

Surveying Hate and Its Effects During the COVID-19 Pandemic Among Asian Americans and Native Hawaiians and Pacific Islanders

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 See also COVID-19 and Health Equity Data Gaps, pp. 1404–1453.

Objectives. To summarize data collection on anti-Asian American and Native Hawaiian/Pacific Islander (AANHPI) experiences during COVID-19 and measure the associations of anti-AANHPI hate incidents with mental health, health access, and public safety among AANHPI adults.

Methods. We cataloged COVID-19 surveys conducted in 2020 and 2021 on anti-AANHPI experiences. We then analyzed the 2020 California Health Interview Survey (CHIS) AANHPI COVID-19 module by constructing a variable of experiencing or witnessing a hate incident and estimating its associations with serious psychological distress, forgone care, and perceived neighborhood safety.

Results. Estimates of being a victim of a hate incident ranged from 6% to 30%. In the CHIS, 28% of respondents experienced or witnessed a hate incident. Experiencing or witnessing a hate incident was significantly associated with serious psychological distress (adjusted odds ratio [AOR] = 5.33), forgoing care (AOR = 2.27), and not feeling safe in one's neighborhood (AOR = 2.70).

Conclusions. Evidence from a multitude of data sources corroborates the toll of hate incidents suffered by AANHPIs. Findings regarding the negative effects of anti-AANHPI hate on mental health, health access, and public safety compel public and private investment to end victimization of AANHPI communities. (*Am J Public Health.* 2022;112(10):1446–1453. <https://doi.org/10.2105/AJPH.2022.306977>)

Asian Americans are the fastest growing racial/ethnic group in the United States, increasing by about 81% between 2000 and 2019, and Native Hawaiians and Pacific Islanders (NHPIs) are the third fastest growing group, increasing by 61% over the same period.¹ Hence, one would have expected data systems to be prepared to enumerate and publish the toll of COVID-19 on Asian American and Native Hawaiian and Pacific Islander (AANHPI) communities when the COVID-19 pandemic began.

However, early in the pandemic in 2020, researchers and advocates were left to rely on a hodgepodge of media stories, health worker memorials, and data collected by special interest groups to obtain information on the toll of COVID-19 in AANHPI communities. Although we now know NHPIs suffered disproportionately from COVID-19 cases and deaths,^{2,3} the lack of disaggregated case and mortality data in public health surveillance systems obstructed detection of the disproportionate burden of COVID-19 among

populations hidden in aggregated race categories.^{3,4}

Beyond the deficits of public health surveillance, the pandemic also quickly brought to light the lack of real-time data on hate targeted at AANHPI communities around the United States (i.e., anti-Asian or anti-AANHPI hate). Beginning in early 2020, AANHPIs in the United States experienced a rise in xenophobia and bigotry and called for action, out of which the Stop AAPI Hate initiative was born. The Asian Pacific Planning and Policy Council, Chinese

for Affirmative Action, and the Asian American Studies Department of San Francisco State University launched the Stop AAPI Hate reporting Web site in early March 2020. Stop AAPI Hate has grown to be a key source of hate incident reports, augmented by other data collection collaborative efforts that are community led or part of community-academic partnerships.⁵ These data collection efforts range from small convenience sample studies to large random sample population-based surveys.

The purpose of our study is twofold. First, we summarize data collection efforts on AANHPIs in 2020 and 2021 as a resource for understanding the various sources of insights on hate and the AANHPI experience during the COVID-19 pandemic. Second, we present findings on COVID-19-related effects on AANHPI adults from the California Health Interview Survey (CHIS) to render estimates related to the experience of AANHPIs within its population-based survey collection infrastructure. With data collection historically the backbone of community and political action for AANHPIs, we discuss where gaps remain and where investments in data collection may help move both science and advocacy forward.

