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Life expectancy, life disparity, and differential racialization among Chinese, Asian Indians, and Filipinos in the United States

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ABSTRACT

This article advances *differential racialization* as a lens to frame health disparity trends within the Asian racial category. Using formal demographic methods, I analyzed data from the Multiple Cause of Death File and the American Community Survey to examine the trends in life expectancy and life disparity among Chinese, Asian Indians, and Filipinos in the United States between 2005 and 2019. While Chinese, Asian Indian, and Filipino life expectancy oscillated between each period under study, those oscillations contributed to an overall widening advantage for Chinese over their Asian Indian and Filipino counterparts. I posit that widening inequalities between the three groups are suggestive of their increasingly disparate racial statuses. These findings underscore the importance of contextualizing disaggregated health data within the social conditions that produce inequalities, namely race/racialization/racism.

1. Introduction

While race scholars often emphasize the inconsistency and dynamism of race (Omi & Winant, 2014; Zuberi & Bonilla-Silva, 2008), researchers still largely rely on comparisons between monolithic groups to describe health inequalities, presupposing the 'groupness' (Brubaker, 2002) of communities under such labels. This issue is especially pertinent to people under the Asian umbrella (Gordon et al., 2019). And while health research on disaggregated Asian-origin groups is growing, researchers seldom theorize the implications of their differences on our understanding of race. Thus, there is a gap between the theorization of race as a dynamic social construct and its application in health research as a static and decontextualized variable. In response, this article documents health disparity trends within the Asian/Asian American racial category through the lens of *differential racialization*. Emerging from Critical Race Theory (CRT), differential racialization refers to the shifting assumptions attached to minoritized groups in order to uphold the existing racial hierarchy and support the needs of the dominant group (Delgado & Stefancic, 2017). The present study utilizes an extended conceptualization of differential racialization to also describe the process through which communities subsumed under the same monolithic label, e.g., Asian, are categorized along different racial lines and assigned unequal statuses.

I examined the mortality trends of Chinese, Asian Indians, and Filipinos, by educational attainment, between 2005 and 2019 using data from the National Center for Health Statistics (NCHS) and the American Community Survey (ACS). Differential racialization circumvents the assumption of a shared racial status among these three groups. Indeed, a growing literature highlights these groups' distinct racialization experiences and their (dis)connection to the Asian/Asian American racial status (Kibria, 1998; Ocampo, 2016), making them apt for exploring the impacts of increasingly rigid racial boundaries within a monolithic category. Thus, I posit that these groups' health trends reflect racial boundary formation processes. This article exemplifies the practicability of the differential racialization perspective to elucidate macro-level health disparities. It also speaks to scholarship on the plasticity of social categories like race at the macro level over time (Omi & Winant, 2014). Lastly, it contributes to research that looks beyond monolithic labels as a categorization scheme for understanding racial disparities.

2. Background

2.1. Differential racialization among Chinese, Asian Indians, and filipinos

Extant race scholarship drives my focus on Chinese, Asian Indians, and Filipinos in this study. Research regarding the complexities of

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'Asian-ness' underline important dissimilarities in how these three groups experience racialization (Joshi, 2006; Kibria, 1998; Lee & Ramakrishnan, 2020; Ocampo, 2016). Specifically, while Chinese are generally constructed as the *typical* Asian American, Asian Indians and Filipinos occupy more precarious racial statuses, and they have been shown to experience qualitatively different forms of discrimination and racism than their East Asian (e.g., Chinese) counterparts (Alvarez et al., 2006; Baldoz, 2004; Baluran, 2022; Kibria, 1996; Nadal, 2019; Teranishi, 2002). That growing literature provides important theoretical grounding for specifically focusing on Chinese, Asian Indians, and Filipinos to study the relationship between racial status differences and health.

Drawing on the foregoing literature, I use differential racialization to underscore the process through which actors remold existing generalized understandings of racial group membership (i.e., the 'official' and legal definitions of who is white, Black, Asian) to classify others under new and/or modified categorization schemes. Differential racialization originated from Critical Race Theory (Delgado & Stefancic, 2017); however, I extend the concept to capture not only the shifting assumptions attached to racialized groups, but how people get categorized in the first place. Thus, rather than focusing on some shared Asian experience among Chinese, Asian Indians, and Filipinos, I highlight how variations in the 'typicality' (Monk, 2022) of their Asian-ness function as a mechanism that produce health inequality.

Notwithstanding the popularization and the political benefits of the pan-ethnic Asian category (Lee, 2019; Lee and Ramakrishnan, 2020), there is evidence that contradict the notion of a shared racial status among these communities (Ocampo, 2013;Shankar & Srikanth, 1998; Baluran, 2022). For example, East Asians, particularly Chinese, are most likely to be assigned by others as Asian, while South Asians (e.g., Asian Indians) are less likely to be similarly labeled (Lee & Ramakrishnan, 2020). And scholars have long studied the complexities of South Asian racialization, given that they do not fit established American notions of Asian phenotype (Kibria, 1998). For instance, Kibria (1996) spotlights the uncertain racial positioning of South Asians as people who were perceived as neither white, Black, or Asian. But the War on Terror and the precipitous rise of islamophobia following 9/11 further exacerbated the marginalization of Asian Indians and other South Asians, because they were Muslim or 'Muslim-looking' (Cainkar & Selod, 2018; Garner & Selod, 2015; Gotanda, 2011; Selod, 2018).

Other studies also highlight the misalignment between how Filipinos self-identify and how others classify them, wavering between Asian, Latinx, and sometimes Pacific Islander (Ocampo, 2013, 2014, 2016; Spickard, Rondilla, & Wright, 2002). In her study of Filipino American youths' school experiences, for example, Chutuape (2016) relays how some youths describe themselves as 'Chinese-Mexicans' or the 'Blackest Asians' in response to disputes about their racial identity. People of Filipino descent experience marginalization and exclusion from the Asian label because they are often perceived as "not Asian enough" (Nadal, 2019). And like Asian Indians, Filipinos have been historically, and are contemporarily, excluded from Asian/Asian American narratives. This suggests that both groups experience race differently than people of Chinese descent who are generally perceived as the dominant voice and representation of an Asian American identity (Ignacio, 1976; Nadal, 2019).

