

SPECIAL ARTICLE

Health Disparities in Hawai'i: Part 1.

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Abstract

Objective: Although the United Health Foundation ranked Hawai'i as the third healthiest state in the United States in 2007, this status is not shared equally among the peoples of Hawai'i. Studies have identified disparities in breast cancer screening, body mass index (BMI), the use of mental health services by women with depressive symptoms, adherence to antihypertensive medications, breast cancer management and breast cancer survival, in addition to many other health areas. Lacking, however, is a comprehensive examination of health disparities across the most populous ethnic groups in Hawai'i – Native Hawaiians, Caucasians, Japanese, Chinese, and other Pacific Islanders. This series presents these data, beginning with an introduction and continuing to present data on disparities on obesity, diabetes, cardiovascular disease, and other chronic illnesses.

Methods: Data from the Behavioral Risk Factor Surveillance System was surveyed from the years 2002 to 2007.

Results: Significant health disparities exist between the different major ethnic groups in Hawai'i. Insufficient data exists, however, to identify significant trends for Other Pacific Islanders.

Conclusions: More data are needed to present a complete portrait of health disparities in Hawai'i. Once these data are obtained, comprehensive strategies can be developed to improve health equity in Hawai'i.

I. Introduction

Examining differences between societal groups, particularly ethnicities, can be examined through the lens of “health inequity” or “health inequality,” as is done outside the United States, or “health disparity,” as is done within the United States.¹ The National Association of Chronic Disease Directors has adopted a useful definition of disparity:

Health disparities are differences in the incidence, prevalence, mortality, burden of diseases and other adverse health conditions or outcomes that exist

among specific population groups in the United States. Health disparities can affect populations groups based on gender, age, ethnicity, socioeconomic status, geography, sexual orientation, disability or special health care needs and occur among groups who have persistently experienced historical trauma, social disadvantage or discrimination, and systematically experience worse health or greater health risks than more advantaged social groups.²

Although many different definitions of health disparity exist, a commonality among these definitions is that a disparity acts as a “signpost,” indicating that something is wrong. Research can then enable the public and policymakers to determine what differences are amenable to change, and what differences are unjust.

Although the United Health Foundation ranked Hawai'i as the third healthiest state in the United States in 2007, this status is not shared equally among the peoples of Hawai'i. Studies have identified disparities in breast cancer screening, body mass index (BMI), the use of mental health services by women with depressive symptoms, adherence to antihypertensive medications, breast cancer management and breast cancer survival, in addition to many other health areas.^{3,4,5,6,7,8,9} Lacking, however, is a comprehensive examination of health disparities across the most populous ethnic groups in Hawai'i— Native Hawaiians, Caucasians, Japanese, Chinese, Filipinos, and other Pacific Islanders. Because of limitations in the available data, we are unable to conduct similar analysis on less populous, but still numerous, groups, such as people of Samoan, Tongan, Vietnamese, Puerto Rican and Mexican descent.

We are conducting this survey in the context of the Department of Health's dedication to ameliorating disparities among and within the different ethnic groups in Hawai'i. The results of this survey will be presented here in a series of articles describing the major disorders affecting Hawaii, as well as specific problems affecting each of the major ethnic groups in Hawaii. These health disparities not only effect the groups experiencing the inequities, but also the whole of

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society, as the poorer health of disproportionately impacted groups results in reduced productivity, as well as higher healthcare costs for all members of society. Thus, reducing health disparities will benefit members of all ethnic groups in Hawai'i, not simply those who are disparately impacted.

Moreover, this study also takes place in the context of a renewed commitment by the Department of Health to the evidence-based practice of health. Examining inter- and intragroup disparities can provide materials for comparisons with the populations of other areas of the world. Such a comparison, for an example, may reinforce the finding that indigenous peoples, such as Native Hawaiians, tend to have wide disparities with the non-indigenous peoples of the world.¹⁰

A. Major ethnicities in Hawaii

We begin this series with a brief description of the history and cultures of each of the major ethnic groups represented in Hawaii, with special emphasis on the host culture, that of the Kānaka Maoli. Hawai'i is the most multiethnic State in the United States, and has been multiethnic since the early days of the Hawaiian Kingdom.^{11,12} Citizenry was not restricted to Native Hawaiians, and members of many ethnic groups were active participants in the civil affairs of the Kingdom.¹²

Native Hawaiians

Kānaka Maoli, now called "Native Hawaiians," were the first to arrive in their new, most-isolated homeland in the North Pacific Tropics approximately 300 AD. Later, they gave the name Kō Hawai'i Pae'aina to their entire 1523-mile archipelago chain of 132 islands and atolls, extending northwesterly from Hawai'i to Pihemanu (Midway) and Kānemiloha'i (Kure).

