

Realizing Mauli Ola through Workforce Development: Educational Resources for Advancing Social Justice through Indigenous Collaboration

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Over the past forty years, considerable attention and funding has been spent to improve the health status of Kānaka ‘Ōiwi¹. While gains have been made, Kānaka ‘Ōiwi continue to experience an average life span ten years shorter than that of the general population (Wu et al. 2017). This is caused in part by non-communicable diseases such as diabetes, stroke, and cardiovascular diseases that affect Kānaka ‘Ōiwi at significantly higher rates than the general population (Native Hawaiian Databook 2017). Coupled with mental and behavioral health conditions such as depression, anxiety, and substance abuse, there are multiple health needs that require attention to improve the health of all Native Hawaiians throughout the lifespan.

In addition to these physical and mental health factors, there are systemic barriers to achieving health equity. “The social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels” (World Health Organization 2017). The World Health Organization (WHO) (WHO 2017), the United States Department of Health and Human Service’s Healthy People 2020 (US DHHS 2014), and the Centers for Disease Control and Prevention (CDC) (CDC 2017b) all recognize the influence of social determinants of health on individual and population health outcomes, more so than genetic disposition or medical care. Examples include early life experiences, education, employment and working conditions, food security, housing, income and its distribution, social exclusion, and public safety issues (DNHH 2017).

It is hypothesized that continual disparities in these health statistics are due to wide-ranging determinants of health that mitigate the ability of individuals to achieve control over lifestyle changes required to prevent or

manage chronic diseases. For example, in comparison to the general population in Hawai‘i merely 19.9 percent of Native Hawaiian adults have one (or more) person(s) they think of as their personal doctor or primary care provider (PCP); 10.9 percent of Native Hawaiian adults needed to see a doctor but could not because of the cost within the past twelve months; and 36.9 percent of adult deaths between 20–29 years of age were Native Hawaiian. These statistics are linked to other social factors which push and pull on quality health care access and inequitable health status in the state². This includes the fact that 69.0 percent of admissions to the Hawai‘i Youth Correctional Facility were Native Hawaiian; or only 16.4 percent of Native Hawaiians aged 25 years and over have a bachelor’s degree or higher; or 20.5 percent of Native Hawaiian households received Supplemental Nutrition Assistance Program (SNAP) benefits in 2013 as compared to 11.3 percent of households in the state. Native Hawaiian health is concretely linked to social circumstances determined by education, incarceration, and socio-economic status as underscored in the disparate statistics presented (Office of Hawaiian Affairs 2015, 2017).

While it is clear that achieving health equity will require much more than access to primary care, in the United States, the majority of public health funding from the Centers of Disease Control and Prevention has gone towards health services rendered to the individual (patient) by the physician (provider) (CDC 2017a). If we are interested in reaching the 4/5’s of Native Hawaiians who do not currently have a PCP and intervene on a structural level on the social determinants of health, it is necessary to create a new generation of health workers who see their work as going beyond just direct health services. Health care would then become the kuleana of a much larger workforce and the increased likelihood of health equity would be

within reach. To this end, Nā Limahana O Lonopūhā Native Hawaiian Health Consortium (NLOL), a group of leading executives, health scientists and practitioners, and community experts, sought to redefine health beyond the absence of disease and inclusive of the traditional concept of mauli ola. Collectively, we sought to create tools that would engage young minds and envisioned a health education strategy that would utilize a culturally-based health equity curriculum designed to be multifaceted and implemented anywhere from middle school to graduate school. By introducing these social determinants of health concepts and empowering individuals to impact their own health at an early age, we are hoping to change the trajectory of health for the next generation of Kānaka 'Ōiwi and their families.

The purpose of this article is to describe an initiative that addresses intergenerational health disparities as a public health crisis and mobilizes experts throughout Hawai'i in a call to action to implement large scale interventions that will create structural shifts to achieve health equity and social justice. The authors will describe the initiative's three-pronged approach involving collaborative leadership, a strong research base and applied health framework as requisite conditions for developing a social justice curriculum as a method of addressing the determinants of Kānaka 'Ōiwi health, and realizing mauli ola.

■ ■ ■ BACKGROUND ■ ■ ■ Nā Limahana O Lonopūhā began (2011) in 2010 as a consortium with a shared vision to leverage organizational strengths as a collective to amplify existing efforts to improve the health outcomes of Native Hawaiians through strategic collaboration. Its name evokes the spirit of Mauli Ola (Hawaiian deity of health and life)³ and views health through a traditional Hawaiian lens that includes the necessity of positive mana (spiritual power) in confronting contemporary health issues such as health disparities and inequity. Guided by this genealogy and a depth of practice-driven expertise in the ancient Hawaiian health system and traditional Hawaiian healing professions known as Ka 'Oihana Mauli Ola, NLOL activated Hawaiian leadership to integrate those unique values into conventional systems of health care delivery throughout Hawai'i. It stimulates ancient forces that built a collaborative structure of balance and well-being focused on preventive and acute care found throughout the history of Hawai'i and embedded in the legacy of all Native Hawaiians (Crabbe and Fox 2016)

