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Title of Initiative: Research to understand and address health disparities in Native Hawaiian and Pacific Islander populations

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Objective: This initiative will support observational and intervention research that will help to better understand and address the factors and underlying pathways that cause health disparities among Native Hawaiian and Pacific Islander (NHPI) populations.

Background: NHPI populations are defined as people having origins in Hawaii, Guam, Samoa, or other Pacific Islands that are part of the three major subregions of Oceania (Melanesia, Micronesia, and Polynesia). The 2021 Census reports, there are approximately 1.7 million NHPI people, alone or in combination with another race, living in the U.S.. While about 25% of NHPI people live in Hawaii, a large proportion of the remaining 75% live in California, Washington, Texas, Utah, and Nevada.

Historically, NHPI people are grouped with Asian American (AA) people. From 1960 to 1990, the U.S. Census counted and combined the NHPI population with the AA population under the “Asian or Pacific Islander” category. Although in 1997, the Office of Management and Budget did split the “Asian or Pacific Islander” category into two separate categories, “Asian” and “Native Hawaiian or Other Pacific Islander,” changing the 2000 Census and those conducted after. AA and NHPI populations continue to be categorized as one group in many contexts and situations. For example, when this type of grouping occurs in surveys and in research studies, it results in the inability to consider the heterogeneity between the groups. In particular, the larger proportion of the AA population masks the number of health disparities that the NHPI population experiences when AA and NHPI people are aggregated together. Often, this creates an illusion that NHPI populations may not experience health disparities, as the “AA and NHPI” group is repeatedly demonstrated to have lower incidence or rates of various diseases or other adverse health outcomes when, in fact, NHPI populations have a notable number of health disparities for multiple diseases and health outcomes.

The CDC reported a higher disease burden among NHPI populations compared to AA populations and the U.S. population as a whole in 2014. For example, NHPI adults, compared with White adults, had a higher rate of coronary heart disease (10%), angina (27%), hypertension (16%), stroke (52%), diabetes (92%), any cancer (27%), kidney disease (53%), asthma (35%), and psychological distress (32%). A recent publication reported that cancer mortality rates were higher in NHPI men (39%) and women (72%) compared to AA men and women. When evaluated by age, NHPI individuals, compared

with all races, had the highest cancer death rate (43.7/100,000) among those aged 20-49. In the state of Hawaii, the NHPI population, compared with the overall population of Hawaii, were more likely to die from coronary heart disease (2.64 times higher), stroke (3.65 times higher), congestive heart failure (3.44 times higher), cancer (1.96 times higher) and diabetes (3.32 times higher), according to a 2020 Hawaii State Department of Health report. Mental health is also a significant concern among NHPI people, particularly among youth. The percentage of suicide ideation among NHPI adults nationwide is 54% higher than the total U.S. population. Suicide is the leading cause of death among NHPIs ages 15-24. Within Hawaii, Native Hawaiian adolescents were reported to have made more suicide attempts compared to non-Hawaiians. Rates of substance use disorders among NHPI adolescents are higher than AA adolescents. In contrast, NHPI people are three times less likely to receive mental health services or treatment medications than non-NHPI people. Taken together, NHPI populations experience a wide range and number of health disparities compared to other groups.

While health outcomes are often traced to risk factors such as obesity, poor nutrition and lifestyle, smoking, alcohol use, depression, and anxiety — factors noted to be high among NHPI populations - very few studies have yet to evaluate the pathways of such risk factors to health outcomes or even consider multilevel or structural factors. Addressing the causes of inequitable health status requires viewing the health of NHPI people at all levels of influence, including through historical, sociopolitical, and cultural contexts. The historical influx of Europeans and Americans to Hawaii and the Pacific Islands brought waves of infectious disease epidemics and drastically reduced the NHPI population over centuries. Over time, NHPI people experienced numerous traumatic events, such as forced colonization, the overthrow of their respective governing structures, the dismantling of native practices, and compulsory and discriminatory assimilation policies. This historical trauma has produced both socioeconomic (e.g., disadvantages in housing, education, and work) and cultural challenges that have, consequently, resulted in the existing health disparities observed today. Throughout the biomedical literature, there has been a call for diverse perspectives that bring culturally oriented and culturally-responsive practices, and interventions along with increased education, focusing on families and communities to address these health disparities.

