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Resource Paper

# COVID-19 and the State of Health of Pacific Islanders in the United States

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## Abstract

In the United States, Pacific Islanders are disproportionately impacted by COVID-19 at alarming rates. Prior to the pandemic, the population was experiencing some of the largest health disparities in the United States driven, in part, by a lack of access to economic resources and health care. Historical events provide a context to understanding the current socioeconomic indicators that predispose Pacific Islanders to COVID-19 and provides insight into the circumstances that have led to the effective transmission of COVID-19 in this community. Other Pacific populations demonstrate more optimal control of COVID-19 and may provide models that have the potential to improve the devastatingly disproportional rates of infection and death in this vulnerable community.

## Introduction

The current pandemic caused by SARS-CoV-2, the virus that causes coronavirus disease 2019 (COVID-19) (NPICRT, 2020), has disproportionately impacted communities of color (Webb Hooper, Napoles, and Perez-Stable, 2020; Yancy, 2020). Yet there is a paucity of reports describing the effects of COVID-19 on vulnerable smaller minority populations. Despite the existence of data from several state and local health departments that suggest Pacific Islanders (PIs) (Jackson, 2020) in the United States experience substantially disproportionate rates of confirmed disease and death from COVID-19 compared to other ethnic/ racial groups, reports describing contributing factors to the high rates of COVID-19 in PIs and potential models to combat the pandemic in this vulnerable

community are sparse in the medical literature.

### Rates of COVID-19 in Pacific Islanders

It should be noted that the term Native Hawaiian/Pacific Islander (NHPI) is used in reference to datasets because Office of Management and Budget (OMB) classifications utilize this term to categorize all PIs in the United States. The broader more inclusive term, Pacific Islander (PI), is used here in reference to individuals or communities that identify with indigenous ancestry from any of the islands of Micronesia, Melanesia, or Polynesia.

At the time of the submission of this article, PIs have the highest rate of confirmed COVID-19 cases and deaths of any ethnic/racial group in several states that include Alaska, Arkansas, Colorado, and Washington (Table 1) with the number of cases rising. For example, PIs in the state of California have the highest rates of COVID-19 compared to all other racial/ethnic groups (Figure 1), and this has continued to surge over time (Figure 2). It should be noted that, as is the case with infection pandemics, COVID-19 rates of confirmed cases are subject to change rather quickly. Other states such as Hawaii, Oregon, Utah, and Illinois also report higher rates of COVID-19 among PIs compared to all other ethnic/racial groups.

The largest populations of PIs have been reported in the western United States in states such as Hawaii, California, and Washington (Table 1), but the largest increase in PI populations in recent years have been reported in the South and Midwest regions of the country. In the state of Arkansas, the highest rate of confirmed cases is in PIs and this has been rising drastically (Figures 3 and 4).

### History of Viral Pandemics in Pacific Islanders

A more comprehensive understanding of the context of the impact of COVID-19 on PI communities requires an understanding of past viral pandemics and the devastation they caused. For example, the Native Hawaiian population declined from roughly seven hundred thousand in 1778 to barely forty thousand by 1900 due to infectious diseases, such as smallpox, measles, and influenza (Bushnell, 1993; Goo, 2015). Similar population declines due to these infectious diseases occurred throughout the Pacific in the 1800s, which not only physically weakened the PI populations but also weakened them politically at a time when Western governments were seeking to occupy their island nations.

During World War I, an expeditionary force from New Zealand

Table 1. Pacific Islander Population Demographics and COVID-19 Cases and Deaths by States with Disaggregated Data

