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Maui Ola: Pathways to Optimal Kanaka 'Ōiwi Health

Centuries before the arrival of European settlers to Hawai'i, our Kanaka 'Ōiwi (Native Hawaiian) ancestors developed an elaborate and highly sophisticated public health system based on the concepts of *kapu* (people, places, and things held under strict regulation) and *noa* (people, places, and things free of restriction).¹ Referred to as the Kapu System, it was essentially a public health system based on socio-religious tenets to ensure equitable access to natural resources and the availability of these resources in perpetuity.² These resources were strictly controlled, such as the use of fresh water and fishing. As part of this resource management effort, there was a division of labor by social ranking, which ascribed different sets of behaviors and privileges to each. By all accounts, it was a highly effective public health system that ensured the availability and distribution of life-sustaining resources that minimized if not eliminated starvation, disease, and illness on islands with finite resources.

The observations of Capt. Cook and his men in 1778 hint to the effectiveness of the Kapu System and the health status of our ancestors. They noted that the natives were "...above middle size, strong, well made....a fine handsome set of people" and that they were "...truly good natured, social, friendly, and humane, possessing much liveliness and...good humour."³ Surely, these descriptors are indicative of a healthy, robust, and thriving native population at the dawn of permanent contact with Westerners.⁴

Although it has been criticized as being an oppressive socio-religious order, favoring the elite in ancient society, the Kapu system operated based on similar principles and enforceable regulations to the modern public health systems in most developed countries today. For example, fresh water is still one of the most precious natural resources required for drinking, cooking, and farming, which is still regulated by government. How resources are allocated, distributed, and accessed today continues to

vary considerably by social ranking. Even the distribution of labor is still based on social ranking, which are reflected in terms such as blue collar versus white collar workers and jobs.

Unlike the ancient Kapu System, however, the modern Western version, better referred to as Capitalism, has resulted in large health inequities for contemporary Kānaka 'Ōiwi. Under U.S. occupation, the rates of mental and physical illnesses, such as depression and diabetes, have been considerably higher among Kānaka 'Ōiwi compared to all other major ethnic groups in Hawai'i.⁵ Kānaka 'Ōiwi have also experienced greater social and economic disadvantages in education, employment, incarceration, and housing.⁶ In this chapter, my perspectives on the social and cultural determinants of health for Kānaka 'Ōiwi, the opportunities I see on the horizon for improving these determinants, and our aspirations as Kānaka 'Ōiwi in achieving optimal health are explored.

My perspectives explored here are based on my experiences as a Kanaka 'Ōiwi and as a health professional working with, and on behalf of, other Kānaka 'Ōiwi. My motivation for writing this perspective piece is to move the dialogue in the health inequities field from talking about "disadvantages and risks" to talking about "advantages and opportunities." My desire with this piece is that health professionals, researchers, and policy makers will develop a stronger appreciation for the "root causes" for the disproportionate burden of physical and mental health issues among Kānaka 'Ōiwi as well as the cultural strengths already in place to advance Kanaka 'Ōiwi health. My other desire is that we, as Kānaka 'Ōiwi, take full advantage of our shared aspirations and cultural resources to advance our health and wellbeing. To begin my exploration, I offer a definition of health from a Kanaka 'Ōiwi perspective.

An Indigenous Perspective of Health

Mauli Ola is the "breath of life" or "power of healing."⁷ It is often used to refer to a person's health as reflected in the 'ōlelo no'eau (proverb), "kihe, a Mauiola" (sneeze, and may you have life).

Mauli Ola is also the deity of health embodied by the natural elements as reflected in the 'ōlelo no'eau,

“Ka lā i ka Mauiola (The sun at the source of life).⁸ It reflects the reciprocal person-environment relationship important to wellbeing; that is, optimal health is shaped by one’s relationship to his or her spirituality and the natural elements.

I use the concept of Mauli Ola in this chapter to refer to health and define it here as a “balanced” state of spiritual, physical, mental, and social wellbeing beyond the mere absence of disease or disability.⁹ These aspects of wellbeing are related to the quality of a person’s spiritual, interpersonal, and environmental relationships as reflected in the traditional Kanaka 'Ōiwi values around ho‘omana (reverence), ‘ohana (filial piety), mālama ‘āina (caring for the land), and aloha ‘āina (land stewardship and patriotism to Hawai‘i). The optimal balance amongst these areas of wellbeing is based on a person’s subjective experience, and this optimal balance can differ across Kānaka 'Ōiwi.

Social and Cultural Determinants of Mauli Ola

Although genetic (e.g., inherited traits), biological (e.g., metabolic abnormalities), and behavioral (e.g., eating and exercise habits) determinants of Mauli Ola are often the focus of attention, the social determinants of Mauli Ola are equally important. That is, the societal, political, and economic forces that influence the social structure and hierarchy and the distribution of power, resources, and opportunities in society that differentially impact the health and wellbeing of people.¹⁰ Most impacted by the adverse consequences of these social determinants are indigenous and ethnic minority populations who are overrepresented in poorer socioeconomic conditions and who also have higher morbidity and mortality rates than Caucasians.¹¹ A scientific review of studies published over a seven-year period concluded that there is little evidence for a clear genetic explanation of the cardiovascular disease disparities seen between Blacks and Whites in the U.S.¹² It is likely that these disparities are better accounted for by environmental (e.g., obesiogenic neighborhoods) and social (e.g., discrimination) factors,¹³ and these “upstream” factors can shape the biological and behavioral determinants of health.¹⁴

For Indigenous Peoples living under the rule of foreign settlers, such as Kānaka 'Ōiwi, the preservation of cultural traditions (e.g., native language, values, and practices) and sacred places, access to ancestral lands, a strong indigenous identity, and cultural participation are also important, positive determinants of Mauli Ola.¹⁵ However, these indigenous values, practices, and aspirations are often challenged by those of the settler society and other ethnic groups. A history of physical, emotional, and cultural marginalization due to discriminatory acts and compulsory acculturation strategies (e.g., banning of native language), many of which still persists today, have negatively impacted the Mauli Ola of Indigenous Peoples¹⁶ – a phenomenon often referred to as historical or cultural trauma.¹⁷

