

Uncomposed, edited manuscript published online ahead of print.

This published ahead-of-print manuscript is not the final version of this article, but it may be cited and shared publicly.

Author: Liu Clifford Z. MS; Wang Eileen MD; Nguyen Don; Sun Mary D.; Jumreornvong Oranicha

Title: The Model Minority Myth, Data Aggregation, and the Role of Medical Schools in Combating Anti-Asian Sentiment

DOI: 10.1097/ACM.00000000004639

Academic Medicine

DOI: 10.1097/ACM.00000000004639

The Model Minority Myth, Data Aggregation, and the Role of Medical Schools in Combating Anti-Asian Sentiment

Clifford Z. Liu, MS, Eileen Wang, MD, Don Nguyen, Mary D. Sun, and Oranicha Jumreornvong

C.Z. Liu is an MD/PhD candidate, Graduate School of Biomedical Sciences, Icahn School of Medicine at Mount Sinai, New York, New York; ORCID: https://orcid.org/0000-0003-1783-299X.

E. Wang is a postgraduate year 1, Department of Obstetrics and Gynecology, Hospital of the University of Pennsylvania, Philadelphia, Pennsylvania.

D. Nguyen is an MD/PhD candidate, Graduate School of Biomedical Sciences, Icahn School of Medicine at Mount Sinai, New York, New York.

M.D. Sun is an MD/MSCR candidate, Icahn School of Medicine at Mount Sinai, New York, New York, and an MA candidate, Harvard University, Cambridge, Massachusetts.

O. Jumreornvong is a fourth-year medical student, Icahn School of Medicine at Mount Sinai, New York, New York.

Correspondence should be addressed to Clifford Z. Liu; email: clifford.liu@icahn.mssm.edu; Twitter: @Cliff_Z_Liu.

Funding/Support: None reported.

Other disclosures: None reported.

Ethical approval: Reported as not applicable.

Abstract

The COVID-19 pandemic has resulted in an alarming increase in hate incidents directed toward Asian Americans and Pacific Islanders (AAPIs), including verbal harassment and physical assault, spurring the nationwide #StopAsianHate movement. This rise in anti-Asian sentiment is occurring at a critical time of racial reckoning across the United States, galvanized by the Black Lives Matter movement, and of medical student calls for the implementation of antiracist medical curricula. AAPIs are stereotyped by the model minority myth, which posits that AAPIs are educated, hardworking, and therefore able to achieve high levels of success. This myth acts as a racial wedge between minorities and perpetuates harm that is pervasive throughout the field of medicine. Critically, the frequent aggregation of all AAPI subgroups as one monolithic community obfuscates socioeconomic and cultural differences across the AAPI diaspora while reinforcing the model minority myth. Here, the authors illustrate how the model minority myth and data aggregation have negatively affected the recruitment and advancement of diverse AAPI medical students, physicians, and faculty. Additionally, the authors discuss how data aggregation obscures health disparities across the AAPI diaspora and how the model minority myth influences the illness experiences of AAPI patients. Importantly, the authors outline specific actionable policies and reforms that medical schools can implement to combat anti-Asian sentiment and support the AAPI community.

Since the rise of the COVID-19 pandemic, there has been an alarming increase in hate incidents directed toward Asian Americans and Pacific Islanders (AAPIs). Harmful rhetoric surrounding the origins of the virus by former President Donald J. Trump and other government officials, referring to it as, for example, the "Chinese virus" and "kung flu,"¹ have led to the scapegoating of AAPIs for causing the pandemic.² Between March 2020 and March 2021, the organization Stop AAPI Hate has documented over 6,600 hate incidents, with almost half reported in March 2021 alone.³ These incidents involve verbal harassment (65.2%), shunning (18.1%), and physical assault (12.6%).³ Furthermore, the Pew Research Center reports that 3-in-10 AAPI adults have experienced racial slurs and verbal harassment since the pandemic began.⁴

Many of these hate incidents have garnered national attention, including the mass shooting at Asian-run massage parlors in Atlanta that left 8 dead,⁵ the face slashing of 61-year-old Noel Quintana on the New York City subway,⁶ the kicking and stomping of 65-year-old Vilma Kari while security guards failed to intervene,⁷ and the violent tackling that resulted in the death of 84-year-old Vicha Ratanapakdee.⁸ Additionally, many AAPI medical students and health care workers have been physically and verbally assaulted.^{9,10} Public attention to such hate incidents has resulted in the rise of the #StopAsianHate movement across the United States,^{8,11,12} spurring protests and the passing of anti-hate crime legislation.¹³ These heartbreaking and tragic events are manifestations of a long-standing history of anti-AAPI sentiments and xenophobia in the United States that includes the passage of the 1882 Chinese Exclusion Act—the first immigration law that excluded individuals on the basis of race—and the period of the "Yellow Peril" in the subsequent decades that portrayed Asian immigration as a threat to white hegemony.^{2,14,15} In the following century, Executive Order 9066 led to the incarceration of over 120,000 Japanese Americans, with its constitutionality upheld by the Supreme Court in 1944.^{14,15} These hate incidents are also part of a contemporary narrative of racial conflict and the struggle for racial equality. Following the 1982 murder of Vincent Chin, a Chinese American engineer, the murderers pled guilty and were sentenced to only 3 years' probation, no jail time, and a \$3,800 fine.¹⁴ The period that followed included interracial activism and the creation of a multiracial coalition, American Citizens for Justice, to bring attention to AAPI hate crimes.^{2,14,15} In 1992, the acquittal of the police officers that beat Rodney King sparked the Los Angeles riots, during which Black and Korean communities were at odds with each other—a conflict exacerbated by the mainstream media's narrative reinforcing the white hegemony—resulting in the destruction of over 2,300 Korean businesses.^{14,16} After 9/11, hate incidents perpetrated against South Asian Americans rose by 1,600%.^{2,14} More recently, the Black Lives Matter movement, galvanized by the death of George Floyd and the COVID-19 pandemic, has resulted in a racial reckoning for the U.S. government and its many institutions, necessitating a reevaluation of laws and policies to promote racial equality.¹⁷