Perhaps, in part, because of these already visible fractures in the racialization experiences of people of Asian descent, Bonilla-Silva (2004, 2018) posits that a new racial order is emerging in the United States, whereby the different ethnicities currently understood to belong under the Asian umbrella will be classified as whites, honorary whites, or collective Blacks. But regardless of the specific future racial statuses of Chinese, Filipinos, and Asian Indians, Bonilla-Silva (2018) questions the meaningfulness of the monolithic group boundaries that researchers use today. Importantly, his focus on the emergence of the tri-racial system suggests that these changing racialization schemes are part of a temporal process that may be facilitated by the differential racialization of individuals and groups—in this case Chinese, Asian Indians, and Filipinos. I posit that the divergence in these national-origin groups' racial statuses may be observable through their population-level health outcomes.

2.2. Racialization and health

When aggregated, people of Asian descent have better health than any group in the United States, but studies on disaggregated groups underline striking heterogeneity in their health (Acciai et al., 2015; Adia et al., 2020; Iyer et al., 2019). Notably, Asian Indians and Filipinos have worse health than their Chinese contemporaries across multiple outcomes, including diabetes, hypertension, and heart disease (Gordon et al., 2019; Hastings et al., 2015). Indeed, Chinese have the highest life expectancy among people of Asian descent in the U.S., followed by Asian Indians, while Filipinos have the second lowest of the six largest Asian groups in the country (Baluran & Patterson, 2021). But while we now have evidence of inequalities between these populations, we remain largely unaware of the extent to which they have changed over time and what shapes them to begin with.

I foreground racialization processes as drivers of health disparities between these groups. Racial status reflects societal assumptions about who share common histories and who deserve access to limited material and political resources (Mills, 1997). Thus, scholars argue that racial status differences are a fundamental cause of health inequality, shaping their ability to access social and financial resources to promote health and longevity (Link & Phelan, J., 1995; Phelan & Link, 2015; Williams & Collins, 2016). Moreover, researchers have long documented the detrimental health consequences of race-related processes, namely structural, institutional, cultural, and interpersonal racism (Bailey et al., 2017; Homan & Brown, 2022; Williams, Lawrence, and Davis 2019). Exposure to discrimination is particularly linked to poorer mental and physical health and higher mortality (Cobb, Sheehan, Louie, & Erving, 2022; Williams et al., 2019; Wu et al., 2021).

While people of Asian descent are still largely absent in race and health research, a budding literature shows that the link between racial status and health inequality also holds among disaggregated Asian national-origin groups (Adia et al., 2022; Dee et al., 2021; Gee & Ponce, 2010; Nadimpalli & Hutchinson, 2012; Wu et al., 2021). For example, Sabado-Liwag et al. (2022) argue that the interactions between colonialism and racism shape the mental and physical health of Filipinos in the United States by limiting their access to resources to address community health issues and shaping their labor market trajectories, situating them in vulnerable positions. Moreover, Morey et al. (2018) show that exposure to anti-immigrant prejudice and discrimination increases mortality risks among immigrants in the U.S., including those from Asia. Relatedly, Gee and Ford (2011) contend that discriminatory immigration policies and anti-immigrant rhetoric are structural-level racialized stressors. For instance, exposure to Islamophobia is significantly associated with poor health outcomes and health-seeking behaviors among Muslims and those perceived as Muslim, including Asian Indians (Bakhtiari, 2020; Samari et al., 2018). The present study extends this literature by theorizing how differential racialization between Asian-origin groups manifests as health disparities.

It is important to note, however, that extant literature is replete with evidence of mortality differences by sex (Case & Paxson, 2005; Ross et al., 2012) and socioeconomic status (Brown, 2012; Leopold, 2018; Montez, 2019). Generally, females have lower mortality and higher life expectancy than males (Case & Paxson, 2005; Luy, 2003); thus, it is conventional to conduct formal demographic analyses by sex (Preston, Heuveline, & Guillot, 2000). The literature also highlights the association between socioeconomic status and health, particularly the role of educational attainment as a robust predictor of mortality (Byhoff, 2017; Case & Deaton, 2021; Montez, 2019). Thus, it is important to account for mortality variability by sex and socioeconomic status, considering the current study's focus on racial status differences.

3. The current study: differential racialization and health inequality

3.1. Overview

Recall that the principal aims of this study are to (a) document the long-term trends in life expectancy and mortality among Chinese, Asian Indians, and Filipinos in the United States, and (b) to demonstrate the utility of the differential racialization lens to explain the trends in these macro-level outcomes. Association with any racial status entails the expansion or contraction of privileges and access to resources that shape life outcomes including health. Although people racialized as typically Asian/Asian American (e.g., Chinese) remain excluded from white membership (Lee & Kye, 2016), they may also benefit from their distance from Blackness and Brownness (Baluran, 2022; Treitler, 2013; Bonilla-Silva, 1997). Thus, the privileges and resources available to people of Chinese descent that result from their 'typicality' (Monk, 2022) as Asian/Asian American may be inaccessible to Filipinos and Asian Indians due to their increasingly tenuous relation to, or total exclusion from, notions of Asian-ness. A likely consequence of this divergence is the widening of population-level health inequalities between the three groups. As such, I estimated life expectancy at birth (e_0) and life disparity ($e^{\dagger}$) for each national-origin group, by sex and bachelor's degree attainment, for five three-year periods. I estimated health indicators by bachelor's degree attainment to control for life expectancy and lifespan variation differences that may be attributable to socioeconomic status (SES) inequality.

3.2. Data

My analyses primarily relied on age-specific death rates ($_nm_x$) for Chinese, Asian Indians, Filipinos, and a reference aggregated Asian group, which includes all people of Asian descent in the United States. I calculated $_nm_x$ values at the national level using death counts from the Multiple Cause of Death File (MCDF) and population estimates from the American Community Survey (ACS), following extant research (e.g., Baluran & Patterson, 2021). The MCDF contains all recorded deaths in the United States and its territories, and it is made available by the National Vital Statistics System, the National Center for Health Statistics (NCHS), and the Centers for Disease Control and Prevention. Data—including age, sex, ethnicity—recorded on death certificates by a medical examiner and a licensed funeral director are coded by each state/territory and reported to the NCHS through the Vital Statistics Cooperative Program or coded by the NCHS based on original death certificates. For this study, I examined deaths that occurred within the 50 states and the District of Columbia. Further, I obtained the population denominators from the Public Use Micro Sample (PUMS) data file of the American Community Survey (ACS), which contains data on disaggregated Asian national-origin groups. The ACS randomly samples nearly 3.5 million addresses in the United States and Puerto Rico each year, and it is representative of the U.S. population. It also reports, demographic, social, and economic estimates for the U.S. population, including age, sex, education, and race/ethnicity. The population denominators used in this study include only single-race individuals; population estimates for people who reported more than one ethnicity and/or race were excluded to avoid over-estimation of denominators. Lastly, I analyzed data for the following three-year periods: 2005–2007, 2008–2010, 2011–2013, 2014–2016, 2017–2019.

