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Awakening
The Unveiling of Historically Unaddressed Social Inequities During the COVID-19 Pandemic in the United States

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KEYWORDS
• Race • Ethnicity • LGBTQ • Inequities • COVID-19 • Disparities

KEY POINTS
• Violence and victimization brought by colonization and slavery and justified for over a century by race-based science have resulted in enduring inequities for Black, Indigenous and People of Color (BIPOC) across the United States.
• The seeds planted from the rhetoric and policies of colonization and race-based science have strong and enduring roots ensuring that biases persist across societal domains.
• These biases have resulted in ongoing and pervasive discriminatory economic, social, and structural practices placing BIPOC individuals, families and communities at increased risk for violence, victimization, mass incarceration, trauma, and negative health outcomes.
• Intersecting marginalized identities weave together systems of discrimination or social disadvantages and amplify the impact of negative health outcomes, poverty, trauma, and other social ills.
• What is critical are the actions taken by organizations and institutions to reconcile and repair the harm that has been perpetrated for more than a century.
INTRODUCTION

Racial and ethnic biases have resulted in ongoing and pervasive discriminatory economic, social, and structural practices placing Black, Indigenous and People of Color (BIPOC) (people of color includes Asian Americans, Native Hawaiians [NH], and Pacific Islanders [PI]), their families, and communities at increased risk for violence, victimization, mass incarceration, trauma, and negative health outcomes. The violence and victimization brought by colonization and slavery, and justified for over a century by race-based science,\textsuperscript{1,2} have resulted in enduring inequities for BIPOC across the United States; this is particularly true if BIPOC individuals have other intersecting devalued identities. Herein, we highlight how such longstanding inequities paved the way for the disproportionate burdens of coronavirus disease 2019 (COVID-19) among BIPOC across the United States and other countries that share a colonial legacy. We also provide recommendations on how to improve COVID-19 mitigation strategies with the goal of eliminating disparities.

US settler colonialism and\textsuperscript{3,4} the “discovery” of the “new world” sought to erase Indigenous people from the land through massacres, enslavement, and forced relocations so that the land could be reconfigured as settler property and settler “origin” stories could be inserted to uphold settler rationalizations for ongoing colonial violence in the service of colonial progress. US settler colonialism also included the theft and enslavement of African peoples from their “homelands to become the property of settlers to labor on stolen land”\textsuperscript{5n} as well as the creation of racialized migrant “others” imported to serve as a source of easily accessible, manipulatable, and expendable labor.\textsuperscript{6,7}

US settler colonialism is a structure that resulted in the death of more than 100 million native and Indigenous peoples as far back as 1607 (ie, the first colony founded at Jamestown, Virginia) with transgenerational adverse impacts persisting to the present day.\textsuperscript{8} Native peoples were subject to community massacres, enslavement, pandemics from the introduction of new disease, and genocidal policies such as the “Kill the Indian, Save the man” policy (1879 to ~1935) resulting in the forced removal of children from their homes into boarding schools where they were subjected to rampant sexual and physical abuse. First Indigenous peoples and then African slaves were made inhuman or “othered” to obtain their labor and land. Creating structures of racial subordination through erasing and “racing” “others” and hiding behind narratives of progress and Western superiority to gain access to land and exploitable labor were critical to consolidating the settler state, augmenting settler wealth and power, obscuring the conditions of its own production and reproduction, and freeing future generations from accountability.\textsuperscript{5,7,9,10}

In the 1820s race-based science was introduced by US southern physicians seeking to legitimize slavery\textsuperscript{1,2}; it purported an inherent inferiority based on race and soon became the prominent scientific paradigm in the country and throughout Europe. At its foundation was a nondonata- and pseudoscience-driven justification of a system of inhumane forced labor, first, for enslaved Africans, later for Chinese, Japanese, Mexican, and Central American immigrant laborers, and continuously among residents of US unincorporated territories. Job scarcity during the Great Depression led to the “discovery” that white individuals did not differ from their BIPOC counterparts in their heat adaptability or pain tolerance.\textsuperscript{11} The seeds planted from the rhetoric and policies of colonization and race-based science have strong and enduring roots ensuring that biases persist across societal domains. The implementation of public health initiatives in the United States is a product of this history and has been fundamentally exclusionary and racist.\textsuperscript{12–14}
Intersectionality

