

HEALTH CARE SERVICES UTILIZATION AMONG NATIVE HAWAIIANS AND PACIFIC ISLANDERS:
THE EFFECT OF HEALTH BELIEFS AND ENABLING RESOURCES

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A dissertation submitted to the faculty at the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements for the degree of Doctor of Public Health in the
Department of Health Policy and Management in the Gillings School of Global Public Health.

Chapel Hill
2016

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ABSTRACT

Karen J. Ho: Health Care Services Utilization Among Native Hawaiians and Pacific Islanders:
The Effect of Health Beliefs and Enabling Resources
(Under the direction of Suzanne M. Babich)

Native Hawaiians and Pacific Islanders (NHPI) have some of the poorest health status in the United States. The disparities in the health status of the NHPI as compared to other ethnic groups can be explained by many factors such as health care access. According to the Andersen Behavioral Model, inequitable access to health care can occur when social structure, health beliefs, and enabling resources determines who gets medical care. In order for equitable access to occur, factors such as health beliefs must be mutable or point to a policy change that leads to behavioral change. Social structure was found to have low mutability. This study, then, assesses what health beliefs and enabling resources influence the use of health care services by NHPI and ultimately health status.

The results of this study found that health beliefs were the strongest predictor for use of health care services. The NHPI's individual cultural medicines and practices and past observed experiences with the Western health care system were embedded in their attitudes, values, and knowledge and that influenced their subsequent perceptions of need and use of health care services and ultimately health status. Except for long wait times and transportation, the NHPI rarely mentioned other enabling resources such as health care insurance. However, the

community and personal enabling services must still be present for use of health care services to take place.

*I ko`u makuahine, a me ka makuakane, me ka nui o ke aloha
For my mother and father, with much love*

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CHAPTER I: INTRODUCTION

Native Hawaiians and Pacific Islanders have some of the poorest health status in the United States. Native Hawaiians and Pacific Islanders (NHPI) are 30 percent more likely to be diagnosed with cancer and 30 percent more likely to be obese and diagnosed with high blood pressure than non-Hispanic whites (Office of Minority Health, 2011). In the 2008 National Health Interview Survey, NHPI had the highest percentage of diabetes and asthma among all ethnic groups for persons 18 years and older. Approximately 28.5 percent of NHPI had hypertension, the second highest rate among all ethnic groups (Asian and Pacific Islander Health Forum, August 2010). The leading diseases and causes of death among NHPI are cancer, heart disease, unintentional injuries, stroke and diabetes.

Problem Statement

The disparities in the health status of the NHPI as compared to other ethnic groups can be explained by many factors that include “genetic, socioeconomic, geographic, and behavioral, that interacts with culture and race to affect access, utilization, and outcomes of health services” (Andersen et. al., 1995). For example, lack of health care insurance or differences in cultural attitudes and beliefs about health may affect the NHPI’s interaction with the health care system and consequently health status.

This study examines the disparities in health status by determining which factors interact with culture and race to affect access, utilization, and outcomes of health services.

Significance

The U.S. NHPI population is increasing. From 2000 to 2010, the NHPI population grew from about 400,000 to 540,000, about a 35.4 percent increase (Humes et al., 2011). Non-Hispanic whites increased from about 194 million to 196 million, about a 1.2 percent increase. Their acute health needs will increase health care costs. For example, a 2011 General Accounting Office (GAO) report found that Micronesians (migrants from the Compact linked island nations) had significant impacts on the U.S. communities where they reside. From 2004 to 2010, Micronesians cost Hawai`i over \$628 million for services. Hawai`i spent over \$291 million for educational services, \$237 million for health care services, \$7 million for public safety services, and \$92 million for social services.¹

¹ It should be noted that the 2011 GAO report also questioned the reliability of the cost reporting for all services submitted by not only Hawai`i, but also Guam and the Commonwealth of the Northern Mariana Islands. Guam and the Commonwealth of the Northern Mariana Islands reported costs of over \$326 million (\$65 million health care services) and \$55 million (\$11 million health care services), respectively. In 2004, Congress started appropriating \$30 million annually for 20 years to help *defray* costs of providing migrant services (i.e. education, health services, social services, etc.). The \$30 million is to be divided proportionally to the number of compact migrants living in Hawai`i, Guam, and the Commonwealth of the Northern Mariana Islands. On April 5, 2016, GAO submitted testimony to the U.S. Senate Committee on Energy and Natural Resources and reported that \$408.7 million was awarded in compact impact grants for all services to Guam, Hawai`i and the Commonwealth of the Northern Mariana Islands from 2004 to 2016. The affected jurisdictions countered that the *cost impact* was far greater than the amount reported in compact impact grants. From 2003 to 2014, Guam reported \$825 million in costs, Hawai`i reported \$1.2 billion, and the Commonwealth of the Northern Marian Islands reported \$89 million.

Limited demographic data are available for the NHPI because they comprise a very small percentage of the U.S. population. Prior to 1997, they were also grouped with the Asian population and analyzed as part the Asian and Pacific Islander population. Because of this, very little data related to health are available (Asian and Pacific Islander Health Forum, August 2010). A study on culturally competent health care found that there is limited published research examining perceptions, attitudes, and opinions of Native Hawaiians regarding the kind of healthcare and treatment they value (Vogler, 2010).

Purpose of this research

The purpose of this research is to assess what health beliefs and enabling resources influence the utilization of health care services by NHPI and consequently health status. The results of the data collected and analyzed for this study are intended to provide insights and guidance to:

1. Policymakers when addressing the delivery of health care services to NHPI;
2. Health care providers who work directly with the NHPI population; and
3. State and county health care workers providing public health education to modify the health beliefs and behavior of the NHPI.

Research Question

The main research question is: How can information about health beliefs and enabling resources be applied to improve health services utilization by Native Hawaiian and Pacific Islanders and consequently health status?

Health beliefs are defined as the “attitudes, values, and knowledge that people have about health and health services that might influence their subsequent perceptions of need and use of health services “(Andersen, 1995).

Enabling resources include community and personal resources such as health facilities and personnel, income, health insurance, a regular source of care, travel, and waiting times (Andersen, 1995).

CHAPTER II: BACKGROUND

Although the NHPI population is grouped together by the U.S. Census, the NHPI is not a homogeneous group. The NHPI is made up of many sub-groups and health status and outcomes may vary among sub-groups. For example, the incidence and deaths from various cancers are disproportionately high for NHPI men and women, particularly Native Hawaiians and Samoans. Similarly, the prevalence of hypertension is particularly high for Chamorros (Asian and Pacific Islander Health Forum, August 2010.)

Different Language and Culture

NHPI sub-groups also differ by language and culture. By federal designation, NHPI are defined as the original peoples of the islands of Polynesia, Micronesia, and Melanesia. Historically, they were demographically grouped with Asians. In 1997, however, the Office of Management and Budget promulgated new rules that mandated data for Pacific Islanders be collected separately from that of Asians (Agency for Healthcare Research and Quality, 2011). The largest groups among the Polynesians include Native Hawaiians, Samoans, and Tongans. Micronesians include Guamanians or Chamorros, Mariana Islanders, Marshall Islanders, and Palauans. Melanesians include Fijians and Papua New Guineans.

Different Access to Health Benefits

Access to health care and benefits also varies among sub-groups. By Federal mandate, access to health care is mandated for Native Hawaiians but not necessarily for the other Pacific Islanders. The enactment of the Native Hawaiian Health Care Improvement Act² created the Native Hawaiians Health Care Systems (NHHCS). NHHCS is funded through the Health Resources and Services Administration to provide health education, health promotion, and disease prevention services for Native Hawaiians (i.e., basic primary care services). The care is not yet robust or comprehensive. Papa Ola Lokahi, a non-profit organization founded in 1988, is the designated agency that coordinates and assists the health care programs provide services to Native Hawaiians. There are five recognized community-based Native Hawaiian health care programs serving in the State of Hawai`i: Ho`oola Lahui Hawai`i (serving the islands of Kaua`i and Ni`ihau), Ke Ola Mamo (O`ahu), Na Pu`uwai (Moloka`i and Lana`i), Hui No Ke Ola Pono (Maui), and Hui Malama Ola Ha`Oiwi (Island of Hawai`i). All Native Hawaiian health centers, Native Hawaiian Health Care Systems and all health practitioners providing services to Native Hawaiians must be organized or licensed under the laws of the State of Hawai`i.³ The majority of NHHCS live in Hawai`i, California, Washington, Texas, Florida, New York and Utah. There is

² 42 United States Code Section 11702 (a)(1) and (2) states, in part, "it is the policy of the United States in fulfillment of its special responsibilities and legal obligations to the indigenous people of Hawai`i...(1) raise the health status of Native Hawaiians to the highest possible health level; and (2) provide existing Native Hawaiian health care programs with all resources necessary to effectuate this policy".

³ 42 United States Code Section 11711

currently little reach into other states. Papa Ola Lokahi is a designated Census Information Center and also provides other services such as an infrastructure for research, education and training to address the disproportionate burden of chronic diseases among Native Hawaiians (Papa Ola Lokahi, 2005).

Access to health benefits by Pacific Islanders (other than Native Hawaiians) is dependent on citizenship and immigration status (Asian & Pacific Islander American Health Forum, 2010). Pacific Islanders born in Hawai`i, Guam and the Commonwealth of the Northern Marian Islands are considered U.S. citizens, and are therefore eligible for federal benefits (e.g. Medicaid, Medicare). Citizens of the Freely Associated States (which were formerly U.S. territories but are now sovereign island nations that are linked to the U.S. by a treaty called the Compact of Free Association) include the peoples from the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau), have U.S. migration privileges but very few federal (medical) benefits. Fijians, and Independent Tongans and Samoans, must wait 5 years after immigration to apply for federal benefits. Citizens of American Samoa are U.S. Nationals and need not wait 5 years to apply for federal benefits. Individual state governments (of the U.S.) can opt to provide health care benefits for Pacific Islanders who are not U.S. citizens or nationals⁴, by contributing state funding or services through federal health programs or safety net services such as community and migrant health centers.

⁴ Section 101 (a) (22) of the Immigration and Nationality Act defines the term “national of the United States” to mean “(a) a citizen of the United States, or (b) a person, who, though not a citizen of the United States, owes permanent allegiance to the United States.”