The grant portfolio analysis shows NIH has supported little research on NHPI populations. A 2019 study reported the proportion of total NIH funding from 2000 and 2018 that focused on AA and NHPI populations was 0.18%, standing in sharp contrast to the proportion of AA and NHPI people in the U.S. (~4-6% from 2000 to 2020). A separate portfolio analysis of NIH grants (2017- 2022) with research or infrastructure on NHPI populations yielded a similar observation where very few research studies intentionally focused on NHPI populations. In the past five years, NIMHD has funded a few research grants focusing on NHPI populations, such as Native Hawaiians or specific Pacific Islander populations, including Marshallese populations. Among these

few grants, most planned to evaluate cardiovascular diseases such as diabetes or metabolic disorders. Overall, many grants focused on specific biological aspects; very few considered social, behavioral, or cultural factors or a holistic view of health in these populations. There was a lack of consideration concerning the NHPI populations' history with forced colonization or discriminatory practices and policies. Thus, there is a great need to examine the multilevel factors influencing health disparities in NHPI populations through a social determinants framework focusing on upstream factors. Essential to this need is the disaggregation of NHPI populations from the "AA and NHPI" to understand health disparities unique to NHPI populations and the promotion of traditional practices to improve health.

Description of the Initiative:

The purpose of this initiative is to solicit and support multidisciplinary research to understand the risk and protective factors and challenges, particularly on upstream factors, that affect the health of Native Hawaiian and Pacific Islander populations and to develop and test interventions and prevention strategies to reduce these health disparities. This initiative will include observational and intervention research in collaboration with local NHPI communities and other partners. Studies are encouraged to consider cultural and traditional factors. As this initiative is on NHPI populations, studies should disaggregate data related to NHPI populations from data related to AA populations.

Areas of research interest and potential interventions among NHPI populations include but are not limited to the following:

- Understanding the impact of historical trauma, oppression, discrimination and/or cultural discord on various health outcomes, including suicide, substance abuse, and mental health (e.g., understanding the influence of discriminatory policies, adverse immigration experiences, food or housing insecurity)
- Evaluating the impact of traditional indigenous practices on health and quality of life
- Examining the interplay of social, cultural, environmental (including the family, neighborhood, the built and natural environments, and climate change), and biological factors predisposing NHPI populations to risk of various health outcomes such as cancer, diabetes, and other chronic diseases
- Understanding the influence of intergenerational families and/or communities to enhance resilience and protective factors among subpopulations in different islands, resulting in health advantages and improved well-being
- Examining the interaction of health care practices and policies with traditional healing practices and its impact on health behaviors, and health care access and quality

- Examining the mechanisms and pathways for multiple factors influencing risk for chronic disease and comorbidities throughout the life course among NHPI populations who migrated to the mainland U.S.
- Comparisons for and assessment of risk/protective factors and health outcomes among various NHPI populations who live in the Pacific vs. those who moved to the contiguous U.S.
- Culturally tailored or adapted strategies for early detection, control, and/or prevention of chronic diseases, such as maternal/child health, diabetes, cardiovascular diseases, and infectious diseases among NHPI populations
- Developing community-level and culturally informed health promotion strategies and programs (e.g., access to healthy foods, safe recreational spaces, screening programs) to promote the health and well-being of NHPI populations
- Multilevel interventions to lower disease risk and health disparities focusing on structural factors
- Examining how different strategies to address social determinants, such as housing, employment, or educational systems may increase reach/access to prevention and care in low-resource settings for NHPI (sub)populations