METHODS

Using both Google Scholar and PubMed, we searched for data sources using the search terms “COVID-19,” “survey,” and “Asian American” or “Native Hawaiian, Pacific Islander.” We looked specifically for data sources that included any mention of variables related to “discrimination,” “racism,” “blame,” “attack,” “fear,” “hate,” “violence,” “anti-Asian,” “anti-AANHPI,” “crime,” “xenophobia,” “victim,” or “unfair treatment.” We also

used lists of data sources from the Asian and Pacific Islander American Health Forum and examined results from Web searches using the same search terms to find additional data sources that may not have been captured in the peer-reviewed literature searches. Surveys conducted between March 2020 and March 2022 were included in this search. We also conducted searches including subpopulations using “American” along with “Chinese,” “Filipino,” “Japanese,” “Korean,” “Vietnamese,” “South Asian,” “Cambodian,” “Southeast Asian,” “Native Hawaiian,” “Guamanian,” “Marshallese,” “Chamorro,” “Samoan,” and “Pacific Islander.”

Many of the data sources also included examinations of other outcomes such as mental health, financial hardship, access to services, and family effects. For all data sources, we collected information on dates of data collection, sample size, geography, topics and questions, languages, the organizations involved in the study, and main findings. This compilation of data sources was the foundation from which observations were made regarding the depth and breadth of available COVID-19 impact data on AANHPIs.

Nonsurvey data sources (e.g., online reporting data repositories or registries) on COVID-19 effects on AANHPIs were also compiled. These sources included community-based reporting platforms. Registries documenting hate incidents may undercount the toll on a community because some individuals who experienced a hate incident may not register the incident as a hate crime and may not capture a population-representative portrayal of the needs or hardships faced by segments of

populations. Thus, a combination of registry- or repository-based reporting and population-based survey data can provide a more complete picture of impact.

California Health Interview Survey Analysis

We used data from the CHIS, conducted by the Center for Health Policy Research at the University of California, Los Angeles (UCLA), to gain insights from a population-based perspective. The CHIS is the largest annual state-based population health survey in the United States and has facilitated the generation of population-based AANHPI subgroup estimates used in studies nationwide.⁶⁻⁸ The CHIS conducts interviews in Cantonese, Mandarin, Korean, Vietnamese, and Tagalog in addition to English and Spanish. The survey is limited to California, but California is home to the largest single-race NHPI and Asian population of any US state.⁹ In its annual continuous survey, CHIS randomly selects 1 adult to interview in a randomly sampled participating household. An address-based sample methodology is used to complete the random sampling, with multi-mode data collection done via Web or telephone. One of the primary goals of the sampling strategy is to produce statistics that reflect the state's racial/ethnic diversity.

We examined data from CHIS's AANHPI COVID-19 module (based on a survey administered to AANHPIs in July through September 2020) to estimate the impact of the pandemic on AANHPIs. The CHIS typically surveys more than 2500 Asian adults in a given year; however, because the AANHPI COVID-19 module was developed after the first

March 2020 stay-at-home orders in California and fielded beginning in July 2020, the module sample represented a subset of the CHIS annual AANHPI sample (700 Asian and 20 NHPI respondents). This AANHPI sample came from the CHIS annual survey of all households in California. The module was administered to CHIS adult respondents who reported “any mention” of “Asian” or “NHPI” for race, and thus both single-race and multiracial NHPIs were included. The AANHPI COVID-19 module was developed in collaboration with the UCLA Asian American Studies Center in response to the rise of hate, racism, xenophobia, and discrimination targeting AANHPI communities.¹⁰ Estimates were derived from restricted microdata files on the 2020 AANHPI COVID-19 module.

Measurement of Key Variables

In the AANHPI COVID-19 module, respondents were asked whether they had “directly experienced a hate incident due to coronavirus” in the past 12 months; those answering “yes” were asked to categorize the type of incident (physical, verbal, cyberbullying, other). Respondents were also asked whether they had “witnessed another Asian or Pacific Islander person being treated unfairly due to their race, ethnicity, or national origin.” The related questionnaires were published in a previous article.¹⁰ For the analyses presented here, we combined the questions on hate incidents to create a variable indicating whether respondents reported having had a direct experience of hate or witnessing a hate incident. Responses of “don’t know” and “not ascertained” were not included in our

analyses. The study analytic sample consisted of 668 respondents.

