

**RESEARCH ARTICLE**

## **Facilitators and Barriers to HIV Testing, Prevention, and Treatment among Asian and Pacific Islander Americans: A Systematic Exploration**

**Author**

Todd Sabato

Email: [todd.sabato@und.edu](mailto:todd.sabato@und.edu)**Abstract**

Asian American Pacific Islanders (AAPI) are the fastest growing ethnic group in the United States. Despite such growth, AAPI face considerable challenges to HIV prevention, treatment, testing and care. The development of multilevel and multi-strategy approaches to education, prevention, and treatment requires an understanding of personal and cultural barriers, as well as implementation of culturally sensitive and specific measures. The purpose of this article is to highlight barriers to HIV-related prevention, treatment, and care for AAPI and provide practical, application-based suggestions which may facilitate greater inclusion of AAPI in the continuum of HIV care.

**Key Words:** Asian American and Pacific Islanders, HIV, prevention, testing, treatment

## **Impact of HIV/AIDS among Asian American Pacific Islanders**

Over 24 million Asian American Pacific Islanders (AAPI) trace their roots to more than 20 countries in East and Southeast Asia and the Indian subcontinent, each with unique histories, cultures, language, and other characteristics.<sup>1</sup> The tendency to see all individuals in this group as one has negative implications for understanding and addressing health issues among AAPI. Stigma, lack of culturally relevant and integrated systems of care, and other systemic barriers often delay access to care and treatment. Consequently, AAPI have the lowest help-seeking rate of any racial/ethnic group.<sup>2</sup> This disparity may significantly impact chronic disease outcomes for AAPI, including HIV prevention and treatment.

The development and implementation of the National HIV/AIDS Strategy in 2010 prioritized the reduction of HIV-related health disparities among its three primary goals. Utilizing federal, state, tribal and local governments, faith communities, and the scientific and medical communities, the Strategy sought to provide “a place where new HIV infections are rare and when they do occur, every person, regardless of age, gender, race/ethnicity, sexual orientation, gender identity or socioeconomic circumstance, will have unfettered access to high-quality, life-extending care, free from stigma and discrimination.”<sup>3</sup> Although they represent only 40% of the U.S. population, Centers for Disease Control and Prevention (CDC) estimates indicate that communities of color account for 75% of the approximately 36,400 new HIV infections annually in the United States.<sup>4</sup> HIV-infected persons of color are similarly more likely to die from HIV than White counterparts.<sup>5</sup>

CDC data indicate that 2% of individuals newly diagnosed with HIV are AAPI.<sup>6</sup> Although total HIV cases and estimated HIV prevalence for AAPI in the United States are relatively low, there are alarming indicators of a rapid increase in HIV infection in this group. The number of AAPI diagnosed with HIV increased by an alarming 36% between 2010 and 2014.<sup>7</sup> Moreover, undiagnosed HIV among AAPI presents a significant barrier to surveillance and targeted prevention efforts. Nearly one in four (22%) AAPI estimated to be living with HIV in the United States are unaware of their infection – the highest rate of undiagnosed HIV of any racial or ethnic group.<sup>7</sup> These rates may be partially attributable to low rates of HIV antibody testing. Despite CDC recommendations that all individuals between the ages of 13 and 64 get tested for HIV at least once as part of routine health care, National Health Interview Survey data indicated that two-thirds of AAPI have never received antibody tests – the lowest rate of ever testing among any race/ethnicity.<sup>4,8</sup> Demographic trends suggest that the AAPI population in the United States will quadruple by 2060, following an 88% growth between 2000 and 2019.<sup>1</sup> Coupled with low testing efficacy, this exponential growth portends further increases in HIV among an often overlooked community. In fact, AAPI were the only racial group with statistically significant percentage increases in annual HIV and AIDS diagnosis rates.<sup>9</sup>

The low prevalence of health problems among AAPI in national epidemiological studies suggests that health disparities may not be a prevalent issue for AAPI.<sup>10</sup> Methodological oversight, sampling issues, and ethnocentric biases in diagnostic criteria, however, have raised concerns about the accuracy of these rates.<sup>11</sup> Culturally-based reporting biases, as well as culturally rooted idioms of health may further contribute to

lower reported prevalence rates among AAPI.<sup>12</sup> As a consequence of federal practices which categorize populations by ethnicity, HIV-related risk behaviors among AAPI are often underreported. AAPI are often categorized into the “other” race category, or may be misclassified as Hispanic or Caucasian during data collection procedures. Over one-quarter (26%) of HIV/AIDS federal epidemiological reports do not identify the AAPI category, or list AAPI in the “other” race category, despite federal policy changes. Despite cultural and sociodemographic heterogeneity, monolithic data reporting limits the ability to examine differences in health status and healthcare use among AAPI ethnic groups.