Intersectionality can be defined as the interconnected nature of social categories like class, gender, and race. These interconnected identities weave together systems of discrimination or social disadvantages to amplify the impact of negative health outcomes, poverty, trauma, and other social ills. The social and structural devaluation of gender, sex, sexuality, and racial minority groups is anchored in societal and political attitudes and beliefs that have been nourished over settler colonial policies over generations. This coupled with contemporary and historical experiences of discrimination and bias results in a constant assault on the health, lives, and personhood of marginalized communities. For most infectious diseases, including COVID-19, the most extreme burden of disease is experienced by society’s most vulnerable, most often, people who experience multiple forms of social disadvantage.

Lesbian, Gay, Transgender, and Queer Populations

It is well established that people who identify as lesbian, gay, bisexual, transgender, or queer (LGBTQ) experience elevated levels of discrimination and bias, social disadvantages, and physical and mental health disparities. These disparities are exacerbated by the social isolation and trauma from the COVID-19 pandemic. When these disparities are overlain with racism, LGBTQ communities of color carry a greater burden of vulnerability due to these same systems of oppression.

During the COVID-19 pandemic, LGBTQ communities have been disadvantaged by longstanding and new challenges associated with employment and financial stability, negative experiences with health care, limited or no health insurance, and effects of physical distancing and social isolation on mental health. LGBTQ youth experience greater proportions of homelessness, violence, and suicide compared with their cisgender and heterosexual counterparts, increasing their vulnerability to a range of negative health and psychological threats. Older LGBTQ adults face unique challenges because they experience high rates of systemic discrimination in housing and health care that increases risk for poverty. Transgender older adults experience higher rates of sexual assault, violence, family rejection, and social isolation than any other group within the LGBTQ community. In addition, for some older adult LGBTQ people, the COVID-19 pandemic is reminiscent of the earlier days of the human immunodeficiency virus (HIV) epidemic when death and despair were pervasive, and the initial HIV response ignored the nuanced impact it had on communities with intersectional identifies. The elevated health threats to LGBTQ persons, including youth and adults, coupled with the COVID-19 pandemic result in alarming increases in vulnerabilities. Although these examples of susceptibility are not unique to LGBTQ communities, the intersection of invisibility, homophobia, transphobia, racism, sexism, and other forms of discrimination ensures that LGBTQ populations, particularly those who are also BIPOC, are disproportionately impacted by COVID-19. The disparities LGBTQ communities face, illuminated by the COVID-19 pandemic, represent a failure to address these same determinants of health that impact HIV burden in these communities.

American Indian/Alaska Native

American Indian and Alaska Native (AIAN) populations number 9.7 million people representing 2.9% of the US population. There are 574 federally recognized AIAN nations and villages as well as more than 63 state-recognized tribes representing linguistically and culturally diverse Indigenous populations across the United States. AIANs are dying of COVID-19 at higher rates and at younger ages than other populations. As of February 10, 2021, AIANs have the highest age-adjusted COVID-19
mortality rate of any other population (265 of 100,000 vs 108–249 of 100,000 across Asian, white, black, and Hispanic/Latino populations respectively). As of November 22, 2021, risk for COVID-19 death remained highest among AIAN populations (ratios of age-adjusted rates: 2.2× vs 0.9–2.1×). Moreover, although COVID-19 mortality rates increase with age across all populations, AIANs aged 20 to 29 years, 30 to 39 years, and 40 to 49 years are 10.5 times, 11.6 times, and 8.2 times more likely to die than white persons in the same age groups, respectively. Findings from the Native American COVID-19 Alliance national needs assessment study (March, 2021; N = 8549) found that the crude estimate of COVID-19 AIAN deaths of 765 of 100,000 was three times that of current estimates. Finally, as of February 17, 2022, AIAN populations continue to have the highest rates of age-adjusted, laboratory confirmed COVID-19 hospitalizations (1943.6 of 100,000) than any other population (496.9-1538.1 of 100,000).