Relationships among the healing professions are common pillars in traditional Hawaiian healthcare. This value is found in Hawaiian mo'olelo (stories, history) amongst two particular gods, Kamakaokūko'a'e and his younger brother Kamakanui'āha'ilono. Together they symbolize the customary balance to illness and healing in Native Hawaiian health (Chun 1986). The brother Kamakanui'āha'ilono meets his student and protégée Lonopūhā and trains him in the disciplines of healing. This passing of knowledge, skill, and practice transfers from Kamakanui'āha'ilono to Lonopūhā, who receives his education in Hawaiian healing through ho'ona'auao (to educate). Lonopūhā's proficiency in assessment and ingenuity in restorative treatments was famed throughout Hawai'i. His method became the basis for all healing practices that rely on addressing both physiological and metaphysical forces of Mauli Ola. Generations perpetuated the Lonopūhā order of kāhuna (priestly specialists), during which Kānaka 'Ōiwi enjoyed healthy lives, bountiful land divisions, and a prosperous society. Cultural research and mo'okū'auhau (genealogy) indicates that descendants of Lonopūhā were engaged in a pedagogy that established wellness within individuals, families, and larger communities of kauhale (group of houses).

NLOL internalizes this mo'olelo as an asset that motivates action in culturally responsive ways. One of the 'ōlelo no'eau (Hawaiian proverbs) that guides NLOL is "No kahi ka pilikia, pau a pau, When one is in trouble, all [give aid]" (Pukui 1983, ŌN 2332). Today, we look to these cultural strengths and the resilience of Kānaka 'Ōiwi specialists to rebuild Native Hawaiian health in the twenty-first century while addressing health disparities. Thus, the name of this consortium honors those industrious leaders committed to the philosophy of Lonopūhā as a Hawaiian best practice in traditional Hawaiian medicine and health.

A collaborative framework for kānaka 'ōiwi health
During its inception, NLOL outlined several ways in which the member organizations could work together to address the three hierarchical layers (primary, secondary, tertiary) (see Figure 1) of systemic change needed to reclaim Native Hawaiian health. This approach was envisioned to act on multiple levels of the health care system simultaneously to improve Native Hawaiian health outcomes overall.

Operationalizing that approach took a diverse group of providers. As such, the consortium comprises private,

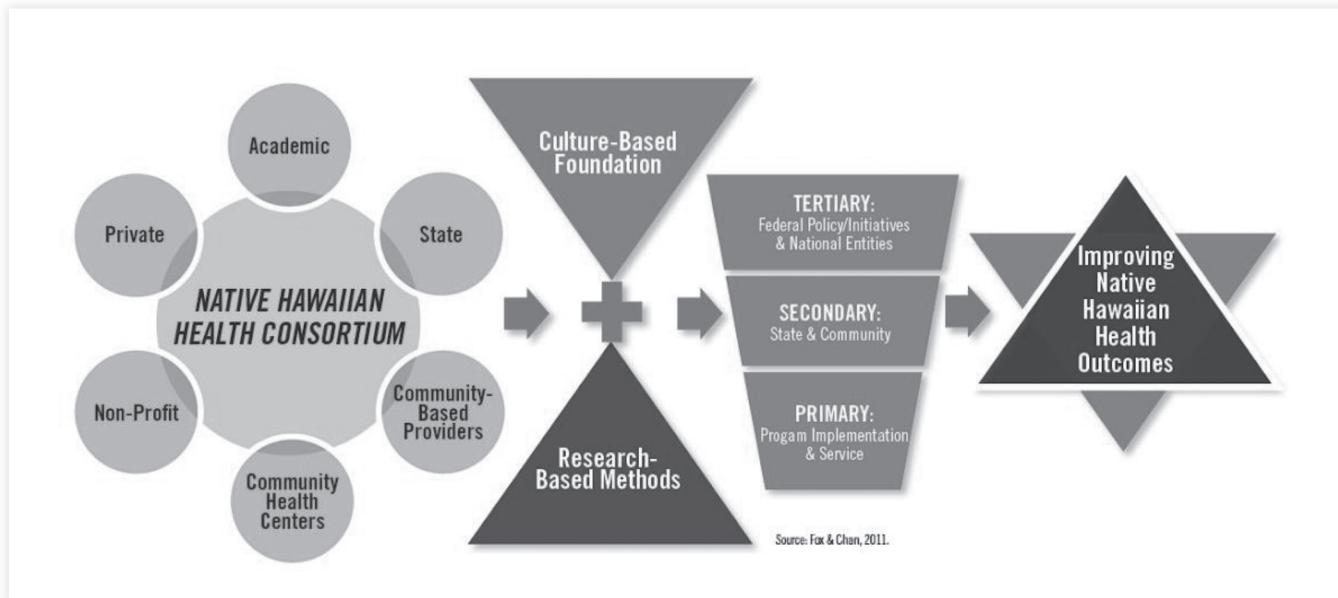


Figure 1. Working Logic Model of the Native Hawaiian Health Consortium

non-profit, state, academic, community health centers, and community-based providers with direct and indirect services throughout Native Hawaiian communities. It currently has fourteen member organizations with voting rights and privileges as outlined in its governing documents as a 501(c)3 non-profit organization. Creating a Native Hawaiian health network of partners is our chosen strategy to generate sustainable solutions by combining distinct interests and resources across the membership. The combined sectors of the consortium and current membership are included in Table 1.