State	PI Population size <sup>a</sup>	Percent of population <sup>b</sup>	COVID-19 Cases per 100,000 <sup>c</sup>	Case Rate Ranking <sup>c, d</sup>	CO-	Death Rate Ranking <sup>c</sup>
Alaska	11,154	1.6%	2,107	1	51	1
Arkansas	7,849	0.3%	23,686	1	372	1
California	286,145	0.8%	1,533	1	34	2
Colorado	15,200	0.3%	2,963	1	76	1
Georgia	15,577	0.2%	1,851	2	43	2
Hawaii	355,816	26%	197	1	-	-
Iowa	3,847	0.1%	1,4381	1	347	1
Idaho	5,094	0.3%	3,285	1	-	-
Illinois	13,546	0.1%	14,894	1	312	1
Kentucky	5,111	0.1%	1,074	4	-	-
Louisiana	4,879	0.1%	26,732	1	990	1
Maine	988	0.1%	2,247	2	-	-
Minnesota	6,206	0.1%	6,222	1	148	1
North Carolina	14,774	0.2%	2,963	2	47	1
Nebraska	2,823	0.2%	1,432	4	0	5
Ohio	10,525	0.1%	4,425	1	26	3
Oregon	25,785	0.7%	2,431	1	32	1
Utah	36,777	1.3%	4,014	1	40	2
Washington	70,322	1.1%	2,150	1	54	1
Wyoming	1,063	0.2%	520	3	-	-

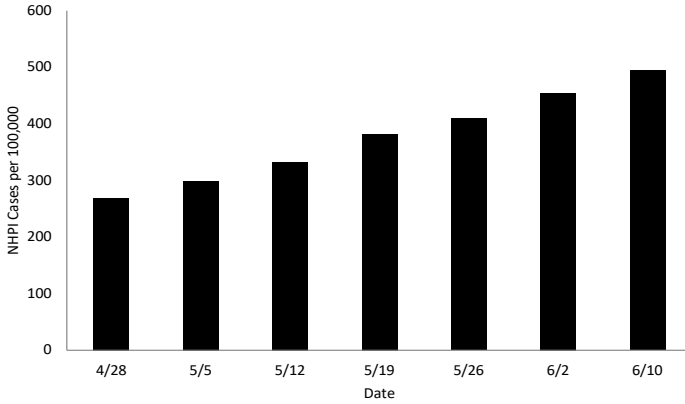
<sup>a</sup> Data from 2010 U.S. Census for all Pacific Islanders, including Native Hawaiians, race/ethnicity alone or in combination; these population estimates are likely lower than the current 2020 population size due to growth over the past decade.

<sup>b</sup> Data based on 2010 U.S. Census for entire state population.

<sup>c</sup> COVID-19 data are from the Native Hawaiian and Pacific Islander COVID-19 Data Policy Lab, University of California at Los Angeles Center for Health Policy Research; data shown as of August 18, 2020.

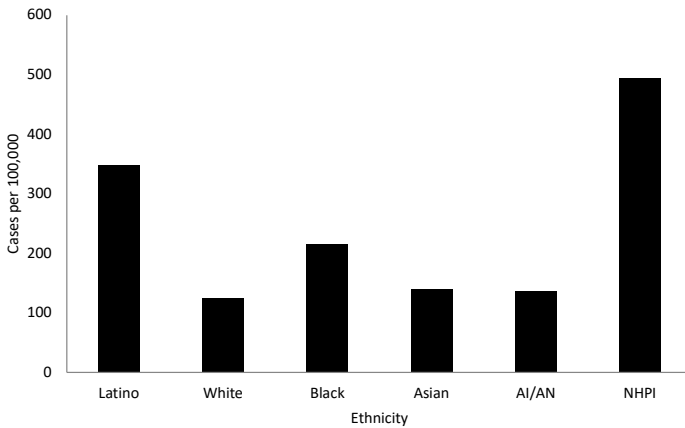
<sup>d</sup> Case and death rate rankings are compared to all other racial and ethnic groups analyzed in that state.

Figure 1. Confirmed COVID-19 NHPI Cases per 100,000 in California.



