Where are the Native Hawai'ian physicians?

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Abstract

In the state of Hawai'i, there is a need for physicians' services in rural areas. There are fifteen federally designated health professional shortage areas, most of which contain large numbers of Native Hawai'ians. The purpose of this study was to determine where Native Hawai'ian primary care physicians and specialists practice. Practice location data on Native Hawai'ian physicians was analyzed. There were three major findings: Native Hawai'ian physicians represent approximately 4% of the licensed physicians in Hawai'i while Native Hawai'ians represent 18-22% of the population; the vast majority of Native Hawai'ian physicians practice in urban areas and; more than one-fourth of identified Native Hawai'ian physicians practice in the continental United States. These three findings are, in reality, three problems: 1) Native Hawai'ian physicians have not achieved parity in the medical community; 2) rural areas of Hawai'i are not being served by Native Hawai'ian physicians; and 3) the continental United States attracts a sizable number of Native Hawai'ian physicians. In addition, sixteen Native Hawai'ian physicians were interviewed. Results indicate a variety of reasons that physicians chose a practice location. Further study in this area is encouraged.

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Introduction

Attracting physicians to rural and underserved areas of the United States has proven to be a problem for which there is no easy solution. Despite recent efforts to increase the number of primary care physicians in rural and underserved urban areas, 46 million people living in 3,000 federally designated health professional shortage areas classified as medically underserved.[1] The Bureau of Primary Health Care (BPHC) within the Health Resources and Services Administration (HRSA) designates the criteria for Health Professional Shortage Areas. They include: the percentage of aged population, poverty rate, infant mortality rate and ratio of primary care physicians per 1,000 population as compared to national averages.

The BPHC has determined that the state of Hawai'i shares in this national problem. In Hawai'i, there are 15 federally designated underserved areas:

- *Maui County*: Hana/Haiku, Maui, Lanai island, and Moloka'i island.
- *Hawai'i County*: South Hilo, Puna, Ka'u, Maakua, Kona and Kohala.
- *City & County of Honolulu*: Kalihi Palama, Kalihi Valley, Waikiki, Waimanalo, and Waianae.

Almost all of these federally designated sites contain large numbers of Native Hawai'ians.

Native Hawai'ians have the worst overall health statistics in the state and suffer disproportionately from morbidity and mortality when compared with Hawai'i's general population.[2,3,4] Native Hawai'ians continue to have the highest mortality rates for the five leading causes of death: heart disease, cancer, stroke, accidents and diabetes.[4] Because there is a very real need for physicians to serve in rural areas and in areas with Hawai'ian populations, the authors of this paper have chosen to determine where Native Hawai'ian primary care and specialist physicians practice.

In 1992, with the combined help of the John A. Burns School of Medicine (JABSOM), E Ola Mau, and the Kamehameha Schools Alumni Association, the Native Hawai'ian Center of Excellence (NHCOE) at JABSOM began compiling a Native Hawai'ian physician database. This database included Native Hawai'ian physicians, affiliated faculty at JABSOM, residents and medical students. In Fall 1997, the database contained 78 physicians, 33 affiliated

faculty (some of whom are double classified with the physician category), 44 residents and 29 medical students. Despite exhaustive efforts, the data remain incomplete. The greatest challenges have been to track Native Hawai'ian residents who participate in residency programs in continental U.S., to identify Native Hawai'ian students at other medical colleges and to locate Native Hawai'ian physicians who have returned to Hawai'i to practice.

Definitions

For the purposes of this paper, physicians have been separated into two categories: primary care and specialist physicians. Primary care physicians are defined as those able to address the most common and acute medical needs of a community. These physicians include: General Practitioners (physicians who did not complete a residency program - usually completing what is equivalent to a year of internship after medical school), Internal Medicine (adults), Pediatricians (children), and Family Practitioners (adults, children and obstetrics). Internists, Pediatricians and Family Practitioners are board certified; that is, they have completed three to four years of residency training after completing medical school.

Specialists are those board licensed physicians who have a narrower area of medical expertise and usually do not address a diverse range of medical problems. Some specialty areas include: general surgery, urology, radiology, neurology, obstetrics and gynecology, oncology, orthopedics and gastroenterology.