Multivariable logistic regression models examined associations between experienced or witnessed hate and 3 different outcomes: (1) serious psychological distress in the past year, (2) forgoing necessary care in the past year, and (3) current perception of safety in one’s neighborhood (i.e., reporting not feeling safe). Serious psychological distress in the past year was measured via a cutoff score of 13 to 24 on the Kessler 6, a validated measure designed to estimate the prevalence of diagnosable mental disorders within a population.¹¹ Forgoing necessary medical care was defined as delaying care and not obtaining the necessary care eventually. Finally, not feeling safe in one’s neighborhood was a combination of feeling safe only some of the time and feeling safe none of the time. All models controlled for psychosocial environmental variables representing stress vulnerabilities¹² that affect outcomes and may be associated with witnessing or experiencing hate (age, gender, limited English proficiency, immigrant, income below 100% of the federal poverty level as defined by the US Department of Health and Human Services, less than a high school education, unemployed, and interpersonal conflict in the household).

Analytic Approach

We present descriptive statistics and associations from multivariable models. By default, aggregated results for AANHPIs are presented, and, if statistically stable, they are presented as intermediate categories of NHPIs (Native Hawaiian, Samoan, Guamanian, Tongan, other NHPI), East Asian (Chinese, Japanese, Korean), Southeast Asian

(Filipino, Vietnamese, Cambodian, Thai, other Southeast Asian), South Asian (Indian, Pakistani, Bangladeshi, Nepali, Sri Lankan, other South Asian), and other Asian or multi-Asian. The “other Asian” category included single Asian groups that responded “yes” to Asian but “other” in the subgroup follow-up question. Multiracial Asians were assigned to the single-race Asian category they identified with unless they also reported NHPI race. In the latter case, we assigned respondents to the NHPI category, principally to increase the sample size for this group.

We used Stata version 16.1 (Stata-Corp LLC, College Station, TX) to analyze the AANHPI-specific COVID-19 module. We assessed statistical stability on the basis of a coefficient of variation below 30%,¹³ examined differences between groups using the χ^2 test, and assessed the statistical significance of associations at the $P < .05$ level. All estimates and multivariable regression models were weighted to California Department of Finance population estimates and adjusted for sampling design and nonresponse bias.¹⁴

RESULTS

The cataloging of data collection efforts on anti-AANHPI hate and the CHIS analysis of the AANHPI COVID-19 module are presented in the sections to follow.

Summary of Data Collection Efforts

We found 17 survey-based data sources and 4 nonsurvey-based repositories or reporting sites that collected data on COVID-19 hate targeted toward AANHPIs in 2020 or 2021 (Table A, available as a supplement to the online

version of this article at <https://www.ajph.org>). Some of the surveys came from small sample interviews of less than 100 respondents, whereas others were much larger, in the 2000 to 3000 sample range. Of the 17 surveys, 1 specifically included respondents younger than 18 years in the sample of parents and children. Only 2 surveys specifically reported NHPI disaggregated results.

There was wide variation in question wording on hate. In some cases, questions were framed as having witnessed or experienced an act of discrimination. Those that asked specifically about having experienced a hate incident in the past year, such as the Stop AAPI Hate Survey, further probed for the type of hate incident. There were 10 surveys that also included questions on mental health, fear, or stress. The AAPI Data Survey, for example, asked about worry regarding being a victim of hate crimes, experience of a hate crime in the past year, and comfort level in reporting the crime.