3.2.1. Education level

Considering the research on the robust relationship between educational attainment and mortality (Case and Deaton 2022; Montez et al., 2012), I account for socioeconomic differences between groups based on bachelor's degree attainment. To calculate $_nm_x$ by sex and bachelor's degree attainment I recoded the educational attainment information from the ACS and the MCDF to separate those with and without a bachelor's degree. Concerning the denominators, the ACS is the largest national household survey in the United States. It also addresses some of the concerns expressed by other researchers regarding the capacity of other data sources to accurately estimate the educational attainment of the U.S. population, especially racial and ethnic minorities (Sasson, 2017).

Because all education levels cannot be observed for younger ages, and because education levels are top-coded for those aged 75 and above, I followed other researchers' approach and calculated age-specific death rates for age groups below 25 and 75 and over only by age, ethnic group, and sex (Case & Deaton, 2021). For age groups between 25 and 74, I computed age-specific death rates by ethnic group, sex, age, and educational attainment using the observed deaths from the MCDF and the population estimates in the ACS. I excluded some observed deaths from the MCDF (numerator) for which no educational level was recorded. The proportion of deaths for which no educational attainment was specified varied by national-origin group, but they ranged between one to four percent of deaths that occurred between ages 25–74 (see Table 4 in supplementary materials).

3.3. Methods

3.3.1. Life expectancy at birth and life disparity

I computed life expectancy at birth (e_0) using abridged period life tables, following conventional methods (Preston et al., 2000). The first age-group includes ages below one, the second includes ages one to four, and the last is the open-ended age-group (85+). I also computed 95 percent confidence intervals for life expectancy estimates using the central limit theorem to derive formulas to calculate standard errors (Chiang, 1984, pp. 153–164). I then calculated the life disparity ($e^{\dagger}$) measure using quantities in the lifetable as

$$e^{\dagger} = \frac{\sum_{0}^{\omega}(e_x * d_x)}{l_x},$$

where e_x is the life expectancy at age x, and d_x is the number of life table deaths at age x, and ω is the open age interval. Life disparity measures the average years of life lost due to death (Vaupel et al., 2011). Moreover, because life disparity is weighted by the number of deaths at each age-group, reductions in premature mortality narrows the life disparity, while reductions in 'late-age' mortality widens it. Lastly, after computing the above indicators by national-origin group, sex, and bachelor's degree attainment for each time period, I conducted a series of sensitivity analyses to examine the effect of the removal of deaths with missing education on the life expectancy and life disparity estimates. All calculations were conducted using SAS 9.4 and Microsoft Excel.

4. Results

4.1. Key population characteristics

Table 1 shows the total population size for each national-origin group by sex and time period, as well as the proportion of each population between ages 25 and 74 with a bachelor's degree. Along with the aggregated Asians group, the Chinese, Asian Indian, and Filipino populations all increased between the 2005–2007 and 2017–2019 periods. Asian Indians experienced the greatest relative increase in population size during the periods under study, with the male population increasing by 68.1 percent and female population by 76.7 percent (Table 1). Filipinos, on the other hand, had the smallest relative change in population size between the two periods (Table 1). The proportion of people between 25 and 74 years old in each national-origin-sex group with at least a bachelor's degree also increased over the same period. The percentage

Table 1
Key population characteristics by sex, time period, and national-origin group, 2005–2019

Male								
	Chinese		Asian Indians		Filipinos		Aggregated Asians	
Period[a]	Population Size[b]	B.S/B.A[c]	Population Size	B.S/B.A	Population Size	B.S/B.A	Population Size	B.S/B.A
05–07	1,496,689[d]	0.57[c]	1,297,559	0.74	1,045,934	0.45	6,322,219	0.54
08–10	1,512,781	0.57	1,368,382	0.76	1,109,212	0.44	6,605,163	0.54
11–13	1,707,437	0.57	1,575,239	0.77	1,166,898	0.43	7,352,294	0.54
14–16	1,922,139	0.58	1,924,276	0.78	1,258,532	0.44	8,317,848	0.57
17–19	2,063,953	0.61	2,181,161	0.79	1,288,294	0.46	8,807,578	0.59
Female								
	Chinese		Asian Indian		Filipino		Aggregated Asians	
Period	Population Size	B.S/B.A	Population Size	B.S/B.A	Population Size	B.S/B.A	Population Size	B.S/B.A
05–07	1,630,149	0.51	1,151,447	0.65	1,282,236	0.52	6,786,052	0.48
08–10	1,682,821	0.52	1,234,111	0.67	1,377,270	0.53	7,145,343	0.49
11–13	1,947,389	0.52	1,485,650	0.69	1,505,298	0.53	8,225,771	0.51
14–16	2,226,168	0.55	1,777,317	0.72	1,594,329	0.52	9,260,007	0.53
17–19	2,373,453	0.59	2,034,897	0.74	1,691,078	0.54	9,801,340	0.56

Notes: (a) Each period refers to three-year periods, beginning with the 2005–2007 period, labeled as (05–07).
(b) Population size refers to the total population size by sex and national-origin group.
(c) B.S./B.A. refers to the proportion of each population between the ages 25–74 with at least a bachelor's degree.
(d) These figures reflect only those who reported one race/ethnicity.
Source: American Community Survey Public Use Micro Sample

of Chinese women with at least a bachelor's degree increased from 51 percent in 2005–2007 to 59 percent in 2017–2019 (Table 1). Likewise, the percentage of Asian Indian women with at least a bachelor's degree increased from 65 percent to 74 percent over the same period. Meanwhile, Filipina women, saw only a two-point increase in the percentage of the population who completed bachelor's degrees. Similar trends were also observed among men. Moreover, substantially larger portions of Asian Indian men and women completed bachelor's degrees compared to their Filipino and Chinese counterparts. Lastly, while a greater portion of men than women had bachelor's degrees among Chinese, Asian Indians, and the aggregated Asian group, the opposite was true for Filipinos (Table 1).

