

# COVID-19 Special Column: COVID-19 Hits Native Hawaiian and Pacific Islander Communities the Hardest

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The United Nations warned that the coronavirus disease 2019 (COVID-19) pandemic would disproportionately impact Indigenous peoples across the world because of underlying health inequities and social determinants of health (eg, crowded living conditions and poor access to healthcare) that place them at a greater risk for infection and severe symptoms if infected.<sup>1</sup> In the United States (US), public health officials also expected this novel virus to infect Indigenous communities, such as American Indians and Alaska Natives, at a higher rate.<sup>2</sup> The rates of COVID-19 positive cases among members of the Navajo Nation, the largest American Indian tribe in the US, are among the highest of any group with 1716 cases in their population of about 300 000.<sup>3</sup> This raises the question, what about Native Hawaiians and Pacific Islanders (NHPI)?

It is important to know that NHPI hold on to bitter memories of how infectious diseases decimated our thriving populations throughout our history. The Native Hawaiian population declined from roughly 700 000 in 1778 to barely 40 000 by 1900 due to infectious diseases such as smallpox, whooping cough, dysentery, tuberculosis, influenza, and measles.<sup>4,5</sup> The recent measles outbreak in Sāmoa and elsewhere in the Pacific is a harsh reminder to NHPI communities of our vulnerability to infectious diseases as close-knit island communities.<sup>6</sup> This vulnerability has taken hold of the NHPI diaspora with the arrival of COVID-19.

## The COVID-19 Cases and Data Concerns for NHPI Communities

Several US states with large numbers of NHPI residents report higher rates of COVID-19 positive cases among the Indigenous peoples of the Pacific than in other racial and ethnic groups.

Table 1 shows the number of COVID-cases per 100 000 for NHPI compared to statewide rates within five states. California data show NHPI have the highest rate of all racial and ethnic groups, with 217.7 cases per 100 000 NHPI, while the statewide overall rate is 62.43 per 100 000.<sup>7</sup> Data from King County, Washington also indicate NHPI as having the highest rate, at 189.5 cases per 100 000, and Asians as having the lowest rate, at 68.8 cases per 100 000.<sup>8</sup> Oregon too shows that COVID-19 cases are higher among NHPI, at 154 cases per 100 000 while the statewide rate is 55 cases per 100 000 residents. In Utah, the COVID-19 positive cases among NHPI are 197.6 per 100 000, compared to 142.2 cases per 100 000 for the entire state. In Salt Lake County, Utah, the rate for NHPI is 287.8 per 100 000.<sup>9</sup> The rates of COVID-19 positive cases among NHPI within these states are greater than those reported for African Americans and American Indians, two racial/ethnic groups receiving much national attention regarding COVID-19 risk.<sup>10,11</sup>

In Hawai'i, non-Hispanic whites and NHPI have higher rates than other racial and ethnic groups.<sup>12</sup> The rate of cases among NHPI is 44 per 100 000 in Hawai'i as of this writing, but this is likely a gross underestimate because of the state's narrow definition of NHPI.<sup>12</sup> In the state's calculations, NHPI who reported more than one race or ethnicity, such as NH and Japanese, were not included in the NHPI count. The United States Office of Management and Budget (OMB) classifies NHPI as "a person having origins in any of the original peoples of Hawai'i, Guam, Samoa, or other Pacific Islands,"<sup>15</sup> which would include NHPI who also have multiple racial/ethnic ancestries. There are also missing racial/ethnic data from 60 people who tested positive for COVID-19.

In a public health crisis like this, reliable and timely data are vital to protecting the health of our citizens. The public health data reviewed above highlight the need for timely, accurate, and meaningful data collection, analysis, and dissemination, which have been longstanding issues for NHPI communities.<sup>13,14</sup> NHPI communities have been calling for better data collection methods and analytical practices (eg, the disaggregation of data from NHPI and Asian populations) to ensure they are counted, and counted fairly and accurately in these public health reports and data surveillance systems. These issues predate the COVID-19 crisis.<sup>15</sup> This is an important topic because these data are used to allocate and prioritize the distribution of resources in times of emergency and to inform public health policies aimed at reducing health inequities.