Questions regarding having experienced or been a victim of a hate incident differed slightly in wording across surveys. Of the 5 surveys estimating whether respondents had been direct victims of a hate incident (CHIS; AAPI Data Survey; AA & NHPI COVID-19 Needs Assessment Project; Asian Americans, Native Hawaiians, and Pacific Islanders COVID-19 Study; Stop AAPI Hate Survey), estimates ranged from 6% to 30%. About 30% of Asian Americans and NHPIs reported having seen or witnessed blame (Center for Public Integrity/Ipsos COVID-19 Poll; CHIS); similarly, approximately 30% reported fear or worry about being the victim of a hate incident (AAPI Data Survey; Pew Research Survey). About 75% of Asians believe that the United States has become more dangerous for their

racial/ethnic group (AA & NHPI COVID-19 Needs Assessment Project), 72% of AAPIs who experienced a hate incident believe that anti-Asian discrimination is the greatest source of stress (Stop AAPI Hate Follow-Up Survey), and 70% of AANHPIs believe that discrimination against Asians became more common during the pandemic (Asian Americans, Native Hawaiians, and Pacific Islanders COVID-19 Study).

The findings of the COVID-19 Effects on the Mental and Physical Health of Asian Americans and Pacific Islanders Survey Study (COMPASS) revealed that 59% of respondents believe that the country has become more dangerous for their ethnic group. Survey data from the Bureau of Justice Statistics National Crime Victimization Survey showed that there were no increases in violent crime involving any racial/ethnic group in 2020. (See Table A for a summary of key findings from each of the surveys described.)

Surveillance of and nonsurvey data on anti-Asian hate have quantified increases in both police-reported and self-reported incidents of hate (Table A). Comparisons of numbers of incidents between these surveillance sources are not possible because of the numerous differences in the way incidents are defined and reported; however, various data sources—from self-reported incidents of hate (via Stop AAPI Hate), media reports, and US law enforcement agency sources—all point to increases in hate incidents against AANHPIs.

California Health Interview Survey Analysis

Using data from CHIS's AANHPI COVID-19 module, we present estimates of COVID-19 hate incidents among AANHPI populations (Table 1). Table B

(available as a supplement to the online version of this article at <https://www.ajph.org>) provides estimates of hate incidents according to sociodemographic characteristics (gender, age, income, education, language proficiency, immigrant status, employment, and interpersonal conflict). We found that close to 7% of all AANHPIs (6% of East Asians and 9% of Southeast Asians) directly experienced a hate incident; 64% of these incidents involved verbal abuse or a verbal attack, and 22% took the form of cyberbullying (data not shown). About 26% of all AANHPIs witnessed another AANHPI person being treated unfairly (approximately 33% of Chinese respondents, 26% of Korean respondents, 25% of Filipino respondents, and 23% of Vietnamese respondents). There were no significant differences between any of the ethnic subgroups (χ^2 test).

About 28% of AANHPIs (1.5 million) experienced or witnessed a hate incident, with a higher rate among young adults 18 to 25 years of age (59%) than among other age groups ($P < .001$). Across all age groups, male and female respondents had similar reported levels of experiencing or witnessing a hate incident (24%–28%); however, among young adults, female AANHPIs were significantly more likely than male AANHPIs (67% vs 49%) to have experienced or witnessed a hate incident ($P < .001$).

Our multivariable models of associations between hate incidents with 3 different outcomes are presented in Table 2. Controlling for age, gender, language proficiency, immigration status, income, education, employment status, and interpersonal conflict in the household, we found that having experienced or witnessed a hate crime incident was associated with higher levels of serious psychological distress

TABLE 1— COVID-19 Hate Incidents Experienced or Witnessed by AANHPIs: California Health Interview Survey AANHPI COVID-19 Module, 2020