Limited Health Care Access and Use

Data have shown that the NHPI population has poorer health outcomes (Asian and Pacific Islander Health Forum, August 2010) possibly resulting from lack of access to health care services. The 2008 National Health Interview Survey found that 24.3 percent of NHPI under 65 years of age were uninsured, compared to 16.9 percent of Whites (Asian and Pacific Islander Health Forum, August 2010). About 49.4 percent of NHPI under 65 years of age have private health insurance compared to 74.2 percent of Asians and 67.8 percent of Whites.

Approximately 63.3 percent of NHPI over 65 years of age had Medicare only and no supplemental insurance as compared to 28.9 percent of Whites. Because Medicare provides only basic coverage, the lack of supplemental coverage may be a barrier to needed medications and health care services.

In 2010, the National Association of Community Health Centers (NACHC) reported that only 4 percent of the patients visiting community health centers nationwide were Asians and Pacific Islanders, lower than the 5 percent reported in the U.S. population. There were no patient counts reported specifically for the NHPI. It is not clear whether this is due to NACHC reporting methods or if counts for the NHPI are simply too low to be reliably reported. There is a possibility that the Asian and Pacific Islander patient count reported by the NACHC may be predominantly Asian because the 2010 U.S. Census indicates that there are 17.3 million U.S. Asian residents and 1.2 million NHPI, comprising 5.6 and .4 percent of the U.S. population, respectively. Other patient counts were proportional to or higher than the U.S. population counts. About 64 percent of the NACHC population was White, 34 percent Hispanic/Latino, 26 percent African American, and 1 percent was American Indian/Alaska Native. The patient

counts were proportional for Whites and American Indian/Alaska Native. The patient counts were higher than the population counts nationwide for Hispanic/Latino (16 percent) and African American (13 percent).

In California, NHPI were found to have a higher use of emergency care than other racial groups in California. In 2007, approximately 33.5 percent of NHPI in California used emergency care, compared to 19.9 percent for Whites. This may suggest that NHPI face greater barriers to preventive care, but seek emergency care for primary care or when their conditions become acute (Asian and Pacific Islander Health Forum, August 2010). Among all NHPI subgroups, Tongans had the highest percentage (45 percent) of emergency department use, followed by 28 percent of Samoans.

Transformation of Access and Use

The passage of the 2010 Patient Protection and Affordable Care Act (PPACA) was an effort to increase access to health insurance coverage as well as health care services. PPACA supported the implementation of the patient centered medical home model (PCMH) as it would transform the delivery of health care services such as increasing access and enhancing the quality of care. PCMH relies on a team of providers (e.g. physicians, nurses, nutritionists, etc.) to deliver care. This team approach would leverage the skills and knowledge of other health professionals. It would particularly be effective if there is a shortage of primary care physicians. However, the team approach would be difficult to implement if there is a shortage of both primary care physicians as well as other health professionals. In the State of Hawai`i, there is an uneven distribution of physicians as most are concentrated on the island of O`ahu. All of the islands, except some portions of O`ahu, are considered federally designated medically

underserved areas (or shortage of primary care health services). Further, Hawai`i ranked 41 out of 50 states as it only has 75 nurses per 10,000 population, below the national average of 82 nurses per 10,000 population (Look et. al., 2013).

CONCEPTUAL MODEL

Ronald Andersen's Behavioral Model is intended to explain or predict use of health services. The model suggests that use of health services is a function of an individual's predisposition to use health services, enabling resources, and their need for care (Andersen, 1995). Predisposition includes demographics, social structure (culture, social networks), and health beliefs (values, attitudes). Enabling resources may include the provision of health insurance and availability of language translation services. Model variables could either independently predict use or provide an explanation of the causal ordering leading to the use of health services.

A goal of the Behavioral Model was to provide measures of access to medical care (Andersen, 1995). Andersen defined three types of access: potential, realized and equitable access. Potential access is the presence of enabling resources. Realized access is the actual use of services. Equitable access is when demographic characteristics and the need for health services explain the utilization of health services. Inequitable access, however, will occur when social structure, health beliefs, and enabling resources determine who gets medical care. Andersen found that the concept of mutability is important when using the behavioral model to promote equitable access to health services. To promote equitable access, a variable must be mutable or point to policy change that will lead to behavioral change. Demographic variables, however, had low mutability since age and gender cannot be changed. Social structure, which

includes measures such as education, occupation, and ethnicity, was also found to have low mutability. Andersen, instead, found that health beliefs and enabling resources had medium and high mutability, respectively. He found that health beliefs can be changed and the provision of enabling resources such as health insurance may encourage the use of health services.

Because health beliefs and enabling resources have either medium or high mutability, then it is anticipated that these variables may affect the use of health services by NHPI. Health beliefs are considered to have medium mutability because health beliefs can be changed or altered and perhaps bring about behavioral change. For example, some NHPI may not understand that if they have a chronic disease, they may have to take medicine for the rest of their life. Enabling resources, in contrast, are viewed as having high mutability. Many NHPI may lack health insurance or still speak their native tongue. The provision of enabling resources to help people obtain health insurance or translation services may increase the use of health services by NHPI.

CHAPTER III: LITERATURE REVIEW

Few studies have used the Andersen Behavioral Model of health services use to examine the impact of health beliefs and enabling resources among NHPI. Andersen himself surveyed the literature prior to 1995 and found very little research assessing NHPI (Andersen et. al, 1995). Few studies were conducted after 1995 as well. However, of the literature available, many studies assumed that racial/ethnic sub-groups represented a homogenous larger population. It was sometimes difficult to identify health beliefs or attitudes. For example, health beliefs, enabling resources and social structure seem to overlap each other. Also, it was found that NHPI sub-groups may have different definitions of health. Finally, perceived respect for one's self and culture, one-to-one communication and the provision of enabling resources encouraged the use of health services.

In an attempt to explain disparities in health status, Ronald Andersen and a team of researchers used the Behavioral Model as a basic framework to assess the extent and content of literature dealing with primary determinants of health, health behaviors, and health outcomes for general health studies of Asian and Pacific Islander Americans from 1980 to 1994 (Andersen et. al, 1995). Andersen et. al. found that Asian and Pacific Islanders were underrepresented in published work, and studies were needed that focused particularly on cultural influences on health status and outcomes.

Of the 613 abstracted studies reviewed, Andersen et al. found that 31 percent of the studies included both Asian and Pacific Islanders (non-specified) compared to 48 percent Whites, 27 percent African-American and 22 percent Hispanic-Americans. Only 10 percent of the abstracted studies included Pacific Islanders. There was no mention of Native Hawaiians as a separate group at all. From 1984 to 1994, there was a decrease in the number of studies on Pacific Islanders. The study did not indicate whether the increase or decrease in the number of studies over this period was statistically significant.

The study also found that components of the Behavioral Model were found in abstracted studies for Asian and Pacific Islanders as a combined group but not by sub-groups (e.g., Pacific Islander or Native Hawaiian). He noted that certain sub-groups were more representative or the focus of the studies. For example, 32 percent of the sub-group studies were categorized as Southeast Asian and only 20 percent were Pacific Islanders. Again, there was no mention of the percentage of Native Hawaiians.

The study found that 95 percent of the abstracted studies included population characteristics. Of the studies including population characteristics, 61 percent of the studies were about demographics (i.e. race/ethnicity), 34 percent social structure, 23 percent health beliefs, and 2 percent to 6 percent were enabling characteristics. Health beliefs and enabling characteristics by sub-groups were not identified. The researchers concluded that there was a shortage of studies on health services research or studies of access and quality of health care service delivery due to the lower percentages of studies on health beliefs and enabling characteristics combined with the lack of studies of perceived health outcomes and consumer satisfaction.

It was also found that the majority of the abstracted studies assessed medical conditions. Cancer was the most frequently studied medical condition, followed by mental illness and substance abuse. Most of the studies involving health beliefs were assessed for mental health and substance abuse. Very few studies assessed health beliefs and cancer care and almost no studies assessed enabling resources for any of the medical conditions. With the advent of cost containment policies and increased use of managed care plans during that time period, the study recommended that more studies were also needed for the use and outcomes of primary and tertiary care. Again, no individual sub-groups were identified for the various medical conditions.

Since 1995, there appear to be very few empirical studies specifically addressing the health beliefs and enabling characteristics of Andersen's initial Behavioral Model for Native Hawaiians and Pacific Islanders. Most of the studies found were either qualitative or descriptive studies. There were very few literature reviews (Captick, 2009; Jasti, 2003; Ponchillia, 1993; Simon, 2006; Yamashiro, 1997). A study assessing dietary supplement use in the context of health disparities found that more research was needed on health beliefs, attitudes, and socio-demographic determinants (Jasti, 2003). A literature review of the role of health in the Polynesian culture was only conducted recently because there were no previous studies (Capstick, 2009). Weir et. al. (2010) noted that her study assessing enabling services for Asian American, Native Hawaiian, and other Pacific Islanders was the first of its kind.

Of the few empirical studies found, several themes emerged when analyzing what health beliefs and enabling characteristics influenced the use of health services by the NHPI. More often than not, research assumed that a specific sub-group or sub-groups was

representative of a larger population. Or, it was difficult to analyze or distinguish among the components of the Andersen model because studies combined the components as part of the analysis. A few studies also appeared to define a cultural perception as a health belief. Several health beliefs did emerge from some of the studies such as how NHPI perceived Western medicine or the health care delivery system. Other studies found enabling resources as key to increasing use of health services.

Defining the Population

When studying the NHPI, research often assumed that a specific sub-group represented a larger population. A study of the role of medical interpretation for breast and cervical cancer screening for Asian and Pacific Islander women only surveyed Thai, Cambodian, Laotian and Tongan women (Dang, 2010). Tongan women represented the Pacific Islander population. Another study on Pacific Islanders only included Native Hawaiians, Chamorros and Samoans (Stoil, 2006). Finally, a study that compared cultural beliefs about the treatment of diabetes and visual impairment among native groups only assessed the Nauruans of Micronesia (Ponchillia, 1994).

In some studies, several sub-groups, despite differences in beliefs and cultural practices, were combined to represent the larger population. One study examined help-seeking behavior for mental health services among Asian and Pacific Americans. Much of the analysis focused on karma, Buddhism, or how the populations from East Asia responded emotionally to visceral cues or sense memory and recommended culturally sensitive mental health services to increase utilization (Yamashiro, 1997). Another study assessing the Asian American/Pacific Islander

cultural beliefs and breast screening behavior stated that a preference for Eastern medicine and modesty may be a barrier for breast cancer screening (Simon, 2006).