Beyond these methodological/conceptual issues of self-report and cultural conceptualizations of illness, perceptions of AAPI health needs (e.g., perceived need and diagnosis) may be driven by stereotypic biases, including the model minority stereotype. Successful achievements in education, employment, and income have contributed to a portrayal of AAPI as a model minority.<sup>13</sup> This stereotype suggests that AAPI are more academically, economically, and socially successful than other minority groups, due to stronger values emphasizing hard work and perseverance. The stereotype further purports that any minority group can be successful as a result of individual effort, hard work, and strong values – creating the misperception of social mobility and access to equal opportunity.<sup>10</sup> The stereotype is a persistent social issue which negatively impacts the AAPI community, suggesting an overgeneralized and erroneous belief that AAPI as a minority group are not confronted with social, economic, or political barriers to success. Expectations of AAPI are higher than for other population groups, exacerbating the reality that all Americans are not on the

same level field. Further, many overachieving AAPI believe they are not good enough, since the achievement bar is continually raised. AAPI who do not fit the model minority stereotype are often treated as underachievers, impacting levels of self-esteem and self-worth.<sup>14</sup> A false depiction of AAPI as a homogenous group who is wealthy, upwardly mobile, and free from crime and health problems masks the unmet needs of this community, limiting access to resources, time, and funding opportunities.<sup>10</sup>

Fear and community stigma associated with sex, testing and prevention, as well as lack of awareness about the affordability and accessibility of pre-exposure prophylaxis (PrEP), severely limit HIV-related help-seeking behaviors of AAPI.<sup>15</sup> Immigration issues and language barriers may serve as further impediments. Systems of care which lack linguistic and cultural resources constitute a significant stressor, particularly for recent AAPI immigrants with limited English proficiency, which may result in poor symptom recognition, failure to seek and receive appropriate treatment.<sup>16</sup>

### **Risk Factors for HIV among Asian American Pacific Islanders**

In lieu of reporting inconsistencies, it is critical that HIV be identified as a significant burden among members of the AAPI community. In addressing this burden, it is important that health care providers and members of the public health community understand the unique cultural, linguistic, economic, and legal risk factors and barriers to HIV prevention causing the increased incidence among AAPI in the United States.

AAPI are particularly impacted by many of the social and behavioral factors associated with increased risk of HIV infection. Between 2011 and 2015, HIV

diagnoses increased by 28% among AAPI, and by 35% among AAPI gay and bisexual men.<sup>17</sup> These findings mirror prior research, which found higher rates of unprotected anal intercourse with two or more sex partners of unknown serostatus among AAPI men who have sex with men (MSM), compared to their white counterparts.<sup>18</sup>

The high rates of unprotected anal intercourse suggest that the risk for sexually transmitted infections may be increasing. CDC data indicated nearly 2.5 million new cases of chlamydia, gonorrhea, and syphilis in 2019 - a 30% increase over four years. Estimates suggest that half of those cases occur among gay and bisexual men.<sup>19</sup> Research among MSM in San Francisco found rising case rates of chlamydia and gonorrhea over an eight-year period, with those among AAPI MSM surpassing those of White MSM.<sup>20,21</sup>

A number of cultural factors similarly increase risk of HIV among AAPI women. Gender, patriarchy, and culture interact in complex ways that influence a women's physical health, relationship dynamics, and the degree of control within her relationships. Even in a nonviolent relationship, societal constructs can lead to a power imbalance. Relationship power can have a marked impact on health and risk for contracting HIV, primarily through the ability to negotiate condom use and safe and consensual sexual activity. AAPI women experiencing violence may be unable to use condoms for fear of being labeled promiscuous. Batterers may force sex or use economic coercion to prevent partners from purchasing condoms.<sup>22</sup> These coercive tactics place AAPI women's health at risk by exposing them to diseases and resulting physical and emotional trauma.