Race/Ethnicity	Native Hawaiian/ Pacific Islander	Statewide
California	217.7	62.43
Hawai'i	44	40
Oregon	154	55
Utah	197.6	142.2
King Country, Washington	189.5	182.1

Note. Because Hawai'i only reported percentages of total COVID-19 cases by ethnicity, Hawai'i data was recalculated here using the 2010 census data as the denominator.

## **The Health Inequities Underlying the COVID-19 Inequities**

As defined by the World Health Organization (WHO), health inequities are differences in health status or the distribution of health determinants between population groups, and they are avoidable and unjust.<sup>16</sup> The higher risk of infection among NHPI is linked to preexisting and underlying inequities in the social determinants of health across racial and ethnic groups that are ubiquitous in the US.<sup>17</sup> The risk for severe symptoms and death due to COVID-19, if contracted, is strongly linked to preexisting and underlying inequities in chronic medical conditions, such as diabetes, asthma, and cardiovascular disease (CVD).

According to the Centers for Disease Control and Prevention (CDC), people with underlying chronic medical conditions, such as obesity, diabetes, asthma, kidney disease, cancer, and CVD, are highly vulnerable to severe symptoms and death due to COVID-19 if they become infected.<sup>18</sup> NHPI have among the highest rates of these chronic medical conditions, and associated mortality rates in Hawai'i as well as the US,<sup>19-21</sup> and the rates of these conditions in the Pacific nations and territories are among the highest in the world.<sup>22-24</sup> NHPI acquire many of these chronic diseases at younger ages than other ethnic groups,<sup>25</sup> and many NHPI elders live with multiple chronic diseases.<sup>19,26</sup> People with respiratory conditions such as asthma, which is found at a high rate among NHPI, are most susceptible to COVID-19 because it is a respiratory illness.<sup>27</sup> Chronic medical conditions have long been linked to inequities in social determinants of health.<sup>28</sup> The shelter in place order, although necessary to stop the spread of COVID-19, may present a challenge to people managing their chronic medical conditions by increasing sedentary behavior and reliance on calorie-dense processed foods with low nutritional value. With COVID-19 already burdening the health care systems, the need to continue to monitor existing chronic conditions and maintain positive health initiatives is critical.

People who use tobacco and e-cigarette products are also highly vulnerable to experiencing severe symptoms and death due to COVID-19.<sup>29</sup> Smoking and vaping thicken the air sacs and cause inflammation of the lungs, which make a person highly susceptible to severe symptoms should they contract COVID-19. NHPI, especially adolescents and young adults, have the highest rates of smoking and vaping compared to other racial and ethnic groups.<sup>30,31</sup> The psychological stress caused by the shelter in place and social distancing orders are likely to increase the frequency and intensity of these behaviors among those who smoke and vape.

Access to quality health care services is also a concern for NHPI who often have poor or no medical insurance coverage. About 20% of NHPI are uninsured compared to 11.4% of non-Hispanic whites.<sup>32</sup> Even more are on public health insurance programs (ie, Medicaid and Medicare). These types of medical benefits can affect access to and the timeliness of receiving health care

services as well as the quality and range of those services.<sup>33</sup> In addition, NHPI often face discrimination in clinical settings and already have a mistrust or hesitancy in seeking health care services.<sup>34</sup> These are all factors that could delay diagnosis and treatment and thereby increase the risk of spreading COVID-19 to others and having severe symptoms should it be contracted. Data from Utah show NHPI and American Indians/Alaska Natives as having the most hospitalizations due to COVID-19 of all ethnic groups, with rates of 141 and 210.5 per 1000 cases, respectively, compared to 83.3 hospitalizations per 1000 cases statewide.