Combining Model Components

Most of the studies addressing health beliefs or enabling resources did not distinguish components or measures in the Behavioral Model. Rather, health beliefs, social structure, and enabling resources often overlapped as components that appeared to influence the use of health services. In a qualitative study on elder Pacific Islanders born in the United States, it was found that English fluency and the availability of Medicare did not necessarily guarantee the use of health services. Both the Native Hawaiian and Samoan elders have cultural beliefs (e.g. traditional practices, prayer, Polynesian health arts) that affect their perception of health care and health care policy. Also, Native Hawaiians may have a distrust of government authority due to the experiences of past military administration in the 1940s (Stoil, 2006). Another qualitative study assessing Native Hawaiians and cancer found that all participants, despite having 100 percent access to physicians and facilities, still needed to have cultural beliefs incorporated in health education and support groups to improve screening behaviors. More specifically, it was suggested that cultural values such as traditional healing methods and including families in decision-making should be included during the treatment process (Braun, 2002).

Cultural Perceptions vs. Health Beliefs

Because of the “overlapping” of model components, health beliefs or attitudes were difficult to identify within the NHPI population. Often, health beliefs were linked or labeled as cultural perceptions of healthcare in general. In a study of cultural and linguistic characteristics

of low-income ethnic minority patients' recent encounters with a healthcare organization, (Barr, 2005) found that Pacific Islanders felt they were negatively stereotyped by the doctors and staff. Study participants also felt offended or ignored when physicians discussed prevention or early intervention efforts for obesity, diet, alcohol, and drug use. Physicians did not take the time to listen to the patient and were perceived to have shown disrespect to elders. Physicians also provided unclear or incomplete information or explanations of the condition or treatment plan. Pacific Islanders also expressed concerns about the sanitation habits of staff during examinations or respect for privacy. Similarly, in another study, Native Hawaiians wanted a healthcare provider who could communicate effectively, was respectful, encouraged family involvement, took an interest in cultural and spiritual practices, and had a caring attitude (Vogler, 2010).

Different Health Perspectives

NHPI may not view health from the biomedical model perspective (Capstick, 2009). Western Medicine typically views health as the absence of illness. NHPI may view health as maintaining social order and harmony. For example, Samoan and Cook Island people may view illness resulting from breaking a 'tabu' or showing disrespect to a relative. Native Hawaiians, Tongans, and Fijians have similar beliefs. Healing goes beyond physiological issues and health maintenance behavior or illness treatment. Religious or spiritual beliefs dominate. Tongans and Samoans may also separate and categorize the illness or treatment as a Western or an indigenous illness or treatment. In another a study that assessed the effect of cultural beliefs on the treatment of diabetes and visual impairment among Native Americans, Mexican Americans and Pacific Islanders (Nauruans), the researcher suggested that preventive health

may not be part of the native culture (Ponchillia, 1993). Likewise, a study on Marshallese only, found that some Marshallese also did not understand the concept of preventive care, and give priority to the “present” moment. Or, if they understand the concept of preventive care, they say they do not need it because they are “healthy” and “not sick.” They utilize health services when they are in “pain” or are in “discomfort.” Family and friends are important and they are influenced by lay referral networks in health-related decisions (Choi, 2008).

Perceptions of the Health Care Delivery System

Having respect for the culture itself and its healing practices and taking the time to communicate one-to-one with NHPI would increase the likelihood of using health services. Studies about Pacific Islanders indicate that respect for their culture and its healing practices as well as one-to-one contact may increase the likelihood of using health services. Native Hawaiian men cited embarrassment and distrust as reasons for postponing a visit to the doctor (Hughes, 2004). Elderly Native Hawaiians tend to go without services than to be embarrassed by appearing helpless or ignorant (Stoil, 2006). Professional staff can be technically competent but were viewed as cold, impersonal, and insensitive. Elderly Native Hawaiians still follow traditional health practices and tend to not enter discussions for fear of disapproval or disdain. Stoil also found that elderly Samoans did not trust the integrity of their clinicians, preferring traditional healing practices. Elderly Samoans viewed medical care as alleviating symptoms and not curing the condition. A study of the ethnic differences in choices of health information by cancer patients using complementary and alternative medicine found that non-Japanese Asians and Pacific Islanders liked information sources that used person-to-person communication with physicians, social groups and other cancer patients (Kakai, 2003). The effect of the patients’

ethnicity overrides their education level in their choices of health information. Anecdotes about another cancer patient's successful experience may be valued over scientific evidence offered by professionals.

Increasing Use with Enabling Resources

While the use of enabling resources was specifically cited in only one study, many of the interventions to increase use of health services can be characterized as enabling resources. Enabling services (or resources) have been cited by the National Association of Community Health Centers as key facilitators to healthcare delivery (Weir et. al., 2010). In 2010, Weir et. al. studied four community health center sites serving Asian American, Native Hawaiian, and Pacific Islanders. The authors found that enabling services were critical for access to appropriate care. Enabling services included eligibility assistance and financial counseling, interpretation, health education, case management, transportation, and outreach.

Other studies utilized resources that could be defined as enabling resources to increase health services use. These services included language interpretation, medical interpretation, and outreach or the use of community health workers. Medical interpretation services were used to persuade Asian American and Pacific Islander women to receive a mammogram, clinical breast exam and a pap smear (Dang, 2010). Community health workers were found to use a culturally sensitive approach in providing diabetes management education for Native Hawaiian and Samoan populations. Supportive cultural services were used (one-to-one encounters, complementary traditional healing practices) in addition to diabetes management education (Beckham, 2008). While the use of healthcare services was not discussed, the results of this study showed better managed care results in better health outcomes.

DISCUSSION

Because there were very few studies identified for this review and variability in the types of study design, populations observed, health beliefs observed or the types of enabling resources used, more studies are needed with careful attention to how the populations to be observed are chosen and compared. For example, one study assumed that a particular sub-group, Tongans, represented the NHPI population. This was a common problem in the literature reviewed about the NHPI population. Also, health beliefs, enabling resources, and social structure need to be defined as to clearly indicate what is being measured. Whether it is health beliefs, enabling resources, or social structure, the findings do *suggest* NHPI may not define health in Western Medicine terms and may not understand the concept of preventive health. The findings also *suggest* that perceived respect and communications one-to-one and certain enabling resources such as translation services will increase health services use by NHPI. Finally, social structure needs to be re-assessed as it may have more of an influence on the use of health services than indicated in Andersen's Health Behavioral Model.

It is critical to note that findings about specific sub-groups may not be generalizable to the larger population. This is critical to assessing the health status and outcomes of the population. For example, when combining the sub-groups together to assess the larger population such as NHPI, some studies have assumed more similarities than differences among sub-groups. A major assumption for years was that Asians should be grouped with Pacific Islanders. However, Asians, who also may not be a homogeneous group, have different health outcomes. Currently, Asian American women have the highest life expectancy (85.8 years) in the U.S. (Office of Minority Health, 2011). Asians also are less likely than other groups to suffer

from obesity. They also have a higher percentage of private health insurance and lower poverty rates. If the groupings of Asians and Pacific Islanders were not separated in 1997, Pacific Islanders may have been viewed as having high life expectancies and high percentages of private health insurance.

Likewise, most of the reviewed studies assumed that NHPI or Polynesians, Micronesians, and Melanesians are more alike than different. One critical difference in the NHPI community is that Native Hawaiians probably do not need the same enabling resources such as translation services as do the Micronesians and Melanesians. They may need to assess health literacy but probably not translation services. Also, Native Hawaiians do not necessarily have the same health insurance barriers as Micronesians and Melanesians. Finally, Native Hawaiians may not face as many cultural barriers as do the Micronesians and Melanesians. These groups may have recently immigrated and may not have been acculturated to the American value system and way of life. However, Native Hawaiians, like the other Pacific Islanders, may have similar definitions of what "health" is, still need to feel that their culture and healing practices are respected and one-to-one communication is preferred. But it is unclear as to whether all of the NHPI do not understand the concept of preventive care because the studies only assessed Nauruans and Marshallese, both sub-groups of the Micronesian culture.

The studies also do not clearly indicate the nature of health beliefs and culture, and how these may differ among sub-groups. Andersen defined health beliefs as the "attitudes, values, and knowledge that people have about health and health services." He acknowledged that his model has been criticized for not paying attention to social networks, social interactions, and culture but defends the model because he believes that these components are part of social

structure (Andersen, 1995). Clearly, Andersen feels that culture is different from health beliefs. Yet in one study, it may appear that culture and health beliefs are one and the same. The NHPI groups did not feel respected, felt they were being stereotyped and preferred one-to-one communication whether for preventive education or treatment. Other NHPI studies felt that cultural healing practices should also be respected and acknowledged as helping to cure the underlying cause of the problem and not only the symptoms. Should the perception of disrespect or being stereotyped by the healthcare or medical communities be categorized as a health belief or cultural barrier? Or, is it part of the social structure?

Preventive health may not be part of the NHPI health beliefs or social structure. In California, NHPI have a higher use of emergency care for health conditions that have become acute. Is this higher utilization rate a result of no health insurance, limited access to primary care, or a cultural barrier? One literature review stated that NHPI defined health as maintaining social order and harmony whereas Western medicine typically viewed health as the absence of illness. Other studies have stated that NHPI can be fatalistic and accept “what is” because an illness is the result of one’s past behavior. It was suggested that the cultures, particularly the Micronesians, may not understand the concept of preventive health or if they did, refuse to practice preventive health because they are “healthy” and “not sick.”

Andersen stated that social structure had low mutability and that health beliefs and enabling resources had high mutability with regards to behavior change. However, the studies reviewed seem to suggest that social structure may have higher mutability than Andersen indicated. If NHPI perceived respect for their culture and its healing practices and communications were made one-to-one, then health services use may increase. One study

stated that psychosocial factors were more important than English proficiency and the availability of Medicare. The respondents would rather be without healthcare if no respect was shown. Other studies reviewed for NHPI also emphasized one-to-one communications and respect for elders and culture would encourage use of health services.

Of the studies reviewed, it is clear that enabling resources such as language translation and medical translation services increase use of health services. It is likely, however, that enabling resources also encouraged the use of one-to-one communications and that process also supported the use of health services. However, if no respect for the respondent or the culture is shown, will they use the health services? One study suggests they may not use the health services.

Also, if one-to-one communications is the preferred method of encouraging use of health services, what would be the effect of public health education campaigns that use massive communication mechanisms? One study suggested the community still needs to be involved. The use of community health workers might be needed to build awareness.