These early mariners continued their two-way, north-south, long voyaging introducing 29 special plants, such as taro, 'uala (sweet potato), mai'a (banana), niu (coconut) and hala (pandanus) plus three favorite animals—the pig, dog and chicken. All were essential to their unique culture that westerners would later call "Polynesian," within a 20 million square-mile Oceanic triangle, from Hawai'i north, to Aotearoa southwest, to Rapa Nui southeast.

The voyagers arrived in two main waves. First, from Te Henua Enana (Marquesas) 2000 mi to the southeast, approximately 300 AD. Second, from the south leeward Tahitian islands of Ra'iatea, Bora Bora and Huahine, approximately 1200 AD. Led by warrior chief and high priest Pa'ao, they created a stratified society of: sacred ruling ali'i (chiefs) and a hierarchy of lesser ali'i; kahuna (priestly specialty experts) who practiced and taught in each field of human endeavor; koa (warriors) loyal to their rival ali'i in control of each island; maka'āinana (farmers, fishermen and craftsmen); and kauā (servants). Then, approximately 1400 AD, they stopped long-distance ocean voyaging

and remained isolated from the rest of the planet for about four centuries.¹³

By January 1778, when British Capt. James Cook and his crews arrived by chance, these robust natives had adapted so well to their island ecosystems, that they had attained a population of perhaps 1 million, the largest at that time of any of the dispersed 50 Polynesian societies.¹⁴

Human anatomy reflected spiritual relationships, such as in the concept of nā piko 'ekolu (three body centers). Piko po'o, or manawa, at the top of each person's head, was the opening connecting each person's 'uhane (spirit) or wailua, with the spiritual realm beyond, including one's 'aumākua, departed, but ever-present, deified ancestors since the beginning of time. Piko waena, the navel, represented the remnant of each person's intrauterine umbilical connection to his mother in the contemporary world. This middle piko covered the na'au (gut) which was the seat of knowledge, wisdom and emotions. Piko ma'i was the genitalia, which linked each person to his mamo, descendants, into the future. But each mamo is also connected to his ancestors and so the linked DNA for each kanaka is perpetuated in a timeless circle.¹⁵

The essence of wellness was lōkahi (oneness) and pono (harmony, balance) with self, others and all in the cosmos, maintained by proper thoughts, feelings and actions toward others and all in the spiritual as well as material world. Misfortune, such as ma'i (illness) resulted from altered pono or impaired relationships with loss of personal mana. Thus, wellness was restored mainly by correcting the impaired relationships, including communication with spiritual forces, prayers, rituals and healing thoughts and actions.¹⁵

In spite of this prevalent spirituality, all was natural. There was nothing supernatural in the western sense. Events could, and were, influenced by all of the numerous forces in the material and spiritual realms, favorable and adverse, from the past as well as the present and into the future. These forces included each kanaka's thoughts and attitudes, as well as actions.¹⁵

If the individual's efforts at healing himself were not effective, the 'ohana (family) elder's intervention was sought. If this, too, was not of benefit, the patient was taken to the kahuna lapa'au (medical practitioner priest) at the nearest heiau ho'ōla (healing temple).¹⁵

The foregoing described, highly organized, yet locally-based, health system was threatened in 1778 by the fatal impact of introduced epidemics of foreign contagious infections by Capt. Cook's crew, beginning with gonorrhea, syphilis and tuberculosis. There followed recurring pneumonia, influenza, measles, mumps, typhoid, other infectious diarrheas, four smallpox epidemics; later, leprosy, plague, diphtheria and the streptococcoses. Traditional lapa'au, native medicine, could not stem the devastation. Nor was western or Asian medicine effective.^{15,16}

Other factors contributing to the over 95% decline in the native population, from an estimated one million in 1778 to approximately 40,000 in 1893, at the time of the end of the monarchy, were: colonial economic and political exploitation; market-money economy, private ownership and loss by Kanaka of their lands, economic dependence; suppression of indigenous culture, education, language and spirituality; cultural conflict, stress and despair, adoption of harmful foreign ways, such as, use of alcohol and tobacco, physical inactivity, western high-fat, high-cholesterol, high-salt and low-fibre diet; western religious, educational, economic and social institutional racism.^{15,18}

Homeless, urban Kanaka suffered most. Rural natives, retaining some of their spiritual and physical relationship to the land and sea, fared better.