4.2. Life expectancy and lifespan variation trends by national-origin group and educational attainment among males

4.2.1. Life expectancy

Table 2 presents the life expectancy at birth (e_0) and life disparity ($e^\dagger$) among men for each national-origin group, by bachelor's degree attainment, for each three-year period. Among those with a college degree in 2005–2007, e_0 ranged between 80.3 years for Filipinos and 85.1 years for Asian Indians, with Chinese men falling in between. However, Chinese men had the longest life expectancy ($e_0 = 85.7$) by the 2017–2019 period, while Filipino men still had the shortest ($e_0 = 81.2$). For men with less than a bachelor's degree, the aggregated Asian category had the shortest life expectancy ($e_0 = 79.6$) in 2005–2007 and Asian Indians the longest ($e_0 = 82.5$); but Chinese men ($e_0 = 83.8$) surpassed their Asian Indian peers by 2017–2019.

Moreover, Chinese men's advantage over their Asian Indian and Filipino peers generally expanded between 2005-2007 and 2017–2019.

Table 2
Life expectancy at birth and life disparity trends among males by national-origin group and Bachelor's degree attainment, 2005–2019

≥ B.S.												
	Chinese			Asian Indian			Filipino			Aggregated Asians		
Period	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$
05–07	84	(84, 84.1)	13.5	85.1	(85, 85.2)	14.5	80.3	(80.2, 80.4)	12.5	81.4	(81.3, 81.4)	13
08–10	83.8	(83.8, 83.9)	13.1	86	(86, 86.1)	17.5	80.9	(80.9, 81)	14.3	81.5	(81.5, 81.5)	13.9
11–13	83.2	(83.2, 83.2)	11.9	85.3	(85.2, 85.4)	16.9	81	(81, 81.1)	14.6	81.3	(81.3, 81.3)	13.2
14–16	84.7	(84.7, 84.8)	14.7	82.8	(82.8, 82.9)	14.2	80.2	(80.1, 80.3)	14.3	81.6	(81.6, 81.6)	13.7
17–19	85.7	(85.7, 85.8)	15.3	83.6	(83.6, 83.7)	15.2	81.2	(81.1, 81.3)	14.8	82	(82, 82)	14.8
< B.S.												
	Chinese			Asian Indian			Filipino			Aggregated Asians		
Period	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$
05–07	82.4	(82.3, 82.4)	14.4	82.5	(82.4, 82.6)	16	80	(79.9, 80.1)	13.1	79.6	(79.6, 79.6)	14.1
08–10	82.2	(82.2, 82.3)	14.1	83.1	(83.0, 83.2)	19.1	80.6	(80.6, 80.7)	14.6	79.7	(79.7, 80.0)	15
11–13	81.5	(81.4, 81.5)	13.0	82.5	(82.4, 82.6)	18.4	80.3	(80.3, 80.4)	15.1	79.3	(79, 79.3)	14.4
14–16	83.1	(83, 83.2)	15.7	79.8	(79.7, 79.8)	16	79.1	(79.1, 79.2)	15.1	78.5	(78.5, 78.6)	15.6
17–19	83.8	(83.7, 83.8)	16.4	80.3	(80.2, 80.4)	17	79.5	(79.4, 79.6)	16	78.2	(78.2, 78.2)	17

Notes: Life expectancy at birth is denoted by (e_0) and life disparity by ($e^\dagger$). Estimates apply only to those who reported one race/ethnicity. Each period (rows) represents a 3-year time period, beginning with the 2005–2007 period, labeled as (05–07).
Source: Author's calculations using data from the Multiple Cause of Death File and American Community Survey Public Use Micro Sample.

Their life expectancy improved by nearly 1.7 years among those with a bachelor's degree and 1.4 years among those without. In contrast, Asian Indian men were worse off in 2017–2019 than in 2005–2007, dropping by 1.5 years among those with a college degree and 2.2 years among those without. Further, Filipino men without a bachelor's degree underwent a 0.5-year decline between 2005-2009 and 2017–2019, while their college-educated co-ethnics saw an approximately one-year improvement over the same period. Still, while Filipino men converged toward Asian Indian men in both educational attainment groups, Filipinos endured a worsening longevity disadvantage compared to their Chinese counterparts. In fact, Filipino men never reached parity with their Chinese peers, such that college-educated Filipino men in 2017–2019 had a shorter e_0 than Chinese men without a college degree in 2005–2007 (Table 2).

4.2.2. Life disparity

Table 2 also includes life disparity ($e^\dagger$) values capturing the variation in the timing of death within populations. Life disparity fluctuated between each period, but all three national-origin groups had higher life disparity in 2017–2019 than they did in 2005–2007, regardless of educational attainment, suggesting a general rise in heterogeneity in the age of death. For example, $e^\dagger$ ranged between 12.5 years (Filipinos) and 13.5 years (Chinese) among college-educated men in 2005–2007 but ranged between 14.8 years (Filipinos) and 15.3 years (Chinese) in 2017–2019. For men with less than a college degree, Filipinos also had the lowest life disparity ($e^\dagger = 13.1$) but Asian Indians the highest ($e^\dagger = 16$) in 2005–2007. And Filipinos still had the lowest life disparity ($e^\dagger = 16$) and Asian Indians the highest ($e^\dagger = 17$) in 2017–2019 (Table 2).

The life disparity trends have different implications for each group. Among college-educated Chinese, Filipino, and aggregated Asian men, the overall life disparity rise accompanied a life expectancy growth, suggesting that heightened life disparity was due to reductions in older-age mortality. However, the simultaneous drop in life expectancy and rise in life disparity among college-educated Asian Indian men suggest an overall rise in pre-mature mortality. College-educated Asian Indian men were therefore disadvantaged in 2017–2019 compared to 2005–2007, unlike their Chinese and Filipino contemporaries. Further, men without a college degree had lower life expectancy and higher life disparity than their college-educated co-ethnics in each period (Table 2). They also underwent a general life disparity increase, and all but one group (Chinese) experienced a life expectancy decline. This means that while Chinese men without a college degree enjoyed a life expectancy increase attributable to reductions in old-age mortality, their Asian Indian and Filipino peers suffered worsening premature mortality leading to a drop in life expectancy and rise in life disparity (Table 2).

4.3. Life expectancy over time by national-origin group and educational attainment among females

4.3.1. Life expectancy

Women in both educational attainment groups generally exhibited similar trends as their male co-ethnics, but their life expectancy and life disparity were larger in magnitude than those among men (see Table 2 for men and Table 3 for women). For instance, e_0 for college-educated women ranged between 85.8 years (aggregated Asians) and 92.1 years (Asian Indians) in 2005–2007 and 86.2 years (aggregated Asians) and 89.3 years (Chinese) in 2017–2019. Among women with less than a college degree in 2005–2007, aggregated Asians had the shortest life expectancy ($e_0 = 84.9$) and Asian Indians the longest ($e_0 = 91$); and in 2017–2019, Asian women overall still had the shortest life expectancy ($e_0 = 84.4$) but Chinese the longest ($e_0 = 88.5$) (Table 3).