Studies of Kānaka 'Ōiwi illustrate how historical trauma might be manifested in the present: The perception and experience of historical trauma among Kanaka 'Ōiwi college students is associated with more substance use (alcohol, cigarettes, and/or marijuana) for those who also report more discrimination whereas, for those with a high degree of pride in being Kānaka 'Ōiwi, it is associated with less substance use.¹⁸ Higher levels of perceived discrimination in Kānaka 'Ōiwi are associated with a higher risk for hypertension and dysregulation in the stress hormone, cortisol.¹⁹ Cultural loss and threats to indigenous identity among Kānaka 'Ōiwi has been linked to depression.²⁰

[Figure 1 here]

In figure 1, a model of the social and cultural determinants of Mauli Ola for Kānaka 'Ōiwi is presented. From left to right of the model: Consider how population decimation, conversion to Christianity and its condemnation of traditional values and practices, land privatization, and loss of political control in 1800s and the militarization of Hawai'i, banning of Hawaiian language, tourism, migrations, and foreign investments of the 1900s have led to the current state of affairs for Kānaka 'Ōiwi. Although these past events are non-modifiable, they have led to the displacement and marginalization of Kānaka 'Ōiwi in our own homeland and to disadvantages in education, housing, and workforce – factors that are modifiable. Consider how the resulting political system and its decisions,

such as how resources are distributed and how public policies might favor the interest of one group over another, can impact the safety (e.g., crime and environmental toxins) and availability of resources (e.g., walking trails and usable sidewalks) in a particular neighborhood, worksite, or public school system; how the safety and available resources of these environments can impact whether or not a person have access to fresh fruits and vegetables, safe and clean parks, and the best educational opportunities; how the availability and affordability of healthy food options and physical activity venues can affect whether or not a person is obese or develops diabetes; and how access to quality health care can prevent (or bring about), delay (versus early onset), or manage a person's health problems. Finally, consider how all these factors are not equally distributed or accessible across communities and ethnic groups and how the added burden of discrimination, economic deprivation, and cultural threats can adversely impact these factors.

Despite the socio-economic and socio-cultural factors that have positioned Kānaka 'Ōiwi at a disadvantage in Hawai'i, the adverse health effects are tempered by the social and educational institutions of the Trusts of the Ali'i (Royal) Legacy and public policies. Imagine what the educational situation for Kānaka 'Ōiwi would be like if it was not for the existence of Kamehameha Schools, the legacy of Princess Bernice Pauahi Bishop. Imagine what the fate of many desolate and orphaned Kanaka 'Ōiwi children would have been if it was not for the social services provided by the Queen Lili'uokalani Children's Center. Imagine what would have become of many Kūpuna (elders) if it was not for the Lunalilo Home. Imagine what health care would be like for many Kānaka 'Ōiwi without the existence of the Queen's Health Systems, the legacy of Queen Emma and King Kamehameha IV. And, imagine what the conditions would be like for many Kānaka 'Ōiwi without the Office of Hawaiian Affairs (OHA) and the governmental support received through the Hawaiian Homes Commission Act, the Native Hawaiian Education Act, and the Native Hawaiian Health Care Improvement Act. No doubt, the legacy of our Ali'i, OHA, and targeted public laws have had a tremendous, positive impact on Mauli Ola for Kānaka 'Ōiwi.

Future Opportunities for Maui Ola

I see several opportunities on the horizon for Kānaka 'Ōiwi that could expedite the improvement of our social and cultural determinants of Maui Ola, if we can capitalize on and strategically leverage these opportunities. They are linked to 1) the projected demographic trends in the Kanaka 'Ōiwi population, 2) the continued cultural revitalization, 3) the broader participation in society, and 4) the self-determination and the international indigenous movement.

Demographic Trends

Several positive demographic changes in our Kanaka 'Ōiwi population is expected to occur over the next 30 years that could facilitate Maui Ola. It is estimated that, by the year 2045, the Kanaka 'Ōiwi population in Hawai'i will almost double in size from its current 298,000 to 512,000.²¹ Most of this increase will occur among Kānaka 'Ōiwi under 35 years of age with modest increases among those 65 and older. Kānaka 'Ōiwi are expected to continue having children at higher rates than most other ethnic groups, consistent with the value of 'ohana. Although the current life expectancy of Kānaka 'Ōiwi is a decade shorter than most other ethnic groups,²² our life expectancy is predicted to increase, albeit this increase will likely remain shorter than most other ethnic groups in Hawai'i.

It is hoped that, along with the population-doubling, the number of Kānaka 'Ōiwi with college qualifications will increase. Although the percentage of Kānaka 'Ōiwi enrolling in college currently appears to have reached a plateau at 14% versus the overall state at 30%,²³ there are collaborative efforts between the University of Hawai'i and Kamehameha Schools that will surely contribute to an upward trend in this area. An increase in college graduation rates will bring greater economic advancement and improvements in quality-of-life for many Kānaka 'Ōiwi, given that a higher education level is strongly associated with higher incomes and lower mortality and morbidity.²⁴

The population recovery of Kānaka 'Ōiwi is remarkable and a sign of resiliency and vitality. Based on a new demographic analysis technique, it is estimated the Kanaka 'Ōiwi population was at

683,000 in 1778.²⁵ Considering that the Kanaka 'Ōiwi population declined by 95% (that is about 30,000) in the late 1800s, mostly due to infectious diseases introduced by European settlers for which our ancestors had no natural immunity toward,²⁶ the estimated doubling of our population over the next 30 years, a rise that started in the 1940s, is a phenomenal “comeback” story. The greatest challenge now to our physical health is chronic diseases, such as diabetes and heart disease, which are linked to our higher rates of obesity, high blood pressure and cholesterol, and cigarette smoking.²⁷

The demographic changes in our Kanaka 'Ōiwi population over the next 30 years can be a tremendous advantage for realizing Maui Ola. At our current population size of 298,000, Kānaka 'Ōiwi make up nearly a quarter of Hawai'i's overall population where there is supposedly no numerically dominate ethnic group. By 2045, we are likely to make up one-third of this population with 512,000 Kānaka 'Ōiwi.²⁸ Imagine the political influence Kānaka 'Ōiwi could amass by making up a third of the population. Although the issue of how self-determination should be achieved or look like (e.g., through U.S. Federal recognition or de-occupation by the U.S.) remains a source of contention amongst many Kānaka 'Ōiwi, it does not preclude us from seeking other avenues within the current political system to advance our collective Maui Ola. Imagine the political leverage we could possess as Kānaka 'Ōiwi with the development of such a critical mass and our potential increase across the academic, scientific, and professional workforce.