As such, medical schools, are being called on to dismantle institutional racism and promote diversity, inclusion, and equity among their trainees and staff. Medical schools also play a central role in identifying and addressing inequities in the health outcomes of different racial and ethnic groups. To address these challenges, medical students have called for the implementation of antiracist medical curricula, including racial bias training, the hiring of faculty from diverse backgrounds, and the creation of antiracism taskforces, among many other efforts. Some medical schools are moving toward increased diversity and inclusion by implementing antiracist policies to reduce discrimination and bias, primarily against Black and Latinx populations.^{18,19} However, while these changes are positive, medical schools must also be cognizant of including all marginalized groups in the discussion and address the discriminatory and racial challenges that

groups such as AAPIs, Indigenous peoples, low-income communities, queer and trans people (especially, queer and trans people of color), and many others face.

AAPIs have historically been stereotyped as a "model minority," a stereotype which posits that AAPIs are educated, hardworking, and therefore able to achieve high levels of success.^{14,20–23} This perpetuates a fallacious belief that because AAPIs are able to achieve social mobility, other minority groups should similarly be able to overcome discrimination and achieve success.^{14,20} The model minority myth therefore acts as a racial wedge that pits minority groups against each other, as exemplified by the Los Angeles riots of 1992,¹⁶ and serves to create a crabs in a bucket mentality that upholds white supremacy. Unfortunately, the significant history of solidarity and mutual aid between Black and Asian communities, which led to important milestones such as the creation of ethnic studies programs in universities, the acceptance of Indochinese refugees into the United States, and the passage of hate crime legislation following Vincent Chin's murder, often goes unrecognized.²⁰

Today, the model minority myth continues to pit minority groups against each other by reinforcing the existing racial hierarchy while disregarding the complex and multifaceted history of oppression that AAPIs have faced. By positing that AAPIs can achieve social and economic mobility and are therefore not affected by racism and discrimination, the myth effectively erases the lived experiences of the AAPI community, including experiences that result from structural and personally mediated racism. The harm that results from this myth is pervasive throughout all aspects of society and medicine, affecting AAPI health care workers and patients alike.^{21–26} Here, we discuss how the AAPI stereotype of the model minority and the aggregation of AAPI data influences health care, including the recruitment of medical students and physicians, health disparities among AAPI subgroups, and the illness experiences of AAPI members, based on a

broad review of the literature found in PubMed and Google Scholar as of August 2021. For this broad review, we used search terms that include "Asian or AAPI" or "medicine or medical school," with "diversity or inclusion or racism,"^{19,27} "data disaggregation or aggregation,"²⁸ "model minority,"^{25,29} "bamboo ceiling,"^{30,31} "health disparities,"³² "mental health,"³³ or "language and cultural barriers."³⁴ Furthermore, we outline how medical schools can help to combat anti-Asian sentiment by implementing inclusive antiracist curricula that take AAPI issues into consideration.

Diversity and Inclusion: Recruitment of AAPI Medical Students and Physicians

One of the core antiracist initiatives of medical schools must be the recruitment and inclusion of a diverse medical student population. To promote this, the Association of American Medical Colleges (AAMC) designates individuals as underrepresented in medicine if they belong to racial or ethnic groups that are underrepresented in medicine relative to the groups' representation in the general population. Although loosely defined, Asian Americans en masse are considered overrepresented, comprising 21% of medical school applicants and 19% of full-time medical faculty, while constituting only 5.6%–6.8% of the general U.S. population.²⁹ However, this classification overlooks the significant diversity found among the AAPI diaspora. For example, AAMC data for the 2019 medical school application cycle show that while Chinese, Korean, and Indian ethnicities were the predominant AAPI subgroups applying, Bangladeshi and Pakistani applicants made up only 2.1% and 6.9% of AAPI applicants, respectively.³⁵ Other East and Southeast Asian ethnicities, such as Indonesian, Cambodian, and Japanese, collectively represented only 1.8% of AAPI applicants and are underrepresented compared to the general

U.S. population.³⁵ As of 2019, only 0.1% of medical students, active physicians, and full-time medical faculty in the United States identified as Native Hawaiian or Other Pacific Islander.³⁵ The disparities reflected in the number of AAPI medical school applicants highlight broader challenges in educational attainment and socioeconomic opportunities within the AAPI diaspora, which are often masked through the aggregation of AAPI subgroups into one monolithic group. Across all racial groups in the United States, income inequality within a racial group is greatest in the AAPI community. The wealth gap between high- and low-income AAPI individuals more than doubled between 1970 and 2016, with income gains in the latter group trailing far behind those of low-income individuals in other racial groups.³⁶ The standard of living for lower-income AAPIs has been stagnant over the past 50 years, while the number of AAPIs living in poverty has dramatically increased.³⁶ When disaggregated, nearly half of the AAPI subgroups earn less than the U.S. median household income, with unspecified Micronesians earning a median annual income of only \$30,000.³⁷ Wealth inequality is a critical element of how disadvantage is perpetuated in marginalized communities, and the barriers faced by financially vulnerable AAPI must be acknowledged and addressed in efforts to combat inequity.