## **The Economic Conditions of NHPI and COVID-19 Risk**

Aside from the health care issues, other inequities in the social determinants of health are affecting the COVID-19 disparities. For example, 24% of the Native Hawaiian population is comprised of essential workers, with heavy representation in the military, security, service, and healthcare industry, and these individuals are at increased risk of contracting COVID-19 due to greater face-to-face interactions with patrons and co-workers. NHPI essential workers are being asked to put their health and the health of their families at risk in order to serve the larger community. Many of these jobs, especially the service-related ones, often do not provide a livable wage. NHPI are more likely than many other ethnic groups to have fewer financial resources and live in larger multi-generational households and densely populated neighborhoods.<sup>35-37</sup> Living in denser households and neighborhoods increases the risk of exposure to more individuals possibly carrying the COVID-19 virus. Coupled with the higher likelihood of working in essential businesses, this further increases the risk of exposure for many NHPI.

NHPI are disproportionately represented in the incarcerated and homeless populations who are very vulnerable to contracting COVID-19. Native Hawaiians alone comprise 43% of the prison population Hawai'i and, 39% of the homeless population on O'ahu.<sup>38</sup> It is difficult to practice social distancing in prison or while living on the streets, and the conditions in these environments are unsanitary. In Hawai'i and across the US, some prisoners have already been released as part of COVID-19 induced interventions to reduce prison overcrowding. At the time of publication, 716 inmates have been released from prisons in Hawai'i.<sup>39</sup>

## **The Emerging Behavioral Health Impact of COVID-19**

Although an issue not directly linked to the medical side of the COVID-19 crisis, the shelter at home and social distancing measures are placing a heavy emotional toll on NHPI communities. In particular are the psychosocial and financial stressors caused by the COVID-19 crisis leading to elevated levels of interpersonal violence and substance abuse in our NHPI com-

munities – behavioral problems that are often interrelated.<sup>40</sup> Before COVID-19, the prevalence of interpersonal violence and substance abuse were already high in many NHPI communities<sup>41</sup> so any increases will surely have detrimental and long-term repercussions, making recovery efforts more challenging.

### **The Resilience and Cultural Assets of NHPI Communities**

Despite the higher COVID-19 risk among NHPI, it is important to remember and recognize the resiliency and fortitude of NHPI communities and their cultural assets that can be leveraged to reduce the adverse impact of COVID-19. Despite 2 centuries of colonization, occupation, and exploitation by Western powers,<sup>42,43</sup> NHPI communities continue to flourish while maintaining their unique cultural values, perspectives, practices, and aspirations. The values and practices of *aloha* (compassion), *mālama* (caring), and *lōkahi* (unity), although said differently across the different NHPI languages, provide the guiding principles to overcome any challenge.

NHPI hold Indigenous wisdom and perspectives to overcome adversity and thrive. In Hawai‘i, many individuals from the NHPI community have hosted virtual concerts and jam sessions to help people through the stressors caused by the shelter in place order. Others have started webinar series, such as the *Lei ‘Ānuenu* and *He Huewai Ola* series, to connect and support people and communities. NHPI communities were among the first to start programs to ensure the elderly in our communities were fed and looked after. In the Western region of the continental US, the Pacific Islander community has banded together to form a National Pacific Islander COVID-19 Response Team – something that has yet to happen for Hawai‘i and the larger Pacific.

### **Initial Recommendations and Thoughts for the COVID-19 Response and Recovery Efforts**

To lessen the impact of the COVID-19 crisis on NHPI communities, immediate and longer-term plans for response and recovery efforts should be aimed at and informed by NHPI communities. The longer-term recovery plans must include public policy changes to earnestly and effectively address racial and ethnic inequities in the social determinants of health and in the US healthcare system to eliminate the structural racism pervasive in our society. These are preexisting and longstanding weaknesses in our society exacerbated and exposed by the COVID-19 crisis. This longer-term recovery plan will need to address employment, education, the racial wealth gap, food insecurity, housing, healthcare, criminal justice, and legal issues, and be in effect not just during states of emergency.