Cultural Revitalization

By all accounts, our Kanaka 'Ōiwi cultural revival, spurred during the Hawaiian Renaissance of the 1970s, is on a strong forward momentum toward further revitalization and integration into Hawai'i's multiethnic society.²⁹ A vast majority of Kānaka 'Ōiwi (78% to 80%) believe it is important to practice and access our culture on a daily basis and for our keiki (children) to learn the Hawaiian language as means of improving cultural pride and developing a positive self-image.³⁰ Ensuring Ke Ao 'Ōiwi (the

Kanaka 'Ōiwi world),³¹ the space in society for Kanaka 'Ōiwi culture to flourish, is vital to improving the cultural determinants of Mauli Ola.

There are many signs that Kanaka 'Ōiwi culture is thriving: Our native language was on the verge of extinction in the early 1980s with only about 1,500 people who spoke the language, and they were predominately kūpuna and Kānaka 'Ōiwi from Ni'ihau.³² Today, it is estimated that about 24,000 people speak our native language, to varying degrees of fluency and across all age groups, because of the proliferation over the past 30 years of Hawaiian language immersion schools, charter schools, and college programs, and kūpuna who are native speakers passing it on to the next generation.³³ Hula, the traditional dance of Hawai'i, has also burgeoned in practice since the 1970s so that today there are over 170 hālau hula (hula schools) in Hawai'i and 1,100 worldwide.³⁴ Many Kānaka 'Ōiwi are re-contextualizing ancient social institutions of learning and development for modern applications, such as the Hale Mua (the men's house) and Hale o Papa (the women's house), and revisiting ho'omana kahiko (ancient forms of empowerment).³⁵ 'Ōiwi TV, for example, has created the media venue needed to promote the beauty and relevance of our culture to a larger audience. Ke Ao 'Ōiwi is certainly on the rise and helping to improve our social and cultural determinants of Mauli Ola.

This cultural revitalization and integration, coupled with the population increase, can also position Kānaka 'Ōiwi as leaders, not only locally, but among the indigenous world community and other communities concerned with the health of our planet. A good example is the Polynesian Voyaging Society's Mālama Honua Worldwide Voyage whose mission is to bring awareness to issues, such as global warming and climate changes, with the intent of protecting our natural resources and island communities. One of these double-hauled canoes, Hōkūle'a, on this voyage helped to spur the cultural revitalization occurring today when, in 1976, it embarked on its maiden voyage to Tahiti. The voyage of Hōkūle'a, along with the other voyaging canoes that have emerged, continues to reinforce the relevance and excellence of Kanaka 'Ōiwi culture with its Mālama Honua Worldwide Voyage. It also demonstrates

the role Indigenous Peoples can play in improving the health of the planet because of the values and practices of mālama 'āina and aloha 'āina maintained and promoted in our communities.

Participation in Larger Society

Like the advances and participation we see in promoting the cultural determinants of Mauli Ola, improving the social determinants will depend on a similar level of participation by Kānaka 'Ōiwi in the larger society to ensure access to high quality education, jobs with livable wages, affordable housing in safe, well-resourced neighborhoods.³⁶ Education, for example, is an area where the participation of Kānaka 'Ōiwi is vital to Mauli Ola. The Hawai'i public school system does not have a good track record when it comes to educating Kānaka 'Ōiwi, and are likely perpetuating the social inequities in Hawai'i.³⁷ Compared to students of other ethnic groups, Kanaka 'Ōiwi students are more likely to attend low-quality schools with less experienced teachers, to be overrepresented in special education, to have the highest grade retention rates, and have among the lowest graduation rates.³⁸ Troubling news given that having a good education means a better chance at securing jobs with livable wages and having more economic stability.

Because of these education inequities, and lack of cultural relevance, many Kanaka 'Ōiwi leaders and organizations have responded to the need for better educational opportunities for our keiki (children) and 'ōpio (young people) through the creation of culture-based Public Charter Schools and through Kamehameha Schools' Ka Pua Initiative designed to strengthen existing public schools in predominately Native Hawaiian communities. This response by concerned Kanaka 'Ōiwi educators and families to improve the educational situation for Kānaka 'Ōiwi is an example of effective participation in society to improve our collective Mauli Ola. Compared to the performance of Kanaka 'Ōiwi student enrolled in traditional public schools, those enrolled in the culture-based Charter Schools do remarkably better in math and reading tests and they have better attendance and engagement in their education.³⁹ Across both private and public schools, teachers who employ culture-based educational strategies,

compared to those who do not, results in Kānaka 'Ōiwi students with greater cultural knowledge and values, stronger Kānaka 'Ōiwi identity, greater emotional and cognitive engagement in their education, and greater sense of place and community and cultural engagement.⁴⁰ The cultural-based Public Charter Schools and Kamehameha Schools' initiative are excellent examples of how a school system can advance both the social and cultural determinants of Mauli Ola.

Self-Determination and International Indigenous Movement

During his reign (1874 – 1891), his majesty King Kalākaua sought to establish a Polynesian confederation to unite the various nations of the Pacific, in part, to ward off European and American imperialism. He was the first Head-of-State to circumnavigate the globe, visiting over 20 nations, to secure the Kingdom of Hawai'i's place among the international community of Nations. Despite his efforts, and the efforts of other Ali'i (Royalty), U.S. imperialism did eventually consume Hawai'i, when in 1893, her majesty Queen Lili'uokalani was illegally overthrown by U.S. supported business men, mostly descendants of missionaries. The loss of our nation and the compulsory assimilation strategies and discrimination that followed had a profound deleterious effect on our social and cultural determinants of Mauli Ola.

For many Kānaka 'Ōiwi, achieving self-determination (i.e., the right of a people to freely choose their sovereignty and international political status with no external compulsion or interference)⁴¹ is a strong aspiration because of its potential to expedite the improvement of the social and cultural determinants of Mauli Ola. The degree to which we Kānaka 'Ōiwi can exercise self-determination will influence the degree of impact we can have on these determinants of Mauli Ola, as they are linked social justice issues. Several models of self-determination (e.g., state-within-a-state versus full independence) and the value of U.S. federal recognition as a distinct indigenous U.S. group are debated amongst Kānaka 'Ōiwi⁴² – a debate ongoing for over two decades. However, the eventual settling of this issue of self-determination is vital to our ability to achieve Mauli Ola on our own terms.