Furthermore, income inequality exacerbates significant disparities in the educational outcomes of AAPI subgroups, with higher education attainment rates varying by as much as 60% between subgroups.³⁸ While Indian and Malaysian Americans have the highest levels of educational attainment with 70% and 63% of adults holding a bachelor's degree, respectively, other groups are much lower.³⁸ For example, only 10% of Laotian, 12% of Samoan, and 13% of Hmong Americans hold bachelor's degrees.³⁸ When aggregated, 49% of AAPIs hold bachelor's degrees, compared to 40% among Whites, leading to the misconception that all AAPIs are highly educated.³⁸ Thus, treating the AAPI diaspora as a homogenous group creates the mistaken

impression that all subgroups possess the same academic opportunities, effectively marginalizing and minimizing the struggles faced by many in the AAPI community.

While admission policies must focus on becoming more equitable, antiracist initiatives must span across the entire institution, including the recruitment of AAPI faculty and their promotion into leadership positions. Here, the model minority myth acts as a tool of oppression by preventing access to the highest positions of leadership, such as chief executive officer or dean positions. Although the myth stereotypes AAPIs as intelligent, hardworking, and successful, it simultaneously stereotypes them as quiet, shy, content with simply working hard, and uninterested in leadership opportunities.^{29–31} This leads to what is called the bamboo ceiling, which occurs across industries and is especially evident within medical schools. Despite AAPIs representing 19% of full-time medical faculty, a retrospective analysis by Yu et al in 2013 found that only 6.7% are designated as professors, 3.5% as department chairs, and 0% as deans.³⁹ Furthermore, AAPI medical students tend to receive scores than White students in subjective evaluations and are underrepresented in honor society memberships.^{27,40} AAPI women, like all women of color, live at the intersection of gender- and race-based discrimination, which further limits professional advancement opportunities. For example, when compared to their maleidentified counterparts, female-identified AAPIs make up a minority of full-time U.S. medical school faculty.³⁵ The magnitude of this gender imbalance grows as faculty rank increases, with AAPI women making up only 26.7% of AAPI professors, which as noted above is already a minoritized group, according to AAMC data.³⁵ While disaggregated AAPI data on medical student evaluations, honor society memberships, and faculty positions are unavailable, doing so would likely further highlight the harm that results from the model minority myth. Clearly, there is substantial work to be done in achieving diverse AAPI representation in medicine, from

disaggregating AAPI data to changing policies around admissions and faculty advancement opportunities.

AAPI Health Disparities

Health disparities between racial and ethnic groups are often highlighted in medical education and research. However, this work typically revolves around disparities in Black and Latinx health outcomes, as compared to White populations, while the AAPI community tends to be ignored in the larger narrative on race/ethnicity and health. Even when AAPIs are included in medical research studies, they are often aggregated as one population. In a meta-analysis of 1,077 research studies published in high-impact journals, Nguyen et al find that only 263 (24.4%) studies mentioned Asians.⁴¹ Of these, only 28 (10.6%) reported outcomes for Asians and only 9 (3.4%) broke the Asian category down into subgroups.⁴¹ This underrepresentation is further confounded by small sample sizes, with a 3.8% median of AAPI participants in a given study, resulting in findings that are often not statistically significant when compared to White counterparts.⁴¹ Notably, the AAPI diaspora is understudied and research on the diaspora is underfunded, comprising only 0.17% of the National Institutes of Health budget between 1992 and 2018.^{42,43}

Unfortunately, health disparities are increasingly prevalent within the AAPI community; this prevalence likely stems from differences in socioeconomic opportunities, access to health care, health literacy, and cultural beliefs. Disaggregated health data highlights significant disparities that exist between subgroups. For example, AAPI children have disparate access and utilization of health services, with Korean children being 4 times more likely to be uninsured and Filipino children being twice as likely to have not had a recent doctor visit as compared to White children.⁴⁴ Analysis of cancer incidence and mortality rates reveal that AAPIs in general have a

greater burden of liver, stomach, and nasopharynx cancers than Whites.⁴⁵ However, disaggregated data show that Laotians, Cambodians, and Vietnamese have the highest incidence of liver cancer, while Koreans have the highest incidence of stomach cancer.⁴⁵ Additionally, rates of hypertension and disability among AAPI men were highest in Filipino and Vietnamese patients.⁴⁶ The consequences of these health disparities were only exacerbated by the COVID-19 pandemic, during which AAPI members have had disproportionately higher mortality and transmission rates when compared to population level data, in part due to their overrepresentation in the essential workforce and their higher incidents of intergenerational residency, poverty, lack of health insurance, and comorbidity burdens.³² In New York City, one of the hardest-hit areas in the United States, Chinese New Yorkers had the highest COVID-19 death rate of all racial groups at 38% and were 1.5 times more likely to die from COVID-19 than White patients.⁴⁷ South Asians in the city had the second-highest rate of test positivity and hospitalizations.