The immediate concern is the need for an emergency response plan to reduce the risk among NHPI communities across Hawai‘i and the continental US. This plan needs to be informed by and

developed through engagement with NHPI stakeholders, and should include strategies to address NHPI needs and vulnerabilities during this COVID-19 crisis and any subsequent resurgence. There needs to be reliable and meaningful data collection and analyses and quick dissemination of data to inform decision-making and response efforts as well as to monitor the morbidity and mortality rates. The plan needs to be sensitive to the diversity and unique needs of specific NHPI communities at the county, state, and federal levels, and all levels of government will need to work synergistically. Although aggregated by the federal government as a single racial and ethnic group,<sup>15</sup> NHPI are culturally, linguistically, socioeconomically, and geographically diverse, and this will need to be taken into account. The emergency response plan needs to ensure that essential workers are protected (eg, provided with personal protective equipment), given free SARS-CoV-2 testing, and paid sick leave. Hazard pay or increased wages for essential workers should be considered. Other facets of this plan should deal with the need for quarantine facilities for people who cannot self-quarantine at home because of crowded households, and identify resources in the community should healthcare facilities exceed their capacity to protect NHPI. Of course, many of the aforementioned planning activities are taking place, but they do not currently account for the disparities in risk across subpopulations, except for the homeless and incarcerated.<sup>44</sup>

Also important at this time is the ability of NHPI communities’ to engage in their cultural practices while abiding by shelter in place and social distancing orders. Some hula schools and other cultural-based programs, such as those promoted by Kanaeokana (a network of Hawaiian language, culture, and ‘āina-based organizations), have used social media and other online platforms to engage their members and communities during this crisis. Despite this flexibility in the modes of cultural practices, NHPI are culturally impacted by this crisis because of their strong connection to ‘āina (land) and the natural elements.

On county, state, regional, and national levels, government and public health officials trusted with the welfare of citizens need to ensure that there are response and recovery plans for NHPI who are disproportionately burdened by COVID-19. Many ethical and social justice issues are being brought to the forefront because of this crisis. A huge ethical issue all hospitals are dealing with is who should have access to medical resources and lifesaving measures if their capacity is pushed beyond its limit (eg, no ventilators for patients over the age of 80).<sup>45</sup> This has resulted in shock from many in the community, upset that their parent or grandparent may not have equal access to medical resources based on age and nothing else. These ethical questions reach across racial and ethnic groups and socioeconomic status and should elevate the discussion of inequities due to structural racism and implicit biases. The COVID-19 crisis has brought these issues to the surface, and stakeholders need to engage in these critical conversations now.