The international indigenous movement and the successes achieved in this forum are also important to our self-determination efforts and for facilitating Maui Ola. Indigenous Peoples throughout the world have sought affirmation of their right to self-determination under international law. In 2007, the United Nations' General Assembly adopted the *Declaration on the Rights of Indigenous Peoples*, which declares entitlement to self-determination.⁴³ The Declaration refers to the rights of Indigenous Peoples to improve their social and cultural determinants of health, such as their education, employment, and housing conditions. It also calls for Indigenous Peoples to decide the manner in which these conditions are addressed. Initially, the U.S., along with Australia and New Zealand, were opposed to this declaration citing that "No government can accept the notion of creating different classes of citizens," although historically these governments intentionally created classes of citizens by forcing indigenous people from their lands and establishing policies that either limited or eliminated their rights as citizens.⁴⁴ In 2010, U.S. President Obama, however, placed the U.S. on the list of 143 countries supporting the Declaration. Although the enforcement of these internationally recognized rights is challenging, to say the least, it does provide the platform for achieving self-determination and Maui Ola.

Kanaka 'Ōiwi Aspirations toward Maui Ola

Kānaka 'Ōiwi, collectively, hold several aspirations important to Maui Ola as we move into the future, which have also been the key to our resiliency, adaptability, and points for consensus in the past, despite our socio-political, socio-economic, and socio-cultural diversity. These aspirations are 1) the preservation of a strong Kanaka 'Ōiwi identity and the space to assert our perspectives and preferred modes of living, 2) the strengthening of 'ohana values and practices, and 3) the ability to mālama 'āina and aloha 'āina.

Kanaka 'Ōiwi Identity and Space

A strong Kanaka 'Ōiwi identity and the physical, emotional, and spiritual space to express this identity (Ke Ao 'Ōiwi) is important to Mauli Ola. Despite over 120 years of U.S. occupation, influx of European and Asian settlers, and compulsory acculturation strategies, 94% to 97% of Kānaka 'Ōiwi strongly identify with, and have an affinity toward, their Kānaka 'Ōiwi ancestry and cultural connections.⁴⁵ However, researchers have shown how this strong cultural identity might be a source of psychosocial stress for many Kānaka 'Ōiwi because of threats to their identity and preferred modes of living. Kānaka 'Ōiwi with a stronger ethnic identity, for example, perceive more discrimination against them, with about 50 % reporting frequent encounters while the remaining 50% report that it occurs "sometimes."⁴⁶ Kanaka 'Ōiwi with a stronger cultural identity report more discrimination.⁴⁷

Earlier studies found that Kānaka 'Ōiwi with a stronger identity were more likely to have diabetes, depression, and suicidal behaviors.⁴⁸ Subsequent studies found that this may be due to the higher levels of discrimination and cultural discord they experience because of threats to this identity, and that pride (vs. internalization of the discrimination) in one's identity may serve to buffer against these sources of stress.⁴⁹ As indicated earlier, higher levels of perceived discrimination is associated with a higher risk for hypertension and a pattern of cortisol activity that is associated with heart disease in other populations.

The threats to our identity and its adverse health effects point to changes that need to occur on a larger social and political level. The association between a strong Kanaka 'Ōiwi identity and adverse health outcomes has to do with the experience of greater acculturative stress, discrimination, sense of social injustice, and moral outrage.⁵⁰ Kānaka 'Ōiwi with a stronger cultural identity experience more cultural conflict because of living under American influence that does not entirely support our traditional values, practices, and aspirations. The movement to protect Mauna a Wākea on the island of Hawai'i from further desecration with the building of the Thirty Meter Telescope (TMT) is a current example of this cultural discord and resulting stress for many Kānaka 'Ōiwi. As our cultural revitalization

efforts continue and we assert our Kanaka 'Ōiwi identity and kuleana (prerogatives), these kinds of cultural conflicts and threats are also likely to continue. However, the increase in our population and in Ke Ao 'Ōiwi can provide the critical mass and level of participation necessary to overcome these cultural threats so that we can safely express our indigenous identity and culturally flourish.

Strengthening 'Ohana Relations

An aspiration important to Kanaka 'Ōiwi identity and a means of advancing the positive social and cultural determinants of Mauli Ola is the commitment to 'ohana values and obligations by Kanaka 'Ōiwi families.⁵¹ Compared to other ethnic groups, Kānaka 'Ōiwi are more likely to live in multigenerational households; to have larger 'ohana; to have greater interaction amongst the generations and emotional support; and to have extended 'ohana play a role in child rearing.⁵² 'Ohana values and practices are important sources of resiliency for Kānaka 'Ōiwi, especially for children living in poverty. For example, a Kanaka 'Ōiwi child who believes in the importance of respecting family members and whose parents provide a supportive environment (vs. creating a harsh environment) is less likely to exhibit behavioral problems.⁵³ These types of 'ohana relations are associated with improved educational outcomes for socially disadvantaged populations.⁵⁴

Aside from ensuring a healthy developmental trajectory for keiki and 'ōpio, strong 'ohana relations can also be important in combating the deleterious effects of discrimination experienced by Kānaka 'Ōiwi. 'Ohana support, coupled with a strong and secure indigenous identity, can lessen the psychological distress caused by discrimination.⁵⁵ Most surely, the promotion of these 'ohana values and practices in our young mākuā (parents) are necessary to achieving Mauli Ola. They can be promoted and reinforced by culture-based educational strategies applied in our private and public schools and by the many emerging cultural organizations and institutions promoting positive cultural development, such as those previously highlighted.