Coupled with cultural norms such as sexual reticence and accommodation to their

male partner's wishes, the context of commercial sex work may further expose AAPI women to drug use, violence, and high-risk sexual behavior. Research has found high levels of self-reported inconsistent condom use among female sex workers during all forms of penetrative sex with clients.<sup>23-25</sup> Findings among AAPI sex workers in California suggest similar risks – only 51% used condoms consistently for oral sex, and nearly one-third indicated condom breakage during sex with a customer.<sup>26</sup> Such behaviors not only enhance susceptibility to HIV transmission, but likewise risk of non-specific vaginosis, trichomoniasis, and gonorrhea.

Systematic reviews and meta-analyses have consistently reported associations between alcohol and substance use/abuse and HIV. These associations may be explained in multiple ways: a) the impact of alcohol and substance use on decision-making, resulting in riskier sexual behaviors; b) biological effects of alcohol and substance use on HIV transmission and disease progression; and c) impacting third variables such as the effect of risk-taking and other personality variables.<sup>27</sup> Results of experimental studies corroborate those of epidemiological cohort and cross-sectional studies with condomless sex, sexually transmitted infections, or HIV incidence. Results from a large sample of AAPI MSM have documented high prevalence of substance abuse, including alcohol, marijuana, poppers, and ecstasy.<sup>28</sup> These findings are consistent with prior research, which reported lifetime club drug and poly-drug use rates of 51% and 44%, respectively.<sup>29</sup> There is clear evidence that heavy drinking or substance use disorders are associated with viral load increases and/or CD4 count declines, general weakening of the immune system, and more negative outcomes of antiretroviral therapy.<sup>27</sup>

Sociocultural and socioeconomic factors further play critical roles in health behaviors and outcomes among AAPI. Nearly 50% of AAPI live in the western United States, with nearly one-third (30%) in California alone.<sup>1</sup> The largest AAPI communities by population reside in New York, Los Angeles, San Jose, San Francisco, and San Diego, where access to health care services is more widely available.<sup>30</sup> AAPI underutilize health care services, and often lack the information, time, or resources necessary to practice preventive health maintenance. Data indicate that rates of HIV antibody testing among AAPI are significantly lower than the national mean, despite engaging in similar risk behaviors.<sup>31</sup> Filial piety, a common characteristic of AAPI culture, may delay testing and treatment for fear of shame and stigma on both an individual and his/ her family.<sup>3</sup>

Reluctance to address HIV prevention, treatment, and care within the AAPI community exists on many levels, presenting significant barriers to action. Operationalizing the model minority myth results in missed opportunities for health care providers to discuss HIV openly with patients. Data from the New York Department of Health indicate that only 6% of Asians have been encouraged by their primary care provider to seek antibody testing, compared to a citywide average of 30%.<sup>32</sup> AAPI consequently have lower rates of HIV care engagement and antiretroviral therapy use than all other races/ethnicities.<sup>33</sup> A significantly greater number of late-stage HIV diagnoses similarly occur among AAPI.<sup>34</sup>

Despite an established history of AAPI in the United States, as well as continued population growth, several challenges remain which impact access to HIV prevention and health services. AAPI collectively have a higher median income than

all U.S. households (\$85,800 versus \$61,800, respectively). They similarly have lower rates of poverty compared to the general population (10% versus 13%, respectively).<sup>1</sup> Aggregate data, however, masks differences among AAPI subpopulations. Burmese Americans, for example, have significantly lower incomes (\$44,400) than AAPI overall. Nearly two-thirds of Asian origin groups have poverty rates equal to or higher than the U.S. average. Southeast Asian Americans have one of the highest poverty rates among communities of color, with 37.8% of Hmong families at or below the national poverty level. Mongolian Americans are twice as likely than Whites to live in poverty.<sup>1,35</sup>