A POLICY-APPROACH TO SOCIAL JUSTICE Social justice describes a state of equity in which all members of society have equal access to inalienable rights and self-determination (Kaholokula, Nacapoy, and Dang 2009). Within the context of the social determinants of health, social justice is achieved through realization of ‘health for all.’ The social determinants of health are typically conceptualized as a river or ‘stream’ model (Adelman 2007). The stream model shows how ‘upstream’ factors, such as social and economic status, impact ‘downstream’ outcomes of health equity. In Hawai‘i, access to upstream determinants of health is highly politicized as depicted in Figure 2.

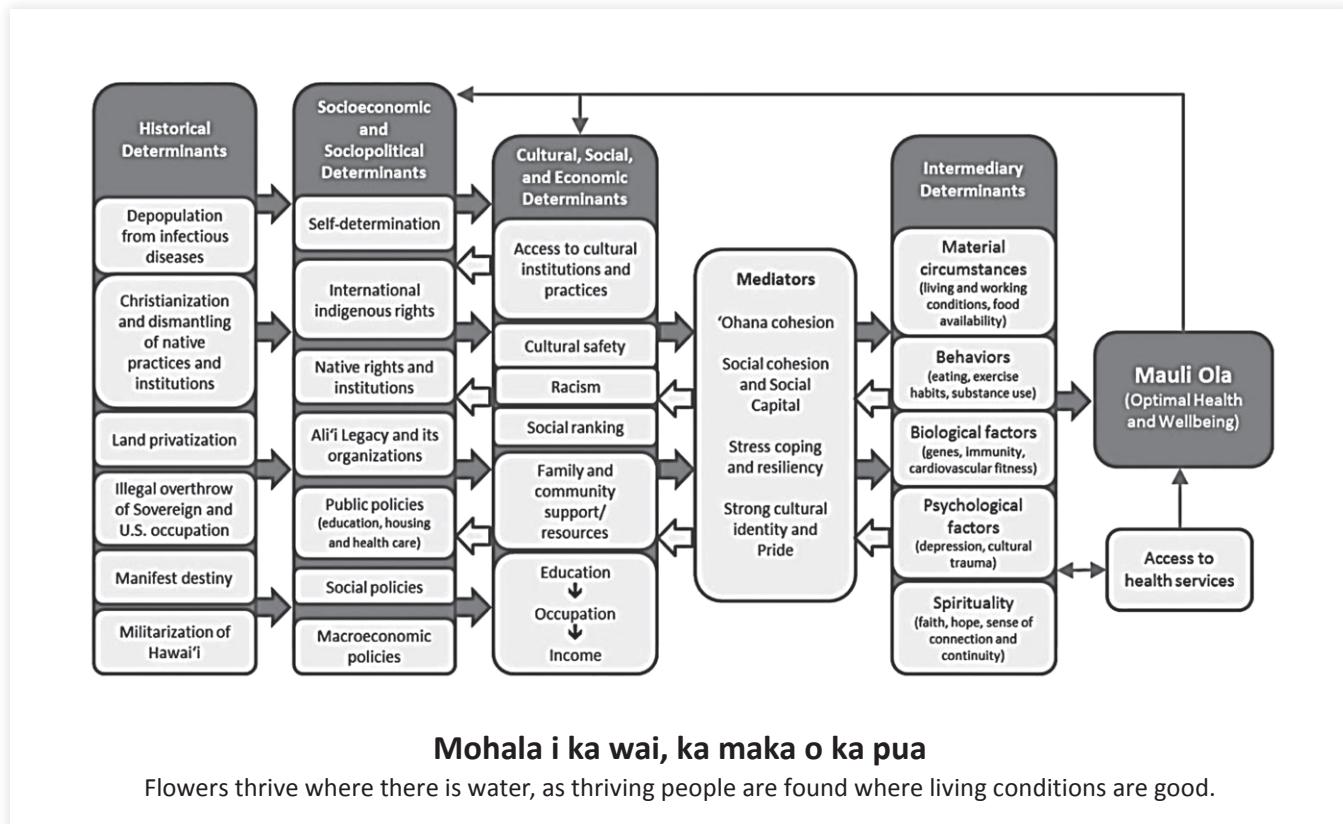
Kaholokula’s Social and Cultural Determinants of Health model looks beyond the intermediary determinants

in the stream model both to the flow of water throughout our watershed (Browne, Mokuau, and Braun 2009) and to impacts on an intergenerational basis. Socioeconomic and sociopolitical determinants are structural, political factors precipitated by historical context. Depopulation and dismantling of native practices and institutions have had a direct, intergenerational impact on health equity. The struggle for self-determination and perpetuation of native rights, institutions, culture, and societal values as well as resistance to policies that present barriers to Native Hawaiian health are policy-driven efforts to restore flow or social justice (Kaholokula 2017).