Ensuring Mālama 'Āina and Aloha 'Āina

Another aspiration important to Kanaka 'Ōiwi identity has to do with mālama 'āina, the ability to care for and cultivate the land to sustain life in perpetuity, and aloha 'āina, the ability to protect and steward the land. The notion of mālama 'āina stems from our mo'okū'auhau (genealogy) and ancestral relations back to Hāloanakalaukapalili (our ancient ancestor) from whom came kalo (our ancient staple food) and its cultivation.⁵⁶ The notion of aloha 'āina perhaps came to prominence for Kānaka 'Ōiwi during the time of the overthrow of our Kingdom in 1893 as patriotic Kānaka 'Ōiwi fought to restore our Lāhui (Nation), a struggle that continues today. Both mālama 'āina and aloha 'āina continue to be widely practiced and strongly part of the Kanaka 'Ōiwi identity. These are also important issues to the future of our food security (i.e., the availability of enough food to adequately sustain the population) here in Hawai'i, given that 85% to 90% of the food we consume are imported.⁵⁷

Kānaka 'Ōiwi are leading the way in addressing our food security while ensuring that we continue to practice mālama 'āina and express aloha 'āina. Some examples include MA'O Organic Farms and Ka'ala Farm in Wai'anae, O'ahu and Paepae o He'eia in He'eia, O'ahu (a non-profit dedicated to caring for an ancient fishpond). Not only are these Kanaka 'Ōiwi led farms and fishpond addressing our food and cultural sustainability, they are also providing culture-based education to many keiki and 'ōpio and, in some cases, college opportunities for them. At the college level recently, a partnership was formed between MA'O Organic Farms, Kamehameha Schools' 'Āina-Based Education Division, and University of Hawai'i (UH) West O'ahu to develop a sustainable community food systems program leading to a Bachelors of Applied Sciences to prepare students for careers in the sustainable food and agriculture sectors in Hawai'i and elsewhere. This partnership is also a good example of how community-based grassroots organizations, Ali'i Legacy organizations, and the UH can work collaboratively in improving the social and cultural determinants of Maui Ola.

Closing Remarks

My intent with this article was to deviate from the usual discourse surrounding the health status of Kānaka 'Ōiwi by moving the focus away from biological factors (e.g., genetic predispositions) and behaviors (e.g., how we eat) to the underlying social and cultural issues that impact our ability to achieve optimal Mauli Ola. My other intent was to highlight the opportunities, strengths, and aspirations of Kānaka 'Ōiwi in advancing our collective Mauli Ola. We have made tremendous advances toward Mauli Ola over the past forty years. However, whether or not we continue on this path, and the speed by which we travel, will be decided by our actions over the next forty years. Can we rally and find common ground to secure some form of self-governance? Can we apply the same level of participation and resolve given to cultural revitalization toward improving our education and economic situation? Can we leverage our population increase and strong Kanaka 'Ōiwi identity toward regaining social and political capital here in Hawai'i?

Looking thirty years into the future, one of either two scenarios is likely to play out. One scenario is the status quo. That is, our mental and physical health status and educational opportunities will continue to be worse than most other ethnic groups in Hawai'i. As our population increases so will the number of Kānaka 'Ōiwi living with chronic diseases and social inequities. Advances in cultural revitalization made over the past forty years will reach a plateau as our attention turns to addressing the overwhelming health needs of the fast growing Kanaka 'Ōiwi population, made up of predominately young people with limited job opportunities and kūpuna with greater health care needs. Middle-aged Kānaka 'Ōiwi will be challenged with caring for both age groups while struggling to make ends-meet. Overall, the status of Ke Ao 'Ōiwi and Mauli Ola will not be too far off from where it is currently, at best.

The other scenario is one in which we as Kānaka 'Ōiwi take advantage of our growing population, cultural revitalization momentum, and civic participation over the next 30 years. In this scenario, Kānaka 'Ōiwi have established Ke Ao 'Ōiwi across all sectors of society and eliminated the harmful effects caused by discrimination here in Hawai'i. Our increased civic participation in the larger

society leads to improved systemic changes in education, housing, and wages. We have become leaders in the international indigenous community in way of indigenous education, cultural revitalization, economic sustainability, and a model of self-governance. As our population increases so does our social and political influence resulting in improvements in our morbidity and mortality rates. Our 'ohana and communities are thriving. Young Kānaka 'Ōiwi are receiving the best education, from both public and private schools, and finding many academic and career opportunities here at home. Kūpuna are not only living longer but healthier so they can enjoy their mo'opuna (grandchildren) and pass on our cultural values, practices, and resiliency. We Kānaka 'Ōiwi have become the population by which all other groups define optimal health and wellbeing, and we kōkua (help) to bring them along.