Native Hawai'ian physicians' locations

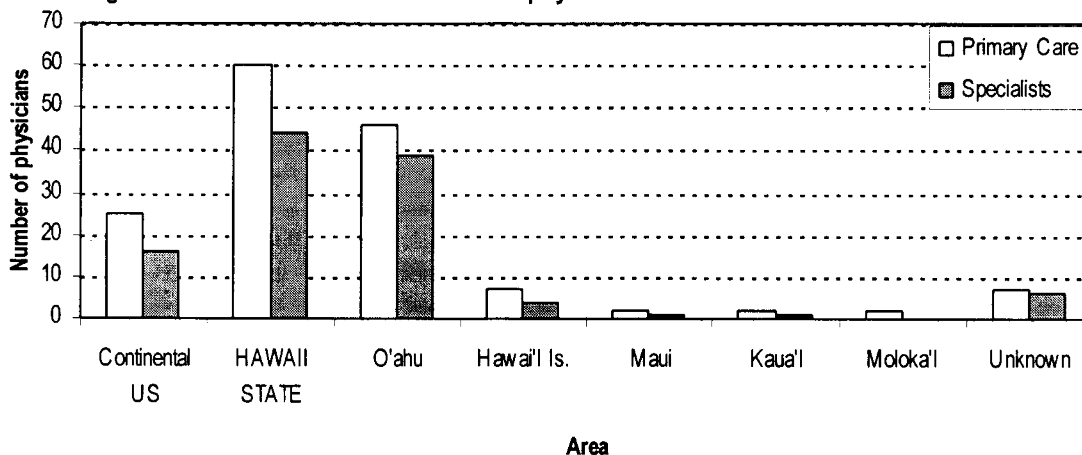
As of May 1998, the NHCOE database contains a total of 155 Native Hawai'ian physicians. Of those, 11 physicians' locations are unknown, 41 physicians are residing in the continental U.S., and 103 are practicing in the state of Hawai'i. Of these physicians, 91 are primary care and 66 are specialists (see Figure I).

Figure 2clearly illustrates that rural areas have a shortage of physicians. The bulk of Native Hawai'ian physicians remain in urban Honolulu, not in rural (anywhere in Hawai'i outside of urban Honolulu) areas in the state. Why aren't Native Hawai'ian physicians in areas with large populations of Native Hawai'ians? There are a variety of reasons why physicians choose to practice in more urban areas. These can include: higher salaries, the opportunity to treat more patients in an area of specialization or sub-specialization, more interaction with medical colleagues, access to medical and laboratory equipment, and higher reimbursements from insurance claims. With this in mind, it is not surprising that 78% of Primary Care and 89% of the Specialist Native Hawai'ian physicians in the state of Hawai'i are practicing in urban Honolulu. It is important to note is that resident doctors in the state of Hawai'i are trained in Honolulu. Nineteen of the 61 physicians in Honolulu are resident doctors. Residents also account for 22 physicians that are currently located on the continental U.S.. Residency may or may not represent a transient numerical figure.

Resident physicians

As mentioned above, practicing physicians must complete a residency training program in order to practice. Physicians during the training period after medical school are known as "resident physicians," or "residents." Another reason for the higher number of Native Hawai'ian physicians on the continental U.S. and in Honolulu and Mililani is that residency training is provided in these locations (see Figure 3). Nineteen of the 61 physicians in Honolulu and four of seven in Mililani are residents. Twenty-two physicians, nearly all those located in the continental U.S., are currently serving in residency programs. It is important that this group of physicians be considered as distinct from the others because these physicians are still in training and are not certain where they will practice. However, the location of a residency program often has a strong impact on the eventual choice of a practice site.