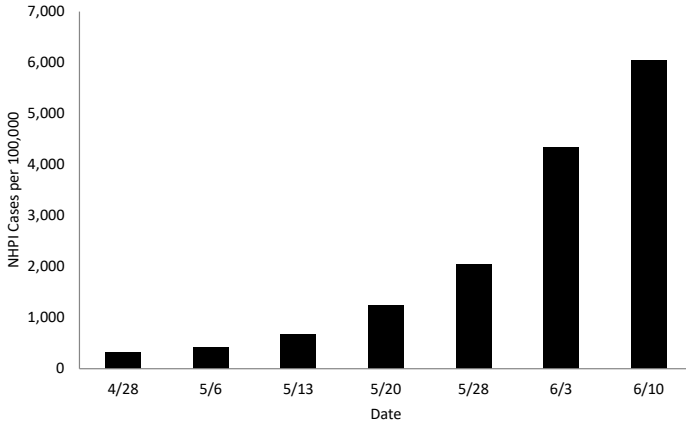
Source: California Department of Public Health. <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Race-Ethnicity.aspx> (accessed June 23, 2020).

Figure 2. Confirmed COVID-19 Cases per 100,000 by Race/Ethnicity in California.



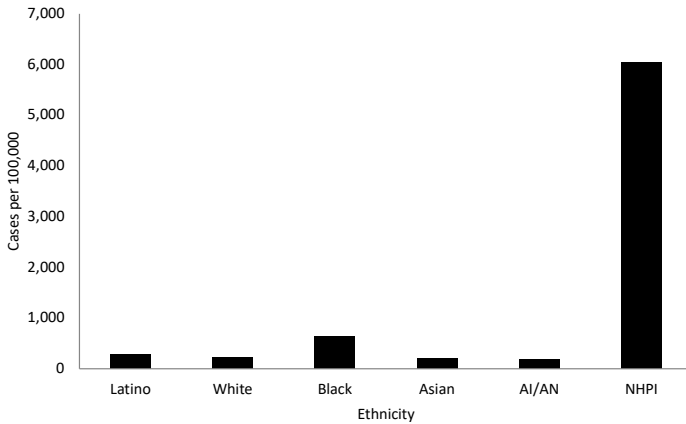
Source: California Department of Public Health. <https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/COVID-19/Race-Ethnicity.aspx> (accessed June 14, 2020).

Figure 3. Confirmed COVID-19 NHPI Cases per 100,000 in Arkansas.



Source: Arkansas Department of Health. <https://www.healthy.arkansas.gov/programs-services/topics/novel-coronavirus> (accessed on June 14, 2020).

Figure 4. Confirmed COVID-19 Cases per 100,000 by Race/Ethnicity in Arkansas.



took control of what was then known as Western Samoa (Hansford, 2014). On November 4, 1918, during the Spanish flu pandemic a trading vessel, the *Talune*, carrying infected passengers docked in a port in Western Samoa. Between 1918 and 1919, inhabitants of Western Samoa became infected with influenza that killed 8,500 residents (about 22 percent of the total population) (Ministry for Culture and Heritage, 2020). In addition to not placing the *Talune* under quarantine, the New Zealand administrator, Colonel Robert Logan, refused an offer of assistance from the governor of nearby American Samoa that may have reduced the tragic death toll. Many Samoans at the time attribute the failure of protecting their community to New Zealand leadership. The Spanish flu pandemic was the inciting event that would lead to Samoa's independence from foreign rule.

The independent state of Samoa, a country that recently experienced a measles outbreak thought to be due to ineffective community engagement that delayed action by public health officials (Isaacs, 2020), provides a unique and recent perspective for vulnerable communities dealing with COVID-19. A fatal medical malpractice case in early 2018 escalated fears and distrust of vaccinations in Samoa and resulted in a 30 percent vaccination rate, a decline from previous years, leaving the population vulnerable when a case of measles arrived from New Zealand. More than 5,600 confirmed cases and eighty-one deaths of mostly children in a population of two hundred thousand were attributed to the measles pandemic. An aggressive community engagement campaign was able to stop the pandemic after vaccinating 95 percent of the population. The country's successful response to COVID-19 has a historical context that draws parallels to the current situation faced by PIs in the United States.

A common theme of the infectious disease pandemics in Hawai'i, Samoa, and more recently the tuberculosis outbreak in Arkansas in 2015 (Rothfeldt et al., 2016) is the facilitation of transmission of the disease when there is a lack of community engagement and leadership. The swift employment of preventative measures in Samoa to reduce transmission of COVID-19, inspired by their recent measles outbreak experience, was made possible by the nature of their independence to self-determine their response to the pandemic. Although Samoa has significantly fewer resources than the United States, their swift and decisive action to shut down their country has successfully protected their indigenous population, which shares similar risk factors to the diaspora in the United States.