In 1865 Kamehameha V, and in 1879 Kalākaua attempted to revive native lapa'au by issuing government board medical licenses to medical kahuna "to practice native medicine." However, these practices were largely limited to herbal medicine and lomilomi (native massage). Traditional 'ana'ana and related methods were officially banned, but remained underground. Christian prayers and ho'oponopono ('ohana spiritual group therapy) replaced pre-western rituals and ceremonies.¹⁵

With the 1893 U.S. armed invasion and overthrow of the monarchy, and the 1898 U.S. forced illegal occupation and annexation of Hawai'i, in spite of the Kanaka Kū'ē petitions accounting for failure of the U.S. Senate to ratify the Dole Republic of Hawaii-US Annexation Treaty, an official policy of coercive assimilation and de-Hawaiianization ensued with further suppression of lapa'au.¹⁸

In the 1980s, mounting native restlessness led to several US Congressional investigations resulting in the 1985 E Ola Mau Native Hawaiian Health Needs Study Report.

Publicly documented for the first time in modern times was the worst health plight of the Kānaka Maoli.¹⁹ The following year, a small nucleus of Kanaka health professionals, who had participated in the E Ola Mau Study and Report, founded a permanent organization—E Ola Mau (Live On!)—to reverse the health tragedy of Kanaka Maoli.¹⁵

The result was passage of the U.S. Native Hawaiian Health Care Act (NHHCA) and Native Hawaiian Health Scholarship Act of 1988, introduced by Sen. Daniel K. Inouye.

The first NHHCA authorized: (1) maximum participation by Kanaka Maoli, including traditional healers, (2) five Native Hawaiian Health Systems, established by Native Hawaiian organizations, to serve every inhabited island in Hawai'i, and (3) a coordinating Papa Ola Lōkahi five-member board, consisting of E Ola Mau, State Department of Health, Office of

Hawaiian Affairs, Alu Like and the University of Hawai'i.¹⁵

The second legislation provided federal scholarships to eligible Kanaka graduate students pursuing careers in medicine, dentistry, pharmacy, nursing, psychology and social work.¹⁵

Encouraged by E Ola Mau in 1986 and the 1988 US federal legislation, traditional healers have re-emerged and officially organized island-wide as Kūpuna Lā'au Lapa'au.¹⁵

Caucasians

The first Caucasians in Hawaii were Captain James Cook and the crew of his expedition in 1778.²⁰ Since that time, the Caucasian population of Hawai'i has grown through immigration to become the largest plurality in the State. During the period of the Kingdom, in addition to the immigration of missionaries, businessmen and their families, larger groups of immigrants were encouraged as part of an attempted "Europeanization" of the plantation workforce; significant among these groups were Portuguese from the Azores and Maderia Islands.^{21,22} This immigration, however, was far overshadowed by those of the Chinese, Japanese, and later Filipinos.²¹ The majority of Caucasians in Hawai'i are immigrants from the US continent.²³

Japanese

The first large group of Japanese arrived in Hawai'i as contract workers to labor on the plantations in 1868; they were preceded, however, by four shipwrecked Japanese sailors in 1841.^{24,25} Since that time, the Japanese population of Hawai'i grew until they were a clear plurality in 1923.²⁵ Immigration into Hawai'i, which by 1898 became a territory of the United States, was severely limited by the "Gentlemen's Agreement" of 1908, and subsequently the Immigration Act of 1924.²⁵

While initially beginning as almost indentured workers, by the 1930s Japanese in Hawai'i had successfully formed strong communities, with features ranging from stores to newspapers and baseball teams.²⁵ World War II, which brought internment to the Japanese-Americans on the continental US under Executive Order 9066, introduced restrictions on Japanese-Americans in Hawai'i, but there was no internment. In 1943, numbers of Japanese-Americans began enlisting in the US armed forces, serving famously in the 100th Battalion and the 442 Regimental Combat Team, the most decorated unit of its size in the US Army.²⁵