Figure 1. Distribution of Native Hawaiian physicians



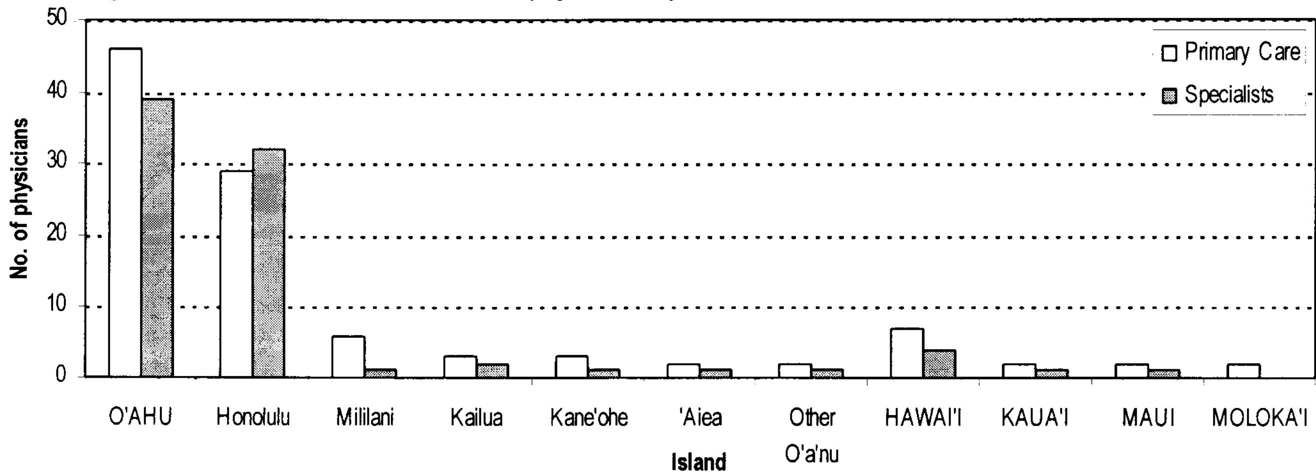


Figure 2. Distribution of Native Hawaiian physicians, by island

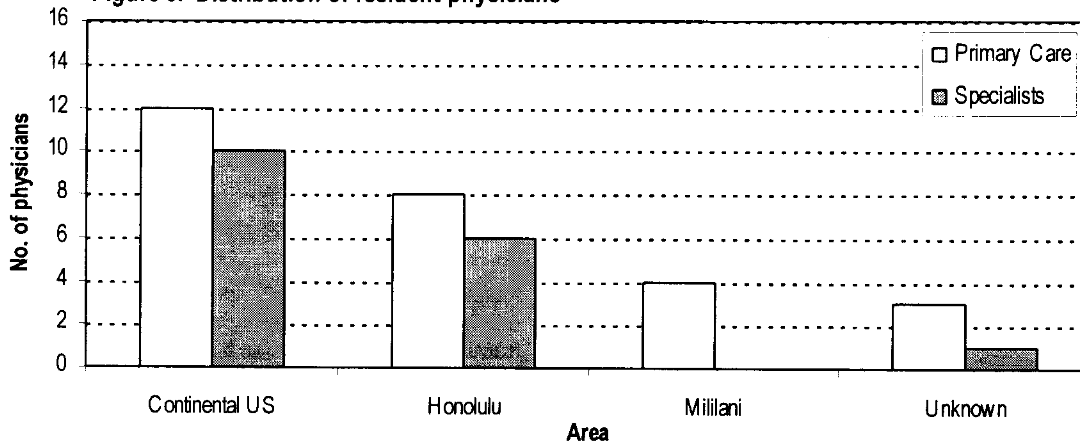


Figure 3. Distribution of resident physicians

Current efforts

To address the issue of the shortage of health professionals in underserved, mostly rural areas of the nation, the Bureau of Primary Health Care (BPHC) within the Health Resources and Services Administration (HRSA) funds several programs designed to increase primary physician service in underserved areas.

For example, the National Health Service Corps (NHSC) provides primary health care to underserved areas and populations by means of scholarship and loan repayment program. The scholarship program pays for health professions training in exchange for the scholarship recipient's service in one of the federally designated Health Professional Shortage Areas (HPSA) upon completion of training. For each year of support the recipient receives, the recipient must pay back in one year of service. Since the program's inception in 1974, there have been over 38,000 scholarship recipients. The effectiveness of the NHSC scholarship program was evaluated by Rosenblatt, et al.[5] They found that only one quarter of the NHSC participants remain for the long term in the underserved areas to which they were originally assigned.

The Native Hawai'ian Health Scholarship Program also addresses this shortage problem. This program deals with the specific shortage of health professionals that serve Native Hawai'ians in the state of Hawai'i. It provides payment for health professional training as physicians, dentists, nurses, nutritionists, physicians' assistants, social workers and public health educators. In exchange for a scholarship, the recipient must serve in a federally designated shortage area in Hawai'i upon completion of training. The repayment requires serving one year for each year of support received from the scholarship. In comparison to the NHSC findings, the data from this program are encouraging. Because the program was started in 1990, as of 1997, there are only two physicians who are now in service. In 1998, there will be seven more physicians completing their residency and ready to repay.