There are also striking disparities in mental health conditions and utilization of mental health resources among AAPIs. While AAPIs report fewer mental health conditions, they have higher rates of suicidal ideation and attempts compared to Whites.^{48,49} Senior AAPI women aged 65–84 have the highest suicide rate of any racial group, and among Southeast Asian refugees, such as Cambodians, significantly high rates of posttraumatic stress disorder and major depression have been documented.⁵⁰ Traumatic experiences of war, political upheaval, and persecution are not uncommon in AAPI immigrant communities and exert both a mental and physical toll. Disaggregated studies have also found that while Filipino and Korean adults were more likely to report symptoms of mental distress, they were less likely to see a provider than Whites.³³ The COVID-19 pandemic has exacerbated these mental health disparities. AAPIs who encounter

racism tend to experience heightened symptoms of depression, anxiety, and stress and have increased risk of posttraumatic stress disorder.⁵¹ Poorer mental health among Chinese parents and children has also been associated with increased levels of perceived COVID-19 racism and discrimination.⁵² Despite this, there are concerningly low rates of AAPIs who seek mental health services; that is, only 8.6% of AAPIs collectively seek mental health services, compared to 18% for the general U.S. population.^{50,53}

While this article is not meant to provide a comprehensive overview of health disparities across AAPI communities, what is presented here indicates that increased xenophobia and racism clearly exacerbate the disparities faced by the AAPI diaspora. Critically, the health needs of the AAPI diaspora are poorly understood due to the continued underfunding of AAPI research, AAPI underrepresentation in medical studies, and the aggregation of AAPI subgroups into a monolithic population.^{28,42,43} Just as medical schools and research institutions need to deconstruct the structural, social, and racial determinants of health behind disparities in Black and Latinx outcomes, the health disparities within the AAPI community caused by these determinants must be similarly dissected.

AAPI Illness Experiences

As medical schools work toward deconstructing racism and eliminating bias, it is critical to understand how discrimination influences the illness experiences of AAPI patients. One aspect of this is the utilization of health care services; aggregated AAPI data reveals significant underutilization of health care services compared to Whites.⁴⁴ As of 2018, the percentage of nonelderly AAPI adults who had not had a health care visit in the past year was greater than that of Black, American Indian and Alaska Native, and White racial groups.⁵⁴ Despite their significant mental health needs, AAPIs are perceived to have fewer mental health symptoms due to the

model minority stereotype.²³ The perpetuation and internalization of these biases by physicians complicate the preconceived stigmas and feelings of shame around mental illness within the AAPI community that make them less likely to initiate and persist in mental health treatment.^{33,49,55} For example, many AAPIs believe it is unhealthy to dwell on and analyze disturbing thoughts, and Chinese Americans, in particular, view mental illness as a problem that can be overcome through willpower alone.⁵⁶

Patients with limited English proficiency (LEP), coupled with systems of care unresponsive to them, further complicate patient-physician communication and medication adherence among AAPIs.^{57–59} For example, when LEP patients are told, "You don't need treatment now," they may equate it to, "You are fine."⁶⁰ Research on Chinese and Vietnamese patients with LEP show that less than half had interpreters present during hospital visits, with only 11% of Mandarin-speaking patients receiving an interpreter.⁵⁹ Importantly, LEP patients received less health education and have the lowest patient satisfaction ratings.^{59,61} Perceived racial and language discrimination have also been linked to increased risk of chronic illnesses, such as hypertension, heart disease, cancer, diabetes, and mental disorders.⁶² This association was stronger for AAPI immigrants who had lived in the United States for 10 years or longer, indicating that the mental toll of AAPIs' experiences can be cumulative.⁶³ Additional research that disaggregates the experiences of LEP AAPI subgroups is desperately needed.

Physicians should also understand how cultural concepts of distress and coping, along with systems of care that are unresponsive to them, can underlie disparate illness presentations and health behaviors among AAPIs.^{34,64} While disaggregated data on this topic is limited, aggregated data show that AAPI patients tend to be stoic and less likely to express pain,^{65,66} even though they can have higher experimental pain sensitivity than Whites.⁶⁷ In addition, AAPIs may

prioritize the use of traditional Eastern medicines, supplements, and homeopathic remedies over Western treatment regimens.^{34,64,68} Medical services tend to be sought on a reactionary basis when patients are symptomatic-rather than to proactively screen for issues. Qualitative research suggests that AAPI patients may be more likely to appraise the severity of their own symptoms and stop taking medication when they feel better.⁶⁹ Furthermore, cultural taboos regarding discussions of death can cause additional stress for patients and motivate them to hide serious illnesses from loved ones. This complicates processes related to obtaining advanced directives, arranging for hospice care and palliative medications, and ensuring that critically ill AAPI patients are supported by loved ones.^{66,70,71} Importantly, the field of psychiatry has taken steps to incorporate the cultural formulation interview into the DSM-5 (the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition), aiming to center the patient's perspective and cultural contexts as critical in the therapeutic relationship between the patient and psychiatrist.⁷² While this has so far only been implemented in psychiatry, the core foundations of the cultural formulation interview are applicable to all medical specialties and could serve to strengthen patient-provider relationships.

Few studies have looked at the illness experiences and, more importantly, experiences of racism within the medical space of AAPI individuals. More in-depth, disaggregated quantitative and qualitative research is desperately needed to understand how racism, culture, and identity play into the illness experiences of and help-seeking behaviors within the AAPI community.

Moving Toward Antiracist Medical Schools

As the United States reckons with anti-Asian hate incidents and the rise of the #StopAsianHate movement, medical schools must be held accountable for implementing policies and reforming medical education in ways that support the AAPI community and combat anti-Asian sentiment.