Raising the visibility of Native experiences is critical during the COVID-19 pandemic, because AIAN communities have been hit hard and yet remain largely invisible, undercounted, or misclassified in COVID-19 public health surveillance data. Deficient and inaccurate systems of reporting, data collection methods, and data analytical approaches have led to invisibility and erasure of AIAN health needs as well as significant gaps in understanding the lived experiences and impact of COVID-19 on AIAN populations, communities, and families. As noted earlier, erasure is a hallmark of US settler colonialism, and the chronic and pervasive invisibility in systems of data reporting do not simply reflect shoddy systems, but rather, reflect colonial structures’ intention or complacency in upholding data colonialism. Coupled with ongoing structural data inequities that place AIANs at risk for not adequately receiving economic and structural health supports are the chronic socioeconomic-environmental structural inequities that have been a harbinger of poor health and health inequities in Indian country.

The convergence of socioeconomic and environmental inequities combined with “pre-existing chronic disease conditions create a potentially perilous interacting synergistic epidemic –known as a syndemic– accelerating the hazardous impact of COVID-19” on AIAN populations. The multiple, interacting network of health, social, and structural conditions works synergistically to accelerate poor AIAN population health, particularly during pandemics and environmental disasters.

AIAN communities know all too well that COVID-19 is exacerbating existing health inequities across the country; however, the high rate of vaccine uptake in many tribal communities, despite justifiable mistrust of medical and vaccine systems, reveals a story of hope and motivation to persevere despite pandemic outbreaks, discrimination, and persistent inequities, and is a testament to the strength of AIAN commitment to the health and well-being of the present and future generations; this is because the COVID-19 vaccines are not just about personal safety, but about protecting family, community, and elders, and ultimately protecting culture, ceremonies, language, and lifeways, for the present and future generations.

Asian/Asian Americans

First-generation immigrant Asian and Asian Americans are a diverse nonmonolithic group, and yet the “Asian” category is only 1 of 5 race/ethnicity data collected by federal agencies. The 6 major subgroups (in the United States) are Chinese, Indian, Filipino, Vietnamese, Korean, and Japanese, but there is more ethnic diversity. For example, South Asian Americans include Afghani, Bangladeshi, Indian, Nepalese, Pakistani, and Sri Lankan ethnicities. The Centers of Disease Control and Prevention and Kaiser Family Foundation COVID-19 vaccination data do not disaggregate Asian
Lack of specific race determination among Asian Americans has led to inequitable resource allocation. Case in point, South Philadelphia’s Southeast Asian community did not have adequate supply of vaccine, and vaccination sites were not located within walking distance for older Southeast Asian adults. Owing to language barriers, these older adults could not take public transportation to vaccination sites outside of South Philadelphia; this is reflected in Kaiser Family Foundation COVID-19 vaccination data, which showed that only 33% of Asian Americans were vaccinated in Pennsylvania, and in South Dakota, only 10% of Asian Americans had been vaccinated by November 2021. Diverse languages within Asian American populations may have hindered dissemination of information about vaccine safety and efficacy. Vietnamese Americans have the lowest rate of English proficiency, followed by Filipino and Korean Americans. Information about COVID-19 vaccines needs to be translated into multiple languages beyond the 6 major subgroups identified as the dominant groups.

Perception that Asian Americans are compliant and would accept COVID-19 vaccination has not been entirely true. Survey studies found that Asian Americans had concerns about side effects, safety, and effectiveness of the COVID-19 vaccine, similar to African Americans and Hispanic/Latinos/as/x. In Los Angeles’s Chinatown, community health workers and community leaders diligently urged people to be vaccinated, especially the older adults. Their effort was hindered as Asian Americans were targeted and assaulted, bearing the blame that COVID-19 infection originated from China. Older Chinese Americans were beaten and harassed, whereas younger Asian Americans were denied services at stores or shunned at school or at work. A disproportionate number of Asian American businesses closed during the early COVID pandemic, leading to food insecurity and difficulties accessing health care.