Limitations

The limitations to this review are that there were very few studies to assess. Also, the key terms such as health services use or utilization may have limited the number of studies found and perhaps studies for specific use of services such as emergency services may have identified more studies for assessment. The quality of the studies was limited by the assumption that the observations of one particular sub-group would represent the larger populations. For example, the Dang study should have recruited other Pacific Islander groups besides Tongan women to assess and compare. It was also sometimes unclear as to what was

being assessed when focus groups were conducted to provide more insight as to health beliefs. For example, Native Hawaiian elders and Native Hawaiian men felt embarrassed or “shamed” when visiting a provider. In one study it was not clear whether their medical problem was embarrassing or that they felt the provider did not show respect.

CHAPTER IV: RESEARCH METHODS

This study used qualitative research methods to capture the health beliefs and enabling resources that influenced the use of health services by specific sub-groups of the NHPI, more specifically, Native Hawaiians, Samoans, Marshallese, Chuukese, Pohnpeians, and Fijians. Qualitative research methods allow for more depth and insight than a quantitative approach when capturing complex human behavior and cultural phenomena about populations that have not been extensively studied (Creswell, 2009). The goal of qualitative research is to “understand” the population rather than to quantify the impact of variables or the relationships between variables. In this case, the specific methodology used was the gathering of subjective data by semi-structured key informant interviews complemented by objective data gathered through document and non-peer reviewed work particularly by health care providers.

Sample. A purposeful sample of 25 key informants was chosen and included respondents who were 18 years and older and either had specialized knowledge or experience related to the utilization of health services and resources associated with utilization. For planning purposes, the sampling plan sought to recruit *approximately* three to four members from each of seven key stakeholder groups. Individuals from these groups were interviewed until a point of “theoretical saturation” (Patton, 2002) was reached, or when the information

collected became redundant for each stakeholder group. If saturation was not reached after four interviews for a stakeholder group, the sample size would have been adjusted.

The cultural stakeholder groups chosen for this study were based on the recent 2010 Census which indicated there were substantial numbers of Native Hawaiians, Samoans, Marshallese, and Chuukese living in the State of Hawai`i. While there were approximately only 300 individuals who were 100 percent Fijians living in the State, the Fijians were the largest sub-group from the Melanesian population. Pohnpeians were added to the study because initial attempts to recruit Marshallese were difficult and didn't appear likely. Later, a cultural club was identified which led to Marshallese participants. Only individuals who self-identified themselves as part or full Native Hawaiian, Samoan, Marshallese, Chuukese, Pohnpeian, and Fijian were included in this study. Non-U.S. citizens, immigrant, or migrants were included in this study. Cultural stakeholder groups were recruited from churches located in communities with high NHPI populations or specific cultural clubs. The sample did not include all sub-groups which are considered part of the Polynesian, Micronesian, and Melanesian populations because not all sub-groups live in the State of Hawai`i and it was logistically impossible to recruit individuals representing all sub-groups (please see Appendix F).

The seven stakeholder groups or sample included:

1. Health care providers (4) who provide health care services to primarily Native Hawaiians and Pacific Islanders (NHPI). Health care providers may include physicians who work in community health centers and public health nurses from the Hawai`i State Department of Health
2. Native Hawaiians (4)

3. Samoans (3)
4. Marshallese (4)
5. Chuukese (4)
6. Pohnpeians (3); and
7. Fijians (3)

Data collection. Data were collected on health beliefs and enabling resources that may influence the use of health care services by the NHPI population. Data were collected from the seven stakeholder groups through individual semi-structured interviews. Individual semi-structured interviews were conducted because interview questions may elicit personal and sensitive information. Source documents were also used to corroborate findings from the individual semi-structured interviews. Source documents included local newspaper articles about NHPI or any public documents obtained from the study sites or identified through interviews. Study sites or interview setting documents may include pamphlets, meeting minutes, research reports or data collected and analyzed by health care providers that may be relevant to the research questions.

To recruit health care providers, the principal investigator (PI) made direct contact with the Chief Executive Officer of the Hawai'i Primary Care Association (organization that represents the community health centers across the state) or the appropriate administrative staff of hospitals that served substantial numbers of the NHPI population. The PI introduced the study and study procedures in general terms and asked for permission to contact and interview providers. The PI then contacted the providers, by phone or email, to introduce the study and study procedures in general terms and asked if the providers would like to

participate. The Public Health Nursing Branch for the State of Hawai'i Department of Health was contacted to help identify and recruit public health nurses working with the NHPI population. Once potential respondents were identified, the PI either called or emailed to establish a time and place to provide detailed information about the study, obtain permissions and conduct the interviews.

The headquarters of several church denominations and cultural organizations were contacted directly by the PI for referrals to churches or upcoming cultural organization meetings to recruit members of the cultural stakeholder groups identified for this study. The PI contacted the pastor of the church or president of the cultural organization, introduced the study as well as study procedures, and finally, asked for their assistance in recruiting subjects for the study as well as identifying an interview site. The PI was advised to attend church services or cultural organization meetings, recruit and interview subjects after the church service or meeting.

At the time of the interview, the respondents were told:

1. The purpose of the research
2. What was expected and the time required for participation
3. The expected risks and benefits
4. Participation was voluntary and the respondent could withdraw at any time
5. The interview was confidential
6. The PI and Dissertation Chair contact information (see Appendix G).

The PI reviewed and provided copies of the questions, the consent form and confidentiality procedures, allowed time for review and questions, and then asked permission to record the

session. All the respondents who volunteered were literate and declined certified language translators.

While recording each individual stakeholder interview, expanded interview notes were taken to remind the PI which questions would require further clarification, and to identify and describe relevant contextual details. Within 24 hours of conducting the interview, the interview notes were expanded further to fully capture the contents of the interview by writing a descriptive narrative of what happened and what was learned. The PI summarized and verified comments made by the stakeholder at the end of each interview. The PI attempted to distinguish within the descriptive narrative what was considered an objective observation versus the PI's personal interpretation and comments.

To ensure validity and reliability, data were triangulated with other data sources. The stakeholder interview guide for the health care providers and the NHPI stakeholder groups were pilot-tested to ensure that the questions were understood. Specifically, this was done by reviewing the questions with a member of each stakeholder group except the Pohnpeian stakeholder group because the Pohnpeians were added midway through the data collection process. It should be noted that the reviewers for the NHPI stakeholder groups were also certified language translators or cultural specialists. Particular attention was paid to the "languaculture"⁵ of each stakeholder group (Patton, 2002). Unfortunately, no external auditor was available to audit this study.

⁵ "Using words that make sense to the interviewee, words that reflect the respondent's worldview, will improve the quality of the data obtained during the interview. Without sensitivity to the impact of particular words on the person being interviewed, an answer may make no sense at all—or there may be no answer."

Data management plan. Prior to data collection, an archival data management procedure was established. For example, all materials collected at the stakeholder interview site or correspondence related to the data collection event (e.g. tape recording, written notes, consent forms) was placed in a pre-prepared, archival envelope with a non-identifying archival number corresponding to an archival log. All materials placed in the archival envelope were marked with the archival number and an archival information sheet was prepared to be placed in the envelope. The archival information sheet included such items as the date of interview, list of materials in the archival envelope, and names of the corresponding computer files. Finally, a color code label was attached outside the archival envelope to identify the stakeholder group. Once each interview was completed, all archival envelopes were stored in a secured, locked cabinet in the PI's home.

Many of the interview tapes were not transcribed within two weeks of the interview because both transcriptionists hired had difficulty transcribing the tapes. Many of the interviews were conducted before, during, or after church services outside the church and the tapes included background noise such as the wind and traffic of nearby streets. Or, sometimes the respondent had children present who also either spoke or made playful noise. The foreign accents of many of the respondents also made it difficult to understand and the PI ended up re-transcribing or transcribing several tapes returned by the transcriptionists. Once the transcriptions were completed, the expanded interview notes, transcriptions, and any documentation collected was organized and prepared for analysis.

DATA ANALYSIS

Data collection and data analysis were carried out simultaneously. As the expanded interview notes and transcriptions were completed, the data were entered into the CDC EZ-Text⁶ for organization and management. CDC EZ-Text is a basic software program designed to help create, manage and analyze semi-structured qualitative databases. It is capable of exporting data in many different formats to other software programs for further analyses if needed. Initially, the data were read for general themes following the question structure of the stakeholder interviews. A second, more detailed reading was made after all the data were collected. The detailed reading then utilized a combination of predetermined and emerging coding schemes. The predetermined coding scheme was based on the Andersen Health Behavior Model and literature review findings (e.g. ethnicity, health beliefs, enabling resources, use of health services, social structure). The emerging coding themes were based on concepts that surfaced unexpectedly and were not anticipated at the start of the study.

The coding process generated a profile of each stakeholder group as well as themes or categories reflective of each stakeholder group. For example, the description of the stakeholder groups included the perceptions and experiences of working with NHPI by the health care provider stakeholder group as well as the perceptions and experiences of the NHPI in utilizing health care services. Each emergent theme or category was initially categorized as suggested by the Andersen Health Behavior Model, its consistency with literature review findings, and similarities and differences between the perceptions and experiences of health care providers and the NHPI.

⁶ <http://www.cdc.gov/hiv/topics/surveillance/resources/software/ez-text/index.htm>

Limitations

This study tried to reduce limitations found in the literature review by sampling and comparing sub-groups that are representative of the NHPI population. Nonetheless, despite the best efforts, the respondents recruited may still not be truly representative of their sub-groups.

The study method was carefully structured to gather data that clearly measured what are health beliefs and enabling resources and whether it will improve the use of health services. While data on social structure was not specifically collected, particular effort was made to differentiate it from health beliefs if it surfaced in data collection efforts.

During data collection efforts, another sub-group from the NHPI was added to the study. Initial efforts to recruit Marshallese respondents were very difficult and did not look likely in the middle of fieldwork. During a call to one of the churches, one Pastor suggested interviewing the church members who were from the Pohnpeian community. The interview questions were not pilot-tested with anyone from the Pohnpeian community.

Also, during data collection efforts, a physician respondent indicated that there were different levels of prevention care (i.e. primary, secondary, and tertiary) and was unclear as how to respond to one of the survey questions. Prevention for purposes of this study, was based on the definition of preventive health care as found in the U.S. National Library of Medicine⁷ which may blur the definitions in the different levels of prevention care. Preventive health care promotes a relationship with the health care provider to discuss diet and lifestyle changes to prevent future disease risks or when to recognize changes in the body that require

⁷ <https://www.nlm.nih.gov/medlineplus/ency/article/001921.htm>

seeing a health care provider. It also includes several screenings such as blood pressure, blood sugar, cholesterol, bone density and colon cancer.