Nationally, 90% of the population at large has received a high school diploma and 33% have a bachelor's degree or more.<sup>36</sup> Among AAPI, these numbers are 92% and 54%, respectively.<sup>1,37</sup> An examination of disaggregated data, however, provides a contextual backdrop and clearer understanding of the AAPI community. Nationally, Native Hawaiian and Pacific Islanders, a subgroup of the AAPI category, experience great educational disparities. This includes a high dropout rate in college – 50% of Native Hawaiians, 54% of Tongans, and 58% of Samoans enter college, but do not earn a degree.<sup>35</sup> Empirical evidence has demonstrated a gradient between educational attainment and health outcomes, mediated by job opportunities, earning potential, and access to health services. Less educated individuals report worse general health, more chronic conditions, and more functional limitations and disability.<sup>38</sup> Variability in educational levels among AAPI may significantly impact earning potential, and subsequent health outcomes.

## **Culturally Competent Care for Asian American and Pacific Islanders**

Culturally competent care is seen as foundational for reducing health disparities. Culturally competent care respects diversity as well as the cultural factors that can impact health and health care, such as language, communication styles, beliefs, attitudes, and behaviors. Health disparities among AAPI result from a series of factors, including (a) a lack of culturally competent health services and providers with expertise in working with AAPI communities, (b) a lack of awareness of interethnic variations among AAPI community members, (c) limited understanding of the role of cultural, generational, and acculturation levels on AAPI patient's beliefs about health, prevention, and care services.<sup>39</sup>

The AAPI population is highly urbanized, with about three-quarters living in metropolitan areas of over 2.5 million people.<sup>40</sup> Receiving culturally competent health care in urban clinics, hospitals, and health services organizations is thus critical. Data have consistently noted the impact of cultural sensitivity on how patients experience and respond to health care.<sup>41,42</sup> Culturally and linguistically diverse patients access health care services less often, and are confronted with barriers including the organization and complexity of health care systems, restrictions on access to certain health services, linguistic and cultural barriers, discrimination, and limited competencies or unawareness of providers. These are often intertwined with individual factors such as low health literacy, employment status, fear of stigma, language barriers or difference in health beliefs and behaviors.<sup>43</sup> Each of these factors indicate a need for effective health promotion and disease prevention strategies, particularly with regard to HIV in AAPI communities.

## **HIV Prevention, Treatment and Care for Asian American and Pacific Islanders**

The development and implementation of health promotion and disease prevention programs for AAPI communities should be based on specific community cultures, thereby including community members in planning and design efforts. AAPI are vulnerable to HIV-related stigma, with disease transmission associated with activities perceived to be immoral (e.g., intravenous drug use, same-sex behavior). As such, there is value in coupling HIV prevention education with other health-focused programming, such as diabetes education, alcohol or substance abuse programs, or prenatal courses.

Clients in crisis from the stress of illness and/or disease often rely on culturally defined modes of coping. It is thus critical that healthcare providers are cognizant of barriers that impact patient-provider interactions, and adopt approaches that enhance the quality of care for AAPI clients. Prior research has indicated that AAPI patients' ratings of physician primary care performance is significantly lower than Caucasian patients.<sup>44</sup> A range of skills is requisite for the delivery of effective cross-cultural care, including an understanding of language and indirect communication, collectivism and the role of the family, cultural taboos and stigma, traditional healing beliefs, and deference to authority and respect.

- Teach and offer a bicultural approach to care. Some AAPIs may have less experience with Western medical systems, and may seek out complementary, alternative, or folk medicine.<sup>45</sup> Patients may not disclose this on their own, either because they fear negative reactions from western doctors or they do not understand the importance of the possible interactions with conventional treatments. Thus, the

provider is tasked with finding out what treatments patients are receiving elsewhere.<sup>45</sup> Providers who are knowledgeable about the many ethnomedical and traditional practices used within the community can improve the patient's level of trust in the provider and adherence to health care regimens. Integration of safe ethnomedical practices with Western medicine may result in positive and beneficial outcomes. Integration may provide a sense of social and psychological support and comfort to an individual who is HIV-infected.

