

Demographic Factors Associated with HIV Testing in Asian American From 2020-2023

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Introduction

In 2022, there is an estimate of 1.2 million people with HIV in the U.S. Although there has been a steady decline in HIV infections over the past few years in part due to continued public health initiative, it still affects millions of Americans every year.

HIV testing is a crucial element in the prevention and early detection of HIV, yet various demographic, geographic, and temporal factors influence testing behaviors with different populations. About 87 in 100 people know of their HIV status. Asian American, among other races, report lowest.

Many Asian cultures carry conservative views about sex and consider discourse surrounding sex a taboo. This causes low level of knowledge about factors that lead to HIV transmission and misconceptions about what will prevent HIV transmission. While there is increasing discourse surrounding HIV and AIDS, the theory of acculturation shows that Asian Americans may separate from mainstream society in effort to preserve their cultural heritage, thus leading to continued stigmatization and limited interaction with ongoing knowledge about HIV. Other factors that may deter Asian Americans from testing for HIV include negative connotations surrounding premarital pregnancy, family shaming and privacy, gendered expression of religious and cultural norms, barriers to sexual health resource access, and lack of parental roles in prevention.

Despite being equally as likely as other races or ethnic group to engage in HIV-related risk behavior, HIV/AIDs research and knowledge in Asian American population is lacking compared to other races and ethnicities. Ongoing public health initiatives require understanding of the ever-changing landscape of HIV testing. Our study aims to highlight the need for increased efforts in HIV visibility in Asian American population and help identify possible areas to target HIV prevention efforts.

Aims and Objectives

This study aims to:

1. Evaluate for racial differences in HIV testing behavior
2. Describe the demographic and geographic characteristics of the HIV testing behavior among Asian Americans in the U.S.
3. Examine possible shift in HIV testing behavior across years

Methods

Data for this study were sourced from the Behavioral Risk Factor Surveillance System (BRFSS) during the years of 2020-2023. The BRFSS is a nationwide telephone-based survey conducted by the Centers for Disease Control and Prevention (CDC) that collects data on health behaviors, chronic conditions, and preventative practices in the U.S. It helps inform public health policies and programs by tracking health trends and risk factors across different demographics and regions. Participants were asked to self-report if they have been tested for HIV. Participants were then stratified based on state of residence, race, and survey year to analyze for geographical and temporal trends. Rao-Scott Chi-square test was used to assess statistical significance.

Results

Self-reported HIV testing data among Asian Americans were analyzed across the 50 U.S. states within the time period of 2020-2023 to discern for any temporal or geographic patterns.

In comparison to other racial groups, Asian Americans report the lowest percentage of HIV testing ($p < .0001$) all other race groups. 24% of participants who identify as Asian Americans reported to have tested for HIV as opposed to the combined 38% of participants who identify as White, Black, Hispanic, or other. When looking at testing across each races, Asian Americans holds the lowest percentage in HIV testing (Figure 3).

When looking at testing across the different states, our study does not show any clear geographic pattern. Larger Asian American populations does not seem to correlate to higher percentages of individuals reporting HIV testing. Notably, California, which has the highest Asian American population, ranks in the middle of the list, with testing rates closer to the national average. Figure 1 is a table of the percent participants within each states who self-reported having tested for HIV.

Lastly, HIV testing among Asian Americans from 2020 to 2023 showed a statistically significant increase in testing between 2021-2022 ($p = 0.0039$) and a statistically insignificant increase between 2022-2023 ($p = 0.3323$) and decrease between 2020-2021 ($p = 0.1024$). When examining the data across all years combined, there is a significant change in HIV testing rates among Asian Americans over time ($p = 0.0021$) (Figure 4).

State	Number of respondents	Percent Respondents tested for HIV
Alabama	28	18.36%
Alaska	90	22.22%
Arizona	136	22.05%
Arkansas	22	17.34%
California	688	24.48%
Colorado	171	26.02%
Connecticut	226	23.57%
Delaware	58	24.32%
District of Columbia	176	47.26%
Florida	100	30.14%
Georgia	142	23.25%
Hawaii	1172	13.88%
Idaho	46	32.51%
Illinois	134	18.72%
Indiana	86	17.34%
Iowa	62	18.84%
Kansas	106	22.29%
Kentucky	76	16.58%
Louisiana	45	24.28%
Maine	46	34.79%
Maryland	288	25.91%
Massachusetts	388	24.17%
Michigan	139	20.49%
Minnesota	323	23.87%
Mississippi	27	14.80%
Missouri	75	21.34%
Montana	38	32.47%
Nebraska	74	20.83%
Nevada	72	29.89%
New Hampshire	58	23.94%
New Jersey	420	21.97%
New Mexico	33	24.77%
New York	818	31.12%
North Carolina	80	22.98%
North Dakota	38	17.62%
Ohio	97	17.87%
Oklahoma	33	14.06%
Oregon	115	24.79%
Pennsylvania	109	23.88%
Rhode Island	100	24.76%
South Carolina	59	22.88%
South Dakota	26	18.32%
Tennessee	41	19.24%
Texas	221	20.73%
Utah	127	24.53%
Vermont	94	31.97%
Virginia	187	24.40%
Washington	109	24.82%
West Virginia	25	27.12%
Wisconsin	33	23.12%
Wyoming	33	26.89%

Fig. 1: Self- Reported HIV Testing ins Asian American Population from 2020-2023 by State

Other Races	Self report tested for HIV	Number of respondents	Percent of respondents
Other Races	Yes	472915	38.75%
	No	923916	61.20%
	Total	1396831	100%
Asian only, non Hispanic	Yes	8897	24.89%
	No	29425	75.11%
	Total	38322	100%

Fig 2. Self-Reported HIV Testing of Asian Americans vs other races

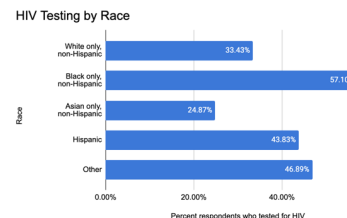


Fig. 3: Self-Reported HIV Testing from 2020-2023 by Race

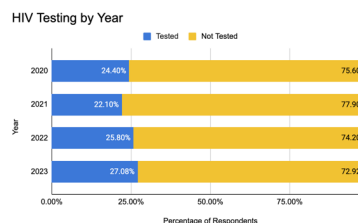


Fig. 4: Self- Reported HIV Testing in Asian American Population from 2020-2023

Conclusions

Our study reaffirms that despite some progress in testing rates, Asian Americans remain less likely to engage with HIV testing services compared to other racial/ethnic groups.

Contrary to our initial hypothesis, there were no clear geographic patterns in HIV testing among Asian Americans, as larger Asian American population in certain states such as California, Hawaii, and Illinois do not correlate with higher testing percentages.

However, our research does suggest an overall small but statistically significant increase in testing over the years. This can be attributed to increased public health efforts and HIV visibility.

There are limitations to this study that should be considered. The self-reported nature of the survey may lead to recall bias or inaccuracies in the reporting of HIV testing behavior. Parts of survey was done during Covid 19 which may impact collection of data as well as HIV testing behavior and access to healthcare. Furthermore, the study does not break down data by specific sub-ethnic groups within the broader Asian American category, which may mask important differences in testing behaviors or healthcare access among groups such as Chinese, Indian, Filipino, and Vietnamese Americans. Finally, while the study analyzes data across all 50 states, it does not capture regional or local disparities within states that may affect the findings. Future research could explore these factors in greater depth to better understand the barriers and trends in HIV testing among Asian Americans.

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