	Experienced a Hate Incident, No. (% of All Ages)	Witnessed a Hate Incident, No. (% of All Ages)	Experienced or Witnessed a Hate Incident			
			No.	All Ages, %	Age 18–25 Years, %	Female, %
AANHPI total	665 (6.8)	665 (26.0)	668	27.50	59.3	29.0
Race/ethnicity						
NHPI	19 (3.4 ^a)	19 (17.3 ^a)	19	20.7 ^a	48.1 ^a	38.4 ^a
East Asian	310 (6.5)	310 (29.9)	311	30.8	63.6	34.4
Chinese	172 (4.7 ^a)	171 (33.3)	172	33.0	60.4	42.4
Japanese	66 (3.2 ^a)	66 (19.1 ^a)	66	19.2 ^a	.. ^b	13.9 ^a
Korean	72 (16.0 ^a)	73 (26.0)	73	32.4	.. ^b	22.5 ^a
Southeast Asian	243 (9.5)	241 (25.0)	243	27.3	57.3	28.9
Filipino	143 (8.1 ^a)	142 (25.0)	143	25.8	46.8 ^a	29.4
Vietnamese	72 (10.9 ^a)	71 (22.6)	72	26.2	65.7	23.0 ^a
Other Southeast Asian	28 (14.3 ^a)	28 (52.2 ^a)	28	39.9	.. ^b	40.0 ^a
South Asian	60 (2.41 ^a)	62 (11.1 ^a)	62	12.0 ^a	40.3 ^a	12.7 ^a
Other Asian/ ≥ 2 Asian ^c	33 (3.6 ^a)	33 (52.2)	33	52.2	87.3	35.5 ^a

Note. AANHPI = Asian American and Native Hawaiian/Pacific Islander.

^aStatistically unstable (statistical stability is defined on the basis of a coefficient of variation < 30).

^bSample size too small to generate a result.

^cIncludes single-race groups that responded “yes” to Asian but “other” in the subgroup follow-up question and that indicated ≥ 2 Asian groups.

Multiracial Asians were assigned to the single-race Asian category unless they also reported NHPI race. In the latter case, respondents were coded as NHPI. The χ^2 test of significance between groups revealed no significant differences.

TABLE 2— Associations Between Hate Incidents and Mental Health, Forgone Care, and Neighborhood Safety: California Health Interview Survey AANHPI COVID-19 Module, 2020

	Serious Psychological Distress, OR (95% CI)	Had to Forgo Necessary Care, OR (95% CI)	Does Not Feel Safe in Neighborhood, OR (95% CI)
Experienced or witnessed a hate incident	5.33 (1.70, 16.67)	2.27 (1.15, 4.46)	2.70 (1.13, 6.43)
Age group, y (Ref = 40–64)			
18–25	12.65 (2.24, 71.34)	0.74 (0.27, 2.03)	0.60 (0.23, 1.52)
26–39	3.01 (0.81, 11.12)	0.30 (0.10, 0.88)	0.36 (0.15, 0.90)
≥ 65	0.62 (0.09, 4.05)	0.85 (0.34, 2.12)	0.32 (0.08, 1.31)
Female	0.99 (0.36, 2.75)	1.92 (0.92, 4.01)	0.88 (0.43, 1.81)
Limited English proficiency	2.77 (0.59, 13.09)	2.13 (0.75, 6.02)	2.99 (0.85, 10.53)
Immigrant	1.10 (0.37, 3.24)	0.72 (0.32, 1.62)	0.99 (0.41, 2.38)
Income < 100% of FPL	0.41 (0.06, 2.90)	0.69 (0.21, 2.25)	2.08 (0.64, 6.73)
< high school	1.40 (0.17, 11.6)	0.53 (0.07, 4.15)	1.59 (0.19, 13.7)
Unemployed	1.09 (0.28, 4.19)	1.01 (0.30, 3.37)	0.57 (0.10, 3.36)
Interpersonal conflict in household	0.72 (0.21, 2.42)	1.30 (0.47, 3.60)	1.94 (0.77, 4.92)
Constant	0.01 (0.002, 0.04)	0.09 (0.03, 0.25)	0.07 (0.03, 0.20)

Note. AANHPI = Asian American and Native Hawaiian/Pacific Islander; CI = confidence interval; FPL = federal poverty level (as defined by the US Department of Health and Human Services); OR = odds ratio. The sample size was 668.