Following the end of the War, the return of the Nisei, or second generation Japanese-Americans to Hawai'i was one of the factors leading to societal change.²⁵ Organizing in the unions accompanied political organizing, and with Statehood in 1959 the

political, economic and social power and status of Japanese Americans began to climb.²⁵

Chinese

The first Chinese in Hawai'i arrived as members of the crew of Captain James Cook's journey in 1778, although large groups of Chinese did not immigrate to Hawai'i until 1865, when they were brought to the islands as contract laborers on the plantations.²¹ The percentage of Chinese in Hawai'i steadily rose, reaching 22% by 1884.²⁶ Opposition to the Chinese, and then generally Asian, presence grew, however, reaching a point where Asians were forbidden from working as mechanics or laborers for the Territory of Hawai'i in 1903.²⁶ Concurrently, in 1899, a fire deliberately set by the Department of Health of the Republic of Hawai'i led to the destruction of Honolulu's Chinatown, where a vast majority of Chinese lived.²⁶ As a result, Chinese-Americans in Hawai'i currently compose 7% of the population, although immigration continues. (Figure 1).

Filipinos

The first group of Filipino contract laborers arrived in 1906, brought in by the Hawai'i Sugar Planters' Association to work on the plantations.²¹ Although the last ethnic group brought to Hawai'i, by the 1930s Filipinos had become the largest percentage of plantation workers.²⁷ Initially, the Hawai'i Sugar Plantation Association members use Filipinos to replace striking Japanese workers, but Filipinos became union members and organizers by 1924.²⁷ Today, most Filipinos in Hawai'i remain working class, although there is a growing middle class consisting of people working in management and professional roles.²⁷

Other Pacific Islanders

Other Pacific Islanders is a broad category that refers to all Pacific Islanders other than Native Hawaiians from the three regions of Oceania: Polynesia, Melanesia, and Micronesia. Excluding Native Hawaiians, there are approximately 50,000 Polynesians, Micronesians and Melanesians in Hawai'i. Collectively, these three groups include more than 40 diverse peoples*, each with their own unique historical backgrounds, languages, and cultural beliefs and traditions.²⁸ Small populations and lack of appropriate data collection accounts for the aggregation of these groups into catch-all categories.

The largest groups of *Other Pacific Islanders* in Hawai'i are Samoans (26,365) and Tongans (6,148). Samoans are by far the largest group, arriving to Hawai'i in three waves: the first group arrived in 1919, concurrent with the construction of the Mormon Temple in Lā'ie, the second wave in 1952, when the U.S Navy unit in American Samoa closed and service members

were integrated into a base in Hawai'i.^{29,30} The third and on-going wave is due to a relative lack of health care, economic and education opportunities in both American Samoa and Samoa.^{30,31,32}

The most recent Pacific Islander populations to arrive in Hawai'i are those from the entities covered by the U.S. Compacts of Free Association.³³ These entities include the Republic of the Marshall Islands, the Republic of Palau and the Federated States of Micronesia, which is comprised of the states of Pohnpei, Chuuk, Kosrae and Yap. Of the approximately 16,000 Micronesians in Hawai'i, the largest group are migrants from the Republic of the Marshall Islands, where the US government conducted nuclear weapons testing from the 1940s to 1950s.³³ The second largest and fastest growing group is from Chuuk State of the Federated States of Micronesia.³³ Similar to the Samoans, migration of Micronesians to Hawai'i reflects a desire for better health, education and economic opportunities which are severely limited in their home countries.³³

*Other Pacific Islanders

Polynesians	Micronesians	Melanesians
American Samoan	Chamorro	Fijian
Samoan	Marshallese	Vanuatuan
Tongan	Chuukese	Torres-Strait Islander
Maori	Pohnpeian	Aboriginal
Tahitian	Palauan	Soloman Islander
Marquesan	Kosraean	Papuan
Tuamotuan	Yapees	New Caledonian
Niuean	Carolinian	Other Melanesians
Tokulauan	Pingalapese	
Tuvaluan	Mortlockese	
Rapanuian	Other Micronesians	
Rotuman		
Other Polynesians		

A. Demographics

Health is not determined solely by genetics or individual choice, but also, and probably predominantly, by one's social environment. Thus, factors such as un- or underemployment, unsafe workplaces, poor living conditions or homelessness, globalization and lack of access to healthcare also contribute to a person's health. With rare exceptions, the lower a person's socioeconomic status, the lower their health status; conversely, the higher status a person has attained, particularly in educational terms, the better her health.^{34,35,36} Having demographic data on the social determinants of health facilitates the contextualization of health disparities.