Proportion of Native Hawai'ian physicians in Hawai'i

The Native Hawai'ian population is between 18-22 percent (1990 US census and Hawaii Health Surveillance Survey). According to the Hawai'i Medical Association, there are 2,400 actively practicing physicians licensed in Hawai'i by the Board of Medical Examiners. The NHCOE has documented 103 Native Hawai'ian physicians in the state which is roughly 4 percent of practicing physicians. There is a wide discrepancy between the number of Native Hawai'ians in Hawai'i and Native Hawai'ian physicians.

Kanaka Maoli physician interviews

In an effort to determine why only a small number of the Native Hawai'ian physicians serve in rural areas, Dr. Neal Palafox interviewed 16 Native Hawai'ian (Kanaka Maoli) physicians. While these findings are anecdotal, the message is powerful: *serving in rural areas is not a priority!*

Of the 16 physicians interviewed, five were female and eleven were male. The ages ranged from 24 to 67 years. Thirteen were primary care physicians and three were specialty physicians. All reside in Hawai'i. All sixteen physicians agreed to the interview upon the initial request. The interviews were carried out over the telephone in 14 cases and two were interviewed in person. Interviews were carried out with an understanding that names would be kept anonymous.

When a physician had been at a particular work site for two to three years, lifestyle and maintenance of a particular income for family needs became the driving determiner as to whether to maintain or change that work site.

Responses to the questions varied considerably. One of the respondents succinctly said, Native Hawai'ian physicians are a subset of the Native Hawai'ian population. Therefore, their ideas and motivations will probably represent the differences in thinking of the Native Hawai'ian Community as a whole.[1]

How Kanaka Maoli Physicians choose where they work

The major determinants of the site of employment, upon completion of medical training, were practical issues such as job availability, medical specialty requirements and the desire to maintain a particular lifestyle. Living in close proximity to family and fulfilling personal ideals were secondary determinants for worksite choice for the majority interviewed.

Most of the physicians, 13 out of 16, chose their worksites because a desirable job was available. The physician was usually recruited during the final year of residency training. Three of the 13 stated that their specialty training mandated that they practice in an urban environment with a tertiary care hospital. Living in close proximity to immediate family was secondary to job availability and lifestyle requirements in these cases. Only one out of 16 physicians mentioned that living in close proximity to family was of primary concern.

Choosing the initial work site was usually motivated either by the need to pay off large educational expenses, being in a locality where good schools and extra curricular opportunities were available for children, meeting a spouse's expectations and/or being in close proximity to medical support services. A woman physician added that a significant part of choosing her practice site was for social reasons. She felt that as a physician she preferred an urban or suburban type setting because the opportunity to meet a compatible marital partner would be greater. Most physicians commented that they did little planning as to where they would practice, except that it must be in Hawai'i. Several physicians stated, "It just happened that way; the job was available."

Choosing a work location based upon long term planning or a personal ideal was indicated by three of the 16 physicians. Two of these physicians (presently residents) plan to work with the Native Hawai'ian Community and have identified particular rural communities where they will work and live. However, they have yet to complete their training. One resident planned to work with a medically under-served population (not specifically Native Hawai'ian). That physician presently works in such a capacity.

When a physician had been at a particular work site for two to three years, lifestyle and maintenance of a particular income for family needs became the driving determiner as to whether to maintain or change that work site. After six to seven years at a work site, physicians began to include other health related activities (community work) in their usual routines. Twelve of sixteen physicians noted that, once children were grown and the financial responsibility to support them was ended, they would be more likely to work in a rural or underserved community. They suggested that working in a rural community becomes more attractive nearing retirement because family obligations are less.

Feeling a responsibility to the Kanaka Maoli communities

The physicians were asked what obligation a Kanaka Maoli Physician should have to the Kanaka Maoli Community. All sixteen stated that any obligation to serve the Native Hawai'ian Community is a personal choice. Those serving in these communities without a true interest would cause more damage than good, because mutual respect and trust between physician and the community would be lacking.

All sixteen felt that physicians would incur a greater tangible obligation to work with the Kanaka Maoli community if they had benefited from programs that enhanced their opportunities to be a physicians. Such programs would include participating in the Native Hawai'ian Health Scholarship program, attending Kamehameha Schools, graduating from the Kulia or Imi Ho'ola programs at the John A. Burns School of Medicine, or benefiting from other Native Hawai'ian or community supported programs. The final obligation would be a personal determination.