(adjusted odds ratio [AOR] = 5.33; $P = .004$), having had to forgo necessary care (AOR = 2.27; $P = .018$), and not feeling safe in one's neighborhood (AOR = 2.70; $P = .025$). In line with our understanding of the challenges faced by the younger age group, we found that the 18- to 25-year-old group had higher odds of serious psychological distress than all older age groups. There was no age association in the other models focusing on forgoing necessary care and feeling safe in one's neighborhood. Female respondents had higher odds of forgoing care than male respondents, and in the model on neighborhood safety those with limited English proficiency had higher odds of not feeling safe in their neighborhood than those with English proficiency.

DISCUSSION

We found there have been numerous efforts to gauge the experience of hate during the COVID-19 pandemic among AANHPIs, many of which are ongoing data collection endeavors. These efforts range from incident reporting platforms and small studies to large population-based surveys. All sources point to an increase in hate, aggression, and discrimination experienced by AANHPI populations with the exception of the National Crime Victimization Survey. Note, however, that violent crime in that survey referred to rape or sexual assault, robbery, and assault; thus, incidents that do not rise to the level of these definitions (e.g., cyberbullying or verbal abuse) were not represented in the data. The COVID-19 Hate Crimes Act of May 2021 appropriately focuses on building a better data collection infrastructure for hate incidents. Early data gathering on hate incidents, public

outrage, and community action surely contributed to its passage.

The CHIS AANHPI module conducted in 2020 showed that 26% of Asian Americans and NHPs have witnessed another AANHPI individual being treated unfairly and 7% have directly experienced a hate incident. The CHIS estimates are slightly lower than those found in other surveys. The Stop AAPI Hate Survey, conducted in September and October 2021, revealed that about 20% of AANHPIs had directly experienced a hate incident in the past year. The AAPI Data Survey, conducted nationwide in March 2021, showed that 31% of Asian Americans and Pacific Islanders worry often about being the victim of a hate crime or incident and 12% report having been victimized. Because of the differences in timing of data collection, questionnaire wording, and population sampling methods, it is difficult to make additional comparisons between studies.

In California, home to more than 6 million AANHPIs, we found significant associations between having experienced or witnessed a hate incident and serious psychological distress, with young adults reporting more distress than older groups. Having experienced or witnessed a hate incident was also associated with having had to forgo necessary care and not feeling safe in one's neighborhood. These findings corroborate those of other surveys documenting heightened anxiety and worry about anti-AANHPI hate during the pandemic, particularly among women.¹⁵⁻¹⁹

In the AANHPI community, particularly the Asian community and subgroups under this aggregate tabulation, the continued rise in anti-AANHPI hate has been documented by various sources across the nation. Segments of the

AANHPI population, namely young adults and females, have experienced heightened COVID-19-related hate incidents and unfair treatment owing to their race/ethnicity, which may in turn be associated with negative effects in terms of mental health, health access, and perceived neighborhood safety. Young AANHPI women might benefit the most from investments in community-driven interventions and policy solutions to reduce psychological distress and provide protection from hate and unfair treatment. There has been a call by community members and advocates to find solutions to help curb hate incidents and address the mental health of community members. Positive examples of ways that might effect change include bystander training to educate people on how to stand up for others when they witness hate, support groups to improve mental health, and walking buddies or chaperones to address neighborhood safety.

PUBLIC HEALTH IMPLICATIONS

Incident reporting data repositories such as the Stop AAPI Hate platform have filled an important gap for people who have experienced an incident of hate (e.g., microaggression, verbal harassment, or discrimination) that is not reported to the police and not logged as a hate crime. However, these types of online registries may be prone to unique methodological challenges. For example, each submitted report has to be reviewed, which is done by a group of volunteer members. According to Stop AAPI Hate, there were more than 2800 reports in March 2021 alone. Reporting sites also rely on the assumption that people are aware, able, and willing to share their

experiences. The survey data drawn from registrants are valuable; without population-representative sampling, however, the experience of AANHPI populations will not be adequately represented, limiting the generalizability of results.