This racial discrimination is reminiscent of Japanese American internment camps during World War II, when Japanese Americans were suddenly treated as enemies and as a national security threat. Throughout American history, Asian Americans have been treated as foreigners and outsiders, whereas European immigrants were generally more accepted in the American culture. The Chinese Exclusion Act of 1882 prohibited immigration of Chinese into the United States, and the National Origins Act of 1924 prevented Japanese immigration. Despite racial violence, Asian American community leaders and neighborhood health center workers continue to reach out to their community and campaign for COVID-19 vaccinations. Owing to their efforts, Asian Americans in most states reached 50% to 80% fully vaccination rates by the beginning of November 2021.

Black/African Americans

The current racial disparities in infant and maternal mortality, pain management, poor patient provider relations, and many other examples, including COVID-19, trace back to race-based pseudoscience. Throughout US history the relationship between medical science and the black body has often been precarious at best and horrifying at worst. Black people can easily point to the long history of experimentation on black bodies, the US Public Health Service Syphilis study at Tuskegee, Henrietta Lacks, and the list goes on. At the same time, it is effortless to identify invalidating, demeaning, and egregious behaviors experienced in medical encounters in the not-so-distant past and ongoing at present. These experiences have cemented the view of medical providers and the larger medical and research enterprise as being untrustworthy. The dominant discourse is that black people have mistrust and are vaccine hesitant, ignoring the more difficult discussions focused on institutional and individual
provider efforts—or lack thereof—to build reputations of trustworthiness among black people and the larger black community.44

Decades of housing and economic discrimination (black codes, apprenticeship laws, antienticement measures, Jim Crow laws, sundown towns, restrictive covenants, redlining, government “projects,” creation of “ghettos,” gentrification, and so forth) have created precarious situations for many black communities. Black people are more likely to live in areas with high housing density, pollution, and food insecurity45,46; they are also more likely to be in employment circumstances that do not allow for work from home, and do not offer insurance, unpaid sick leave, or childcare.47–49 For foreign-born black people in the United States, anti-immigrant sentiment and language access challenges are additional critical factors impacting disparities. Black people generally experience higher levels of police violence and criminalization.50 Across the United States, these factors have resulted in increased risk of exposure to SARS-CoV-2. It is these unaddressed social and structural factors that have consistently placed black Americans at increased risk for infectious diseases and chronic disease. COVID-19 is the most recent in this long list of disease outcomes that disproportionately impact black people. As with other disease outcomes, black Americans are overrepresented in COVID-19 cases, hospitalizations, and deaths, experiencing the highest COVID death rate51 of any racial group in the country.

Black Americans have also faced many challenges in their efforts to engage in preventative care, and these challenges contribute to the lagging rates of vaccination among black people. When testing and vaccines are available at large venues with increased police presence, this may increase discomfort and create barriers to access. Employment circumstances may prohibit taking time off without losing pay during vaccination timeframes. Access to technology may impair the ability to schedule appointments, and vaccination locations may require transportation and time, which may not be available. These factors and others contribute to the fact that African Americans and black people have low rates of COVID-19 vaccine uptake.34

Hispanic/Latino/a/x

Hispanic/Latino/a/x populations have historically experienced displacement, exploitation, discrimination, racism, and stigma. Furthermore, they have been used to test medical interventions without consent, affecting the health and quality of life of multiple generations across the United States and its territories.52–54 As of 2020, Hispanic/Latino/a/x populations represented 18.7% of the US total population and account for more than half (51.1%) of the country’s population growth.55 Hispanic/Latinos/as/x are not a monolithic group. When described as an “ethnic group” in federally managed data, Hispanic/Latinos/as/x include any person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture origin, regardless of race. Hispanic/Latino groups have transnational experiences that intersect with their lived experiences in the United States and their countries of origin.56 The largest Hispanic/Latino/a/x group in the United States is Mexicans (61.4%), followed by Puerto Ricans (9.6%), and Central Americans (9.8%). Most Hispanic/Latinos/as/x (71.7%) speak a language other than English at home and have lower educational attainment and median household income when compared with non-Hispanic whites. Among all racial and ethnic groups within the United States, Hispanic/Latinos/as/x have the highest health uninsured rates. Furthermore, they are overrepresented within service occupations.57