As with college-educated men, Chinese, Filipina, and Aggregated Asian women with college degrees enjoyed overall life expectancy improvements, albeit with fluctuations. Unlike men, however, the gap between college-educated Chinese and Filipina women in 2017–2019 was equal that in 2005–2007. Indeed, their longevity gaps narrowed between the first (2005–07) and third periods (2011–13) before rising again during the fourth time period (2014–16) (Table 3). Asian Indian women with bachelor's degrees, on the other hand, went from having a 3.5-year longevity advantage over their Chinese peers in 2005–2007 to lagging them by nearly three years in 2017–2019. Asian Indian women without college degrees also suffered a life expectancy decline over time. Contrarily, Chinese women without college degrees sustained a life expectancy rise following a period of decline between 2005-2007 and 2008–2010 (Table 3). Meanwhile, Filipina women experienced a longevity rise between 2005-2007 and 2008–2010, followed by a decline to their 2005–2007 level by the 2017–2019 period.

4.3.2. Life disparity

Life disparity fluctuated among all groups; but all women, except Asian Indians, had higher life disparity in 2017–2019 than in 2005–2007 (Table 3). Among college-educated women in 2005–2007,

Table 3
Life expectancy at birth and life disparity trends among females by national-origin group and Bachelor's degree attainment, 2005–2019

≥ B.S												
	Chinese			Asian Indian			Filipino			Aggregated Asians		
Period	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$
05–07	88.6	(88.6, 88.7)	15.7	92.1	(92, 92.1)	20.2	86.3	(86.2, 86.4)	15.4	85.8	(85.8, 85.8)	14.7
08–10	87.7	(87.7, 87.8)	14.7	89.4	(89.3, 89.5)	18.4	88.5	(88.4, 88.6)	16.7	85.4	(85.4, 85.4)	14.7
11–13	87.4	(87.4, 87.6)	14.8	84.7	(84.7, 84.8)	12.4	86.2	(86.2, 86.3)	15.2	85.5	(85.5, 85.5)	14.5
14–16	87.9	(87.9, 87.9)	14.7	87.3	(87.3, 87.4)	15.9	86.3	(86.2, 86.4)	16.2	86	(86, 86)	15.2
17–19	89.3	(89.3, 89.3)	16.4	86.5	(86.5, 86.7)	14.9	87	(87, 87.2)	16.8	86.2	(86.2, 86.2)	15.5
< B.S.												
	Chinese			Asian Indian			Filipino			Aggregated Asians		
Period	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$	e_0	95% CI	$e^\dagger$
05–07	87.6	(87.6, 87.6)	16.2	91	(91, 91.1)	20.7	86	(86, 86.1)	15.7	84.9	(84.9, 84.9)	15.2
08–10	87	(87, 87.1)	15.1	88.2	(88.1, 88.3)	19	88.4	(88.3, 88.5)	18.9	84.7	(84.7, 84.7)	15.2
11–13	87.1	(87.1, 87.1)	15	83.6	(83.5, 83.7)	13.1	86	(86, 86.1)	15.4	84.6	(84.6, 84.6)	15.1
14–16	87.4	(87.4, 87.4)	15	86	(86, 86.1)	16.6	85.9	(85.8, 86)	16.5	84.6	(84.6, 84.6)	16
17–19	88.5	(88.5, 88.5)	16.8	85.3	(85.2, 85.4)	15.7	86.1	(86, 86.2)	17.3	84.4	(84.4, 84.4)	16.5

Notes: Life expectancy at birth is denoted by (e_0) and life disparity by ($e^\dagger$). Estimates apply only to those who reported one race/ethnicity. Each period (rows) represents a 3-year time period, beginning with the 2005–2007 period, labeled as (05–07).
Source: Author's calculations using the Multiple Cause of Death File and American Community Survey Public Use Micro Sample

Aggregated Asians had the lowest life disparity ($e^{\dagger} = 14.7$) and Asian Indians had the highest ($e^{\dagger} = 20.2$), with Filipinos and Chinese falling in between. In 2017–2019, Asian Indian women with college degrees had the lowest life disparity ($e^{\dagger} = 14.9$) and Filipinas the highest ($e^{\dagger} = 16.8$). Among those with no college degree in 2005–2007, Aggregated Asians also had the lowest life disparity ($e^{\dagger} = 15.2$) and Asian Indians the highest ($e^{\dagger} = 20.7$). And like their counterparts with college degrees, Asian Indian women without college degrees in 2017–2019 also had the lowest life disparity ($e^{\dagger} = 15.7$), while their Filipina counterparts had the highest ($e^{\dagger} = 17.3$) (Table 3).

For Chinese women with and without college degrees, life disparity generally increased with life expectancy, except between 2011-2013 and 2014–2016. That a general life disparity increase accompanied an overall rise in life expectancy among Chinese women suggests that their life expectancy rose due to improvements in old-age mortality. Likewise, Filipina women encountered simultaneous life expectancy and life disparity increases. Unlike Chinese and Filipina women, however, Asian Indian women endured sizeable life expectancy declines accompanied by life disparity reductions among those with and without college degrees (Table 3). Altogether, disparities widened between Chinese and Asian Indian women in both education groups, and between college-educated Chinese and Filipina women.

4.4. Sensitivity analyses for life expectancy and life disparity trends

In the main analyses I excluded from the numerator all observed deaths between ages 25–74 that had no specified educational attainment information. The proportion of deaths excluded from the analyses varied by national-origin group, ranging from one percent to four percent of total deaths between ages 25–74 for each group (Table 4 in supplemental materials). Thus, I conducted sensitivity analyses according to three different scenarios: (1) half of the excluded death data were in the 'with a bachelor's degree' group and the other half in the 'no college degree' group; (2) all excluded death data were in the 'with a bachelor's degree' group; and (3) all excluded death data were in the 'no college degree' group.