Historically, health data from large population-based surveys have shed light on AANHPI disparities in health behavior and health access variables between subgroups and provided insights on how health care providers and policymakers might better serve their patients.^{20–23} However, achieving robust samples to allow for reporting and more sophisticated analyses of data is the greatest challenge for population surveys.²⁴ The small number of Asian Americans within most survey samples may not produce robust statistical estimates, especially when the interest is in reporting on disaggregated populations.

Thus, population-based surveys not able to sample, collect, code, and report granular race/ethnicity data may tend to aggregate populations into rolled-up Asian or NHPI categories or an aggregated AANHPI category rather than tease out ethnic subgroups. Because probability sampling is used in these types of large surveys to reflect the population of interest, they are often costly and more slow to accommodate new questions or offer rapid assessments. Nonetheless, there are opportunities to launch rapid large-scale surveys (e.g., the CHIS and surveys conducted by Pew Research and AAPI Data).

The CHIS was in the unique position to react quickly to the COVID-19 pandemic because of its study design and resolute stakeholder engagement.¹⁰ However, one of our limitations in the AANHPI module data was our inability to produce disaggregated results for

the variables examined owing to a relative small sample. Through California Asian & Pacific Islander Legislative Caucus sponsorship and a partnership with the UCLA Asian American Studies Center, the CHIS continued to administer the COVID-19 module to the entire AANHPI sample in 2021, thus increasing the sample of this special module. By October 2022, a 2020–2021 data file of more than 2500 AANHPI respondents will be available, facilitating robust subgroup estimates. The AAPI legislative caucus continues to prioritize investments in better surveillance data systems for the AANHPI population.

Through the sponsorship of and a partnership with AAPI Data, the CHIS is conducting the AANHPI Community Needs Survey. Such efforts exemplify the importance of community groups advocating for legislators to exert political will to invest in surveillance systems detecting and monitoring the health needs of AANHPI populations that are “invisible” in public-facing data.

In this analysis, as with the other data sources, we were limited in our ability to produce causal estimates of the effects of experiences of hate on distress, feelings of neighborhood safety, and obtaining care. Thus, a call for AANHPI panel data—collecting data on the same group of individuals over time—could distinguish causal relationships and identify temporal contextual changes in the policy environment and public sentiments, which could allow better measurement of the magnitude of associations and help determine appropriate policy responses.

At a minimum, transforming public health data systems should require federal and state data systems to collect AANHPI data at more granular levels beyond the Office of Management and Budget’s 1997 race/ethnicity

categories. The Department of Health and Human Services 2011 guidance, which specified collection of data on 7 Asian subgroups (Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, other Asian) and 4 NHPI subgroups (Native Hawaiian, Guamanian or Chamorro, Samoan, other Pacific Islander), could be more widely adopted.²⁵

Despite current public health data limitations and possibilities for improvement, the COVID-19 period was a call for community, academic, philanthropy, and government partnerships to expand and sharpen surveillance tools, especially with respect to anti-AANHPI hate. Community-led stories that are then matched with Herculean efforts to collect data and produce quantitative research have historically been one of the key features of AANHPI data advocacy.^{8,24} Many of the studies we reviewed demonstrate this legacy, thus producing new knowledge and evidence. Our findings compel the establishment of public policies to care for people who are victimized and prevent further victimization of people because of their AANHPI identity. In tandem with interventions, public and private investments in surveillance systems are still much needed to more quickly and more precisely protect and monitor the health and well-being of AANHPI communities. **AJPH**

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to report.

HUMAN PARTICIPANT PROTECTION

No protocol approval was needed for the survey of data collection efforts study because publicly available data were used. For the CHIS analysis, the UCLA Institutional Review Board approved the analyses of confidential CHIS data (UCLA IRB#17-000362).

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