1. Population size

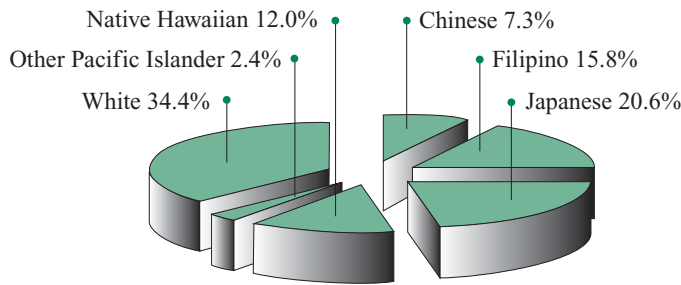


Figure 1: Ethnic percentages of adult population over 2002-2006.³⁷

a) Birth rates

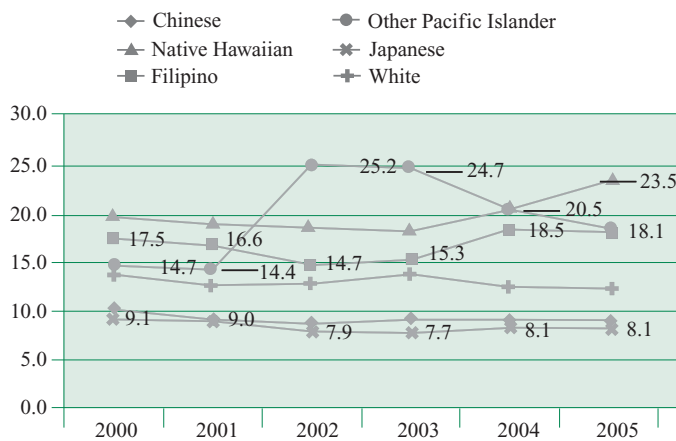


Figure 2: Birth rates by ethnicity, 2002-2005.

Birth rates are calculated from Office of Health Status Monitoring, with denominators from the Healthy Hawai'i Survey.³⁷ Numerator data are only available until 2005. An additional limitation is that ethnicity data is only collected to the level of Chinese, Filipino, Japanese, Native Hawaiian, Other, and White. There is no segregation of Other Pacific Islanders from the "Other" category.

b) Mortality rates

The data on mortality rates were provided by the Office of Health Status Monitoring, and thus reflects the same limitations as the data on birth rates. There is no separate category for Other Pacific Islanders; the ethnicities are Caucasian, Hawaiian/Part-Hawaiian, Chinese, Filipino, Japanese and Other.

Table 1: Crude death rates by ethnicity, 2002-2004.²

ETHNICITY	2002	2003	2004
Caucasian	782	813	731
Hawaiian/Part-Hawaiian	587	559	595
Chinese	775	835	820
Filipino	565	603	647
Japanese	1,108	1,094	1,027
All Others	358	342	382
Total	4,176	4,246	4,201

Table 2: Age-adjusted death rates by ethnicity, 2005.

ETHNICITY	Rate Per 100,000
Caucasian	602.4
Hawaiian/Part-Hawaiian	857.9
Chinese	517.9
Filipino	801.4
Japanese	517.3
All Others	565.2
Total	626.2

2. Gender

Figure 3 presents the gender distribution for the ethnic groups presented in this study.

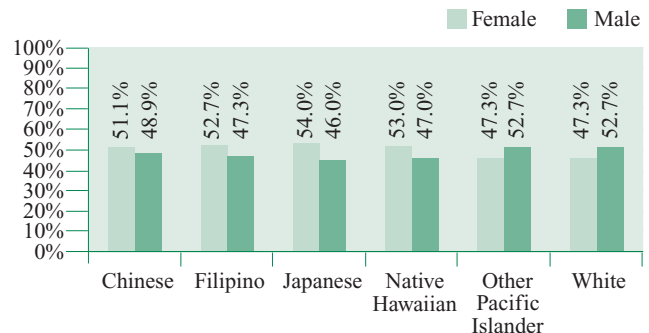


Figure 3: Gender distribution by ethnicity, 2002-2006.