This study also planned to use an external auditor to further “verify the rigor of the field work and the confirmability of the data collected to minimize bias, maximize accuracy,” and ensure that findings were reported impartially (Patton, 2002) but was unable to locate an auditor locally with appropriate experience.

CHAPTER V: FINDINGS

Defining Healthy

One of the first questions asked about health beliefs was how do the NHPI define “healthy?” The NHPI had a range of answers when defining “healthy” (Figure 1). The majority of NHPI defined “healthy” as “eating right.” They associated health with food and nutrition. The second most popular answer was having the ability to function, or to manage one’s everyday activities. Other less frequent answers included exercise and spirituality.

Figure 1. How the NHPI Define Healthy



When asked about how they maintain their health or “take care” of themselves to be healthy, their answers were similar to their definition of “healthy” which was to “eat right, exercise, and get rest” If the respondent had a chronic disease, they would add, “taking medication” and/or “seeing the doctor.”

Chuukese “...Some food we thought it’s healthy but the doctor said they found out that’s it’s mostly the food we like, it’s starchy like breadfruit and tapioca....sometimes its good but it causes sickness...”

Fijian “How you live every day. You have a healthy meal, healthy mind, healthy living it’s the way of your lifestyle. By eating the right food, doing exercises, and always try to do things that keep you in good shape, physically and mentally. In Fiji, we have our own culture...We eat from our garden, fresh food from the garden every day. ..we eat fresh fish because there is a lot of fish where I come from...”

Samoan “Being able to get up from bed in the morning without too much ailments, going through the day without having a pocket full of pills to take... The Samoan still needs to learn how to eat (fruits and vegetables.) I see Samoans in the market and you don’t see them with lots of vegetables in their carts. They’ll use vegetables...say salad...they will take carrots and put it in the food...like chop suey... not by itself....They won’t eat like in a salad.”

Hawaiian “For me, myself, eating the right foods and taking care of your body. What you eat is what your body takes in and out.”

Hawaiian “Being healthy is being able to perform my responsibility as a mother, wife, and your part in society. Knowing that your na`au is well....the na`au means the spirit or the soul within you. “

Pohnpeian “Healthy for us is eating the right food and going to see doctors.”

Marshallese “Being healthy is being able to do stuff, eating food that is good for your body. Being able to eat from the fruits of the land, like everything that you grow...Here is different. Because we don’t grow, most of the Marshallese here live in apartments and they don’t have the luxury to grow, so being healthy here...just eating what they think is healthy.”

Some of the NHPI emphasized the ability to be strong.

Chuukese “Healthy people are happy to farm, to fish, and they grow all kinds of different healthy food. And we can tell just by looking at them...There is a saying in our language, food is our bones, because if we eat good food we are strong...”

Fijian “Strong physically. No sickness. ”

Samoan “The bigger you are the healthier you are.”

When the providers were asked how they thought NHPI would define healthy or how NHPI would maintain their health, there also was a myriad of answers. The answers ranged

from “lack of disease or nothing wrong with you to eating right or having food not “tainted by radiation” to being “happy” or “being functional”.

Prevention Not Understood

Before interviewing any NHPI respondents, certified language translators and cultural specialists reviewed the study interview questions. They did not think that the NHPI would understand the word “prevention.” For example, one certified language translator suggested that the NHPI be asked “how do you prevent sickness” rather than use “in terms of maintaining your health, how do you define prevention?” In fact, words or phrases, such as “maintain health”, “health outcomes” or “prevention” that are tossed about in the media and used daily by practitioners in the health field, was found to not be commonly understood or used “terms” in the everyday lives of the NHPI.

As anticipated, NHPI did not typically associate “prevention” with achieving good health even after revisions were made to the interview questions. Some of the NHPI had trouble with the use of the word “prevent” associated with the word “sickness”. If the NHPI was an immigrant and English was their second language, they did not understand the word “prevent” at all. A Samoan respondent, who was bilingual and could speak both English and Samoan well, pointed to an English-Samoan Dictionary after the interview and said the word “prevent” was not associated with health.

Table 1. How the NHPI Define Prevention

How Prevention is Defined	NHPI
Eat right	Most
Exercise	Most
Practice good hygiene	Most
Get Rest/Sleep	Some
Use prevention services: shots & screenings	None

For the other NHPI who understood the use of the word “prevent”, most repeated the mantra of “eat well, exercise, and get sleep” (Table 1). Or, they practiced good hygiene such as “washing hands”, “keeping a clean house”, and “staying away from people who are sick”. None of NHPI stated they visited their provider to keep them well and prevent sickness unless prompted by further questioning.

Chuukese “To prevent sickness, you gotta do exercise, you gotta do work...choose different food to eat, every food is good for us but some food you cannot eat too much.”

Fijian “I prevent sickness by staying healthy. Eating right, sleeping enough...sometimes you get sick by being in places....I would avoid it if I can....someone can pass you their friendly virus...”

Samoaan “I try to stay healthy by eating the right things....get enough sleep, rest and eat the right things. Exercise to keep yourself healthy.”

Hawaiian “ I wash my hands, and I make sure everyone in the house wash their hands...”

Pohnpeian “Wash hands, keeping it clean, the house....have a clean house...that the dishes are washed....the house you know is wiped down...”

Marshallese “I need my husband to help me understand (the question)...”

Marshallese “Cleanliness...cleaning after myself, others and whoever I interact with, when it comes to work or even picking up after people.”

Most of the providers interviewed also verified that the NHPI did not understand the concept of “prevention.”

As one physician put it, “I think prevention is not the key word. I think it’s more if you’re sick, you go...There are more people today that are aware of prevention than there were 20 years ago. ..If they really understood prevention, I think they would come in.”

One of the nurses stated, “They need a lot of education. A lot of them, their health, unless something is wrong, then they will think about health. But as long as they can do whatever they can do during the day, they don’t think about anything else.”

There was ambiguity and disagreement in the provider interviews as to whether “health screenings” was considered a health service to prevent disease. One provider said that NHPI would view health screenings as “tests” and another provider simply would not include “health screenings” as part of the prevention of disease. This provider asked, “Is screening prevention? I don’t know, the way I see it there is a clear distinct difference. Prevention would be more like taking the flu or tetanus shot.”

Limited Health Resources Back Home

Except for the Native Hawaiians, most of the Pacific Islanders came from countries, or islands, that generally did not have a health care system as defined in the United States. Asking about the health care system back home confused the Pacific Islanders. One of the certified language translators who reviewed the questions correctly predicted that the Pacific Islanders would understand the word “hospital” rather than health care system. Most of the Pacific Islanders came from islands that only had one major hospital and services were generally free in cost. The majority of the Pacific Islanders viewed the hospitals in the United States better than the hospitals back home. The Samoan participants would joke that the hospital back

home was a “place to die”. This joke was made not because they feared going to the hospital but because the care in the hospital was viewed inadequate.

The Fijians interviewed reported having both a private and public hospital system. Some Fijians may travel back to Fiji for health care because it was cheaper in costs, particularly dental care. Several of the Pacific Islanders stated that doctors trained in Fiji were working in Micronesia and Samoa.

The providers interviewed were generally not familiar with the health resources of Micronesia, Samoa, and Fiji.

Chuukese “No health care back home on the island. Sometimes only herbs. No emergency room. When have emergency, need to go to other island. Only hospital.”

Chuukese “We don’t have health care back home. Nothing. We have only one hospital. Its good but it’s really funny. We don’t have health insurance but yet we can stay.”

Fijian “Back home we don’t have such. You just go to the local hospital of where you live...I worked for a telecommunications company in Fiji and we had our own health insurance...People who live in the village don’t have health insurance. They sick, they go to the hospital. Sometimes they don’t go to the hospital, they use the herbal medicine, they cured, and that’s it. The hospital has a fee. Before it was free. They pay 50 cents or 1 dollar Fijian. No longer free because now they need the money.”

Samoaan “They had the main hospital, and then public health clinics. We’d go get our regular shots there...They don’t have U.S. doctors like they used to...They get doctors wherever they can get them at a cheap price. It’s socialized medicine...there is a co-pay of about 10 dollars and even that lot of people can’t pay that...The hospitals...do some surgery...it’s a place to die...it’s a joke because it’s so bad there....”

Pohnpeian “There is only one hospital. Pohnpei is only one island. There are outer islands and they have to come to the main island because there are no doctors...”

Marshallese “We only have one hospital back home and it’s the center of the whole island. You go there. There is no small clinics near your house. All the nurses and doctors are in that building.”

Cultural Medicines and Traditions Preferred

All of the NHPI stated that they preferred their cultural medicines and traditions before using Western medicines, if prescribed (Table 2). Some believed Western medicine can cause “sickness” or that if Western medicine is used for a long period then the “sickness” will stay and there will be no cure. Often when these statements were made, it appeared like the respondents had actually observed the effect and the use of the Western medication themselves or by a family member or of someone they knew. For example, if the respondent himself/herself had a chronic disease, that respondent appeared to be on several medications that affected how well they felt on a daily basis. Also, when some of the respondents described their health system back home, it appears that Western medications may have been prescribed or administered without the same oversight found in the United States. They might have witnessed more episodes of adverse or side effects of the Western medications administered back home.

The use of cultural medicines and practices might also be particularly stronger amongst the Pacific Islanders because that was their way of life prior to migration or immigration. Back home, they had to survive on cultural medicines and practices because hospitals were not easily accessible. Depending on the diagnosis, these cultural medicines and practices have also proven to be safe and effective over a lifetime of many generations. Some Native Hawaiians have adapted to Western medicine but cultural medicines and practices are still strong as several Federal Qualified Health Centers also offer Native Hawaiian healing services to encourage the Native Hawaiians to utilize Western health services too.

Chuukese “For me sometimes it (Western medicine) helps you but most of the time it’s not helping, it’s killing you. You know, I go to school, my teacher tell me when you take too much medication, it will kill

the cells in your body...and when you move around you are going to be weak of moving around because some of the cells in you...you don't know that the medication that you take is drugs. They made it all from drugs... Or drugs made from medication... So I tell my dad, if you take the medication and you feel okay, you go with it. But if you feel weak after you take it, maybe you should stop...Back home, I come from an island no more hospital, they do herbs first, and then they go to hospital for help..."

Chuukese "Sometimes people here listen to their parents. Their parents back home knew things or understand such as the prevention of our health. They tell us maybe you take too much medicine here because back home you don't have hypertension, you don't have heart attack, some kind of sickness. And you getting fat. But here, you're really big, so sometimes they tell us not to take too much medicine or you will get weak. For me I enjoy taking medicine for my heart, but other parts in the body feel different. I am uncomfortable. I worry about medication."

