

Advancing Health Equity in Hawai'i: Critical Reflections on COVID-19, Chronic Conditions, and Health Disparities

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COVID-19, the disease caused by the SARS-CoV-2 virus, manifests most visibly among those individuals and communities that our social and economic policies have marginalized, overlooked, or exploited. Epidemiological evidence clearly demonstrates that the groups of people most at risk of infection, hospitalization, and death from COVID-19 are those most vulnerable in our society, such as those living in congregate settings,^{1,2} those incarcerated or in detention centers,^{3,4} racial/ethnic minorities and Indigenous peoples,^{2,5,6} and people with physical and mental disabilities.^{7,8} Often, these vulnerable groups overlap.^{2,7}

A common factor impacting many people disproportionately affected by COVID-19 is the inequitable distribution of the social determinants of health, which describe the conditions people experience in the places they live, learn, work, and play.⁹ Throughout the pandemic, people earning low wages,¹⁰ living or working in crowded conditions,^{2,10,11} lacking or having insufficient insurance,¹² working in low status or informal jobs (e.g. farmworkers, in meat processing plants),^{13,14} with low educational attainment,^{15,16} with uncertain or no legal status,^{2,16} or with limited English proficiency^{11,15} have been at increased risk of contracting the virus, and once infected, of hospitalization and death.

Those most vulnerable to COVID-19 also tend to be disproportionately affected by chronic conditions such as heart disease, diabetes, and asthma. For example, it is well documented in Hawai'i and elsewhere in the US that Native Hawaiians, Other Pacific Islanders, and Filipinos (NHPIF) have a higher prevalence of chronic conditions than other populations.¹⁷⁻²⁰ Moreover, for these populations, chronic conditions tend to occur earlier in life, are more severe, and are less well-managed.^{20,21}

Chronic conditions and poor COVID-19 outcomes are tightly related. In February, the *Journal of the American Heart Association* published a highly influential paper showing that just 4 conditions were associated with more than 60% of COVID-19 hospitalizations in the US: diabetes, hypertension, obesity, and heart failure.²² Moreover, the proportion of black Americans hospitalized with COVID-19 and having 1 of these 4 conditions was higher than white, Hispanic, and Asian/other patients, at all ages, reaching up to 80% of COVID-19 hospitalizations among adults 65 years and older.²² In Hawai'i, cardiometabolic conditions such as diabetes and hypertension are highly prevalent and much more common among NHPIF than among other racial/ethnic groups.^{17,18} In particular, Other Pacific Islanders and

Filipinos have been disproportionately affected by COVID-19.¹⁰ For example, as of March 2021, Other Pacific Islanders were 14 times more likely than the general population of Hawai'i and 40 times more likely than white individuals in the state to die of COVID-19.¹⁰

The underlying determinants for COVID-19 and chronic conditions are often the same.²³ Structural vulnerabilities such as inadequate access to food and housing, financial insecurity, discrimination, and uncertain legal status² are all factors that reflect social and political decisions about who does or does not benefit from the resources (e.g. economic, health services), power, and prestige accorded to members of society. For example, until December 2020, approximately 25 000 Micronesians in Hawai'i, constituting a significant proportion of the state's Other Pacific Islander population, were excluded from Medicaid and required to have (supplemental) private insurance instead, which often must be obtained through an employer.²⁴⁻²⁶ In a state that, throughout the pandemic, regularly had the highest unemployment in the US,²⁷ a lack of access to the social safety net of Medicaid likely resulted in significant disparities in access to care and jeopardized quality disease management for many Micronesians. This may be one reason for the significantly heightened risk of hospitalization and death from the SARS-CoV-2 virus in this group.¹⁰ True resolution of such structural vulnerabilities will require systems, environmental, and policy changes that fundamentally restructure society and redistribute power more equitably.

In this special issue of the *Hawai'i Journal of Health & Social Welfare* are a series of articles that examine the COVID-19 outbreak in Hawai'i through a lens that explicitly acknowledges the interrelated nature of infectious and chronic diseases and the underlying conditions that contribute to both. This issue begins by examining the challenges and impacts of COVID-19 on Hawai'i communities. In the first section, Zhang and colleagues quantify psychological distress reported from April to November 2020 among a representative sample of Hawai'i households. This article is complemented by a qualitative study by Riley et al of residents' views during COVID-19, which highlights their strong desire for improved food security through better preservation and stewardship of the land. To close out the first section, Pelzer and colleagues discuss the unique issues faced by new mothers during the pandemic by exploring current breastfeeding challenges and the potential implications of lower breastfeeding levels on chronic disease across the lifespan.