We present our suggestions for how to do this in Table 1. At the most basic level, medical schools must publicly denounce anti-AAPI sentiment and violence, while also providing safe spaces for AAPI students and employees to express their feelings. As racist and xenophobic rhetoric can have significant mental health impacts, medical schools should strive to provide mental health resources and access to mental health professionals to their students and faculty free of charge. Data on the recruitment of medical students and physicians should use disaggregated AAPI data so that the designation of underrepresented in medicine is appropriately used to recruit diverse individuals who are collectively representative of the whole AAPI diaspora. Institutions should also consider providing scholarships to support AAPI students from lower socioeconomic status backgrounds to promote entry into medicine. Individuals responsible for evaluating medical students and for hiring and promoting faculty into positions of leadership must recognize unconscious biases that stem from racist and discriminatory stereotypes to prevent unintentionally upholding the bamboo ceiling. Additionally, to that end, institutions should promote marginalized faculty, including those from the AAPI community, so that positions of leadership are representative of all communities of color. We therefore call on medical schools to implement bias training on the model minority myth and to form antiracism committees with appropriate representation to oversee admissions and hiring practices. Medical schools and physicians alike have the responsibility to combat any health disparity experienced by any minority community, including the health disparities experienced by the AAPI community. This should begin with prioritizing the recruitment of minorities into medical research studies and disaggregating AAPI data. Further, medical education institutions must adopt antiracist curricula focused on dismantling white supremacy, including education on the model minority myth. Students and staff should be educated on how to respond to racist or

discriminatory microaggressions,^{73,74} as well as on strategies to support patients who may have internalized stereotypes.²⁵ Such curricula should include training in cultural humility, a concept that encourages clinicians to be open and to practice self-reflection while empowering patients to be masters of their own lived experiences.⁷⁵ The research studies that are used as examples in medical school curricula should highlight health disparities within all communities of color, including the AAPI community. Health care workers should familiarize themselves with how patients from the AAPI diaspora may view health care and illnesses differently, so that they can appropriately engage with them in conversations about diagnosis and treatment. Lastly, clinicians and hospitals have a responsibility to assist those with LEP, for example, by providing access to translator services and multilingual patient education documentation.

While this article's focus is on the model minority myth and its medical implications, this myth is pervasive throughout U.S. society. The recommendations given here can therefore be adapted to other fields and institutions. Although these recommendations are not meant to be all encompassing, we hope they can serve as a starting point for implementing antiracist policies that are inclusive of all people of color. For only when all people of color are included in these policies can society truly begin to combat the harmful effects caused by centuries of structural and institutional racism.

References

- Itkowitz C. Trump again uses racially insensitive term to describe coronavirus. Washington Post. https://www.washingtonpost.com/politics/trump-again-uses-kung-flu-to-describecoronavirus/2020/06/23/0ab5a8d8-b5a9-11ea-aca5-ebb63d27e1ff_story.html. Published June 23, 2020. Accessed January 27, 2022.
- Strochlic N. America's long history of scapegoating its Asian citizens. National Geographic. https://www.nationalgeographic.com/history/article/asian-american-racism-covid. Published September 2, 2020. Accessed January 27, 2022.
- Jeung R, Yellow Horse AJ, Popovic T, Lim R. Stop AAPI Hate National Report. San Francisco, CA: Stop AAPI Hate; 2021. https://stopaapihate.org/wpcontent/uploads/2021/05/Stop-AAPI-Hate-Report-National-210316.pdf. Accessed February 14, 2022.
- 4. Ruiz NG, Horowitz JM, Tamir C. Many Black, Asian Americans say they have experienced discrimination amid the COVID-19 outbreak. Pew Research Center. https://www.pewresearch.org/social-trends/2020/07/01/many-black-and-asian-americans-saythey-have-experienced-discrimination-amid-the-covid-19-outbreak/. Published July 1, 2020. Accessed January 27, 2022.
- 5. Fausset R, Vigdor N. 8 people killed in Atlanta-area shootings at massage parlors. New York Times. https://www.nytimes.com/2021/03/16/us/atlanta-shootings-massage-parlor.html Published March 16, 2021. Accessed January 27, 2022.

- Mendiola R. Filipino American man slashed in the face while riding NYC subway. Asian Journal. https://www.asianjournal.com/usa/newyork-newjersey/filipino-american-manslashed-in-the-face-while-riding-nyc-subway/. Published February 8, 2021. Accessed January 27, 2022.
- 7. Hong N, Kim J, Watkins A, Southall A. Brutal attack on Filipino woman sparks outrage: 'Everybody is on edge.' New York Times. https://www.nytimes.com/2021/03/30/nyregion/asian-attack-nyc.html. Published March 30, 2021. Accessed January 27, 2022.
- Fuller T. He came from Thailand to care for family. Then came a brutal attack. New York Times. https://www.nytimes.com/2021/02/27/us/asian-american-hate-crimes.html. Published February 27, 2021. Accessed January 27, 2022.
- Jumreornvong O. I was attacked in NYC for being Asian. Here's how I'm starting to heal. The Lily. https://www.thelily.com/i-was-attacked-in-nyc-for-being-asian-heres-how-im-startingto-heal/?tid=more_from_lily. Published March 23, 2021. Accessed January 27, 2022.
- Jan T. Asian American doctors and nurses are fighting racism and the coronavirus.
 Washington Post. https://www.washingtonpost.com/business/2020/05/19/asian-americandiscrimination/. Published May 19, 2020. Accessed January 27, 2022.
- Zaveri M. As protesters rally against anti-Asian Hate, N.Y.C. records 5 attacks. New York Times. https://www.nytimes.com/2021/03/22/nyregion/nyc-asian-hate-crimes.html. Published March 22, 2021. Accessed January 27, 2022.

12. Ramirez M. Asian American activists are demanding equal civil rights, better education in schools after Asian hate attacks. USA Today.

https://www.usatoday.com/story/news/nation/2021/03/26/stop-asian-hate-asian-americansacross-us-demand-reforms/6990150002/. Published March 26, 2021. Accessed January 27, 2022.