Consistent with longstanding strategies for self-determination, the consortium seeks to work with federal stakeholders in the United States government. Remaining actively engaged with decision makers in Washington DC is critical to upholding the reauthorization of the Native Hawaiian Health Care Improvement Act (NHHCA), originally signed into law by President Ronald Reagan in 1988. It established the current structure for federal funding and existing Native Hawaiian Health Care Systems in the state of Hawai‘i. Specifically, it codified a declaration of Congressional policy regarding Native Hawaiian health within the context of the special legal and political relationships between Native Hawaiians and the federal government. Therefore, all federal policy towards Native Hawaiian health is framed by the NHHCA, especially its

NON-PROFIT	STATE	COMMUNITY-BASED PROVIDERS
A key strand are tax exempt 501(c)(3) organizations dedicated to community outreach services, program development, and independent research. Papa Ola Lōkahi (including ‘Imi Hale, Native Hawaiian Cancer Network) adds to our dynamic by advocating for, initiating, and maintaining culturally appropriate health strategies through physical, mental, and spiritual health avenues. I Ola Lāhui serves Native Hawaiians and other medically underserved groups predominantly in rural Native Hawaiian communities.	The Office of Hawaiian Affairs (OHA) is committed to addressing chronic disease rates among Native Hawaiians political Advocacy. Partnerships with the Hawai‘i State Department of Health (HDOH) and Hawai‘i State Department of Human Services (HDHS) make the best use of local resources in positively impacting chronic disease prevalence and incidence rates among Native Hawaiian adult males and females, children, and adolescents.	Scholarly organizations support formal education, preeminent scientists, and professional research capacity. Within the University of Hawai‘i at Mānoa our partners include the state of Hawai‘i’s only medical school, the John A. Burns School of Medicine’s Department of Native Hawaiian Health , and the Myron B. Thompson School of Social Work , one of the premier schools of social work in the Pacific-Asia region. Further, we incorporate Chaminade University, a private institution serving high proportions of Native Hawaiian undergraduate and graduate degree-seeking students.
ACADEMIC	PRIVATE	COMMUNITY HEALTH CENTERS
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Table 1. *Nā Limahana O Lonopūhā Native Hawaiian Health Consortium Member Organizations and Types.*

**Figure 2.** Kaholokula's Social and Cultural Determinants of Health (2017)

declaration of policy (Crabbe et al 2015). "In furtherance of the trust responsibility for the betterment of the conditions of Native Hawaiians, the United States has established a program for the provision of comprehensive health promotion and disease prevention services to maintain and improve the health status of the Hawaiian people."

In terms of health equity and social justice, the NHHClA is significant for two reasons: 1) Congress declared that raising health to its highest levels is part of its special legal and political relationship with Native Hawaiians; and 2) it advocates for Native Hawaiian health as a clear statement of political imperative to reference when advocating for congressional policy. NLOL seeks to support collaborative partnerships that will perpetuate this work with major federal health agencies under the U.S. Department of Health and Human Services (HHS), to include the CDC, Health Resources and Services Administration (HRSA), National Institutes of Health (NIH), the Office of Minority Health (OMH), and other divisions as applicable to maximize improved health opportunities and benefits for Native Hawaiians.

Cultural determinants of kānaka 'ōiwi mauli ola.

In 2014, the Office of Hawaiian Affairs (OHA) spearheaded advocacy efforts to functionally mobilize the social determinants of health across state agencies in Hawai'i. HB1616 was introduced during the twenty-seventh legislature and passed as Act 155⁴, amending the Hawai'i State Planning Act (HSPA) and "modernizes the state planning act objectives to reflect best practices for health policy" (Ostrowski and Fox 2016). Act 155 is an example of a successful legislative effort for Native Hawaiian/Pacific Islander social determinants of health by amending HSPA as a policy-setting document to improve state planning, increase government effectiveness, and improve coordination among different agencies. By utilizing a Kānaka 'Ōiwi determinants for mauli ola framework, Act 155 set the tone for NLOL to implement their policy approach to social justice locally in the state of Hawai'i to mirror the NHHClA.

■ NĀ POU KIHI: KĀNAKA 'ŌIWI DETERMINANTS FOR MAULI OLA ■ With its structure and methods set, the group asserted its need for a set of values to serve as cornerstones for its activities and

to be managed by functional working groups. In 2012, NLOL created a logic model utilizing Kaholokula et al.'s Nā Pou Kihi framework (2009) with aspirational outcomes addressing each pou kihi to guide the consortium's strategic plan. The "pou kihi" refer to the corner posts within a traditional Hawaiian hale (house). These corner posts functionally secure the foundation of the house (its kahua) to the walls or sides (its paia) and thus support the kaupoku (roof). A description of optimal Kanaka 'Ōiwi health strategies and examples under each pou kihi are described in Table 2⁵

Activities of the consortium are strategically aligned with and governed by the pou kihi. The next step in the initiative was to create a robust curriculum that engaged students across health professions in the process of learning this information while integrating their understanding with a personal worldview (Chung-Do et al. 2016).

Approach and methodological processes: Toward a social justice curriculum

Once the consortium was convened, NLOL approached the Secretary of Health and Human Services (HHS) to share the logic model and encourage consideration of NLOL as the lead organization for Kanaka 'Ōiwi health in the state of Hawai'i. Funding requests included a position to represent the interests of Native Hawaiians with HHS as well as ongoing funding for NLOL. The suggestion was also made for the creation of two unfunded positions, one to serve as the advocate for Kanaka 'Ōiwi in the continental United States as well as one to advocate for Kanaka 'Ōiwi in the state of Hawai'i. Acknowledging these requests, the HHS Secretary suggested meeting with the OMH to discuss possible collaboration as well as funding for the consortium.

