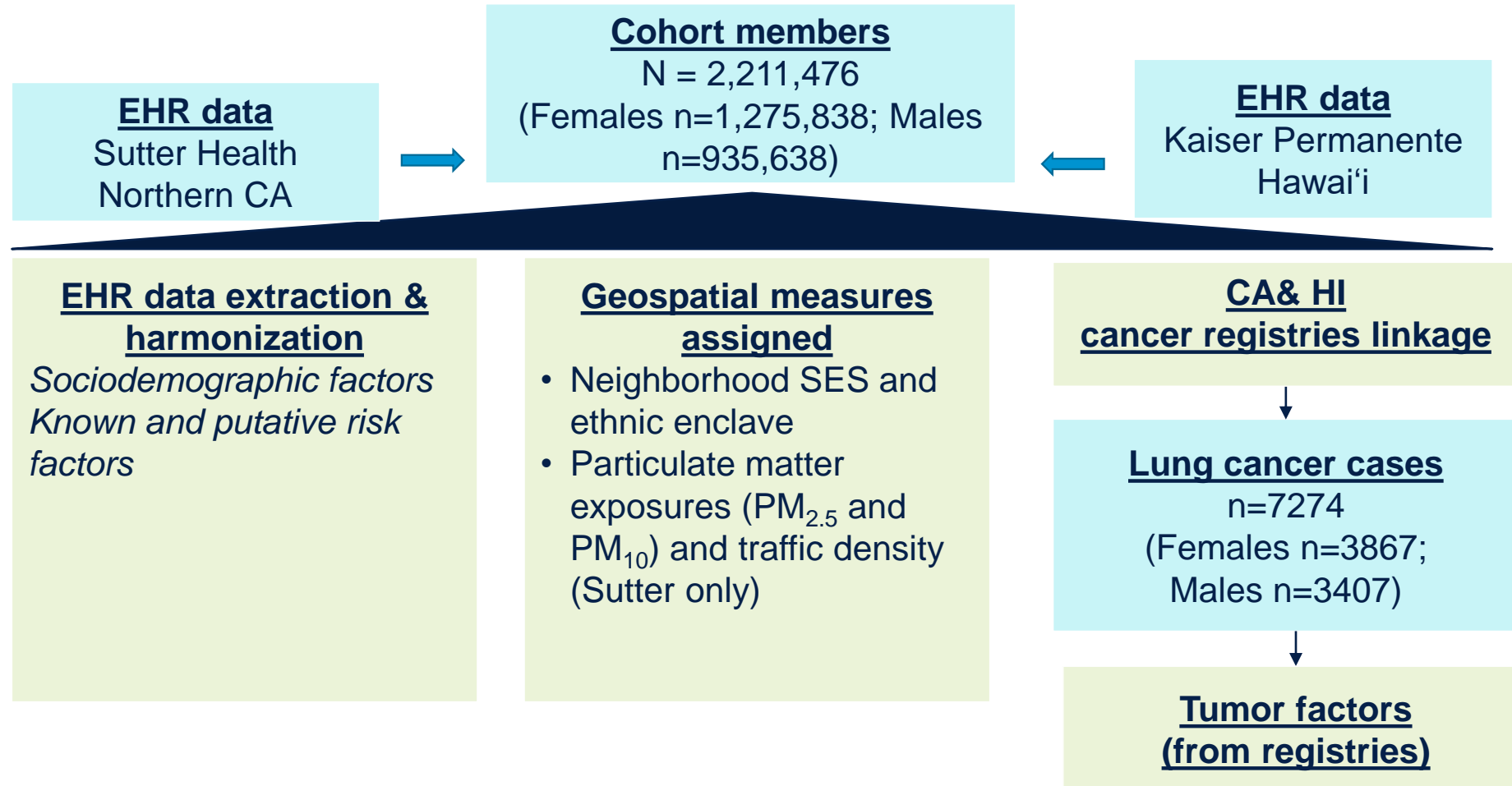
Thompson CA, et al. The burden of cancer among Asian Americans: a report of national mortality trends by Asian ethnicity CEBP 2016

Integrating Electronic Health Record, Cancer Registry, and Geospatial Data to Study Lung Cancer in Asian American, Native Hawaiian, and Pacific Islander Ethnic Groups