The inclusion of the missing death data decreased the life expectancy values for the different national-origin groups but did not substantively alter the findings. Tables 5 and 6 are available as supplemental materials, and they report the life expectancy and lifespan disparity over time among the different national-origin groups, under the first scenario. The trends in within-group life expectancy and between-group life expectancy gaps did not substantially differ from the main analyses. Among those with at least a bachelor's degree, Chinese and Filipino men experienced overall life expectancy improvements, while Asian Indian men's longevity declined (Table 5). Among those with less than a college degree, only Chinese men were better off in the 2017–2019 period than they were in the 2005–2007 period (Table 5). The widening gaps were due to an overall increase in Chinese life expectancy, an overall decline in Asian Indian longevity, and slow increase or stagnation in Filipino life expectancy. I also did not find substantive differences in women's life expectancy trends (Table 6). And life disparity trends among men and women in each national-origin-bachelor's attainment groups also did not substantially differ from the main findings. Lastly, analyses based on the second and third scenarios did not yield substantively different outcomes (not presented).

5. Discussion and conclusion

This descriptive study highlights widening health inequalities between Chinese, Asian Indians, and Filipinos in the United States. I found that Asian Indian and Filipino life expectancies converged over time, largely due to Asian Indian decline. However, both groups diverged from their Chinese counterparts due to Chinese mortality improvements. To my knowledge, this is the first study to document the trends in longevity gaps between groups under the Asian umbrella. My findings add needed complexity to existing research on aggregated Asians' health (Singh et al., 2017; Woolf & Schoomaker, 2019). Moreover, that the declining longevity of Asian Indians had not been previously documented underscores the limitations of using monolithic categories in research. Thus, this article contributes to data disaggregation efforts, and it contextualizes findings within the social conditions that produce inequalities, namely racialization.

The notion of Asian-ness is not a clear-cut category (Kibria, 1998). While there are political and material benefits to the construction of a pan-ethnic Asian label (Okamoto, 2014), so-called 'Brown Asians' (e.g., Filipinos, Asian Indians) are often excluded from the public's notion of Asian-ness (Lee & Ramakrishnan, 2020; Nadal, 2019). For example, research suggests that these groups may be racialized as something other than Asian because their physical presentation deviates from generalized notions of *how Asians look* (Baluran, 2022). My findings are suggestive of differential racialization at work, and they speak to the unclear boundaries of Asian-ness and Filipinos' and Asian Indians' tenuous ties to Asian racial status (Kibria, 1998; Ocampo, 2016). Gee and Ford (2011) emphasize the role of structural racism in (re)producing health inequities. However, researchers should also consider how peoples' distinct histories and experiences of racialization and racism shape that relationship (Adia et al., 2022; Sabado-Liwag et al., 2022; Yi, 2022). For example, Asian Indians' notable health decline perhaps reflects their escalating racial status precarity along with greater exposure to stressors like discrimination (Cainkar & Selod, 2018; Garner & Selod, 2015; Shahms, 2020). Such heightened stress worsened the health and well-being of South Asians in the United States and explains, in part, their life expectancy decline (Kaduvettoor-Davidson & Inman, 2013; McMurty et al., 2019). Bonilla-Silva (2004, 2018) claims that a tri-racial system is emerging in the United States that would make the current categorization schemes less meaningful. The emergence of this new racial scheme brings about changes in group boundaries along with changing racial statuses, privileges, and life outcomes. The diverging health of the three national-origin groups point to their increasingly different lived experiences in American society and the gradual formation of new racial lines.

This study has important limitations. The small number of deaths for each national-origin group restrained my ability to divide educational attainment into more than two categories. Relatedly, the data did not permit for analyses using other indicators of socioeconomic status which may better capture the social positions of people of Asian descent. Moreover, a longer period of study would have been advantageous; however, the main analyses were limited only to 2005–2019 because complete disaggregated death data are not available for years before that period. Additionally, the study did not incorporate nativity. While there is evidence of foreign-born health advantages for certain outcomes (Hendi & Ho, 2021; John et al., 2012), it remains unclear how those advantages map on to mortality and life expectancy gaps for disaggregated Asian-origin groups. The analyses also only focused on three disaggregated groups; thus, it remains unclear how the health of other Asian national-origin groups changed over time. While there are some data on other groups (e.g., Japanese, Korean, and Vietnamese), death counts in the multiple cause of death file are too small for these groups to estimate age-specific death rates for 3-year periods, stratified by sex and educational attainment. Notwithstanding these limitations, this article highlights the benefits of integrating race scholarship in health research to generate new theoretical explanations for emerging health disparities. The precarity of minoritized groups' racial status in U.S. society upholds the social, political, and material interests of the dominant group (Delgado & Stefancic, J., 2017; Hall, 2017; Mills, 1997). That precarity manifests in the changing meanings attached to racial groupings and the shifting targets of hate and violence (e.g., the rise in anti-Asian and anti-Chinese racism following the rise of the COVID-19 pandemic, the rise in anti-Muslim and anti-South Asian discrimination following 9/11). Scholars must critically examine how our current approach to

categorizing people in research obfuscates the implications of these shifting meanings and targets for how we study and interpret inequality.

Ethical Statement

This manuscript presents the original work of the author. This article presents an accurate account of the author's work and an objective discussion of the findings. Moreover, the works of others have been properly cited and acknowledged where appropriate. Lastly, the author has no competing interests to declare.

Declaration of competing interest

None.

Data availability

Data will be made available on request.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ssmph.2022.101306.

References

Acciai, F., Noah, A. J., & Firebaugh, G. (2015). Pinpointing the sources of the Asian mortality advantage in the USA. *Journal of Epidemiology & Community Health, 69*(10), 1006–1011.

Adia, A. C., Nazareno, J., Don, O., & Ponce, N. A. (2020). Health conditions, outcomes, and service access among Filipino, Vietnamese, Chinese, Japanese, and Korean Adults in California, 2011–2017. *American Journal of Public Health, 110*(4), 520–526.

Adia, A. C., Restar, A. J., Nazareno, J., Cayanan, J., Magante, K. A., Don, O., & Ponce, N. A. (2022). Asian, Latinx, or multiracial? Assessing filipinxs' health conditions and outcomes by aggregate ethnic category. *Journal of Racial and Ethnic Health Disparities*, 1–7.

Alvarez, A. N., Juang, L., & Liang, C. T. H. (2006). Asian Americans and racism: When bad things Happen to 'model minorities. *Cultural Diversity and Ethnic Minority Psychology, 12*(3), 477.

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: Evidence and Interventions. *The Lancet, 389*(10077), 1453–1463.

Bakhtiari, E. (2020). Health effects of Muslim racialization: Evidence from birth outcomes in California before and after september 11, 2001. *SSM-Population Health, 12*, Article 100703.