Fijian "My culture...we do not, most of the time don't believe in this type of medication, at home we have our own herbal medications. We were brought up that way and always believed that's the best....That's how our great, great ancestors have survived and we have witnessed that...the amount (Western medication), of things going in your body, constantly, and you just don't know how much is going in. So sometimes it's not really good to take too many medications because your body can only take such..."

Samoaan "Too much chemicals. I would like to see something that's more natural-based (like herbs). The culture prefers what they know (Samoaan medication), rather than use the (Western) medication."

Hawaiian "From the Hawaiian culture, most Hawaiians they go see a doctor if they are really sick and the remedies that they are familiar at home no work. Remedies from local, from the culture, but you know, for instance, a Hawaiian person has congestion, chest congestion and you are hacking. The Hawaiian use the popolo plant, the berry plant, the leaf they crush it out and it suppose to take out all the flem from their chest. And if that don't work then they go to the doctor. "

Pohnpeian "My husband takes it (Western medication) regularly. He has stroke, he had stroke before. ..He tried the part to take it and stop, so when you stop for six months, another stroke came back, a mild stroke. So I myself think that taking medication is needed for him...he keep thinking the way long time ago people. Like you know, it's the medication that, if you're taking it, then the sick will stay you know... the (Pohnpeian culture) don't believe in it...there's no American over there, like the missionaries...they tried to introduce but they don't like because they have their own local medication. They found their own leaves..."

Marshallese "Depends on what kinds of sickness you have...Taking repetitively is good it will cure but then there something that might happen to the body. I barely take medication. If I were to take medication, I wouldn't use it as much. ...if I had a broken leg, and they give me morphine or some strong medication so I wouldn't feel it then I probably wouldn't take it. I would seek other ways to take care of my body using cultural medicines."

According to all of the providers, the main reason the NHPI do not take their medications is because they do not have money to purchase the medications. However, the NHPI rarely spoke about the cost of the medications nor did they speak about the cost of their

cultural remedies. The providers are aware of the cultural medicines and practices but only one of the providers mentioned the use of cultural medicines before Western medications. The providers also expressed concern that the NHPI would stop taking the medications because they suffered a side effect or just felt better.

One of the providers wanted to note that the lack of medication compliance is not unique to the NHPI, that all of Western world have problem with medication compliance. However, the provider did not mention the reason for lack of medication compliance in the Western world. With the growing trend of choosing organically grown food, perhaps a large percentage of the Western world is choosing to use home remedies or “alternative” medicine like the NHPI.

The provider stated, “Because most people in the Western world don’t take their medicines. Studies have been done over and over again as to why medications don’t work and most often it is because people don’t take them.”

Providers Cure and Educate

Like the majority of Americans, the NHPI generally visit the providers when they are sick. NHPI view the health care system as a sick care system. NHPI expect to be “cured” when they visit a provider or as one respondent stated, “that the sickness is no more” (Table 2). A Chuukese father had a daughter diagnosed with cancer. The physician who made the diagnosis left the Federal Qualified Health Center. The daughter was in pain and the father took his daughter to an emergency room for help. The physicians there sent her home with pain pills. This was not enough for the father and daughter. The father took his daughter to another emergency room and again the daughter was prescribed pain pills. The father took his

daughter to a couple more emergency rooms until a physician agreed to take care of his daughter. It was this physician that broke the news to the father that the cancer was “all over” and that his daughter was dying.

“One week I went to all different hospital (emergency). People on the ambulance said maybe you can try that one or did you go yet. Yes, I did, same thing. Finally they said let’s go to (one of the hospitals). They tested her and I was praying, God please help touch their hearts and the doctor said okay...”

For some of the NHPI, it is also difficult to understand that they have a “chronic” disease and that they are not “cured”. As mentioned earlier, the husband of one of the Pohnpeian respondents had a couple of strokes before both he and his wife realized that he could not be “cured” and would have to take “pills” for the rest of his life. Another Marshallese respondent stated she did not need her pills because she no longer had diabetes.

Table 2. How NHPI View Doctor Visits and Using Western Medications

<p>Doctor Visit: Expecting a Cure</p> <ul style="list-style-type: none"> • "To be healed" • "That the sickness is no more" • "They should have an answer or a solution" • "I don't return when they cannot find anything" 	<p>Doctor Visit: Expecting Guidance and Advice</p> <ul style="list-style-type: none"> • "You learn different things; how to take care of your family" • "You tell me what's wrong...what I need to do to change it or fix it" 	<p>Using Western Medication: Proceed With Caution</p> <ul style="list-style-type: none"> • "Too much chemicals..the culture prefers what they know" • "Will make you weak" • "If you keep using the medication, "the sickness will stay"
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The NHPI expect the provider to “educate” them. Visiting the provider is an opportunity to learn about their health or how to take care of their health. A Samoan mother diagnosed

with diabetes expressed frustration with her provider because she did not know how she would maintain a special diet for herself and make a separate meal for the rest of her family. She said, "It's much easier said than done...we have three younger boys...then you look at the prices of some of the stuff you know they're saying to consider to eat. It's pricey! ...it was already bad enough that I have to make one whole meal for a lot of people. Now I have to make their meal and make my own meal."

The following are comments of the NHPI expectations when visiting a doctor:

Chuukese "...to get healed. I expect that my doctor that this medicine to prevent your sickness or stop the kind of sickness....When they refer us to the hospital we expect that the sickness is no more."

Chuukese "I expect that I am going to be cured. I expect the doctor to give me result of what my problem is. Help me out to get the right medicine and therapy and treatment like that."

Fijian "I expect them to know my case if they have treated before and they know what to give me to help me or advise me of things."

Samoaan "Well my expectation is they have the answer. That's my expectation that they're educated being they know what they're supposed to do and they should have an answer or a solution... when I go in and the doctors say 'oh you know we don't know what's going on'...or when it's always the 'might be' something, but they don't have the answer or a solution to how it can be handled. So that's when I don't like hospitals.'"

Hawaiian "You tell me what's wrong. At least know from what I am telling them or what they see that they know what is wrong or what I need to do to change it or fix it."

Pohnpeian "Nowadays that I learn a lot, because I take people, I take my kids, and now my oldest son is 28 and my expectation is like, I kind of know what they will give. If they have this coughing thing I already know what they will give them, so instead of me buying upfront, they will prescribe it. So I like going doctors and learning, cause every year, or every time you visit them you learn different things, how to take care of your family."

Marshallese "He will make me healthy if I take all the medicine that that he told me to take."

All the providers acknowledge that the NHPI view the health care system as a sick care system. As one provider stated: "They'll come in when they don't feel good. Rarely anybody comes in for just a checkup. They will come in because they have a problem, a complaint.

Backache or headache or stomachache. Something that will bring them in. Or they will go to

the emergency room. Lots of times they figured out if they go to the emergency room they will get help even if they don't have insurance they won't be turned away." All the providers also use their visits with the NHPI as opportunities to provide guidance and education about health.

Trusted Providers

NHPI will make a return visit or travel miles if they must to follow a trusted provider. When asked what they liked about health care services, most NHPI will always talk about how the provider takes care of them and their family. A young Marshallese mother did not like working with medical residents during one of her visits. She wanted a doctor who understood her and could develop a relationship. A Pohnpeian father spoke how his wife's OB/GYN moved to another town but his family makes the trek to keep their appointments with the OB/GYN because she takes good care of his family. Micronesians will travel miles to a Federal Qualified Health Center to visit with staff that speak their language and understand their culture and help them navigate the system. Native Hawaiians like to "talk story" and also have a relationship with their provider. As mentioned earlier, some Federal Qualified Health Centers that serve a large Native Hawaiian population offer Native Hawaiian cultural healing services to draw the Native Hawaiians to use the other Western health services. The Fijian respondents all had a regular primary care physician that they visited regularly.

The following are comments made when describing visits to the doctor:

Marshallese "I love her doctor (daughter's pediatrician)....She connects, I guess she is also a mother....You can relate to her. Just by the way she treats and helps her (daughter) and you can tell that she cares and that she wants better health for my daughter."

Pohnpeian "My family, we're happy. Our kids are with another doctor, a lady, since they are born, her practice is (in another town), we don't mind driving there because she's there for us every day. She came when mom is in labor, she there, the baby came out, and checked everything from the day the baby born until today. I am more than lucky. I am being blessed."

Nurse “Well in my geographical area, different. They don’t go to the doctor out (in her geographical area)...If they go doctor, they go to (another geographical area). And not until recently did I realize in talking with a couple of Micronesians, people that were visiting. (I asked) Why you go so far? Because they have a translator.”

Samoan “ I like my doctor cuz she’s on the up and up....she’s not the one that says ‘oh I’m really sorry,’ you know like since I’ve had my diabetes and I’ve had to change medication. Well she says ‘you know what here’s the deal, you know you’re gonna have to want to live or die.’ And so in other words, I like my doctor cuz she’s up and up, she doesn’t go around the bush and you know try and make me feel better and then give me the jolt later. So I like that she’s up front with me. And honesty whether it’s good news or bad news.”

Hawaiian “Part of it is culture. When Hawaiian people go to see the doctor they need to know the doctor. You have to build a sense of trust. When Hawaiian people go see the doctor they don’t know if they going trust the doctor unless they get to know the doctor.”

All providers were well aware that they need to develop relationships with the NHPI.

How they described the relationship to be established with the NHPI was different. Two providers spoke about the types of enabling services they offered the NHPI. The other two providers spoke about establishing a “connection” with the NHPI.

Physician “We drag them in for prevention. That’s our motto, that’s why the enabling service and health, we go out and get them...Well we pursue then first of all and we have transportation. But physically we have ways of doing that. The other way is by calling them up, finding out where they are, what they are doing, why they haven’t come in, we can’t force them. But at least we can explain and spend a little more time.”

Physician “That’s if I’ve established a relationship, if I’ve ever connected with them. And that is something I think a physician can do because you know patients can tell when we care. I mean thinking of yourself if you go see a doctor, you can kind of intuitively know if somebody cares about you or not. Yeah, it’s that whole looking in your eyes, sitting down and the words they say. Even if they scold, but if it’s done in a caring way saying ‘you know, the smoking is not good for you.’ It’s cancer, heart disease. It would be good to quit. Can we talk about that? ...If I was at the Appalachians I would think something suggests universal..”