## Factors that Predispose Pacific Islanders to COVID-19

Predisposing factors to infection with SARS Cov-2 infection and death from COVID-19 in vulnerable communities have been reported elsewhere regarding other vulnerable populations (Webb Hooper et al., 2020; Yancy, 2020). The pandemic is reaffirming the existing economic inequalities among racial and ethnic minorities in the United States. These inequalities have a profound impact on PIs' access to health care and the ability to prevent infection, which can lead to a delay in diagnosis and treatment of COVID-19. For example, approximately 20 percent of PIs do not have medical coverage when compared to 11 percent of non-Hispanic whites, and many more PIs are part of public health insurance programs (i.e., Medicaid and Medicare) (Center of American Progress, 2020; Devoe et al., 2007), which affects their timely access to needed health care services and the range of those services. Further complicating timely access to care, PIs report experiencing discrimination in health care settings and a mistrust in seeking health care services (Inada et al., 2019; Kaholokula et al., 2008).

The underlying socioeconomic conditions of many in PI communities elevates their level of vulnerability during this COVID-19 crisis. As much as 24 percent of PIs work in essential jobs, such as in the military, security, a service-related industry, and health care, that place them in direct and frequent face-to-face contact with many other people (U.S. Census Bureau, 2018). PIs are more likely than other racial and ethnic groups to have fewer financial resources and to live in large multigenerational households and densely populated neighborhoods (Kana'iaupuni, Malone, and Ishibashi, 2005; Office of Hawaiian Affairs, 2017, 2018). Having more people in a single household who are essential workers only further elevates the vulnerability for all household members. In some states, such as Hawai'i, PIs are disproportionately represented among the incarcerated and homeless population, as high as 43 and 39 percent, respectively, for some PI groups (House Concurrent Resolution 85 Task Force, 2019). Living in close quarters to other people and in unsanitary conditions places many PIs who are incarcerated or homeless at greater risk for contracting COVID-19.

Highly prevalent chronic diseases among PIs, such as obesity, diabetes, kidney disease, certain cancers, and cardiovascular disease, make them vulnerable to having severe symptoms and hospitalization should they contract COVID-19 (Chen et al., 2020). When compared to non-Hispanic whites, PIs are more likely to have multiple chronic diseases



(Kaholokula, Hermosura, and Mapuana, 2019) and are 80 percent more likely to be obese, 30 percent more likely to have asthma, two and half times more likely to have a diabetes diagnosis, and 10 percent more likely to have heart disease (Office of Minority Health, 2020). The use of tobacco and e-cigarette products is also highly prevalent among PIs, increasing their risk of experiencing severe symptoms and hospitalization should they be infected by SARS Cov-2 (Nguyen, 2019; Wills et al., 2017).

### Similar Cohort, Different Outcomes

Interestingly, PIs residing in Pacific countries were spared from the effects of COVID-19. The Republic of the Marshall Islands, American Samoa, Samoa, and the Federation of Micronesian States have yet to report a confirmed case of COVID-19. Pacific Islanders in New Zealand share the same chronic disease prevalence, genetic make-up, and socioeconomic indicators as the diaspora in the United States but have reported a less severe course during this global pandemic.

The Global Burden of Disease Study shows that chronic conditions make up more than 87 percent of the total health burden in New Zealand (Institute of Health Metrics and Evaluation, 2016). Several conditions including cardiovascular disease, cancers, musculoskeletal conditions, mental illness, and diabetes are the most common diseases affecting the adult population with Pacific Peoples (PPs) experiencing the highest levels of inequities from these conditions, compared to other New Zealand ethnic groups (Ministry of Health, 2018). Poor health outcomes for PPs have been highlighted over the decades, with health inequities playing a substantial role in what has been documented as being unnecessary, avoidable, unfair, and unjust in terms of the distribution of and access to resources to enable better health and well-being for PIs (Harris, 2007).