One physician noted that although he had Native Hawai'ian ancestry, he did not share in the same cultural experiences that other Native Hawai'ians may have had . He was raised to a large extent in the continental USA and did not have the immersion in the Hawai'ian culture. Therefore, his sense of responsibility to the Native Hawai'ian community may be more distant. Another physician noted that, among physicians with Native Hawai'ian ancestry, differing amounts of emphasis on Hawai'ian culture were found. Some were strong, some negligible and some families actually disowned their Hawai'ian identity. Each physician's sense of responsibility and obligation to the Hawai'ian community is dependent on the nature of his/her upbringing.

Fourteen physicians felt that they should work in some capacity with the Kanaka Maoli Community. Two physicians felt that working with any medically underserved community would be appropriate and would meet the larger obligation of serving the medically underserved. One of the latter two physicians felt that delineating medically underserved groups by culture and ethnicity is divisive and destructive, stating that 'Physicians should give good care to everybody; they should not be separated by ethnicity and culture.'

One physician stated that institutions, not people and physicians, incur obligations to serve the Native Hawai'ian Community. Institutions such as the Queen's Hospital and the Bishop Estate incur direct obligations. These institutions were founded for the benefit of the Hawai'ian people. Another physician stated that, 'If obligation was what this is about, then all physicians in Hawai'i and in the continental U.S. should feel an obligation to Hawai'ian people because of the injustices which have occurred.'

Obligation, duty and responsibility to the Kanaka Maoli community were personal issues. Identification with the Kanaka Maoli culture was a function of family emphasis on cultural issues and the physician's personal identification with the culture. How one exercised that responsibility and obligation was a function of time and priority.

How the Kanaka Maoli physicians serve the Kanaka Maoli community

There were several ways that these Kanaka Maoli physicians served their Kanaka Maoli community. These included provision of direct medical service, policy formulation, research, financial support and service as role models.

At the time of the interview, three of 16 physicians were regularly involved with direct medical service, research, or policy development. Policy development was defined as working with one of the Native Hawai'ian Health Care Systems (NHHCS) or with a Native Hawai'ian Community Board to positively affect the Kanaka Maoli Community Health. There were five out of 16 who had limited contact with direct medical services to a Kanaka Maoli community or policy development over the last three years. Three mentioned that they regularly provide financial contributions to Native Hawai'ian organizations in lieu of direct service. All sixteen felt that they strive to be examples to the Kanaka Maoli Community by maintaining a particular lifestyle and through personal accomplishment. Maintaining good wholesome personal health habits (not smoking and drinking moderately) and being a physician of excellence were ways to be role models for the Kanaka Maoli Community. When asked, several physicians provided career and health talks to schools and Kanaka Maoli communities.

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Two physicians noted that, although they do not work with a large Kanaka Maoli community, they pay special attention to the Kanaka Maoli patients they have in their practice. This includes 'going the extra distance' to make the visit, the follow-up special, and waiving medical fees when fees become a barrier to health care.

It was clear that all 16 physicians felt a special relationship with Native Hawai'ian patients and the Kanaka Maoli communities. The extent of their involvement and interaction with the Kanaka Maoli Community varied widely.

How do we ensure that Kanaka Maoli Physicians work more closely with the Kanaka Maoli Communities

The Kanaka Maoli who were interviewed felt that there should be a greater efforts to increase the awareness of the health needs of the Kanaka Maoli communities. Fifteen of the 16 Kanaka Maoli physicians expressed a need for a greater focus on Kanaka Maoli health issues from preschool through residency training. Ten of the 16 physicians were not aware of the specific Kanaka Maoli health issues, nor were they aware of the opportunities to work with Kanaka Maoli communities. They felt that there was an awareness gap. Because of the awareness gap, many physicians felt dis-

tanced from the Kanaka Maoli community and were reluctant to become vulnerable the expectations of these communities.

Nine of 16 physicians stated that the Kanaka Maoli community should aggressively participate in letting the physicians know of their needs and promote opportunities for physicians to practice in their communities. Suggestions by the physicians included:

1. People who are raised in the particular Kanaka Maoli community would be most likely to return. Hence, recruitment of prospective physicians should be emphasized within the community.
2. The Medical School should increase the amount of time and resources devoted to working with the Kanaka Maoli Community.
3. The community should work with the State or Federal Government or organizations which could support health services such as Queens Medical Center or the Bishop Estate. Through these institutions, physician opportunities could be created to competitively attract physicians upon completion of medical training. Active recruitment should take place.