During these discussions, OMH suggested that NLOL work with Atlas Consulting and the Stanford University School of Medicine to adapt the Youth Science Program's Public Health Advocacy Curriculum (PHAC) for use in Hawai'i. PHAC had been developed as part of the National Partnership for Action's Partnership for Youth: Health Education for a New Generation (yNPA). This initiative was designed to begin the discussion of health disparities with middle and high school students. The goal of the curriculum, "is to familiarize youth with the concept of the social determinants of health, the challenges to good health, opportunities to improve health, and positive actions that lead to better personal and community health" (OMH 2016). At that time, OMH was looking for partners to

implement the existing curriculum in community settings to "prepare young people to become future leaders and practitioners by educating them about health disparities and the social determinants of health; and engage youth in health equity work" (OMH 2016).

The consortium members saw this collaboration as a tremendous opportunity, anticipating that a quality product could generate sustainable funding for NLOL. A subcommittee was developed to create a culturally tailored adaptation of PHAC for Hawai'i's population with the intention of utilizing these lessons within the Kanaka 'Ōiwi community. Those chosen for the curriculum committee offered backgrounds in medicine, psychology, sociology, healthcare administration, and public health. The process of adapting the curriculum involved adding a module on historical context to include the intergenerational impact of colonization and disruption of Native Hawaiian health and mauli ola as formative social determinants.

RESULTS This paper presents the first in a series of efforts to create a social justice curriculum to address the determinants of Kānaka 'Ōiwi health. Future publications will address the adaptation, implementation, and evaluation phases that are currently under way.

Phase 1. Cultural tailoring of PHAC

An adaptation matrix was developed to outline Stanford University's original curriculum table of contents so that any adaptations made stayed true to the original content. Individual activities were tailored to local issues, including water rights, Hawaiian language revitalization, and food sovereignty, as well as cultural literacy to teach these issues as social determinants of Kanaka 'Ōiwi health. As this topic is generally missing from the health workforce training, the aim was to create content appropriate for undergraduate and graduate students, especially those studying public health, social work, nursing, and medicine. Additional modules and activities focused on behavioral health and lifestyle choices as these align more to the disparities in Hawai'i such as incarceration (Patterson, Uchigakiuchi, and Bissen 2013) and acculturative stress (Kaholokula et al. 2008).

Based on the adaptation matrix, a literature review was conducted to catalog existing curricula written by experts in comparable areas of Hawaiian health. These experts were NLOL members, their mentors, and leaders in the Hawaiian health movement mobilized by the NHHCA.

Na Poukihi (the corner posts)	Ke Ao ‘Ōiwi (Creating and maintaining a culturally safe space)	Ka Mālama ‘Āina (Creating and maintaining healthy environments)	Ka ‘Ai Pono (Accessing healthier lifestyles)	Ka Wai Ola (Accessing the institutions and benefits of society)
Principle/ Strategies	Optimum health of Kānaka ‘Ōiwi is achievable when society values their social group and provides the sociocultural space for their modes of living and aspirations.	Optimum health of Kānaka ‘Ōiwi can only be achieved when healthly patterns of living are accessible, promoted, and practiced; contingent upon Ke Ao ‘Ōiwi and Ka Mālama ‘Āina.	Optimum health of Kānaka ‘Ōiwi can only be achieved when healthly patterns of living are accessible, promoted, and practiced; contingent upon Ke Ao ‘Ōiwi and Ka Mālama ‘Āina.	Optimum health of Kānaka ‘Ōiwi is achievable through social justice (equitable share of the benefits and burdens of society) and indigenous rights; cumulative effect of Ke Ao ‘Ōiwi, Ka Mālama ‘Āina, and Ka ‘Ai Pono
Examples of Goals	<ul style="list-style-type: none"> • Positive cultural identity development • Hawaiian/English linguistic landscape • ‘Ōiwi-focused media • Strong ‘Ōiwi political influence • Cultural-based public education 	<ul style="list-style-type: none"> • Economic self-sufficiency • Food sovereignty and security • Strong civic participation • Access to walking/biking/hiking trails • Expanded/synergized role of trust founded organizations in community development 	<ul style="list-style-type: none"> • Community health promotion programs • Access to technology to enhance lifestyle goals • Affordable/accessible Hawaiian foods • Tax benefits to promote healthy living 	<ul style="list-style-type: none"> • Community health promotion programs • Access to technology to enhance lifestyle goals • Affordable/accessible Hawaiian foods • Tax benefits to promote healthy living

Table 2. Nā Pou Kihi (2015 Update)

Sixteen curricula were identified by the literature review as resources to draw from when developing new activities within the lessons. The curricula came from a wide-range of disciplines (criminal justice, history, dietetics, public health) and a variety of sources developed in Hawai‘i. Key components from the curricula were identified for each module including content experts, case studies, activities (didactic, experiential, problem-based/place-based/project-based), and Hawaiian and English translations.