3. Age

Table 3 presents age groups by ethnicity. An important limitation of this study is that no individuals below the age of 18 years were included, thus potentially skewing the data. It is likely, however, that Other Pacific Islanders and Native Hawaiians are the two groups with the youngest populations, while Japanese and Chinese have the oldest populations.

Table 3: Age distribution by ethnicity.

	18-24	25-34	35-44	45-54	55-64	65-74	75+
Chinese	6.1%	10.8%	19.3%	20.3%	14.5%	12.6%	15.7%
Filipino	7.8%	17.1%	23.1%	21.3%	14.4%	9.7%	6.2%
Japanese	3.9%	8.5%	14.1%	19.1%	17.1%	15.6%	20.9%
Native Hawaiian	9.0%	18.7%	19.4%	19.6%	16.3%	10.2%	6.5%
Other Pacific Islander	17.0%	24.7%	26.5%	17.9%	8.9%	3.9%	0.9%
White	5.1%	5.1%	17.6%	24.8%	20.3%	11.3%	8.3%

4. Life expectancy

There are no data available on life expectancy more recent than 1990.³⁸ Thus, this article does not present life expectancy data, since it is likely that the data have changed in the almost twenty years since that data was originally presented.

5. Length of stay

Although data on length of stay would be useful in comparisons of acculturation effects, such as Japanese nationals vs. Hawai'i – born Japanese, recent

Caucasian arrivals from the continent vs. Hawai'i – born Caucasians, such data has not been consistently collected and thus is not included in this report. If such data were available, it could point to differences between the health behaviors varying on nativity, such as been indicated for breast feeding, alcohol consumption in Latina women, access to cervical cancer screening, academic, behavioral and emotional difficulties in Filipino youth, and the relationship between ethnicity and obesity in Asian and Pacific Islanders.^{39,40,41,42,43}

6. Income

Table 4 presents household income levels by ethnicity. White and Japanese and Chinese residents of Hawai'i have the highest incomes, while Other Pacific Islanders have the lowest incomes, followed by Native Hawaiians.

Table 4: Incomes by ethnicity, 2002-2006.

	< \$10,000	\$10,000– 14,999	\$15,000– 19,999	\$20,000– 24,999	\$25,000– 34,999	\$35,000– 49,999	\$50,000– 74,999	75,000 +
Chinese	3.0%	3.2%	4.5%	6.2%	8.5%	12.8%	18.9%	23.0%
Filipino	3.0%	4.4%	5.8%	7.8%	14.5%	16.5%	17.8%	10.9%
Japanese	2.2%	2.6%	3.5%	4.9%	7.9%	12.6%	21.2%	25.7%
Native Hawaiian	4.5%	4.7%	8.0%	8.3%	10.7%	15.2%	17.2%	14.0%
Other Pacific Islander	10.9%	6.8%	9.0%	7.6%	11.6%	9.7%	13.6%	10.5%
White	3.1%	3.0%	4.1%	5.4%	9.4%	15.7%	19.2%	26.2%

In comparison to Table 4, Table 5 contains the persons of persons at different multiples of the Federal Poverty Guidelines by ethnic group. HHS 2007 (44). In this analysis, Chinese, Japanese, and Whites have the lowest rates of poverty, while Other Pacific Islanders, followed by Native Hawaiians and Filipinos have the highest poverty rates.

Table 5: Poverty rates by multiples of the Federal Poverty Guidelines by ethnicity, 2002-2009.

	0–130%	131–185%	186+%		0–130%	131–185%	186+%
Chinese	19.1%	9.3%	71.6%	Native Hawaiian	33.3%	15.3%	51.4%
Filipino	33.1%	18.5%	48.3%	Other Pacific Islander	51.9%	17.3%	30.8%
Japanese	12.7%	8.2%	79.1%	White	14.9%	10.4%	74.7%

7. Employment status

Table 6: Employment status by ethnicity.

	Employed for wages	Home- maker	Not employed	Retired	Self- employed	Student	Unable to work
Chinese	54.1%	5.2%	1.5%	26.1%	5.9%	5.2%	1.9%
Filipino	67.4%	5.4%	3.5%	12.4%	4.8%	4.9%	1.5%
Japanese	52.3%	3.7%	1.8%	32.1%	4.6%	4.0%	1.3%
Native Hawaiian	59.4%	4.5%	6.1%	10.3%	8.8%	0.3%	5.1%
Other Pacific Islander	60.4%	12.5%	7.7%	2.9%	6.2%	8.0%	2.1%
White	55.7%	6.5%	3.0%	17.6%	10.1%	3.6%	3.3%

Table 6 indicates that a majority of all ethnic groups are employed, while substantial portions of the Chinese (26.1%,) and Japanese (32.1%) communities are retired. These relatively high rates of retirees reflect the age profile of these communities, where 42.8% of Chinese are 55 years or older, and 54.5% of Japanese are 55 years or older.