Several essential strategies have been reported in the successful containment of COVID-19 that include frequent testing, aggressive contact tracing, and isolation of both symptomatic and asymptomatic individuals that have tested positive for COVID-19; community engagement; and attending to vulnerable populations to encourage societal behavioral measures to reduce transmission such as social distancing and mask-wearing (Walensky and del Rio, 2020; WHO, 2020).

In New Zealand, the Pacific category is the most comparable to the NHPI category used in the United States. One major difference is that the indigenous population of New Zealand is classified in a separate category labeled Māori. Upon submission of this article, eighty-

one Pacific people in New Zealand have tested positive for COVID-19. This represents 5 percent of all cases, compared to Māori (9 percent), Asian (13 percent), and European/Other (71 percent). Of the twenty-one deaths attribute to COVID-19, none were identified as Pacific or Māori (New Zealand Ministry of Health, 2020).

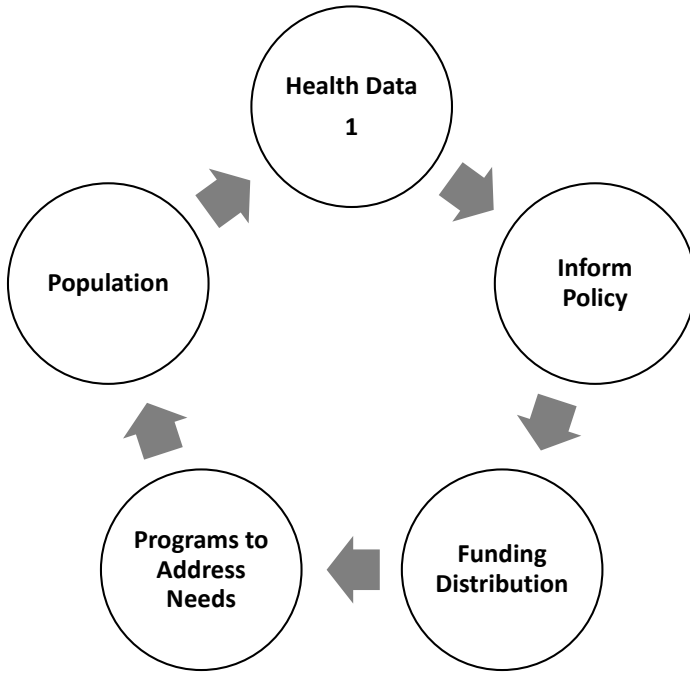
There are approximately four hundred thousand individuals in New Zealand identified as PPs and they make up 8 percent of the population (New Zealand Government, 2020). Based on these figures, the COVID-19 disease rate of PPs in New Zealand is approximately twenty per one hundred thousand and the death rate is zero per one hundred thousand.

The Pacific Leadership Forum (PLF), an established Pacific community network, was set up as a Pacific Response Co-ordination Team (PRCT) to mobilize community leadership networks and to collaborate with government agencies to implement strategies to protect PP communities from COVID-19. These collaborations ensured the linkages of social services with the most vulnerable Pacific communities. Initiatives such as community-based COVID-19 Testing Stations in high-risk communities such as in Ōtara, South Auckland, where a high percentage of PPs reside, were successful in significantly increasing the testing rates in PPs. By the end of May, PPs made up 9 percent of completed COVID-19 tests, with a test rate of seventy-one per one thousand people. Clear and consistent messaging were key in New Zealand's strategy in which public health communications translated into eight Pacific languages. The joint PRCT and government communication strategy utilized social media allowing all generations of the Pacific communities to access key messages of keeping safe, getting tested, and seeking support during the Level 4 Lockdown period and continues as New Zealand transitions to Level 1 of the COVID-19 alert system.

### New Paradigm

In the United States, a major obstacle faced by PI communities to mitigate the impact of COVID-19 has been the lack of reported disaggregated data on PI populations at the federal, state, and county levels. The Health Info Cycle that is commonly employed by public health departments consigns data analysis as the initial step in addressing a public health concern as demonstrated by Figure 5. Early in the pandemic, the paucity of data prohibited PI communities access to the downstream actions, such as resource allocation and subsequent program development, because these actions were predicated on the needs identified by

Figure 5. Health Info Cycle.