Let us work toward the latter scenario. *Kihe, a Mauli Ola!*

NOTES

1. In this chapter, the terms "Kanaka 'Ōiwi" and "Kānaka 'Ōiwi" are used to mean Native Hawaiian (singular) and Native Hawaiians (plural), respectively. Kānaka 'Ōiwi are individuals whose ancestors were the original inhabitants of the Hawaiian archipelago.
2. For a more detailed discussion about the Kapu System in relation to being a public health system, see the article by 'Iwalani R.N. Else, "The Breakdown of the Kapu System and its Effect on Native Hawaiian Health and Diet," *Hūlili: Multidisciplinary Research on Hawaiian Well-Being* 1, no. 1 (2004): 241-255.
3. These quotes were taken from "The Journals of Captain James Cook on His Voyage of Discovery, Vol. III," edited by John Cawte Beaglehole in *The Voyage of the Resolution and the Discovery, 1776-80* (London: Cambridge University, 1968). The first quote is from page 1178 and the second is from page 1181.
4. For a discussion, see Richard Kekuni Blaisdell, "Historical and Cultural Aspects of Native Hawaiian Health," *Social Process in Hawai'i*, 32 (1989): 1-21.
5. For more details, see Joseph Keawe'aimoku Kaholokula, "Colonialism, Acculturation and Depression among Kānaka Maoli of Hawai'i," in *Penina Uliuli: Confronting Challenges in Mental Health for Pacific Peoples*, edited by Philip Culbertson, Margret Nelson Agee, and Cabrini 'Ofa Makasiale (Honolulu, HI: University of Hawai'i Press, 2007) and Marjorie K. Mau, Ka'imi Sinclair, Erin P. Saito, Kau'i N. Baumhofer, and Joseph Keawe'aimoku Kaholokula, "Cardiometabolic Health Disparities in Native Hawaiians and Other Pacific Islanders," *Epidemiologic Reviews*, 31 (2009): 113-129.
6. For more information, see Shawn M. Kana'iaupuni, Nolan J. Malone, and Koren Ishibashi, "*Income and Poverty among Native Hawaiians: Summary of Ka Huaka'i Findings*" (Honolulu: Kamehameha Schools, 2005).
7. These translations of Maui Ola are from Mary Kawena Pukui and Samuel H. Elbert, *Hawaiian Dictionary: Hawaiian-English*, rev. and enlarged ed. (Honolulu: University of Hawai'i Press, 1986).
8. These proverbs and translations are from Mary Kawena Pukui, *'Ōlelo No'eau: Hawaiian Proverbs & Poetical Sayings* (Honolulu: Bishop Museum, 1983), proverbs #1422 and #1788.
9. This definition of health is adapted from the World Health Organization's definition. See <http://who.int/about/definition/en/print.html>.
10. For more details, see Paula Braveman, Susan Egerter, and David R. Williams, "The Social Determinants of Health: Coming of Age," *Annual Review of Public Health*, 32 (2011): 381-398.
11. For more details, see Francis Mitrou, Martin Cooke, David Lawrence, David Povah, Elena Mobilia, Eric Guimond, and Stephen R. Zubrick, "Gaps in Indigenous Disadvantage Not Closing: A Census Cohort Study of Social Determinants of Health in Australia, Canada, and New Zealand from 1981-2006," *BMC Public Health*, 14 (2014): 201.
12. For more details, see Jay S. Kaufman, Lena Dolman, Dinela Rushani, and Richard S. Cooper, "The Contribution of Genomic Research to Explaining Racial Disparities in Cardiovascular Disease: A Systematic Review," *American Journal of Epidemiology*, 181, no. 7 (2015): 464-72.
13. For more details, see Catherine Kreamsoulas and Sonia S. Anand, "The Impact of Social Determinants on Cardiovascular Disease," *Canadian Journal of Cardiology*, 26, Suppl. C (2010): 8C-13C. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20847985>.
14. Braveman, Egerter, and Williams, "The Social Determinants of Health: Coming of Age," 381-398.
15. For more discussion, see Mason Durie, "Maori Health: Key Determinants for the Next Twenty-Five Years," *Pacific Health Dialog*, 7, no. 1 (Mar 2000): 6-11 and Shashi Kant, 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," *Journal of Public Health Policy*, 34, no. 3 (2013): 462-476.
16. For more discussion, see Joseph Keawe'aimoku Kaholokula, Andrea H. Nacapoy, and Kā'ohimānu L. Dang, "Social Justice as a Public Health Imperative for Kānaka Maoli," *AlterNative: An International Journal of Indigenous Peoples*, 5, no. 2 (2009): 117-137.
 17. Historical trauma is also referred to as cultural trauma and it refers to the cumulative emotional and psychological wounding caused by traumatic experiences that extends over an individual's lifespan and transmitted from one generation to the next. It is often used to describe the health inequities experienced by indigenous populations in the U.S., Canada, New Zealand, and Australia. For more discussion, see Nathaniel Vincent Mohatt, Azure B. Thompson, Nghi D. Thai, and Jacob Kraemer Tebes, "Historical Trauma as Public Narrative: A Conceptual Review of How History Impacts Present-Day Health." *Social Science and Medicine*, 106 (2014): 128-136.
 18. For more details about this study, see Pallav Pokhrel and Thaddeus A. Herzog, "Historical Trauma and Substance Use among Native Hawaiian College Students," *American Journal of Health Behavior*, 38, no. 3 (2014): 420-429.
 19. For more details about these studies, see Joseph Keawe'aimoku Kaholokula, Andrew Grandinetti, Stefan Keller, Andrea H. Nacapoy, Te Kani Kingi, & Marjorie K. Mau, "Association between Perceived Racism and Physiological Stress Indices in Native Hawaiians," *Journal of Behavioral Medicine*, 35, no. 1 (2012): 27-37 and Joseph Keawe'aimoku Kaholokula, Marcus K. Iwane, and Andrea H. Nacapoy, "Effects of Perceived Racism and Acculturation on Hypertension in Native Hawaiians," *Hawai'i Medical Journal*, 69, No. 5, Suppl. 2, (2010): 11-15.
 20. For more detail about this study, see Van M. Ta, Puihan J. Chao, and Joseph Keawe'aimoku Kaholokula, "Cultural Identity and Conceptualization of Depression among Native Hawaiian Women," *AAPI Nexus Journal: Policy, Practice, and Community*, 8, no. 2 (2010): 63-85.
 21. These are population estimates are from Kamehameha Schools, "*Ka Huaka'i 2014: Native Hawaiian Educational Assessment* (Honolulu: Kamehameha Schools, 2014), 17.
 22. This assertion is based on past and current patterns in longevity between ethnic groups in Hawai'i. For more details about longevity across ethnic groups in Hawai'i, see Chai Bin Park, Kathryn L. Braun, Brian Y. Horiuchi, Caryn Tottori, and Alvin. T. Onaka, "*Longevity Disparities in Multiethnic Hawaii: An Analysis of 2000 Life Tables*," *Public Health Reports*, 124, no. 4 (2009): 579-84.
 23. Kamehameha Schools, *Ka Huaka'i 2014*, 251.
 24. Numerous studies have linked lower educational attainment to higher morbidity and mortality. For one example of these studies, see Cameron A. Mustard, Shelley Derksen, Jean-Marie Berthelot, Michael Wolfson, and Leslie L. Roos, "Age-Specific Education and Income Gradients in Morbidity and Mortality in a Canadian Province," *Social Science & Medicine*, 45, no. 3 (1997): 383-97.
 25. For more details about this demographic study, see article by Sara Kehaulani Goo, "After 200 Years, Native Hawaiians Make a Come Back," *Pew Research Center* (2015), published electronically April 6, 2015 at <http://www.pewresearch.org/fact-tank/2015/04/06/native-hawaiian-population/>. Her article is based on David Swanson's study, "A New Estimate of the Native Hawaiian Population for 1778, The Year of First European Contact."
 26. For an excellent discussion on how infectious diseases decimated the Kanaka 'Ōiwi population from the late 1700s to early 1900s, see Ozzie A. Bushnell, *The Gifts of Civilization: Germs and Genocide in Hawai'i* (Honolulu: University of Hawaii Press, 1993).
 27. For a review of diabetes, heart disease, and their risk factors in Kānaka 'Ōiwi, also see Mau, Sinclair, Saito, Baumhofer, and Kaholokula, "Cardiometabolic Health Disparities in Native Hawaiians and Other Pacific Islanders," 113-129.
 28. This estimate is based on data from the Department of Business, Economic Development and Tourism reported in "Population and Economic Projections for the State of Hawai'i to 2040"

(Honolulu: State of Hawai'i, 2012), which can be obtained at http://files.hawaii.gov/dbedt/economic/data_reports/2040-long-range-forecast/2040-long-range-forecast.pdf.