The second section of this special issue describes the varied responses taken to address the disease outbreaks in Hawai‘i, especially among highly vulnerable communities. Shek et al provide a detailed description of the responses taken within Hawai‘i’s Micronesian community, one of the groups most affected by COVID-19 in the state. Next, Kamaka and colleagues discuss the data deficiencies that hindered prompt recognition of the deadly outbreak among Other Pacific Islanders and what steps have since been taken to address those deficiencies. Finally, Moir et al outline the actions of an often under-celebrated group of health care providers working on the frontline of the pandemic: community health workers.

In the third and final section of this special issue, the authors provide several perspectives on advancing health equity and building resilience to future threats. Kamaka and colleagues present a Native Hawaiian cultural framework for advancing COVID-19 related and community-informed health policies. This paper is followed by the work of Sentell et al describing the need for and benefits of improving health literacy in the state. Finally, McGurk and colleagues present a policy perspective, focusing on the advantages of legislation for a sugar-sweetened beverage fee in order to reduce obesity and diabetes, 2 leading contributors to COVID-19 related hospitalization and mortality.²²

This special issue offers a number of perspectives and paths forward for addressing some of the root causes of both COVID-19 and chronic disease in Hawai‘i. However, more work is still needed, especially in light of alarming viral variants and low vaccination rates in certain groups.^{28,29} As of July 2021, all 4 counties in Hawai‘i had cases of the highly transmissible Delta variant, which may also cause more severe disease. For this variant, there is evidence of local transmission.²⁸ Other variants of concern present in the state include Alpha, Beta, and Gamma; preliminary studies suggest that vaccination may be less effective at preventing infection with Beta and Gamma variants.²⁸ Vaccination rates in the state vary widely.²⁹ Communities that previously had the highest rates of COVID-19 infection continue to experience heightened vulnerability to the disease because they also have some of the lowest vaccination rates. For example, as of July 13, 2021, Native Hawaiians and Other Pacific Islanders were underrepresented in terms of their percentage of the vaccine recipient population (17%) as compared to their share of the state population (25%).²⁹

There are also significant research gaps in the understanding of risk factors for COVID-19 among youth and if and how these might relate to underlying chronic disease. Research in Hawai‘i has shown that chronic conditions typically associated with later adulthood are prevalent among youths and young adults in acute care settings, especially among NHPIF.²⁰ Nationally, it has been speculated that asthma may be a risk factor for COVID-19 infection and severity among youth; yet, there are scarcely any data on this topic.³⁰ This is concerning because asthma is a prevalent health condition in Hawai‘i, especially among Native Hawaiians and Other Pacific Islanders.³¹

Another important research gap relates to health services. To date, there is limited research on how differential access to care across groups has contributed to differences in testing and vaccination rates as well as COVID-19 outcomes. This latter point relates to another concern: quality of care. The significant differences in mortality across race/ethnicity groups in Hawai‘i, especially for Other Pacific Islanders, are unlikely due solely to underlying chronic conditions. There is evidence that Other Pacific Islanders generally receive poorer quality of care than other groups in the state.³²⁻³⁴ Thus, there is an urgent need to better understand how health systems’ factors intersect with patient outcomes and if and how these contribute to health disparities.

Finally, as we move into the recovery phase of the pandemic, research needs to be directed towards a better understanding of the long-term consequences of COVID-19 on people’s health. In particular, researchers need to apply a life-course perspective to examine if and how policies such as remote learning for children and high unemployment rates during the pandemic affect people’s health throughout a lifetime.

In sum, this special issue documents the considerable advances public health and allied professionals have made in addressing an unparalleled health, social, and economic crisis. It provides lessons and paths forward for addressing the inequities in our society and ultimately promoting a healthier Hawai‘i. And, as is always the case, it acknowledges that much more work is needed to fundamentally advance health equity in our communities.

Conflict of Interest

None of the authors identify a conflict of interest.

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