Some of the curricula lent themselves well to adapting PHAC content such as “Lesson Two: Food Availability, Obesity, and Diabetes” and Hele Mai ‘Ai on the traditional Hawaiian diet (Odom 1998). This is because the traditional Hawaiian diet has been proven an effective means

of weight loss. However, this also raised new issues (Fujita, Braun, and Hughes 2004). Because of the dismemberment of traditional Hawaiian food systems, market availability of traditional Hawaiian foods is extremely limited (Yamashiro and Goodyear-Ka‘ōpua 2014), and so it is an impractical solution for our future health care workers to potentially prescribe to patients. Therefore, consulting with the curriculum writers for Hele Mai ‘Ai as content experts is a critical component of the adaptation process. With their direction, we have been able to incorporate career-long expertise in overcoming significant barriers to health and wellness in our adaptation. For example, in this lesson, we learned that students need to promote patient engagement with their community food system if they want to incorporate

principles of the traditional Hawaiian diet in their lives. Ultimately it was found that community engagement activities offered in "Lesson Five: Perceiving Communities Through a Public Health Lens" would be needed across lessons to further bridge the concepts of health and wellness as the absence of disease and achieving mauli ola.

Other curricula that presented downstream challenges such as "Lesson Four: Smoking, Drinking, and the Media" would require more significant adaptation based on upstream causes such as disparities in incarceration addressed in *E Holomua me ka 'Ike Pono (Go Forward with the Correct Knowledge): Hands-on Curriculum Offering a New Perspective for Prisoner Reentry* (Keahiolalo-Karasuda 2008) and acculturative stress that can lead to smoking and substance abuse (Kaholokula et al. 2008). Remaining lessons such as "Lesson Three: Environmental Hazards and Regulatory Measures" would require more in-depth consultation with content experts as there are no existing curricula despite considerable expertise among NLOL members. These efforts will be explored more deeply in future phases of the project.

Phase Two. Material review

Reviewing PHAC one module at a time, the curriculum committee quickly became aware of the negative biases present throughout the content, starting as early as the cover art (see Figure 3). The image of a school bus veering off the road about to crash into the river conveys a population at risk and unable to alter their course. Even something as simple as this river scene holds very little cultural or environmental relevance for Kānaka 'Ōiwi at best and at worst reinforces fatalism exacerbated by the health disparities discourse.

The curriculum committee decided that the cover art should represent a balance of health and well-being from a Kānaka 'Ōiwi experience. Concurrently, a mural depicting cultural and historical trauma on one side, and the healing that can occur through reconnection to the strength and vibrance of 'āina, relationships and spirituality on the other (Meyer 2016), was being displayed in the lobby of the University of Hawai'i John A. Burns School of Medicine. The mural, 'Āina Aloha, by Al Lagunero, Meleanna Meyer, Harinani Orme, Kahi Ching, Carl Pao, and Solomon Enos, generated positive discussions about the social determinants of Kānaka 'Ōiwi health and seemed the perfect choice to replace the existing PHAC cover art.

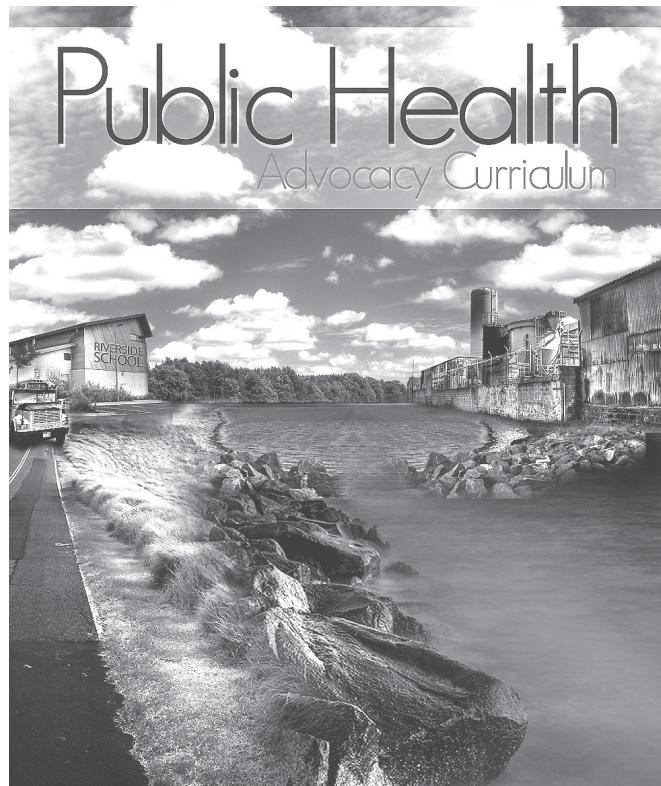


Figure 3. Stanford's Public Health Advocacy Curriculum Cover Art

For the curriculum content, a conscious choice was made to be strengths-based, aiming to empower burgeoning health professionals by making direct connections between health equity and the vibrancy of social justice-driven efforts to build indigenous self-determination in Hawai'i over the last forty-five years. The adaptation plan emphasized replacing language that further solidified the negative, disparate, and dehumanized stories of health with stories of reclaiming the health of our ancestors. For example, a partnership with the editors of *The Value of Hawai'i 2: Ancestral Roots, Oceanic Visions* (Yamashiro and Goodyear-Ka'ōpua 2014), a collection of essays by practitioners and researchers both within and beyond the health care system, was formed and as a means to use the stories as teaching pathways to health equity.