- Sprunt B. Here's what the new hate crimes law aims to do as attacks on Asian Americans rise. NPR. https://www.npr.org/2021/05/20/998599775/biden-to-sign-the-covid-19-hatecrimes-bill-as-anti-asian-american-attacks-rise. Published May 20, 2021. Accessed January 27, 2022.
- 14. Lee E. The Making of Asian America: A History. New York, NY: Simon & Schuster; 2015.
- 15. Leon AD. The long history of racism against Asian Americans in the U.S. PBS NewsHour. https://www.pbs.org/newshour/nation/the-long-history-of-racism-against-asian-americans-inthe-u-s. Published April 9, 2020. Accessed January 27, 2022.
- 16. Twomey JL. Newspaper coverage of the 1992 Los Angeles uprising: Race, place, and the story of the "riot": Racial ideology in African American and Korean American newspapers. Race Gender Class. 2001;8(4):140-154.
- 17. Burch ADS, Harmon A, Tavernise S, Badger E. The death of George Floyd reignited a movement. What happens now? New York Times.
 https://www.nytimes.com/2021/04/20/us/george-floyd-protests-police-reform.html. Published April 20, 2021. Accessed January 27, 2022.
- Afolabi T, Borowsky HM, Cordero DM, et al. Student-led efforts to advance anti-racist medical education. Acad Med. 2021;96:802-807.

- 19. Hess L, Palermo AG, Muller D. Addressing and undoing racism and bias in the medical school learning and work environment. Acad Med. 2020;95(12 Suppl):S44-S50.
- 20. Wu FH. Yellow: Race in America Beyond Black and White. New York, NY: Basic Books; 2002.
- Yi SS, Kwon SC, Sacks R, Trinh-Shevrin C. Commentary: Persistence and health-related consequences of the model minority stereotype for Asian Americans. Ethnic Dis. 2016;26(1):133-138.
- 22. Dee EC, Chen S, Santos PMG, Wu SZ, Cheng I, Gomez SL. Anti-Asian American racism: A wake-up call for population-based cancer research. Cancer Epidemiol Biomarkers Prev. 2021;30:1455-1458.
- Cheng AW, Chang J, O'Brien J, Budgazad MS, Tsai J. Model minority stereotype: Influence on perceived mental health needs of Asian Americans. J Immigr Minor Healt. 2017;19(3):572-581.
- 24. Cheng TL, Conca-Cheng AM. The pandemics of racism and COVID-19: Danger and opportunity. Pediatrics. 2020;146(5):e2020024836.
- 25. Tran N, Yabes K, Miller A. How should clinicians help patients navigate "model minority" demands? Ama J Ethics. 2021;23(6):E456-E464.
- 26. Cai C. We can heal from hate crimes by practicing solidarity. JAMA Intern Med. 2021;181(8):1036-1037.
- Boatright D, Ross D, O'Connor P, Moore E, Nunez-Smith M. Racial disparities in medical student membership in the Alpha Omega Alpha Honor Society. JAMA Intern Med. 2017;177(5):659-665.

- 28. Islam NS, Khan S, Kwon S, Jang D, Ro M, Trinh-Shevrin C. Methodological issues in the collection, analysis, and reporting of granular data in Asian American populations: Historical challenges and potential solutions. J Health Care Poor Underserved. 2010;21(4):1354-1381.
- 29. Yu CJ. Asian Americans: The Overrepresented Minority? ASA Monit. 2020;84(7):32-33.
- 30. Yu HH. Revisiting the bamboo ceiling: Perceptions from Asian Americans on experiencing workplace discrimination. Asian Am J Psychol. 2020;11(3):158-167.
- Lee F. Asian American and Pacific Islander faculty and the bamboo ceiling: Barriers to leadership and implications for leadership development. New Dir Higher Educ. 2019;2019(186):93-102.
- Wang D, Gee GC, Bahiru E, Yang EH, Hsu JJ. Asian-Americans and Pacific Islanders in COVID-19: Emerging disparities amid discrimination. J Gen Intern Med. 2020;35(12):3685-3688.
- 33. Sorkin DH, Nguyen H, Ngo-Metzger Q. Assessing the mental health needs and barriers to care among a diverse sample of Asian American older adults. J Gen Intern Med. 2011;26(6):595-602.
- 34. Ngo-Metzger Q, Massagli MP, Clarridge BR, et al. Linguistic and cultural barriers to care. J Gen Intern Med. 2003;18(1):44-52.
- 35. Association of American Medical Colleges. Diversity in Medicine: Facts and Figures 2019. https://www.aamc.org/data-reports/workforce/report/diversity-medicine-facts-and-figures-2019. Accessed January 27, 2022.

- 36. Kochhar R, Cilluffo A. Income inequality in the U.S. is rising most rapidly among Asians. Pew Research Center; 2018. https://www.pewresearch.org/social-trends/2018/07/12/incomeinequality-in-the-u-s-is-rising-most-rapidly-among-asians/. Published July 12, 2018. Accessed January 27, 2022.
- 37. Edlagan C, Vaghul K. How data disaggregation matters for Asian Americans and Pacific Islanders. Washington Center for Equitable Growth. https://equitablegrowth.org/how-datadisaggregation-matters-for-asian-americans-and-pacific-islanders/. Published December 14, 2016. Accessed January 27, 2022.
- 38. The Campaign for College Opportunity. The State of Higher Education in California—Asian American, Native Hawaiian, Pacific Islander Report. Los Angeles, CA: The Campaign for College Opportunity; 2015.
- 39. Yu PT, Parsa PV, Hassanein O, Rogers SO, Chang DC. Minorities struggle to advance in academic medicine: A 12-y review of diversity at the highest levels of America's teaching institutions. J Surg Res. 2013;182(2):212-218.
- 40. Low D, Pollack SW, Liao ZC, et al. Racial/ethnic disparities in clinical grading in medical school. Teach Learn Med. 2019;31(5):487-496.
- 41. Nguyen HAT, Zheng A, Gugel A, Kistin CJ. Asians and Asian subgroups are underrepresented in medical research studies published in high-impact generalist journals. J Immigr Minor Healt. 2021;23:646-649.
- 42. Đoàn LN, Takata Y, Sakuma KLK, Irvin VL. Trends in clinical research including Asian American, Native Hawaiian, and Pacific Islander participants funded by the US National Institutes of Health, 1992 to 2018. JAMA Netw Open. 2019;2(7):e197432.