- Show respect for traditional approaches to healing. Methods such as acupuncture, ayurvedic medicine, qi gong, energy balancing, and shamanistic healing are used widely by AAPI. It is important to recognize that traditional medicine is often viewed as a primary form of health care, and that many of these methods are based on a holistic view of the physical, mental, and spiritual selves. Providers can build trust with clients by showing respect for and curiosity about AAPI belief systems. As a result, patient will be more likely to be open and to share their concerns and adhere to treatment regimens. Inquiring about the complementary or alternative therapy that patients might be receiving helps providers determine how to best manage care. Establishing shared basic understanding of some of the commonly used alternative forms of medicine will greatly facilitate insight into a patient's condition, and planning treatment strategies that complement beliefs.
- Engage AAPI clients in empowerment-based approaches to care. In many AAPI cultures, physicians and health care providers are viewed as authority figures due to their higher education and status

within the community. As a result, clients are more likely to defer to their opinions and less likely to openly question them about specific health concerns. This display can be a challenge for providers who misinterpret it to mean that the client understands the information that he or she has been given. It also leads to missed opportunities for clients to advocate for their care or raise concerns about the care they are receiving. Providers can avoid these missed opportunities by actively engaging their clients and encouraging them to ask questions about their health. A key component of empowering clients in this way is to build trust with them. Providers should take care to be respectful and attentive, and refrain from asking questions in a judgmental or accusatory manner.

- Understand and value the roles of kinship and family ties. Strong kinship and family ties are the basic characteristics of the API family structure.<sup>46</sup> Many of them embrace hard work and they place particular value on family, elders, privacy and respect. There is a strong belief in collective welfare, and the needs of the family and society are placed above that of the individual's.<sup>47</sup> There is deep respect for authority; a doctor is highly regarded, for example, and there may be less of a perception of patient-physician partnership.<sup>48</sup> Since there tends to be cultural avoidance when it comes to discussing issues related to sexual behavior, alcohol or drug use, API individuals diagnosed with HIV/AIDS are less likely to share personal information with their families and communities because of the behaviors associated with its transmission. Because sexuality and illness are not always openly discussed, providers need to encourage patients to communicate with trusted family

members and loved ones based on the patient's readiness. Having a strong family support system can lead to a more successful treatment and HIV management process.<sup>49</sup>

- Pace the delivery of information. Growing evidence documents that language barriers indirectly impact the quality of healthcare received by AAPI clients. Language barriers contribute to reducing both client and provider satisfaction, as well as communication between medical providers and patients. Clients who face language barriers are more likely to consume more healthcare services<sup>2</sup> and experience more adverse events.<sup>7</sup> Addressing a client's ability to understand and deciding how much information to present at one time is invaluable. Likewise, being aware of verbal and nonverbal communication styles will aid in avoiding social gaffes that may be offensive, and adversely impact the client-provider relationship.
- Link clients to AAPI serving community-based organizations and social services providers. Begin with relationship building, recognizing that partnerships with AAPI-serving community-based

organizations may need to focus on capacity building over time. Building trust and developing partnerships with churches, temples, or AAPI community leaders cultivates an awareness of assets within the AAPI community, further enhancing trust between patients and caregivers.

The increasing diversity in the United States presents opportunities and challenges for health care providers, health care systems, and policy makers to create and deliver culturally competent services. A culturally competent health care system can help improve health outcomes and quality of care, and can contribute to the elimination of racial and ethnic health disparities. Working to eliminate the health disparities among the AAPI community requires understanding, education, and training. Additionally, it requires an awareness of the influences that sociocultural factors have on patients, clinicians, and the clinical relationship, and acceptance of the provider's responsibility to understand the cultural aspects of health and illness. These attributes form the foundation for enhanced quality of care and improved health outcomes, particularly among minoritized groups.