Three physicians noted that there should be regular meetings of all Kanaka Maoli Physicians. These meetings would allow an exchange of ideas and an opportunity to share dilemmas and understanding regarding working with Kanaka Maoli Communities. They emphasized that 'We do not know what the other Hawai'ian physicians are doing.'

A differing view expressed the thought, that because many physicians with Native Hawai'ian ancestry come from lower socioeconomic settings, becoming a physician may represent success in escaping from that setting and, in many instances, that community. The measure of success thus becomes the economic and social distance one could place between the old community and the new. In order to enable more Kanaka Maoli physicians to live in those communities, there needs to be a realization that escape was not necessary and that acknowledging one's roots is healthy.

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Discussion

A review of the literature has turned up several factors that affect physician practice area. Elam et al. found that geographic origin is the most significant factor in determining where physicians locate.[6] Elam et al. also found that gender, undergraduate institution, residence at admission, location of residency and specialty choice were also important predictors of practice location. Each of these factors should be researched as they pertain to Native Hawai'ians.

Interestingly, gender seems to be a predictor of those physicians who choose serve in rural areas. According to West, et al., males were likely to choose rural practice locations than females.[7] In Hawai'i among Family Practice physicians, the same holds true. Of the 40 physicians that are located in "rural" areas, 23 are male and 12 are female; almost a 2:1 ratio. Forti, et al. proposed that retention efforts should focus on changing attributes of rural practice.[8] Two suggestions Forti made were to develop strategies that minimize professional isolation of physicians and to increase insurance reimbursements as a benefit for serving in rural areas. Such strategies may be useful in Hawai'i.

Two questions need to be explored in Hawai'i. The first is "What factors influence practice location among Native Hawai'ian physicians?" The second concerns current minority programs, the Native Hawai'ian Center of Excellence and the Imi Ho'ola Program, at the School of Medicine. What role should these programs play in promoting service to the Native Hawai'ian community and to rural/underserved areas?

We also acknowledge that the complete range of ethnicities of physicians in Hawai'i has not been determined. In an effort to identify physicians by ethnicity, plans are now underway by the Director of the NHCOE to survey all physicians in the state of Hawai'i.

In summary, of the Native Hawai'ian physicians identified, 67% are in Hawai'i, 26% are on the continental U.S. and the remaining 7% have not been located. In the state of Hawai'i, there are 57% primary care and 43% specialty Native Hawai'ian physicians. Of those physicians, the majority, 44% primary care and 39% specialists, are on the island of O'ahu. Of the physicians on the island of O'ahu, 72% are in Honolulu and 26% are in "rural" areas. On the neighbor islands there are 13% primary care and 5% specialty physicians. Of the 2,400 practicing physicians in Hawai'i, only 103, 4%, are Native Hawai'ians while 18-22% of Hawai'i's population are Native Hawai'ian.

The authors recognize that there are Native Hawai'ian physicians in Hawai'i and on the continental U.S. that the

NHCOE has been unable to identify. The more complete our database, the better able we will be to determine how best to meet the needs of the Native Hawai'ian communities. Hopefully, with increased numbers, the proportion of Native Hawai'ian physicians will be greater than 4%.

At this juncture, we can assert that:

1. Native Hawai'ian physicians make up approximately 4% of the licensed physicians in Hawai'i while Native Hawai'ians make up 18-22% of the population of Hawai'i.
2. The vast majority of Native Hawai'ian physicians practice in urban areas.
3. More than 1/4 of identified Native Hawai'ian physicians practice in the continental U.S.

These three conclusions are, in reality, three problems. Native Hawai'ian physicians have not achieved parity in the medical community; the rural areas of Hawai'i are not being served by Native Hawai'ian physicians; and the continental U.S. attracts a sizable number of Native Hawai'ian physicians. These are problems that can be addressed. The responsibility is ours (Native Hawai'ian physicians, the larger Medical Community, the Medical School, state and federal agencies, all interested and caring individuals). The time is now.

Native Hawai'ian physicians have not achieved parity in the medical community; the rural areas of Hawai'i are not being served by Native Hawai'ian physicians; and the mainland attracts a sizable number of Native Hawai'ian physicians.

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Hele aku la a ahu, ho'i mai no e omo I ka waiū o ka makua.

He goes away and, gaining nothing by it, returns to nurse at his mother's breast.

Said of a grown son or daughter who, after going away, returns home for support. *Ōlelo No'eau #730*