Since early in the COVID-19 pandemic, it was documented that Hispanic/Latino/a/x populations were overrepresented in the US morbidity and mortality rates. With data from the first 3 months of the COVID-19 pandemic, it was already established that SARS-CoV-2 infections among Hispanic/Latinos/as/x were associated with being
monolingual Spanish speakers, being employed, less social distancing, and preexisting chronic diseases. Similarly, COVID-19 deaths among Hispanic/Latinos/as/x were associated with household occupancy density, air pollution, and being employed. Over the course of the pandemic, we have had ample evidence of these factors affecting multiple Hispanic/Latino/a/x groups with intersectional experiences. Many have advocated to improve the systemic ability to capture specific data that could help point to root causes of these disparities and therefore improve COVID-19 prevention, testing, and care. For Hispanic/Latinos/as/x, the negative outcomes being experienced during the COVID-19 pandemic reflect historic experiences of living in places with high levels of pollution, working in high-risk occupations, experiencing housing instability, and interacting with a health care system and providers who are not culturally appropriate or accessible. As these structural issues have not been systematically addressed, the vaccine acceptability and completion rates reflect these challenges for these populations. Being Hispanic/Latino/a/x, or of any other racial or ethnic group, is not an intrinsic risk factor for negative health outcomes. The cause of these inequities is the living conditions and general health inequities faced by these populations.

Native Hawaiian/Pacific Islanders

Native Hawaiians and other Pacific Islanders (NHOPI) comprise 0.2% of the US population and have been disproportionately impacted by COVID-19, yet understanding disparities in incidence, mortality, and COVID-19 vaccination coverage within this group has been hindered by inadequacies in data reporting and disaggregation. Identifying vulnerable populations by geography, ethnicity, age, and socioeconomic group is a requisite to deploying community-contextualized, culturally-specific COVID-19 mitigation strategies, which thus far remain insufficient. Although NH comprise approximately 60% of the NHOPI category (under the 20 US Code § 7517, the term “Native Hawaiian” means any individual who is a citizen of the United States and a descendant of the aboriginal people who, before 1778, occupied and exercised sovereignty in the area that now comprises the State of Hawaii. In 1997, the US Office of Management and Budget reclassified Native Hawaiians under the category of “Native Hawaiian or Other Pacific Islander.” Although this recategorization resolved issues with data bias in their former category, Native Hawaiians remain aggregated along with Guamanians, Samoans, Carolinian, Fijian, Kosraean, Melanesian, Micronesian, Northern Mariana Islander, Palauan, Papua New Guinean, Ponapean [Pohnpelan], Polynesian, Solomon Islander, Tahitian, Tarawa Islander, Tokelauan, Tongan, Trukese [Chuukese], and Yapese, Indigenous Pacific peoples are distinct, each with their own linguistic, cultural, and sociodemographic backgrounds; migration histories; and genetic origins. Such heterogeneity may confound interpretation of aggregated NHOPI data and thereby hinder appropriate responses to address COVID-19-related health disparities.

NHOPIs have a history of encountering, and overcoming, infectious diseases introduced by foreign contact that have decimated these populations in their ancestral islands. The population of Native citizens of the Kingdom of Hawaii was decimated by imported infectious diseases before the US-aided overthrow of the Kingdom in 1893. Immigrant laborers were then brought in to augment the depleted workforce, causing drastic socioeconomic changes, and relegating NH to a minority population within their own, previously sovereign nation. The longstanding social inequities and health disparities currently faced by NHOPIs render these populations particularly vulnerable to increased rates of SARS-CoV-2 infection and severe COVID-19 disease. In Hawaii, NHOPIs comprise 25% of the population, yet currently account
for 38% of all COVID-19 cases,\textsuperscript{72} demonstrating an intensification of prepandemic health disparities.\textsuperscript{73,74}