Balancing Work, Home, and the Household Budget

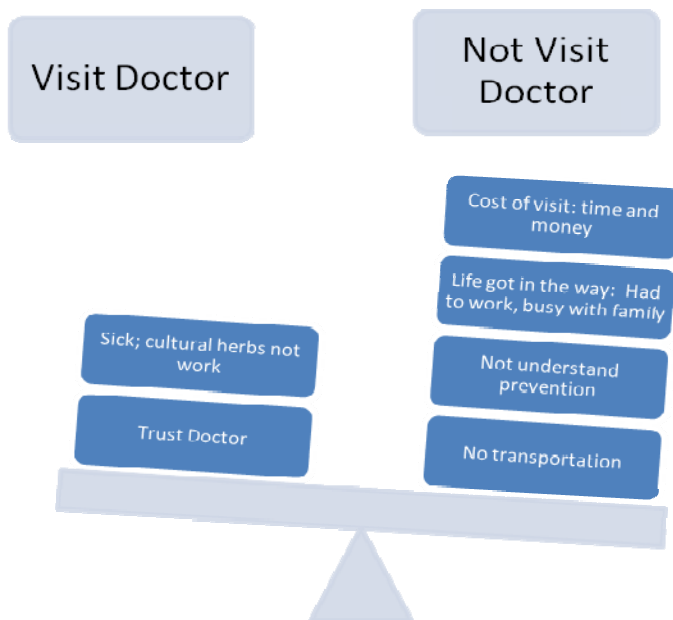
NHPI have to balance their life and manage work and home. The major reason why NHPI missed a scheduled doctor’s appointment was because they were too busy and they

forgot or they had to work or they had no transportation. The providers' answers were similar or as one provider put it "life gets in the way" (Figure 2).

While "life gets in the way," none of the providers mentioned how prospective patients, if working, have to take several hours of leave from work to not miss a scheduled doctor's appointment that might have been made several months prior. A few of the NHPI complained about the long "wait" times as what they disliked about visiting the doctor.

NHPI also balance their lives by managing the household budget. Health care for the NHPI is a variable expense in the household budget. NHPI stated that doctor visits are costly and they didn't want to spend their money and time if they knew the doctor would not tell them anything different from previous visits. They would rather spend the money and time for purposes they found more useful for themselves or their family.

Figure 2. Reasons to Use or Not Use Health Care Services



One of the providers said there were no cultural differences between the NHPI. The provider continued to say that if culture prevents the NHPI from using health services, it would be the culture of poverty. The other providers said the NHPI missed doctor's appointments because life got busy and they forgot or they couldn't afford to pay for health services.

The statements made by the respondents did not necessarily reflect a culture of poverty⁸. The NHPI are just trying to manage work, home, and live within their household budget. Some of the respondents interviewed for this study may have met the U.S. poverty guidelines but the majority came from a range of social-economic and educational backgrounds. Some were working either white or blue-collared jobs, retired, unemployed, recently immigrated, born in the U.S. but parents immigrated or migrated from one of the Pacific, did not complete high school, completed high school, serving in the U.S. military, or were college graduates.

The following are comments about how they manage their lives and their budgets:

Fijian "For me, even here, when I came here, totally different environment, but still the concern is money. You cannot do this, cannot do that if you don't have enough money to pay for that. You cannot go to the doctor, you cannot join in a group for insurance for healthcare because you don't have the money (she is self-employed). I am not a member of any health insurance. I go to the doctor paying in cash all the time. And I have my own doctor, I visit my doctor when I am sick. I usually visit her every six months if I don't have any problem. ..I see it (insurance) as a waste of money. It's cheaper to pay as you go. Why should I use so much money I only visit the doctor once or twice but everything I pay monthly or whatever. "

Hawaiian "I have coverage with Medicare, my co-insurance carrier is (private insurance). However it's limited for drugs, this how much you used, it's October/November, no more...yada..yada. I panicked, I couldn't afford to finish out the year...I don't have pocket money to cover all my medicines....She (the doctor) wanted me to change the medication because the diarrhea had resumed...she is thinking it's the medication. There is another form of the medication that she would like me to start. So I told my doctor,

⁸ Sustained poverty generates a set of cultural attitudes, beliefs, values, and practices, and that this culture of poverty would tend to perpetuate itself over time even if the structural conditions that originally gave rise to it were to change (Small et. al., 2010).

I have a supply of this medication at home. If you don't mind I would just like to use it up. I want to get its money's worth out of that. I don't care about the side effect. In my predicament, I have to manage my money (he is retired and has a quota of the use of medications under his health plan). I do what I gotta do in the cheapest way...she gave me samples of something else. Like old food in the icebox, you try to eat the old stuff first before throwing it away and try your best. "

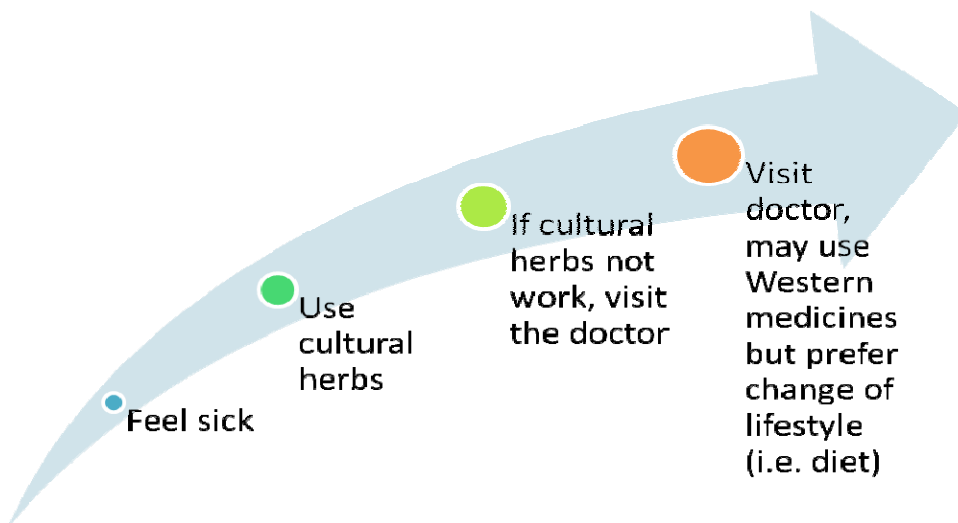
Chuukese "I don't return when they cannot find anything (he had a back injury.) Why waste my money to go and see the doctor and pay them for nothing...What the use of spending my money or the insurance. It's not worth it. I want to spend on something that is worth it...I stopped working because of my injury.If I catch the bus, I am going to be late because of all the different kinds of stop. If I get there late, I go over there, you late, make reschedule, the money wasted. I got to pay for that, then I got to make another payment for that so I need (money) for the treatment I suppose to have. They bill me after through my employment on my job. Since I don't have job anymore, because I stopped, I no more money to pay after for my billing."

Health Beliefs Most Important

The health beliefs of NHPI appear to be the strongest predictor for use of health care services in the Andersen Behavioral Model. The NHPI's individual cultural medicines and practices and past observed experiences with the Western health care system were embedded in their attitudes, values, and knowledge and that influenced their subsequent perceptions of need and use of health care services (Figure 3). Because health beliefs appear to be the strongest predictor of use of health care services, then this, according to Andersen, would lead to inequitable access to health care services.

Except for long wait times and transportation, the NHPI hardly mentioned other enabling resources such as health insurance. However, the community and personal enabling services must still be present for use to take place. Every NHPI interviewed for this study appeared to have the means and know-how on how to get services and make use of them.

Figure 3. Path to Utilization of Health Care Services



Perceived need rather than an evaluated (professional) need, tended to influence the NHPI to use health care services. Prevention or even the concept of early detection was not really understood or discussed. If the NHPI perceived they were sick (e.g. could not perform their daily activities) and their cultural medicines or practices did not cure their “sickness”, then they would seek health care services.

According to Andersen, health beliefs have a medium degree of mutability. It appeared that the NHPI would visit the doctor more often if they found a doctor who was trustworthy. Those who had regular visits with their doctor spoke about their doctors as though the doctor was an extended part of their family. It may be concluded that if they found a doctor who was trustworthy, then NHPI might find health care services use a worthy expense in the management of their work and home lives.

CHAPTER VI: PLAN FOR CHANGE

INTRODUCTION

This study examined the disparities in health status of the NHPI by determining which factors interact with culture and race to affect access, utilization, and outcomes of health services. Health beliefs were found to be the most influential and consequently would lead to inequitable access to health care services. This study, then, provides a better understanding of how the NHPI or their sub-groups perceive themselves and their culture and how this perception fits within Western perspectives of health services use. It will help providers work one-to-one with the NHPI population or within their sub-groups and provide guidance to health education activities when attempting to modify health beliefs and behavior. To a limited extent, improved wait times and transportation services were enabling resources mentioned by the NHPI but was not a major finding in this study. However, as mentioned earlier, community and personal enabling resources must still be present for use to take place. The finding that enabling resources must still be present will inform policymakers in both the legislative and executive branches of government that governmental resources (i.e. health insurance) are still needed to support the use of health services by the NHPI population or within their sub-groups.

Before this study can be used to help providers work one-to-one with the NHPI populations or within their sub-groups, tools must be created and adopted by all the

stakeholders to support this plan for change. John Kotter’s “Eight Steps to Transforming Your Organization” will help design and implement a plan for change that will guide providers and policy makers on how to work with the NHPI and encourage the use of primary care services and subsequently, secondary and tertiary care services. Ultimately, the increased use of health care services will lead to improve health status outcomes.

Briefly, Kotter’s eight steps (Table 3) include:

Table 3. Kotter's Eight Steps
1 Create a Sense of Urgency
2 Build a Guiding Coalition
3 Form Strategic Vision and Initiatives
4 Enlist a Volunteer Army
5 Enable Action by Removing Barriers
6 Generate Short-term Wins
7 Sustain Acceleration
8 Institute Change

Create (or build upon) the sense of urgency. There is already a sense of urgency in the community because the State of Hawai`i and Native Hawaiian advocacy groups have sought and will continue to seek federal monies to improve the health status and outcomes of Native Hawaiians. Also, it was the Native Hawaiian advocacy groups who fought to have the health status data for the NHPI distinguished from the Asian population. It is known within the NHPI and the broader community that the health status of NHPI is poor and there are disparities

when compared to other ethnic groups. Groups such as Papa Ola Lokahi are working to improve the health status of Native Hawaiians. Agencies such as the Halau Ola One-Stop Center are working with Micronesians. However, the Samoans and Fijians may or may not have a group or an organization to represent their individual voices or concerns. Nonetheless, they need to be part of the discussion. How the community responds to this urgency depends on whose voice is at the table when advocating within the community or before policymakers at the state and federal legislative levels. How these organizations approach and address the disparities may differ from the findings of this study. Their focus might be to rely more heavily on enabling resources and advocacy versus working in the clinical setting one-to-one.