Baldoz, R. (2004). Valorizing racial boundaries: Hegemony and conflict in the racialization of Filipino migrant Labour in the United States. *Ethnic and Racial Studies, 27*(6), 969–986.

Baluran, D. A. (2022). Differential racialization and police interactions among young Adults of Asian descent. *Sociology of Race and Ethnicity*. https://doi.org/10.1177/23326492221125121

Baluran, D. A., & Patterson, E. J. (2021). Examining ethnic variation in life expectancy among Asians in the United States, 2012–2016. *Demography, 58*(5), 1631–1654.

Bonilla-Silva, E. (1997). Rethinking racism: Toward a structural Interpretation. *American Sociological Review, 62*(3), 465–480.

Bonilla-Silva, E. (2004). From Bi-racial to tri-racial: Towards a new system of racial stratification in the USA. *Ethnic and Racial Studies, 27*, 931–950.

Bonilla-Silva, E. (2018). *Racism without racists: Color-blind racism and the persistence of racial inequality in the United States* (5th ed.). Lanham, MD: Rowman & Littlefield Publishers, Inc.

Brown, D. C., et al. (2012). The significance of education for mortality compression in the United States. *Demography, 49*(3), 819–840.

Brubaker, R. (2002). Ethnicity without groups. *European Journal of Sociology/Archives Européennes de Sociologie, 43*(2), 163–189.

Byhoff, E., et al. (2017). Increasing educational attainment and mortality reduction: A systematic review and taxonomy. *BMC Public Health, 17*(1), 1–9.

Cainkar, L., & Selod, S. (2018). Review of race scholarship and the war on terror. *Sociology of Race and Ethnicity, 4*(2), 165–177.

Case, A., & Deaton, A. (2021). "Life expectancy in Adulthood is falling for those without a BA degree, but as educational gaps have widened, racial gaps have narrowed. *Proceedings of the national Academy of sciences, 118*(11).

Case, A., & Paxson, C. (2005). "Sex differences in morbidity and mortality. *Demography, 42*(2), 189–214.

Chiang, C. L. (1984). *Life table and its applications*. Malabar, FL: Robert E. Krieger Publishings.

Chutuape, E. D. (2016). 'Chinese-Mexicans' and 'blackest Asians': Filipino American youth resisting the racial binary. *Race, Ethnicity and Education, 19*(1), 200–231.

Cobb, R. J., Sheehan, C. M., Louie, P., & Erving, C. L. (2022). Multiple reasons for perceived everyday discrimination and all-cause mortality risk among older Black Adults. *The Journals of Gerontology: Series A, 77(2), 310-314*.

Dee, E. C., Chen, S., Santos, P. M. G., Wu, S. Z., Cheng, I., & Gomez, S. L. (2021). Anti-Asian American racism: A wake-up call for population-based cancer research. *Cancer Epidemiology and Prevention Biomarkers, 30*(8), 1455–1458.

Delgado, R., & Stefancic, Jean (2017). *Critical race theory: An introduction* (3rd ed.). New York, NY: New York University Press.

Garner, S., & Selod, S. (2015). The racialization of Muslims: Empirical studies of islamophobia. *Critical Sociology, 41*(1), 9–19.

Gee, G. C., & Ford, C. L. (2011). Structural racism and health inequities: Old issues, new directions. *Du Bois Review: Social Science Research on Race, 8*(1), 115–132.

Gee, G. C., & Ponce, N. (2010). Associations between racial discrimination, limited English proficiency, and health-related quality of life among 6 Asian ethnic groups in California. *American Journal of Public Health, 100*(5), 888–895.

Gordon, N. P., Lin, T. Y., Rau, J., & Lo, J. C. (2019). Aggregation of Asian-American subgroups masks meaningful differences in health and health risks among Asian ethnicities: An electronic health record based cohort study. *BMC Public Health, 19*(1), 1551.

Gotanda, N. (2011). The racialization of Islam in American Law. *ANNALS AAPS, 637*, 184–195.

Hall, S. (2017). The fateful triangle: Race, ethnicity, and nation. In *Kobena Mercer*. Cambridge, MA: Harvard University Press.

Hastings, K. G., Jose, P. O., Kapphahn, K. I., Frank, A. T. H., Goldstein, B. A., Thompson, C. A., Eggleston, K., Cullen, M. R., & Palaniappan, L. P. (2015). Leading causes of death among Asian American subgroups (2003–2011). *PLoS One, 10*(4), Article e0124341.

Hendi, A. S., & Ho, J. Y. (2021). Immigration and improvements in American life expectancy. *SSM-Population Health, 15*, Article 100914.

Homan, P. A., & Brown, T. H. (2022). Sick and tired of being excluded: Structural racism in disenfranchisement as A threat to population health equity. *Health Affairs, 41*(2), 219–227.

Ignacio, L. F. (1976). *Asian Americans and Pacific Islanders (Is there such an ethnic group?)*. Pilipino Development and Associates.

Iyer, D. G., Shah, N., Hastings, K., Hu, J., Rodriguez, F., Boothroyd, D., Krishnan, A., Falasinnu, T., & Palaniappan, L. (2019). Years of potential life lost because of cardiovascular disease in Asian-American subgroups, 2003–2012. *Journal of American Heart Association, 8*(7), Article e010744.

John, D. A., de Castro, A. B., Martine, D. P., Duran, B., & Takeuchi, D. T. (2012). Does an immigrant health paradox exist among Asian Americans? Associations of nativity and occupational class with self-rated health and mental disorders. *Social Science & Medicine, 75*(12), 2085–2098.

Joshi, K. Y. (2006). The racialization of Hinduism, Islam, and sikhism in the United States. *Equity & Excellence in Education, 39*(3), 211–226.

Kaduvettoor-Davidson, A., & Inman, A. G. (2013). South Asian Americans: Perceived discrimination, stress, and well-being. *Asian American Journal of Psychology, 4*(3), 155–165.

Kibria, N. (1996). Not Asian, Black or white? Reflections on South Asian American racial identity. *Amerasia Journal, 22*(2), 77–86.

Kibria, N. (1998). The contested meanings of'Asian American': Racial dilemmas in the contemporary US. *Ethnic and Racial Studies, 21*(5), 939–958.

Lee, J. (2019). Many Dimensions of Asian American pan-ethnicity. *Sociology Compass, 13*(12), Article e12751.

Lee, J., & Ramakrishnan, K. (2020). Who counts as Asian. *Ethnic and Racial Studies, 43*(10), 1733–1756.