Glaring gaps in vaccine coverage, historically derived sentiments of distrust in government, and the emergence of more infectious SARS-CoV-2 variants altogether fuel widening disparities even within the NHOPI population. Early into the pandemic (March to December 2020), NH and PIs accounted for 19% and 25% of all COVID-19 cases despite comprising 21% and 4% of Hawaii’s population, respectively.\textsuperscript{75} Yet with the emergence of the Delta and Omicron variants, NHs and PIs accounted for 29% and 8% of COVID-19 cases, respectively, over June to November 2021.\textsuperscript{75} Despite widespread access to vaccines, recent vaccination data from the state indicate that whereas PIs are fairly represented at 4.5%, the vaccination rate among NHs remains underrepresented at 13.5%\textsuperscript{75} indicating vaccine hesitancy as a major contributor to the disproportionately higher rates of COVID-19 among NHs in Hawaii. A recent finding of a dual and opposing role of trust as a mediator of vaccine hesitancy\textsuperscript{76} among NHOPIs offers insight into addressing this disparity.

| Box 1 |
| --- |
| **Recommendations for working with black, Indigenous and people of color communities to increase the uptake and acceptability of preventive interventions (eg, vaccines)** |
| 1. Interventions that foster trust |
| 2. Interventions that increase health literacy |
| 3. Equitable partnerships with communities |
| 4. Appropriate data reporting and disaggregation by geography, ethnicity, sexual orientation, gender identity, age, and socioeconomic status |
| 5. Improve data collection to adequately differentiate specific communities within Asian American and Hispanic/Latino/a/x populations to improve understanding of the impact and identify methods to equitably allocate resources |
| 6. Address language barriers to disseminate information and provide services equally and enable ease in accessing public resources |
| 7. Prevent racial violence |
| 8. Develop and support structural changes such as policies and guidelines to address the social and structural determinants of health inequities |
| 9. Interventions to address homophobia, transphobia, xenophobia, sexism, and anti-black racism at all levels in our societies |
| 10. Restructure our civil systems to ensure we are fervently pursuing equity in all aspects of our societies |
| 11. Improving safety nets for people living in poverty to reduce additional burdens (eg, missing workdays to complete paperwork, inability to subsist on single employment, affordable housing) |
| 12. Provide comprehensive training to medical, nursing, health services, and public health students about bias, historic oppression, and trauma |
| 13. Develop culturally appropriate tools and interventions to improve health care encounters |
| 14. Provide resources to communities and populations to sustain effective grassroot interventions |
| 15. Support community-based research that fosters collaborations between scientists and communities with common experience of vulnerability and marginalization. |
DISCUSSION

Health is recognized as a human right, but not everyone enjoys the right to health equally. The COVID-19 pandemic has brought to the surface some of the many root causes of health inequities in the United States and globally. Public health is intrinsically political, and although the historical inequities causing health disparities among racial and ethnic groups are evident, very few systemic actions are being taken toward an antiracist and anticolonial approach to health. Recently, the American Psychological Association acknowledged its failure and accepted responsibility for its role and the role of the discipline of psychology in contributing to systemic racism. Acknowledgment, recognition, and apology are the first critical steps in addressing the inequities underlying health disparities. Actions taken by organizations and institutions to reconcile and repair the harm that has been perpetrated for more than a century are critical; this will require diversifying the health care workforce, addressing social determinants of health such as housing and employment, and efforts to actively reduce stigma, bias, and discrimination. There is much to be done.

In the absence of a proper political response to address the structural inequities experienced by marginalized populations during the COVID-19 pandemic, it is important to support grassroot initiatives and communities that are demonstrating effective responses to their population’s needs. Experienced persons identifying with these priority populations should lead the services needed for these communities. Furthermore, there is a need to support BIPOC people conducting research and providing information to their communities. As racial equity is not the problem of only one group, collaboration and partnership should lead the next efforts to improve the health and livelihoods of all BIPOC and other minoritized populations. We end this discussion with a table putting forth specific recommendations for working with BIPOC communities to increase the uptake and acceptability of interventions related to COVID-19 health promotion (Box 1).

CLINICS CARE POINTS

- Appropriate data reporting and disaggregation by geography, ethnicity, sexual orientation, gender identity, age, and socioeconomic status
- Develop and support structural changes such as policies and guidelines to address the social and structural determinants of health inequities
- Provide comprehensive training to medical, nursing, health services, and public health students about bias, historic oppression, and trauma
- Develop culturally appropriate tools and interventions to improve health care encounters
- Support community-based research that fosters collaborations between scientist and communities with common experience of vulnerability and marginalization.

DISCLOSURE

The authors have nothing to disclose.

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