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## References

1. United Nations. COVID-19 and Indigenous peoples. 2020; <https://www.un.org/development/desa/indigenouspeoples/covid-19.html>. Accessed April 23, 2020.
2. Indian Health Services. Coronavirus (COVID-19). 2020; <https://www.ihs.gov/coronavirus/>. Accessed April 27, 2020.
3. Navajo Department of Health. Dikos Ntsaagiłi-19 (COVID-19) 2020; <https://www.ndoh.navajonnsn.gov/>. Accessed April 23, 2020.
4. Bushnell OA. *The gifts of civilization: germs and genocide in Hawai'i*. Honolulu: University of Hawaii Press; 1993.
5. Goo S. After 200 years, Native Hawaiians make a come back. *Pew Research Center*. 2015. <http://www.pewresearch.org/fact-tank/2015/04/06/native-hawaiian-population/>.
6. Craig AT, Heywood AE, Worth H. Measles epidemic in Samoa and other Pacific islands. *Lancet Infect Dis*. 2020;20(3):273-275.
7. County of San Diego Health and Human Services Agency. Daily 2019 Novel Coronavirus (COVID-19) Race/Ethnicity Summary. 2020; <https://www.sandiegocounty.gov/content/dam/sdc/hhsa/programs/phs/Epidemiology/COVID-19%20Race%20and%20Ethnicity%20Summary.pdf>. Accessed April 23, 2020.
8. King County Washington. Summary of race & ethnicity among confirmed COVID-19 cases in King County, WA 2020; <https://www.kingcounty.gov/depts/health/communicable-diseases/disease-control/novel-coronavirus/~media/depts/health/communicable-diseases/documents/C19/COVID-19-cases-race-ethnicity.ashx>. Accessed April 23, 2020.
9. Department Salt Lake County Health Department. COVID-19 Demographics: Salt Lake County COVID-19 County Crude Rates by Race and Ethnicity per 100,000 population. 2020; <https://slco.org/health/COVID-19/data/>. Accessed April 27, 2020.
10. Kakol M, Upson D, Sood A. Susceptibility of Southwestern American Indian Tribes to Coronavirus Disease 2019 (COVID-19). *J Rural Health*. 2020.
11. Yancy CW. COVID-19 and African Americans. *JAMA*. 2020.
12. Disease Outbreak Control Division, State of Hawaii Department of Health. Hawaii COVID-19 Cases' Race Compared to State Population. 2020; <https://health.hawaii.gov/coronavirusdisease2019/what-you-should-know/current-situation-in-hawaii/#race>. Accessed April 23, 2020.
13. Galinsky AM, Zelaya CE, Simile C, Barnes PM. Data quality assessment of the 2014 Native Hawaiian and Pacific Islander National Health Interview Survey. *Vital Health Stat 2*. 2017(174):1-26.
14. Wu S, Bakos A. The Native Hawaiian and Pacific Islander National Health Interview Survey: Data collection in small populations. *Public Health Rep*. 2017;132(6):606-608.
15. Panapasa SV, Crabbe KM, Kaholokula JK. Efficacy of federal data: Revised OMB standard for Native Hawaiians and Other Pacific Islanders examined. *AAPI Nexus Journal: Policy, Practice, and Community*. 2011;9(1,2): 212-220.
16. World Health Organization. Closing the Health Equity Gap: Policy Options and Opportunities for Action. In. Geneva, Switzerland: World Health Organization; 2020:1-62.
17. Braveman P, Egerter S, Williams DR. The social determinants of health: coming of age. *Annu Rev Public Health*. 2011;32:381-398.
18. Center for Disease Control and Prevention. Coronavirus Disease 2019 (COVID-19): Groups at Higher Risk for Severe Illness. 2020 <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/groups-at-higher-risk.html>. Accessed April 27, 2020.
19. Mau MK, Sinclair K, Saito EP, Baumhofer KN, Kaholokula JK. Cardiometabolic health disparities in native Hawaiians and other Pacific Islanders. *Epidemiol Rev*. 2009;31:113-129.
20. McElfish PA. Marshallese COFA Migrants in Arkansas. *J Ark Med Soc*. 2016;112(13):259-260, 262.
21. Panapasa SV, Mau MK, Williams DR, McNally JW. Mortality patterns of Native Hawaiians across their lifespan: 1990-2000. *Am J Public Health*. 2010;100(11):2304-2310.
22. Palafox N. The health and wellbeing of the Pacific indigenous peoples. *Hawaii Med J*. 2011;70(11 Suppl 2):3.
23. Palafox NA, Hixon AL. Health consequences of disparity: the US Affiliated Pacific Islands. *Australas Psychiatry*. 2011;19 Suppl 1:S84-89.