Lee, J. C., & Kye, S. (2016). Racialized Assimilation of Asian Americans. *Annual Review of Sociology, 42*(1), 253–273.

Leopold, L. (2018). Education and physical health trajectories in later life: A comparative study. *Demography, 55*(3), 901–927.

Link, B. G., & Phelan, J. (1995). Social conditions as fundamental causes of disease. *Journal of Health and Social Behavior*, 80–94.

Luy, M. (2003). Causes of male excess mortality: Insights from cloistered populations. *Population and Development Review, 29*(4), 647–676.

McMurty, C. L., Findling, M. G., Casey, L. S., Blendon, R. J., Benson, J. M., Sayde, J. M., & Miller, C. (2019). Discrimination in the United States: Experiences of Asian Americans. *Health Services Research, 54*(S2), 1419–1430.

Mills, C. W. (1997). *The racial contract*. Ithaca, NY: Cornell University Press.

Monk, E. (2022). Inequality without groups: Contemporary theories of categories, intersectional typicality, and the disaggregation of differences. *Sociological Theory, 40*(1), 3–27.

Montez, J. K., et al. (2019). Educational disparities in adult mortality across U.S. states: How do they differ and have they changed since the mid-1980's? *Demography, 56*(2), 621–644.

Morey, B. N., Gee, G. C., Peter, M., & Hatzenbuehler, M. L. (2018). Community-level prejudice and mortality among immigrant groups. *Social Science & Medicine, 199*, 56–66.

Nadal, K. L. (2019). The Brown Asian American movement: Advocating for South Asian, Southeast Asian, and Filipino American communities. *Asian American Policy Review, 29*, 2–9.

Nadimpalli, S. B., & Katherine Hutchinson, M. (2012). An integrative review of relationships between discrimination and Asian American health. *Journal of Nursing Scholarship, 44*(2), 127–135.

National Center for Health Statistics. *Multiple Cause of death file 2000-2019*, as compiled from data provided by the 57 vital statistics jurisdictions through the vital Statistics cooperative Program.

Ocampo, A. (2013). Am I really Asian?': Educational experiences and panethnic Identification among second–generation Filipino Americans. *Journal of Asian American Studies, 16*(3), 295–324.
Ocampo, A. (2014). Are second-generation Filipinos 'becoming' Asian American or Latino? Historical colonialism, culture and panethnicity. *Ethnic and Racial Studies, 37*(3), 425–445.
Ocampo, A. (2016). *The Latinos of Asia: How Filipino Americans break the rules of race*. Stanford, CA: Stanford University Press.
Okamoto, D. G. (2014). *Redefining race: Asian American panethnicity and shifting ethnic boundaries*. Russell Sage Foundation.
Omi, M., & Winant, H. (2014). *Racial Formation in the United States*. Routledge.
Phelan, J. C., & Link, B. (2015). Is racism a fundamental cause of inequalities in health? *Annual Review of Sociology, 41*, 311–330.
Preston, S., Heuveline, P., & Guillot, M. (2000). *Demography: Measuring and modeling population processes*. Oxford: Blackwell.
Ross, C. E., Masters, R. K., & Hummer, R. E. (2012). Education and the gender gaps in health and mortality. *Demography, 49*(4), 1157–1183.
Sabado-Liwag, Melanie, D., Manalo-Pedro, E., Roy, T., Bacong, A. M., Alexander, A., Demanarig, D., Sumibcay, J. R., Valderama-Wallace, C., Oronce, C. I. A., Bonus, R., & Ponce, N. A. (2022). Addressing the Interlocking impact of colonialism and racism on filipinx/a/o American health inequities. *Health Affairs, 41*(2), 289–295.
Samari, G., Alcalá, H. E., & Sharif, M. Z. (2018). Islamophobia, health, and public health: A systematic literature review. *American Journal of Public Health, 108*(6). e1–9.
Sasson, I. (2017). Reply to trends in education-specific life expectancy, data quality, and shifting education distributions: A note on recent research. *Demography, 54*(3), 1215–1219.
Selod, S. (2018). *Forever suspect: Racialized surveillance of Muslim Americans in the war on terror*. Rutgers, NJ: Rutgers University Press.
Shahms, T. (2020). Successful yet precarious: South Asian Muslim Americans, islamophobia, and the model minority myth. *Sociological Perspectives, 63*(4), 653–669.
Shankar, L. D., & Srikanth, R. (1998). *A Part, Yet Apart: South Asians in Asian America*. Temple University Press.
Singh, G. K., Daus, G. P., Allender, M., Ramey, C. T., Martin, E. K., Perry, C., Andrew, A., De Los Reyes, & Vedamuthu, I. P. (2017). Social determinants of health in the United States: Addressing major health inequality trends for the nation, 1935-2016. *International Journal of MCH and AIDS, 6*(2), 139–164.
Spickard, P., Rondilla, J. L., & Wright, D. H. (2002). *Pacific diaspora: Island peoples in the United States and across the Pacific*. University of Hawaii Press.
Teranishi, R. T. (2002). Asian Pacific Americans and critical race theory: An examination of school racial climate. *Equity & Excellence in Education, 35*(2), 144–154.
Treitler, V. B. (2013). *The ethnic project: Transforming racial fiction into ethnic factions*. Stanford, CA: Stanford University Press.
Vaupel, J. W., Zhang, Z., & Alyson van, R. (2011). Life expectancy and disparity: An International comparison of life table data. *BMJ Open, 1*, Article e000128.
Williams, D. R., & Collins, C. (2016). Racial residential segregation: A fundamental cause of racial disparities in health. *Public Health Reports*.
Williams, D. R., Lawrence, J. A., Davis, B. A., & Vu, C. (2019). Understanding how discrimination can Affect health. *Health Services Research, 54*, 1374–1388.
Woolf, S. H., & Schoomaker, H. (2019). Life expectancy and mortality rates in the United States, 1959-2017. *JAMA, 322*(20), 1996–2016.
Wu, C., Qian, Y., & Wilkes, R. (2021). Anti-Asian discrimination and the Asian-white mental health gap during COVID-19. *Ethnic and Racial Studies, 44*(5), 819–835.
Yi, S. S., et al. (2022). The mutually reinforcing cycle of poor data quality and racialized stereotypes that shapes Asian American health. *Health Affairs, 41*(2), 296–303.
Zuberi, T., & Bonilla-Silva, E. (2008). *White Logic, white methods: Racism and methodology*. Rowman & Littlefield Publisher.