CONCLUSION

Barriers and challenges

For this curriculum project, the most significant limitation was lack of resources. Although the curriculum committee met consistently over four years, the lack of existing curricula meant that a considerable amount of time and funding

was needed from all members to fulfill the adaptation plan with integrity to NOL's guiding principles and Nā Pou Kihi. The curriculum committee determined that this necessitated hiring a curriculum writer and editors, as well as funding to pay content experts to ensure that a high-quality curriculum was produced to fulfill the need identified by this phase of project.

As the project went on, communication with OMH became strained by multiple issues that made working collaboratively with federal agencies more challenging. The curriculum committee created a budget for the adaptation and asked for financial support from OMH which was not acknowledged. As typically happens with native communities, OMH suggested that the content experts (cultural practitioners) could act as consultants to the project with no compensation. A mutual understanding of goals and objectives was difficult to develop, due in part to inconsistency in scheduling discussions when all parties were available.

Successes and opportunities

Following these challenging interactions, the curriculum development took on a new direction. It was no longer about the adaptation of a mainstream curriculum as a means to procure funding. It became a much larger product that resembled PHAC less and less. The curriculum was envisioned not only within middle, high school, college, and graduate school, but as continuing education for current professionals who interact with Kanaka 'Ōiwi through their practice. As a means of enforcement of Act 155, the curriculum committee resolved to create a curriculum that will provide our current and future health care workforce with the tools to address the history of Kānaka 'Ōiwi health that NOL practitioners have always known to be in backdrop of every patient/physician interaction but have never been addressed.

Future directions

Currently, the curriculum has been completed and is under review by editors and content experts to ensure that the final product is an accurate representation of the project goals and 'ike (knowledge) shared. The next step will be implementation of the curriculum in a pilot project to test the ease of use in a variety of settings and the acceptability of the final product in a real-life setting. It is the hope of NOL that this social justice curriculum will become a foundational piece of health education programs across the

state and therefore contribute to the development of an increasingly relevant health care workforce with a goal of realizing mauli ola.

REFERENCES

- Adelman, Larry. 2007. "Unnatural causes: Is inequality making us sick?" *Preventing Chronic Disease* 4 (4):1-2.
- Browne, Colette V., Noreen Mokuau, and Kathryn L Braun. 2009. "Adversity and resiliency in the lives of Native Hawaiian elders." *Social Work* 54 (3):253–261.
- Bushnell, Oswald A. 1993. *The Gifts of Civilization, Germs and Genocide in Hawai'i*. Honolulu: University of Hawaii Press.
- Centers for Disease Control and Prevention. 2017a. "Grant Funding Profiles - Funding Category View." <https://www.cdc.gov/FundingProfilesApp/Category/Category>.
- Centers for Disease Control and Prevention. 2017b. "Social Determinants of Health: Know What Affects Health." <https://www.cdc.gov/socialdeterminants/>.
- Chun, Malcom Nāea. 1986. *Hawaiian Medicine Book He Buke Laau Lapaau*. Honolulu: Bess Press.
- Chung-Do, Jane J, Mele A Look, Tricia Mabellos, Mililani Trask-Batti, Katherine Burke, and Marjorie KL Mala Mau. 2016. "Engaging Pacific Islanders in research: community recommendations." *Progress in community health partnerships: research, education, and action* 10 (1):63–71.
- Crabbe, Kamana'opono and Kealoha Fox. 2016. Kūkulu Hou: A Vision to Reestablish and Rebuild the Mana of Kānaka 'Ōiwi. *Hālili: Multidisciplinary Research on Hawaiian Well-Being* 10 (1): 247–263.
- Crabbe, Kamana'opono, Deja Ostrowski, Kealoha Fox, and Kawika Riley. 2015, September 16. Native Hawaiian Federal Health Policy and the National Agenda for Native Hawaiian and Other Pacific Islander Health Advocacy. Workshop presented at the 2015 Voices: Moving Health Forward!, Washington D.C., Department of Native Hawaiian Health. (2017). Native Hawaiian Health Task Force Report to the Legislature. Honolulu, HI.
- Fujita, Ruth, Kathryn L. Braun, and Claire K. Hughes. 2004. "The traditional Hawaiian diet: a review of the literature." *Pac Health Dialog* 11 (2):250–9.
- Kaholokula, Joseph K., Andrea H Nacapoy, Andrew Grandinetti, and Healanī K Chang. 2008. "Association between acculturation modes and type 2 diabetes among Native Hawaiians." *Diabetes Care* 31 (4):698–700.
- Kaholokula, Joseph K. 2017. Mauli ola: Pathways to optimal Kanaka 'Ōiwi health. In: Look, M. & Mesiona-Lee, W. (Eds), *Mauli Ola: Hawai'iinuiākea Monograph, Vol 5*. Honolulu, HI: University of Hawai'i Press.
- Kaholokula, Joseph K., Andrea H Nacapoy, and Kā'ohimanu Dang. 2009. "Social justice as a public health imperative for Kanaka Maoli." *AlterNative: An International Journal of Indigenous Peoples* 5 (2):117–137.
- Kant, Shashi, Ilan Vertinsky, Bin Zheng, and Peggy M. Smith. "Social, cultural, and land use determinants of the health and well-being of Aboriginal Peoples of Canada: A path analysis." *J Public Health Policy* 34, (3) (Aug 2013): 462–76.
- Keahiolalo-Karasuda, RaeDeen. 2008. E Holomua Me Ka 'Ike Pono (Go Forward with Correct Knowledge): Hands-on curriculum offering a new perspective for prisoner re-entry. In *Unpublished PhD dissertation*.