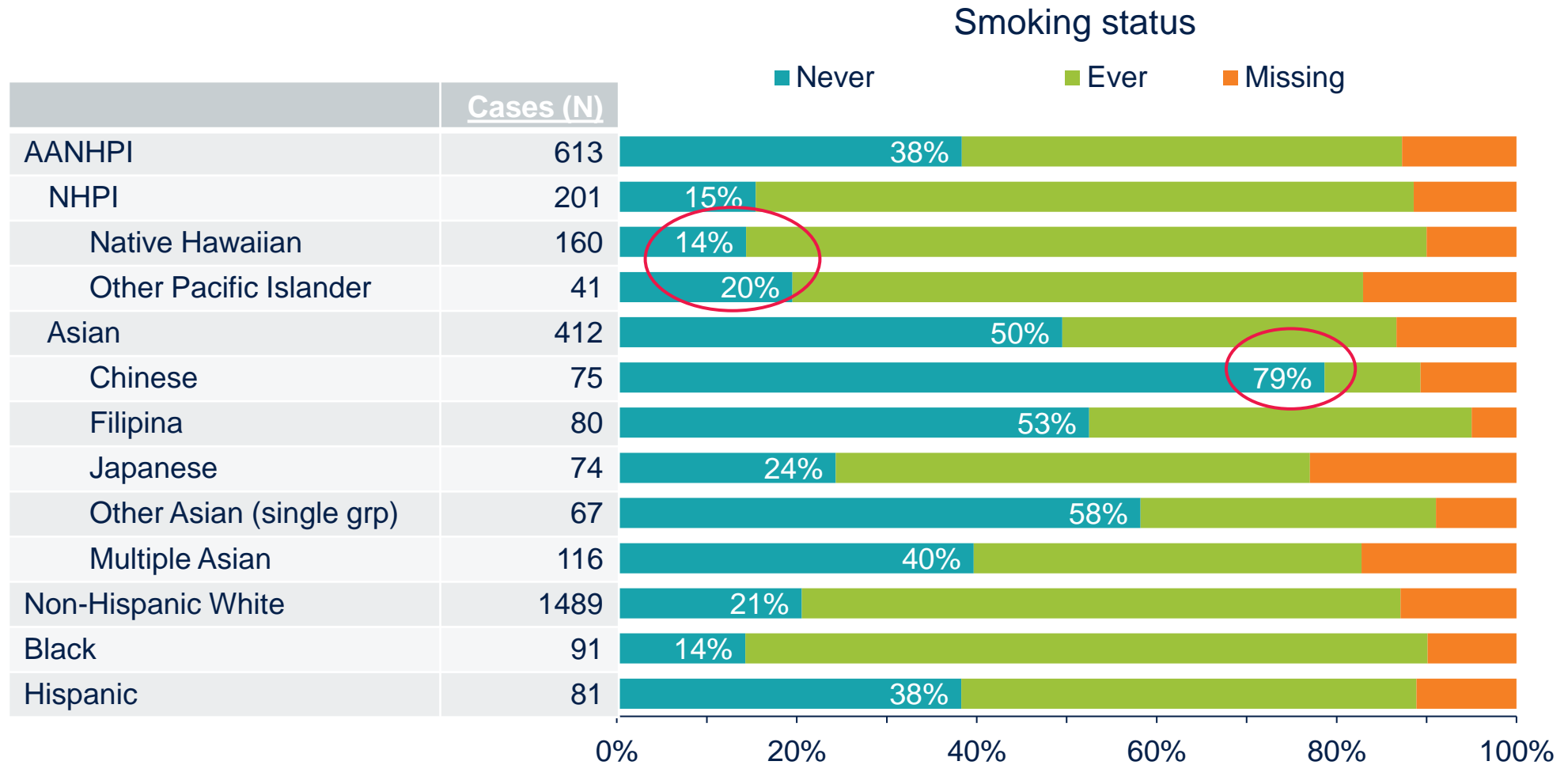
Mindy C. DeRouen^{1,2}, Caroline A. Thompson^{3,4,5}, Alison J. Canchola^{1,6}, Anqi Jin⁵, Sixiang Nie⁷, Carmen Wong⁷, Jennifer Jain¹, Daphne Y. Lichtensztajn^{1,6}, Yuqing Li¹, Laura Allen¹, Manali I. Patel^{8,9}, Yihe G. Daida⁷, Harold S. Luft⁵, Salma Shariff-Marco^{1,2,6}, Peggy Reynolds^{1,2}, Heather A. Wakelee⁸, Su-Ying Liang⁵, Beth E. Waitzfelder⁷, Iona Cheng^{1,2,6}, and Scarlett L. Gomez^{1,2,6}

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A multilevel, integrative approach



Cohort description – Female lung cancer cases (n=3867)