- 43. Yee A. Research on Asian Americans and Pacific Islanders is being stifled. Scientific American. https://www.scientificamerican.com/article/research-on-asian-americans-and-pacific-islanders-is-being-stifled/. Published July 8, 2021. Accessed January 27, 2022.
- 44. Yu SM, Huang ZJ, Singh GK. Health status and health services access and utilization among Chinese, Filipino, Japanese, Korean, South Asian, and Vietnamese children in California. Am J Public Health. 2010;100(5):823-830.
- 45. Torre LA, Sauer AMG, Chen MS, Kagawa-Singer M, Jemal A, Siegel RL. Cancer statistics for Asian Americans, Native Hawaiians, and Pacific Islanders, 2016: Converging incidence in males and females. CA Cancer J Clin. 2016;66(3):182-202.
- 46. Mui P, Bowie JV, Juon HS, Thorpe RJ. Ethnic group differences in health outcomes among Asian American men in California. Am J Mens Heal. 2017;11(5):1406-1414.
- 47. Marcello RK, Dolle J, Tariq A, et al. Disaggregating Asian race reveals COVID-19 disparities among Asian Americans at New York City's public hospital system. medRxiv.
 Preprint posted online November 24, 2020. doi:10.1101/2020.11.23.20233155
- 48. Anxiety and Depression Association of America. Asian Americans/Pacific Islanders. | https://adaa.org/find-help/by-demographics/asian-pacific-islanders. Accessed January 27, 2022..
- 49. Wyatt LC, Ung T, Park R, Kwon SC, Trinh-Shevrin C. Risk factors of suicide and depression among Asian American, Native Hawaiian, and Pacific Islander Youth: A Systematic literature review. J Health Care Poor Underserved. 2015;26(2):191-237.
- 50. Sue S, Cheng JKY, Saad CS, Chu JP. Asian American mental health. Am Psychol. 2012;67(7):532-544.

- 51. Saw A, Yellow Horse AJ, Jeung R. Stop AAPI Hate Mental Health Report. San Francisco, CA: Stop AAPI Hate; 2021. https://stopaapihate.org/mental-health-report/. Accessed January 27, 2022.
- 52. Cheah CSL, Wang C, Ren H, Zong X, Cho HS, Xue X. COVID-19 racism and mental health in Chinese American families. Pediatrics. 2020;146(5):e2020021816.
- 53. Spencer MS, Chen J, Gee GC, Fabian CG, Takeuchi DT. Discrimination and mental health– related service use in a national study of Asian Americans. Am J Public Health. 2010;100(12):2410-2417.
- 54. Artiga S, Orgera K. Key Facts on Health and Health Care by Race and Ethnicity. San Francisco, CA: Henry J Kaiser Family Foundation; 2019.
- 55. Park M. A Brief review of mental health issues among Asian and Pacific Islander communities in the U.S. Asian Pac Island Nurs J. 2021;5(4):248-250.
- 56. Leong FTL, Lau ASL. Barriers to providing effective mental health services to Asian Americans. Ment Heal Serv Res. 2001;3(4):201-214.
- 57. Jang Y, Kim MT. Limited English proficiency and health service use in Asian Americans. J Immigr Minor Healt. 2019;21(2):264-270.
- 58. Gee GC, Ponce N. Associations between racial discrimination, limited English proficiency, and health-related quality of life among 6 Asian ethnic groups in California. Am J Public Health. 2010;100(5):888-895.
- 59. Ngo-Metzger Q, Sorkin DH, Phillips RS. Healthcare experiences of limited Englishproficient Asian American patients. Patient. 2009;2(2):113-120.
- 60. Nguyen GT. Challenges and opportunities in the care of Asian American patients. Am Fam Physician. 2014;90:490-494.

- 61. Ngo-Metzger Q, Legedza ATR, Phillips RS. Asian Americans' reports of their health care experiences. J Gen Intern Med. 2004;19(2):111-119.
- Yoo HC, Gee GC, Takeuchi D. Discrimination and health among Asian American immigrants: Disentangling racial from language discrimination. Soc Sci Med. 2009;68(4):726-732.
- 63. Sue DW, Bucceri J, Lin AI, Nadal KL, Torino GC. Racial microaggressions and the Asian American experience. Cult Divers Ethn Minority Psychol. 2007;13(1):72-81.
- 64. Mull DS, Nguyen N, Mull JD. Vietnamese diabetic patients and their physicians: What ethnography can teach us. Western J Med. 2001;175(5):307-311.
- 65. Im EO, Liu Y, Kim YH, Chee W. Asian American cancer patients' pain experience. Cancer Nurs. 2008;31(3):E17-E23.
- 66. Khosla N, Washington KT, Regunath H. Perspectives of health care providers on US South Asians' attitudes toward pain management at end of life. Am J Hospice Palliat Care. 2016;33(9):849-857.
- 67. Ahn H, Weaver M, Lyon DE, et al. Differences in clinical pain and experimental pain sensitivity between Asian Americans and Whites with knee osteoarthritis. Clin J Pain. 2017;33(2):174-180.
- 68. Hu D, Taira D, Yeboah M, Castillo T. Issues affecting medication use among Asian Americans, Native Hawaiians, and Pacific Islanders: A qualitative study. Calif J Health Promotion. 2016;14(2):44-55.
- 69. Hsu YH, Mao CL, Wey M. Antihypertensive medication adherence among elderly Chinese Americans. J Transcult Nurs. 2010;21(4):297-305.