## References

1. Budiman A, Ruiz NG. Key facts about Asian Americans, a diverse and growing population. <https://www.pewresearch.org/fact-tank/2021/04/29/key-facts-about-asian-origin-groups-in-the-u-s/>. Published April 2021. Accessed September 19, 2021.
2. National Alliance on Mental Illness. Asian American and Pacific Islander. <https://www.nami.org/Your-Journey/Identity-and-Cultural-Dimensions/Asian-American-and-Pacific-Islander>. Published June 2021. Accessed September 30, 2021.
3. White House Office of National AIDS Policy. National HIV/AIDS Strategy for the United States. <https://obamawhitehouse.archives.gov/sites/default/files/uploads/NHAS.pdf>. Published July 2010. Accessed September 30, 2021.
4. Centers for Disease Control and Prevention. Estimated HIV incidence and prevalence in the United States, 2014-2018. Centers for Disease Control and Prevention. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance/html>. Published May 2020. Accessed September 30, 2021.
5. Villarosa L. America's hidden HIV epidemic: Why do America's black gay and bisexual men have a higher HIV rate than any country in the world? New York Times Magazine. <https://www.nytimes.com/2017/06/06/magazine/americas-hidden-hiv-epidemic.html>. Published June 2017. Accessed September 22, 2020.
6. Kim B, Aronowitz T. Invisible minority: HIV prevention health policy for the Asian American population. *Policy, Politics, & Nursing Practice*. 2019;20(1):41-49. doi: 10.1177/1527154419828843
7. Centers for Disease Control and Prevention. HIV and Asians. Centers for Disease Control and Prevention. <https://www.cdc.gov/hiv/group/raciaethnic/asians/index.html>. Published September 2021. Accessed September 26, 2021.
8. Centers for Disease Control and Prevention. Summary health statistics: National Health Interview Survey, 2015. National Center for Health Statistics. [https://www.cdc.gov/nchs/data/factsheets/factsheet\\_summary.htm](https://www.cdc.gov/nchs/data/factsheets/factsheet_summary.htm). Published November 2015. Accessed October 5, 2021.
9. Asian and Pacific Islander Ending the Epidemic Advisory Group. Implementation strategies. Asian and Pacific Islander Ending the Epidemic Advisory Group. [https://www.health.ny.gov/diseases/aids/ending\\_the\\_epidemic/docs/implementation\\_strategies\\_asianpc.pdf](https://www.health.ny.gov/diseases/aids/ending_the_epidemic/docs/implementation_strategies_asianpc.pdf). Published July 2020. Accessed October 5, 2021.
10. Cheng AW, Chang J, O'Brien J, Budgazad MS, Tsai J. Model minority stereotype: Influence on perceived mental health needs of Asian Americans. *Journal of Immigrant and Minority Health*. 2017;19:572-581. doi: 10.1007/s10903-016-0440-0
11. Fong TW, Tsuang J. Asian Americans, addictions, and barriers to treatment. *Psychiatry*. 2007;4(11):51-58.

12. Sue DW, Cheng JKY, Saad CS, Chu J. Asian American mental health: A call to action. *Am Psychol*. 2012;67:532-544.
13. Lee SJ, Wong N, Alvarez AN. The model minority and the perceptual foreigner: Stereotypes of Asian Americans. In: Tewari N, Alvarez AN, eds. *Asian American Psychology: Current Perspectives*. Routledge/Taylor & Francis Group; 2008:69-84.
14. Sabato TM, Silverio AQ. A forgotten population: Addressing comprehensive HIV prevention needs among American Asians and Pacific Islander. *J Assoc Nurses AIDS Care*. 2010;21(4):364-370. doi: 10.1016/j.jana.2009.11.006
15. White B. Ending Asian & Pacific Islander HIV stigma starts here. Legacy Community Health. <https://www.legacycommunityhealth.org/newsblog-ending-api-hiv-stigma-starts-here/>. Nd. Accessed October 13, 2021.
16. Lee JJ, Zhou Y. Facilitators and barriers to HIV testing among Asians in the United States: A systematic review. *AIDS Care*. 2019;31(2):141-152. doi: 10.1080/09540121.2018.1533231
17. Foundation for AIDS Research. HIV among Asian-Americans and Pacific Islanders – A problem too often in the shadows. Foundation for AIDS Research. <https://www.amfar.org/hiv-among-asian-americans-and-pacific-islanders/>. Published May 201. Accessed October 15, 2021.
18. McFarland W, Chen S, Weide D, Kohn R, Klausner J. Gay Asian men in San Francisco follow the international trend: Increases in rates of unprotected anal intercourse and sexually transmitted diseases, 1999-2002. *AIDS Educ Prev*. 2004;16:13-18.
19. Mundell E, Reinberg S. America's STD rate at record high again: CDC. U.S. News & World Report. <https://www.usnews.com/news/health-news/articles/2021-04-14/americas-std-rate-at-record-high-again-cdc>. Published April 2021. Accessed October 14, 2021.
20. Scott HM, Bernstein KT, Raymond HF, Kohn R., Klausner JD. Racial/ethnic and sexual behavior disparities in rates of sexually transmitted infections, San Francisco, 1999-2008. *BMC Public Health*. 2010;10:315.
21. San Francisco Department of Public Health. San Francisco Monthly STD Report. San Francisco Department of Public Health. [http://www.sfdph.org/dph/files/reports/Studies Data/STD/std062008.pdf](http://www.sfdph.org/dph/files/reports/StudiesData/STD/std062008.pdf). Published June 2008. Accessed October 19, 2021.
22. Abbas A. HIV and intimate partner violence among Asian American and Pacific Islander women. Asian Pacific Institute on Gender-Based Violence. <https://s3.amazonaws.com/gbv-wp-uploads/wp-content/uploads/2017/07/18174321/HIVandIntimatePartnerViolenceAmongAPIWomen-2016.pdf>. Published May 2016. Accessed October 10, 2021.
23. Selvey LA, Hallett J, McCausland K, Bates J, Donovan B, Lobo R. Declining condom use among sex workers in Western Australia. *Front Public Health*. 2018;6:342.