OXFORD






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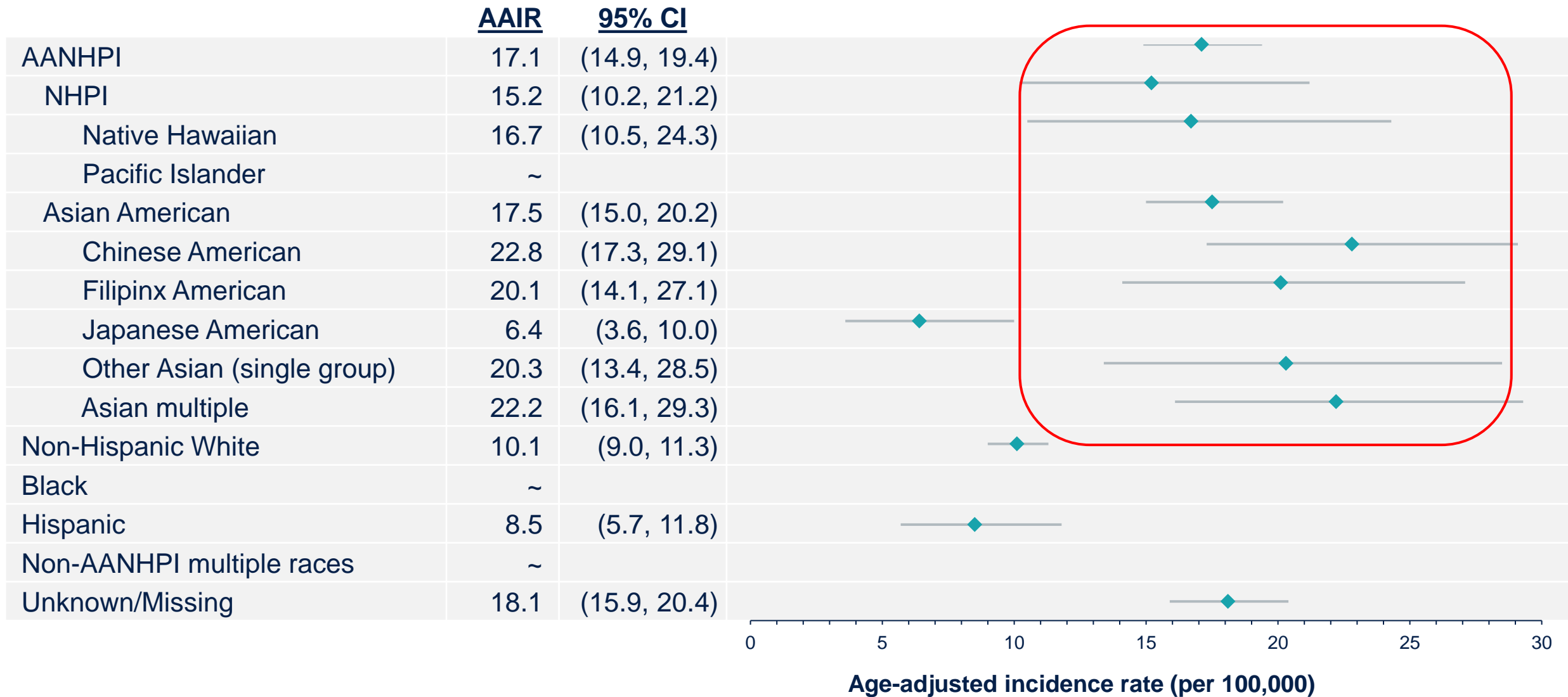
Article

Incidence of Lung Cancer Among Never-Smoking Asian American, Native Hawaiian, and Pacific Islander Females

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January 2022

Incidence rates of lung cancer among females, who never smoke by race/ethnicity



Elucidating lung cancer etiology among Asian American females, who never smoked



- Identify the attributable risk of known, putative, and suspected multi-level risk factors for lung cancer among Asian American females, who never smoked
 - a) genetic ancestry
 - b) individual-level exposures
 - c) contextual-level risk factors including the social environment and indoor and outdoor air pollution
- Characterize mutational landscape of lung tumors & identify associated multi-level risk factors

Funded by National Institute of Minority Health and Health Disparities

Study design: population-based case-control study

- 600 lung cancer cases
 - All Asian American ethnic groups (including multiple race), female, never smoker
 - Ages 21-90 at diagnosis
 - Diagnosed in past 18 months, no other history of cancer
 - Residence of Greater Bay Area counties, LA, Orange, San Diego, Sacramento
 - Next-of-kin interviews available
- 600 matched (age group, Asian ethnicity) controls
 - All Asian American ethnic groups (including multiple race), female, never smoker
 - Ages 21-90 at recruitment
 - No history of cancer
 - Residence of Greater Bay Area counties, LA, Orange, San Diego, Sacramento

What does participation involve?

- Complete epidemiologic survey (30-45 min)
 - Online, by phone, by paper
 - English, Mandarin, Cantonese, Vietnamese, Tagalog, Korean
- Provide saliva sample
- Provide authorization to access tumor tissue (lung cancer cases only)



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