24. Tin ST, Lee CM, Colagiuri R. A profile of diabetes in Pacific Island Countries and Territories. *Diabetes Res Clin Pract*. 2015;107(2):233-246.
25. Nakagawa K, Koenig MA, Asai SM, Chang CW, Seto TB. Disparities among Asians and Native Hawaiians and Pacific Islanders with ischemic stroke. *Neurology*. 2013;80(9):839-843.
26. Ka'opua LS, Braun KL, Browne CV, Mokuau N, Park CB. Why Are Native Hawaiians under-represented in Hawai'i's older adult population? Exploring social and behavioral factors of longevity. *J Aging Res*. 2011;2011:701232.
27. Schweitzer RJ, Wills TA, Tam E, Pagano I, Choi K. E-cigarette use and asthma in a multiethnic sample of adolescents. *Prev Med*. 2017;105:226-231.
28. Cockerham WC, Hamby BW, Oates GR. The social determinants of chronic disease. *Am J Prev Med*. 2017;52(1S1):S5-S12.
29. Guan WJ, Ni ZY, Hu Y, et al. Clinical characteristics of Coronavirus Disease 2019 in China. *N Engl J Med*. 2020.
30. Nguyen AB. Disaggregating Asian American and Native Hawaiian and Other Pacific Islander (AANHPI) Adult Tobacco Use: Findings from Wave 1 of the Population Assessment of Tobacco and Health (PATH) Study, 2013-2014. *J Racial Ethn Health Disparities*. 2019;6(2):356-363.
31. Wills TA, Knight R, Sargent JD, Gibbons FX, Pagano I, Williams RJ. Longitudinal study of e-cigarette use and onset of cigarette smoking among high school students in Hawaii. *Tob Control*. 2017;26(1):34-39.
32. Center for American Progress. Native Hawaiian and Other Pacific Islander. 2020; [https://cdn.americanprogress.org/wp-content/uploads/issues/2011/06/pdf/small\\_biz\\_nhopi.pdf](https://cdn.americanprogress.org/wp-content/uploads/issues/2011/06/pdf/small_biz_nhopi.pdf). Accessed April 25, 2020.
33. Devoe JE, Baez A, Angier H, Krois L, Edlund C, Carney PA. Insurance + access not equal to health care: typology of barriers to health care access for low-income families. *Ann Fam Med*. 2007;5(6):511-518.
34. Kaholokula JK, Saito E, Mau MK, Latimer R, Seto TB. Pacific Islanders' perspectives on heart failure management. *Patient Educ Couns*. 2008;70(2):281-291.
35. Kana'iaupuni SM, Malone NJ, Ishibashi K. *Income and poverty among Native Hawaiians: Summary of Ka Huaka'i findings*. Honolulu: Kamehameha Schools;2005.
36. Office of Hawaiian Affairs. *Kānehō'ālanī – Transforming the health of Native Hawaiian men*. Honolulu, HI: Office of Hawaiian Affairs;2017.
37. Office of Hawaiian Affairs. *Haumea—Transforming the Health of Native Hawaiian women and empowering wāhine well-being*. Honolulu, HI: Office of Hawaiian Affairs;2018.
38. House Concurrent Resolution 85 Task Force. Creating better outcomes, safer communities: Final report of the House Concurrent Resolution 85 Task Force on Prison Reform to the Hawai'i Legislature 2019 Regular Session. In. Honolulu, Hawaii: House Concurrent Resolution 85 Task Force; 2018:136.
39. Honore M. Here's How The Coronavirus Has Transformed Hawaii. *Honolulu Civil Beat*; April 26, 2020.
40. ParachiniA. Kauai: How The Coronavirus Is Affecting Our Social Fabric. *Honolulu Civil Beat*; April 12, 2020
41. Kaholokula JK, Miyamoto RES, Hermosura AH, Inada M. Prejudice, stigma, and oppression on the behavioral health of Native Hawaiians and Pacific Islanders. In: Benuto L, Duckworth M, Masuda A, O'Donohue W, eds. *Prejudice, Stigma, Privilege, and Oppression: A Behavioral Health Handbook*. New York: Springer Publishing Co.; in press.
42. Goodyear-Ka'opua N, Hussey I, Wright EK. *A nation rising: Hawaiian movements for life, land, and sovereignty*. Durham: Duke University Press; 2014.
43. Spickard PR, Rondilla JL, Hippolite Wright D. *Pacific diaspora: island peoples in the United States and across the Pacific*. Honolulu: University of Hawai'i Press; 2002.
44. Disease Outbreak Control Division, State of Hawaii Department of Health. What the Hawaii Department of Health is Doing. 2020; <https://health.hawaii.gov/coronavirusdisease2019/what-you-should-know/what-hdoh-is-doing>. Accessed April 29, 2020.
45. Thagard P. Virus Ethics: Who gets the ventilator? Resolving ethical dilemmas in pandemics requires attention to values. *Psychology Today*; March 23, 2020.