24. Anteneh ZA, Agumas YA, Tarekegn M. Sexually transmitted diseases among female commercial sex workers in Fine Selam town, northwest Ethiopia: A community-based cross-sectional study. *HIV AIDS*. 2017;9:43-49.
25. Ross MW, Crisp BR, Mansson A, Hawkes S. Occupational health and safety among commercial sex workers. *Scand J Work Environ Health*. 2012;38(2):105-119. doi: 10.5271/sjweh.3184
26. Nemoto T, Operario D, Soma T, Bao D, Vejrabukka A, Crisostomo V. HIV risk and prevention among Asian and Pacific Islander men who have sex with men: Listen to our stories. *AIDS Educ Prev*. 2003;15:7-20.
27. Rehm J, Probst C, Shield K, Shuper PA. Does alcohol use have a causal effect on HIV incidence and disease progression? A review of the literature and a modeling strategy for quantifying the effect. *Popul Health Metr*. 2017;15(4). doi: <https://pophealthmetrics.biomedcentral.com/track/pdf/10.1186/s12963-017-0121-9.pdf>.
28. Nehl EJ, Han JH, Lin L, Nakayama KK, Wu Y, Wong FY. Substance use among a national sample of Asian/Pacific Islander men who have sex with men in the U.S. *J Psychoactive Drugs*. 2015;47(1),51-59. doi: 10.1080/02791072.2014.994795
29. Operario D, Choi KH, Chu PL, McFarland W, Secura GM, Behel S, MacKellar D, Valleroy L. Prevalence and correlates of substance use among young Asian Pacific Islander men who have sex with men. *Prev Sci*. 2006;7(1):19-29.
30. Turner, K. The many Asian Americans. Vox Media. <https://www.vox.com/first-person/22421683/identity-asian-american-pacific-islander-aapi-heritage-month-enclaves-cities-suburbs>. Published May 2021. Accessed October 9, 2021.
31. Lo CC, Runnels RC, Cheng TC. Racial/ethnic differences in HIV testing: An application of the health services utilization model. *SAGE Open Med*. 2018;6:108. doi: 10.1177/2050312118783414
32. Xiaoqing R. HIV/AIDS among Asians. Center for Health Journalism. <https://centerforhealthjournalism.org/fellowships/projects/hivaids-among-asians>. Published December 2009. Accessed October 10, 2021.
33. Baguso GN, Turner CM, Santos G, Raymond HF, Dawson-Rose C, Lin J, Wilson EC. Successes and final challenges along the HIV care continuum with transwomen in San Francisco. *J Int AIDS Soc*. 2019;22:e25270. doi: 10.1002/jia2.25270
34. Li F, Juan BK, Wozniak M, Watson SK, Katz AR, Whiticar PM, McCormick T, Qiu YS, Wasserman GM. (2018). Trends and racial disparities of late-stage HIV diagnosis: Hawaii, 2010-2016. *Am J Public Health*. 2018;108(4):S292-S298. doi: 10.2105/AJPH .2018.304506
35. Maramba DC. AANAPISIs: Ensuring success for Asian American and Pacific Islander students. American Council on Education. <https://www.higheredtoday.org/2017/10/30/aanapisis-ensuring-success-asian-american-pacific-islander-students/>. Published October 2017. Accessed October 14, 2021.