29. This is actually considered the second Hawaiian Renaissance. The first was during Kalākaua's Reign (1883-1891) in which he reinstated traditional Hawaiian practices previously banned, such as hula, chants, and other rituals. The second is believed to have its roots in the 1970s with the resurgence of Hawaiian music and language, hula, and the return of ancient navigation and in the many land struggles of the time.
30. Kamehameha Schools, *Ka Huaka'i 2014*.
31. The term Ke Ao 'Ōiwi is used here to refer to the space and place needed for Kānaka 'Ōiwi to flourish. It refers to the idea that optimum health of Kānaka 'Ōiwi can only be achieved in a society that values their social group and provides the sociocultural space for their preferred modes of living and aspirations. For more discussion, see Joseph Keawe'aimoku Kaholokula, "Achieving Social and Health Equity in Hawai'i," in Aiko Yamashiro and Noelani N. Goodyear-Ka'opua (Eds), *The Value of Hawai'i 2: Ancestral Roots, Oceanic Visions* (Honolulu: University of Hawai'i Press, 2014).
32. Hawaiian language revitalization was spurred by concerns over the small number of native and fluent speakers who, by the the 1980s, were mostly Kūpuna and persons from Ni'ihau. 'Aha Pūnana Leo website provides a Hawaiian language revitalization timeline. See http://www.ahapunaleo.org/index.php?/about/a_timeline_of_revitalization/.
33. This estimate is based on data from the U.S. Census, "Table 1. Detailed Languages Spoken at Home and Ability to Speak English for the Population 5 Years and over for the United States: 2006-2008," in *American Community Survey Data on Language Use* (Washington, DC, 2010).
34. This estimate is based on information provided on mele.com in its "Hālau Hula Listing."
35. For an example of ancient institutions being revitalized, see article by Samson Reiny, "A Kane in Full," *Hana Hou Magazine* (October/November 2013).
36. Sir Mason Durie is a respected Māori leader known for his contributions to Māori health. He has written extensively on the key determinants of Māori health, one of which is the role of participation by Māori in the larger society. For more discussion, see Mason Durie, *Nga Kahui Pou Launching Maori Futures* (Wellington, NZ: Huia, 2003), 292.
37. Jonathon Y. Okamura, in Chapter 4 of his book *Ethnicity and Inequality in Hawai'i* (Philadelphia: Temple University Press, 2008), provides an analysis of the educational inequities perpetuated by the public school system in Hawai'i.
38. For more details, see Shawn M. Kana'iaupuni and Koren Ishibashi, *Left Behind? The Status of Hawaiian Students in Hawai'i Public Schools* (Honolulu, HI: Kamehameha Schools, 2003).
39. For more details, see Shawn M. Kana'iaupuni and Koren Ishibashi, *Hawai'i Charter Schools: Initial Trends and Select Outcomes for Native Hawaiian Students, PASE Report* (Honolulu, HI: Kamehameha Schools, 2005).
40. More details can be found in a series of 2009 reports (Hawaiian Cultural Influences in Education) prepared by Brandon Ledward and Brennan Takayama at http://www.ksbe.edu/spi/cbe_findings/. See bibliography for their full citations.
41. For a broader discussion of self-determination, see Jeff J. Corntassel and Tomas Hopkins Primeau. 'Indigenous "Sovereignty" and International Law: Revised Strategies for Pursuing "Self-determination," *Hawaiian Journal of Law & Politics*, 2 (2006): 52-72.
42. For diverse Kanaka 'Ōiwi perspectives on self-determination and discussions on Hawaiian movements, see Noelani Goodyear-Ka'opua, Ikaika Hussey, and Erin Kahunawaika'ala Wright (Eds.), *A Nation Rising: Hawaiian Movements for Life, Land, and Sovereignty*, (Durham: Duke University Press, 2014). For another perspective on Hawaiian sovereignty, see David Keanu Sai, *Ua Mau Ke Ea -*

- *Sovereignty Endures: An Overview of the Political and Legal History of the Hawaiian Islands* (Honolulu, Hawai'i: Pū'ā Foundation, 2011).

43. For more discussion, see "United Nations Declaration on the Rights of Indigenous Peoples" adopted by the United Nations General Assembly on 13 September 2007, which can be obtained at http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.
44. For more discussion, see Anup Shah (2010), "The Rights of Indigenous People." Retrieved from Global Issues: Social, Political, Economic and Environmental Issues That Affect Us All from website: <http://www.globalissues.org/article/693/rights-of-indigenous-people#MajorCountriesOpposedtoVariousRightsforIndigenousPeoples>.
45. This assertion is based on several studies examining the relationship between Kanaka 'Ōiwi identity and certain health statuses. For a discussion of these studies, see Joseph Keawe'aimoku Kaholokula, Andrea H. Nacapoy, and Kā'ohimanu L. Dang, "Social Justice as a Public Health Imperative for Kānaka Maoli, *AlterNative: An International Journal of Indigenous Peoples* 5, no. 2 (2009): 117-137. For a discussion on the effects of cultural identity on the mental health of Kanaka 'Ōiwi women, see Van M. Ta, Puihan Chao, and Joseph Keawe'aimoku Kaholokula, "Cultural Identity and Conceptualization of Depression among Native Hawaiian Women," *AAPJ Nexus Journal: Policy, Practice, and Community* 8, no. 2 (2010): 63-85.
46. For more details, see previously noted Kaholokula et al. (2009; 2012) articles.
47. For more details, see previously noted Kaholokula et al. (2012) article.
48. For more details about these studies, see previously noted articles by Kaholokula et al. (2008) and Kaholokula (2007) and article by Noelle Y.C. Yuen, Linda B. Nahulu, Earl S. Hishinuma, and Robin. H. Miyamoto, "Cultural Identification and Attempted Suicide in Native Hawaiian Adolescents," *Journal of the American Academy of Child Adolescent Psychiatry*, 39, no. 3 (2000): 360-7.
49. These assertions are based on research findings detailed by Kaholokula et al (2009) and Pokhrel and Herzog (2014). Their citations were previously noted.
50. For more discussion on the psychological factors affecting health outcomes in Kānaka 'Ōiwi, see previously noted articles by Kaholokula (2007) and Ta et al. (2010). Also see William C. Rezentes, *Ka Lama Kukui--Hawaiian Psychology: An Introduction* (Honolulu: 'A'ali'i Books, 1996).
51. For a broader discussion on identity and 'ohana, see Shawn M. Kana'iaupuni, "Identity and Diversity in Contemporary Hawaiian Families: Ho'i Hou I Ka Iwi Kuamo'o," *Hūlili: Multidisciplinary Research on Hawaiian Well-Being*, 1 (2004): 53-71.
52. These assertions are made based on works by Deborah Goebert et al. (2000), Shawn Kana'iaupuni et al. (2005), and Ivette Rodriguez Stern, Sylvia Yuen, and Marcia Hartsock (2004). See bibliography for their full citations.
53. For more details, see previously noted article by Kaholokula et al. (2009) and article by Barbara D. DeBaryshe, Sylvia Yuen, Lana N. Nakamura, and Ivette R. Stern, "The Role of Family Obligations and Parenting Practices in Explaining the Well-Being of Native Hawaiian Adolescents Living in Poverty." *Hūlili: Multidisciplinary Research on Hawaiian Well-Being* 3, no. 1 (2006): 103-25.
54. For more details see, Andrew J. Fuligni, "Family Obligation and the Academic Motivation of Adolescents from Asian, Latin American, and European Backgrounds," *New Direction for Child Adolescent Development*, no. 94 (Winter 2001): 61-75.
55. For more details, see Meifen Wei, Christine Jean Yeh, Ruth Chu-Lien Chao, Stephanie Carrera, and Jenny C. Su, "Family Support, Self-Esteem, and Perceived Racial Discrimination among Asian American Male College Students," *Journal of Counseling Psychology*, 60, no. 3 (Jul 2013): 453-461.
56. Hāloanakalaukapalili (Long stem-shaky-leaf-trembling) was the child of Wākea (sky father) and Ho'ohokuikalani (daughter of Wākea) who was born abnormal. He was buried outside the house of Wākea and from this site the first kalo grew. Wākea and Ho'ohokuikalani went on to have another child who was named Hāloa in honor of his elder brother -- the ancestor of the Kanaka 'Ōiwi race.