8. Education

Table 7: Educational achievement by ethnicity

	Never attended school/ grades K–8	Grades 9–11	Grade 12 or GED	College 1–3 years	College 4 years or more
Chinese	1.6%	1.8%	27.0%	24.4%	45.1%
Filipino	3.5%	5.0%	36.4%	29.1%	25.8%
Japanese	1.9%	2.7%	26.1%	29.9%	39.3%
Native Hawaiian	1.6%	6.8%	48.8%	26.9%	15.9%
Other Pacific Islander	2.8%	5.0%	50.5%	28.0%	13.8%
White	0.8%	3.0%	24.0%	31.1%	40.9%

As Table 7 indicates, Native Hawaiians, Other Pacific Islanders, and Filipinos have lower rates of achieving four or more years of college than other ethnicities.

9. Housing

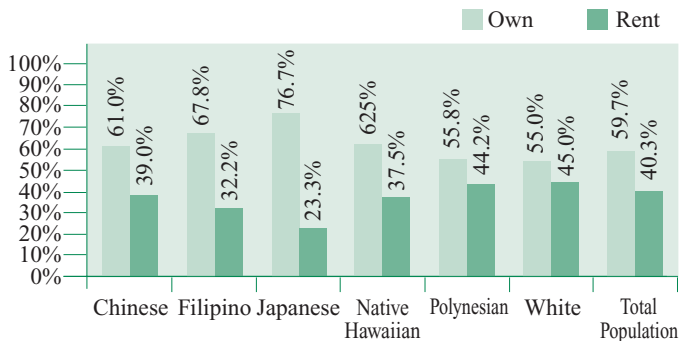


Figure 4: Home ownership by ethnicity, 2005.⁴⁵

Figure 4 indicates home ownership by ethnicity for the year 2005. All ethnic groups have home ownership rates greater than 50 percent, although Polynesians and Whites have lower rates of ownership than other groups. For Whites, this statistic may represent, to some degree, the relatively transient nature of Whites enlisted the military residing in Hawai'i, as well as the relatively high cost of homeownership in Hawai'i.⁴⁶

10. Health insurance status

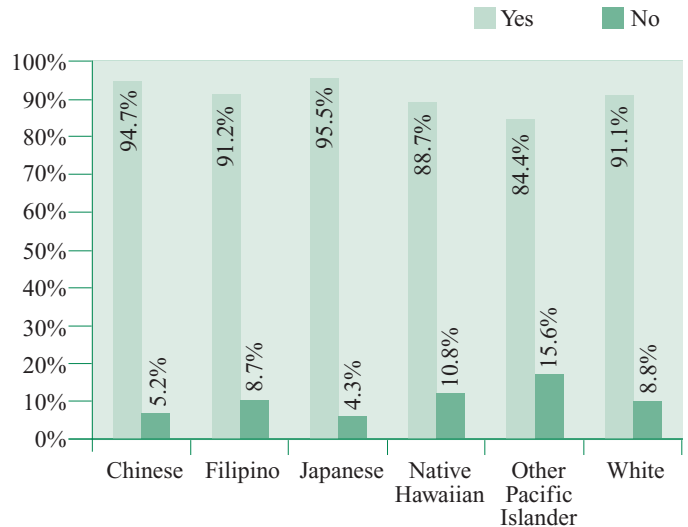


Figure 5: Health insurance status by ethnicity, 2002-2006.

As Figure 5 indicates, and reflecting the high overall rate of insured individuals, a majority of all ethnic groups are insured, but Other Pacific Islanders (84.4%) and Native Hawaiians (88.7%) have the lowest rates of insurance. Health insurance itself, however, is not an adequate proxy for “access to health care.” Other variables include the amount of insurance premiums required to use the insurance, the availability of both primary care and sub-specialty practitioners and healthcare facilities in an area, the availability of transportation, and the beliefs and attitudes of the individuals seeking, or not seeking care.

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