- Look M.A., Trask-Batti M.K., Agres R., Mau M.L., & Kaholokula J.K. (2013). *Assessment and Priorities for Health & Well-being in Native Hawaiians & other Pacific Peoples*. Honolulu, HI: Center for Native and Pacific Health Disparities Research, University of Hawai‘i.
- Lonopūhā, Nā Limahana O. 2011. Native Hawaiian Health Consortium Logic Model for Consortium Initiative. Honolulu: Office of Hawaiian Affairs (OHA).minorityhealth.hhs.gov
- Meyer, Meleanna. 2016. “Ku'u Āina Aloha: beloved land, beloved country.” accessed April 15, 2017. <http://kuuainaaloha.com/>.
- Native Hawaiian Data Book. <http://ohadatabook.com/DB2013.html>. Retrieved 4/07/17.
- Odom, Sharon Ka’ulani. 1998. “Hele Mai’Ai: Developing a culturally competent nutrition education program.” *Pacific Health Dialog* 5:383–385.
- Office of Hawaiian Affairs. 2017. *Native Hawaiian Health Fact Sheet 2017. Volume IV: Native Hawaiian Health Status*. Honolulu, HI.
- Office of Hawaiian Affairs. 2015. *Native Hawaiian Health Fact Sheet 2015. Volume III: Social Determinants of Health*. Honolulu, HI.
- Office of Minority Health. 2016. “Educating Youth and Emerging Leaders about the Social Determinants of Health and Health Disparities through the Youth National Partnership for Action to End Health Disparities (yNPA).” U.S. Department of Health and Human Services, accessed May 17, 2017. <https://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=38&ID=356>.
- Ostrowski, Deja and Kealoha Fox. 2016, June 17. (Abstract). *Best Practices for Integrating Culture with State Government Health Planning*. The Journal of Alternative and Complementary Medicine, 22(6): A1–A142. doi:10.1089/acm.2016.29003.abstracts. Retrieved from <http://online.liebertpub.com/doi/full/10.1089/ACM.2016.29003.abstracts>.
- Patterson, M, Patrick Uchigakiuchi, and Toni Bissen. 2013. “Can Prison Be a Place of Healing? The Trauma-Informed Care Initiative at the Women’s Community Correctional Centre.” *Multidisciplinary Research on Hawaiian Well-Being*.
- Pukui, Mary Kawena. 1983. ‘Olelo No’eau: Hawaiian Proverbs and Poetical Sayings. Honolulu: Bishop Museum.
- U.S. Department of Health and Human Services. (2014). Disparities. Available: <HTTP://HEALTHYPEOPLE.GOV/2020/ABOUT/DISPARITIESABOUT.ASPX>
- Pukui, Mary Kawena, and Samuel Elbert. 1986. *Hawaiian Dictionary*. Honolulu: University of Hawai‘i Press.
- World Health Organization. 2017. “Social determinants of health.” http://www.who.int/social_determinants/sdh_definition/en/.
- Wu, Yanyan, Kathryn Braun, Alvin T. Onaka, Brian Y. Horiuchi, Caryn J. Tottori, and Lynne Wilkins. 2017. Life Expectancies in Hawai‘i: A Multi-ethnic Analysis of 2010 Life Tables. *Hawai‘i Journal of Medicine and Public Health*, 76(1): 9–14.
- Yamashiro, Aiko and Noe Goodyear-Ka’ōpua. 2014. *The Value of Hawaii 2: Ancestral Roots, Oceanic Visions*. Biographical Research Center.

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ENDNOTES

- 1 For the purposes of this report, *Native Hawaiian* is defined in US Public Law 103–150 as “any individual who is a descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the State of Hawai‘i.” The term *Native Hawaiian* is used interchangeably throughout this report with *kānaka ‘ōiwi* and *Hawaiian*.
- 2 The state of Hawai‘i continues to be a topic of political and legal analysis. The period beginning in 1959 is used to demarcate the literature sources and their statistical reference rather than confirm the legitimacy of the territorial or statehood eras in Hawai‘i’s history.
- 3 Use of Hawaiian terms are presented as found in the referenced source, to include original spelling and use of diacritical markings. Otherwise, Hawaiian words are spelled and provided with a simplified definition using Pukui and Elbert (1986). For additional ease in translation, please refer to www.wehewehe.org.
- 4 For full bill text, refer to http://www.capitol.hawaii.gov/session2014/bills/HB1616_SD1_.pdf.
- 5 For additional information and detail, refer to Kaholokula in *Value of Hawai‘i 2: Ancestral Roots, Oceanic Visions* (Yamashiro and Goodyear-Ka’ōpua 2014).