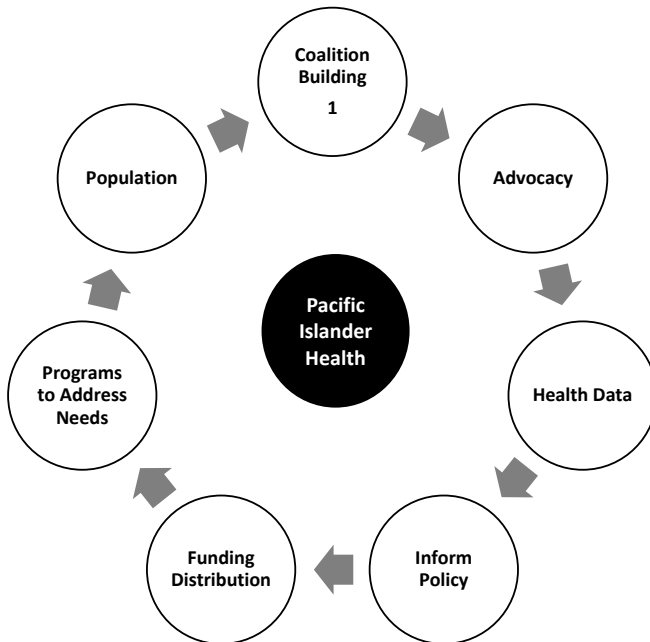
data reports.

To respond to the lack of disaggregated racial and ethnic data and public health attention, the National Pacific Islander COVID-19 Response Team (NPICRT), consisting of a collection of public health experts, physicians, community advocates, and more than three hundred volunteers from ten U.S. states, was formed as a response to address the crisis in PI communities (Huang, 2020; Ways and Means Committee, 2020). The team developed a strategy (NPICRT, 2020) that involved the regional taskforces to query their county and state health departments to report the disaggregated rates of COVID-19 in PI populations as mandated by the OMB Statistical Policy Directive No. 15 (Office of Management and Budget, 1997). The strategy led to more counties reporting disaggregated data, eventually uncovering alarmingly high rates of COVID-19 cases in PIs prompting collaborations with the regional taskforces and county health departments. These collaborations

have led to an increase in for COVID-19 in PIs (Jackson, 2020), the hiring of PI contact tracers and navigators (Oregon Health Authority, 2020), and much-needed resources to PI communities during this pandemic.

The community-based efforts of NPICRT have led to the formation of the NHPI COVID-19 Data Policy Lab, housed at the UCLA Department Health Policy and Management, which provides a real-time dashboard of COVID-19 rates in PI populations throughout the country (NPICRT, 2020). The progress of the NPICRT and its regional taskforces has led to the conceptualization and application of a new health info cycle for PI communities (Figure 6). This PI Health Info Cycle begins with coalition building, a component absent in the traditional Health Info Cycle framework. Coalition building begets advocacy which then prompts the reporting of data allowing for the activation of downstream measures needed to fight COVID-19.

Figure 6. Pacific Islander Health Info Cycle.



## Conclusion

The lack of a national strategy in the United States to deal with COVID-19 (Haffajee and Mello, 2020; Luthra, 2020), especially for a vulnerable population like PIs, has caused a delay in implementing containment strategies and in the provisions of necessary resources for local health departments to respond effectively and swiftly to this pandemic. This has resulted in the disproportionate adverse impact of COVID-19 on PI communities in the United States. In response, advocates from PI communities throughout the United States have assembled and joined forces to respond to the COVID-19 pandemic in their respective PI communities. Empowering communities to implement culturally responsive protective strategies through collaborations with local and state agencies is proving to be an effective approach to obtaining the essential resources. Although these grassroots initiatives have taken in the United States (Huang, 2020), there remains a lack of available funding sources and disaggregated data in many states and the historical of PI presence in federal policy circles that only hinders these efforts (Samoa, 2020; Ways and Means Committee, 2020). Removing these obstacles will be crucial in the campaign to reduce the disparate burden experienced by PIs from COVID-19 in the United States.

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