- 70. Pun JKH, Cheung KM, Chow JCH, Chan WL. Chinese perspective on end-of-life communication: A systematic review [published online ahead of print July 9, 2020]. BMJ Supportive Palliat Care. doi:10.1136/bmjspcare-2019-002166
- 71. Sharma RK, Khosla N, Tulsky JA, Carrese JA. Traditional expectations versus US realities:
 First- and second-generation Asian Indian perspectives on end-of-life care. J Gen Intern Med. 2012;27(3):311-317.
- 72. DeSilva R, Aggarwal NK, Lewis-Fernández R. The DSM-5 cultural formulation interview: Bridging barriers toward a clinically integrated cultural assessment in psychiatry. Psychiat Ann. 2018;48(3):154-159.
- 73. Wheeler DJ, Zapata J, Davis D, Chou C. Twelve tips for responding to microaggressions and overt discrimination: When the patient offends the learner. Med Teach. 2019;41(10):1112-1117.
- 74. Sandoval RS, Afolabi T, Said J, Dunleavy S, Chatterjee A, Ölveczky D. Building a tool kit for medical and dental students: Addressing microaggressions and discrimination on the wards. MedEdPORTAL. 2020;16:10893.
- 75. Solchanyk D, Ekeh O, Saffran L, Burnett-Zeigler IE, Doobay-Persaud A. Integrating cultural humility into the medical education curriculum: Strategies for educators. Teach Learn Med. 2021;33:554-560.

Table 1

Policies and Reforms That Medical Schools Can Implement to Support the AAPI Community and Combat Anti-Asian Sentiment, as Suggested by the Authors of This Article^{14,20–25,27,36–43,51,52,73–75}

Institutional action	Rationale and impacts of enacting
Publicly denounce AAPI hate and offer free mental health services to students and faculty.	The simple act of publicly denouncing AAPI hate shows that medical schools stand in solidarity with the AAPI community. Explicit communication of support to the medical school's students and faculty has the potential to alleviate some of the anxiety surrounding increased anti-Asian sentiment. Given the mental health consequences of experiencing racism and discrimination, medical schools should provide mental health services free of charge to their students and faculty.
Disaggregate the Asian demographic category.	Certain datasets fail to disaggregate diverse populations by ethnicity among the AAPI community. For example, Asian populations (e.g., Chinese, Filipino, Japanese, and Korean) are commonly examined as a single group, resulting in research conclusions and policies that are developed based on potentially inaccurate data. Datasets that are collected for institutional use (such as admissions data) or for research purposes should be disaggregated.
Recruit students who represent the diversity of the AAPI diaspora and provide scholarships for financially vulnerable AAPIs.	Disaggregated data show that some East and Southeast Asian ethnic groups have lower or comparably low rates of education when compared to other racial groups that currently fall under the AAMC's underrepresented in medicine category. Additionally, these groups may also have disparate levels of socioeconomic opportunity. Therefore, any diversity and inclusion efforts should include groups that have been historically marginalized and are often excluded from the underrepresented in medicine designation. Offering scholarships will allow those who are socioeconomically disadvantaged to apply to and attend medical school.
Hire and promote AAPI faculty into leadership positions.	The bamboo ceiling has kept deserving AAPI faculty from being promoted into positions of leadership. Diversity and inclusion efforts must include the promotion and recruitment of diverse institutional leadership, including those who identify as AAPI. Committees in charge of hiring and promoting should similarly have diverse representation.

Implement antiracist curricula aimed at dismantling white supremacy in health care, including education on the model minority myth.	The model minority myth is a pervasive set of stereotypes that perpetuate assumptions about AAPIs and often serves to pit minority groups against each other while simultaneously erasing the challenges faced by the diverse members of the AAPI community. The medical school curriculum should include racism and bias training that is intentional and culturally mindful and that acknowledges the model minority myth as well as the rich history of multiracial aid and activism coalitions in the United States. The impact of the model minority myth on health disparities and how to provide culturally sensitive patient care should also be taught. To that end, trainings on cultural humility and methods of responding to microaggressions would be beneficial to health care staff and patients alike.
Implement mandatory bias training for faculty and residents who evaluate medical students.	Unconscious biases toward AAPI medical students, based on the model minority myth, have resulted in worse subjective test scores than Whites and the underrepresentation of AAPI medical students in honor societies. Medical schools should develop and implement best practices to promote equity and mitigate bias during subjective evaluations (e.g., OSCEs, third-year clerkship evaluations, medical school and residency interviews). Individuals responsible for evaluating students should be aware of how unconscious biases may influence their perceptions of the student. Having objective rubrics and review committee members of diverse representation could help mitigate these biases during subjective evaluations.
Fund research studies that report outcomes and medical experiences for AAPI subgroups.	To address the paucity of data on diverse AAPI health outcomes, additional studies must be encouraged, funded, and supported. Medical institutions can designate a portion of their research budget to support pilot studies that propose novel and impactful research on the AAPI population. Funding such pilot studies at an early stage will allow investigators to gather preliminary data and increase their chances of receiving external funding support. These studies should disaggregate data on AAPI subgroups to fully capture and interpret experiences across the diaspora.

Abbreviations: AAPI, Asian American and Pacific Islander; AAMC, Association of American Medical Colleges; OSCEs, objective structured clinical examinations.