57. For more discussion, see Office of Planning report, "Increased Food Security and Food Self-Sufficiency Strategy," edited by Economic Development and Tourism Department of Business (Honolulu: State of Hawai'i, 2012). The report can be obtained from http://files.hawaii.gov/dbedt/op/spb/INCREASED_FOOD_SECURITY_AND_FOOD_SELF_SUFFICIENCY_STRATEGY.pdf

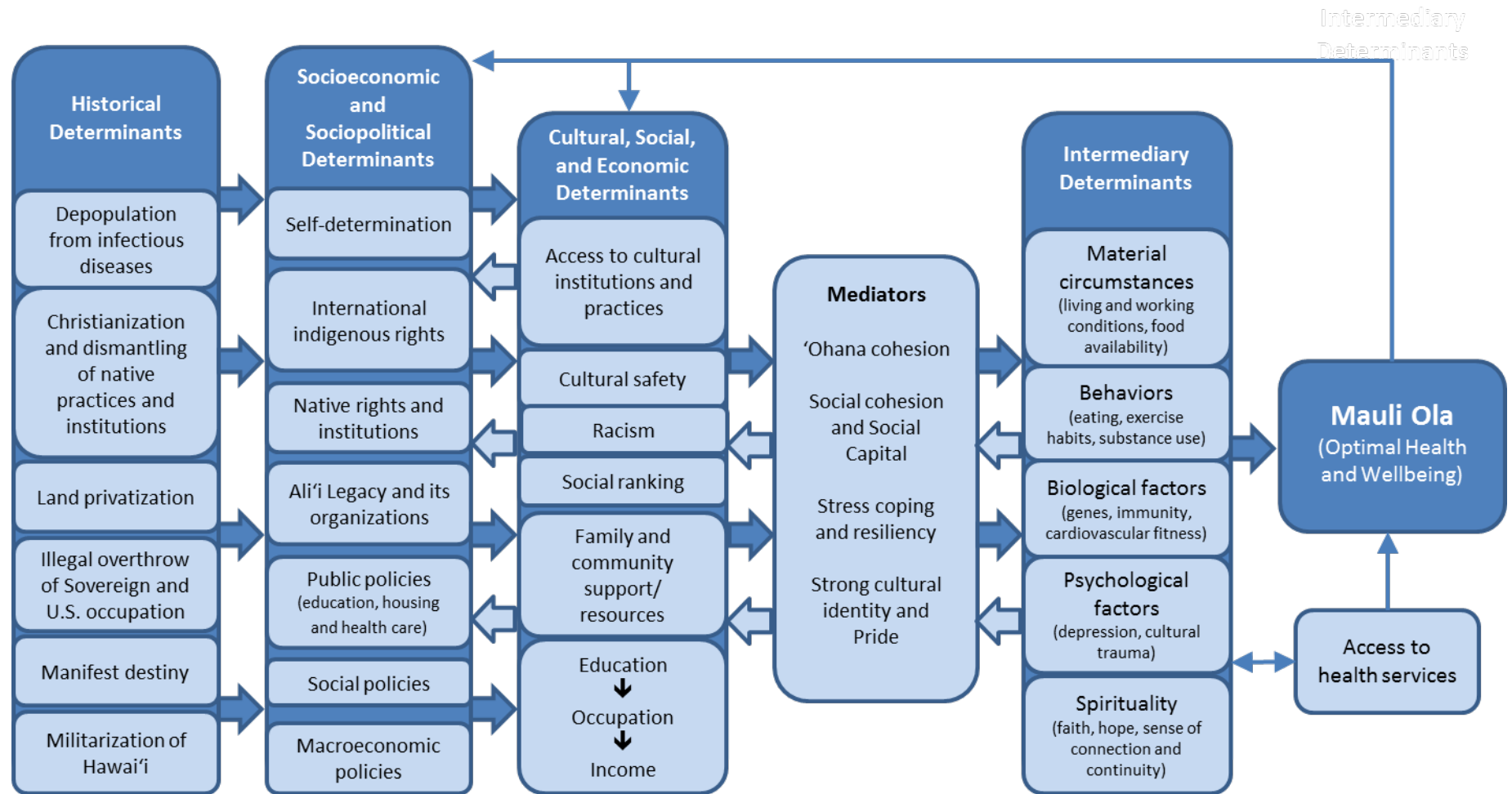
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Figure 1. Social and Cultural Determinants of Mauli Ola for Kānaka 'Ōiwi



Mohala i ka wai, ka maka o ka pua

Flowers thrive where this is water, as thriving people are found where living conditions are good