36. Day JC. Black high school attainment nearly on par with national average. United States Census Bureau. <https://www.census.gov/library/stories/2020/06/black-high-school-attainment-nearly-on-par-with-national-average.html>. Published June 202. Accessed October 12, 2021.
37. Anderson J. Asian American and Pacific Islander students in focus: Demographics and enrollment data. CSBA Research and Policy Brief. <https://www.csba.org/-/media/CSBA/Files/GovernanceResources/GovernanceBriefs/Brief-AAPI-Demographics-Enrollment-May2021.ashx?la=en&rev=e74c4f3f09924d4ea0a90a0b5d8ce870#:~:text=High%20School%20Graduation%20Rates&text=Graduation%20rates%20for%20Asian%20American,percent%20for%20Pacific%20Islander%20students>. Published May 2021. Accessed October 12, 2021.
38. Zajacova A., Lawrence EM. The relationship between education and health: Reducing disparities through a contextual approach. *Annu Rev Public Health*. 2018;39:273-289. doi: 10.1146/annurev-publhealth-031816-044628.
39. Iwamasa GY. Recommendations for the treatment of Asian American / Pacific Islander populations. Asian American Psychological Association. <https://www.apa.org/pi/oema/resources/ethnicity-health/asian-american/psychological-treatment.pdf>. Published 2012. Accessed October 11, 2021.
40. World Population Review. Asian American population by state. World Population Review. <https://worldpopulationreview.com/state-rankings/asian-population>. Nd. Accessed October 16, 2021.
41. Park M, Giap TT, Lee M, Jeong H, Jeong M, Go Y. Patient- and family-centered care interventions for improving the quality of health care: A review of systematic reviews. *Int J Nurs Stud*. 2018;87:69-83.
42. Centers for Disease Control and Prevention. Promoting cultural sensitivity: A practical guide for tuberculosis programs that provide services to persons from China. Atlanta, GA: U.S. Department of Health and Human Services; 2008.
43. Handtke O, Schilgen B, Mosko M. Culturally competent healthcare – A scoping review of strategies implemented in healthcare organizations and a model of culturally competent health provision. *PLoS One*. 2019;14(7):e0219971. doi: 10.1371/journal.pone.02119971.
44. Howard University College of Medicine. BESAFE: A cultural competency model for Asians and Pacific Islanders. Howard University College of Medicine. [https://www.aetnmc.org/documents/API\\_BeSafe.pdf](https://www.aetnmc.org/documents/API_BeSafe.pdf). Published 2009. Accessed October 23, 2021.
45. Burke A, Kaczmarczyk JM. Complementary and alternative medicine issues in serving diverse populations. *Cultural Competence in the Clinical Care of Patients with Diabetes and Cardiovascular Disease*. Health Resources & Services Administration, Bureau of Primary Health Care, Institute for Healthcare Improvement; 2003.

46. Hsu FLK, Freedman M. Family and kinship in Chinese society. *J Am Orient Soc.* 1973;93(1):85. doi. 10.2307/600530.
47. Yee, AH. A comparative study of Macau's educational system: Changing colonial patronage and native self-reliance. *Comp Educ.* 1990;26(1):61-71. Doi: 10.1080/0305006900260106.
- 50.
48. Beller T, Pinker M, Snapka S, Van Dusen D. Korean Health. [https://bearspace.baylor.edu/Charles\\_Kemp/www/korean\\_health.htm](https://bearspace.baylor.edu/Charles_Kemp/www/korean_health.htm). Published 2007. Accessed October 25, 2021.
49. Frye BA. Use of cultural themes in promoting health among Southeast Asian refugees. *Am J Health Promot.* 1995;9(4):269-280.