Building the guiding coalition. Building the guiding coalition should be specifically strategic and start with the Hawai'i Primary Care Association because they are a coalition of the community health centers statewide and see a substantial number of NHPI patients. An alternate lead would be the State's Department of Health Office of Language Access (OLA) because they work with providers to ensure no person is denied access because of their inability to speak, read, write and understand the English language. As an employee of the State Health Planning and Development Agency (SHPDA), I cannot initiate this project on behalf of the agency because providers might feel compelled to participate because of SHPDA. This is a conflict of interest despite the fact that this initiative addresses access and use of health care services. However, I can work to bring the Hawai'i Primary Care Association and OLA together to start preliminary discussions by presenting my findings. Once I get a commitment, we can start building the guiding coalition and I can participate with the coalition. Other agencies who should be included because they were valuable sources of information throughout this study

are Papa Ola Lokahi, the Native Hawaiian Program of the Queen's Health Systems, the State Public Health Nursing Branch, and John A. Burns School of Medicine. Staff from state and federal legislative offices should be included because of the federal and state funding appropriated to support the provision of health care services to the NHPI. In addition to providers, a representative from every NHPI group to voice their concerns should also be present.

Form a strategic vision and initiatives. As the guiding coalition forms the strategic vision and initiatives, one of the initiatives should be the development of tools to help providers and community health workers bridge the health literacy or even the plain language gap but still work with each group's cultural health beliefs. OLA should be the lead for this because OLA already works with certified translators statewide. OLA can easily convene certified language translators and cultural specialists and providers from the organizations chosen to be on the guiding coalition to start this initiative. I can also work actively with this group and present some of the concerns that emerged from the data collected. The group may start with the Centers for Disease Control and Prevention plain language tools and build from there. OLA should also address the impact of Hawaiian Pidgin English as the U.S. Census Bureau declared it an official language in 2015.

The guiding coalition must then establish another initiative to develop and offer statewide trainings that also offer continuing education credits to physicians and allied health professionals. Physicians, nurses and allied health professionals have very demanding and busy schedules and are more likely to participate if they can obtain continuing education credits to maintain their licenses. Also, there is no guarantee that the subject matter (health beliefs of

the NHPI) will draw interest and offering incentives such as continuing education credits should help boost attendance. Also, this initiative should also develop a list of local conferences or trainings offered by professional associations for their membership and seek opportunities to offer this training at these local venues.

Enlist a volunteer army. Both initiatives are going to need a volunteer army to either help in the development of training tools or provide logistic support for trainings. The volunteer army should be divided into working groups for the first two initiatives and other initiatives as needed. The members of the guiding coalition can designate a person from each of their organizations to help with the work and completion of the two initiatives. Since continuing education credits will be offered for trainings, I will lead this effort as I do have familiarity with the accreditation process for continuing education credits in the State of Hawai'i.

Enable action by removing barriers. The first initiative, if not successful, will be the greatest barrier to the overall success for the plan for change. The training tools must be packaged and presented in a way that is useful and valuable and will generate its own advertising by word-of-mouth amongst the health workforce. The training tools must also be taught by individuals or myself who have the appropriate credentials that can be approved by the accreditation body such as the chief medical officer and the board of directors of a hospital or a health professional credentialing association (i.e. physicians and nurses).

Another barrier is that this study is not yet established as an evidence-based behavioral practice when working with NHPI. It should be submitted to a journal for publication. If

accepted, then this study will have more persuasive weight when designing training tools for the NHPI and hosting accredited trainings later.

Generate short-term wins. The first short-term win will be to get buy-in from the Hawai'i Primary Care Association or OLA. The second short-term win will be to get certified language translators and cultural specialists to volunteer time and work together to develop training tools to help providers work one-to-one in the clinical setting. The third short-term win is to get continuing education credits for the training tools. The final short-term win is to be invited by hospitals or health professional associations to conduct training for physicians, nurses, and allied health professionals.

Sustain acceleration. After these initiatives are completed, the guiding coalition can continue their work and sustain acceleration by examining and promoting the understanding of the diseases that most plague the NHPI such as diabetes and cancer. The first set of initiatives is to encourage the NHPI to use primary care. The second set of initiatives will address understanding secondary and tertiary care. At that point, local representatives from national non-profit organizations such as the American Cancer Society and the National Kidney Foundation can be asked to join the guiding coalition and work on specific training initiatives.

Institute change. The development of training tools and eventual hosting of trainings will ensure a culturally competent health workforce when working with the NHPI. A culturally competent workforce will deliver health care services that meet social, cultural, and linguistic needs of their patients. It will help reduce health disparities as well as improve health outcomes and quality of care.

In order to implement this plan for change, a more specific description of the resources, players, and parameters is needed to assure its successful execution.

Resources. Only a commitment by the certified language translators, cultural specialists and OLA is needed to support the development of the training tools for providers and community health workers. However, depending on which agency or hospital is granting the accreditation for the training, grant funding will be needed later for continuing education application fees. Grant funding will also be needed for logistical expenses to host the trainings such as room rental, light meals or snacks, the printing of training materials, and advertising.

A commitment by a private, non-profit such as the Hawai`i Primary Care Association is necessary to receive and manage any grant funds from foundations. Government agencies cannot receive grant funds from foundations. Finally, government funds can only be used for room rentals and print costs, but cannot be used for food and drink. A private, non-profit will have more flexibility with the use of grant funds.

The guiding coalition can seek an in-kind donation by an agency such as Papa Ola Lokahi to help with the collection and analysis of evaluation data from the trainings. Grant funding can also be sought to support the administrative costs incurred by Papa Ola Lokahi.

Players. The stakeholders would include the suggested members for the guiding coalition as well as the certified language translators and cultural specialists. Additional players would be the grant foundations (i.e. Hawai`i Medical Services Association) that are specifically committed to providing funds for projects that reduce the health disparities of the NHPI.

Parameters. Getting buy-in from the Hawai`i Primary Care Association and OLA will provide the organizational authority to institute change. Eliminating health disparities does not

occur overnight but at least both agencies have a reach statewide to start the discussion.

Undoubtedly there are some health professionals in the social environment who support the view that culture of the NHPI does not affect their use of health care services. Rather, the NHPI suffer from a “culture of poverty”. Developing a training product that provides insight and guidance about how each individual culture affects health beliefs will counter some of current societal structure and perspectives.

This plan for change (Figure 4) works with the NHPI at the ground level, in the community. It attempts to give NHPI a voice as how health and health care services are explained and delivered to them. It allows the NHPI to reconcile their culture and health beliefs with the Western practices and medicine. Finally, it is an attempt to improve their use of health services in the clinical setting. By their own participation, it gives them a voice as how we can begin to eliminate the disparities in health status of the NHPI.

Figure 4. Plan For Change



CONCLUSION

The Native Hawaiian community has long recognized the impact of cultural attitudes and beliefs on health status and outcomes. This recognition was documented in the 1985 E Ola Mau Native Hawaiians Health Needs Study Report which resulted in the Native Hawaiian Health Care Act of 1988. But despite this recognition, the Native Hawaiians, along with their Pacific Islander counterparts, still have some of the worse health status and outcomes when compared with other ethnic groups. Did providers not recognize the influence of cultural attitudes and beliefs all this time?

A major finding of this study was that health beliefs were the most influential factor in determining the NHPI's use of health services. Per Andersen, health beliefs are defined as the "attitudes, values, and knowledge that people have about health and health services." However, Andersen felt that culture was more a part of social structure and not health beliefs. But, in this study, the NHPI used their knowledge of their own cultural medicines and practices before using Western medicines and practices. While this study did not investigate the individual cultural medicines and practices for each of the NHPI, these cultural medicines and practices are part of their history, tradition, and to a large extent, a source of identity and pride for the NHPI. Culture and health beliefs, then, are one and the same.

Andersen found that inequitable access to health care occurs when social structure, health beliefs, and enabling resources determines who gets medical care. While most of the NHPI in this study had health insurance or was willing to pay for health care services as needed, it was clear that the NHPI did not understand the Western health care delivery system (i.e. prevention) and was not comfortable with the use of Western medicines and practices. Other

ethnic groups, who report better health status and outcomes, may also have cultural medicines and practices but somehow have reconciled this knowledge and become acclimated to the Western medicine and practices.

Andersen also found that health beliefs have a medium degree of mutability. The findings suggest that the NHPI would visit the doctor more often if they found a doctor who was trustworthy. The NHPI spoke about their doctor as if the doctor was an extended part of their family. They spoke about how their doctors took the time to explain and teach them about health and how to take care of their selves and their family. The findings also suggest that the NHPI would have a better understanding during doctor visits if the doctor and their staff explained concepts such as prevention and health screenings in very plain language. If they understood what prevention and health screenings were about, then they may stop viewing the health care system as a “sick care” system. They may also come to understand and realize that some of their cultural medicines and practices might not always address Western diseases and this might affect the timeliness and effectiveness of Western treatment.

Persuading the NHPI to use Western medicines, however, might be more difficult. The NHPI appears to have witnessed harm or was taught that harm might come from the use of Western medicine. Sometimes, Western medicine was associated with the word “drugs” and the danger and consequences of using “drugs”. Or, the NHPI witnessed the side effects of Western medicine and they were unable to function and perform their daily activities. They were neither cured nor healthy. Some of the NHPI said if they continued to take Western medication, the “sickness” would remain and not go away. This might occur especially if the NHPI was taking Western medication for a chronic disease and was prescribed another Western

medication to offset the side effect of the first medication (i.e. hypertension, rapid heart rate). Except for one or two respondents, none of the NHPI spoke about speaking to their doctor or a pharmacist about medication side effects or harmful interactions or help with medication management.

Finally, while improved wait times and transportation were the enabling resources mentioned in this study, it was not a major finding. However, community and personal enabling resources such as access to health insurance and translation services must still be present for use of health services to take place.

The passage and implementation of the PPACA and the onset of PCMH not only helps more individuals' access health insurance but also patient-centered care. Patient-centered care is a model that attempts to work with patients and their families and tries to understand and respect each patient's unique needs, culture, values and preferences. While PCMH may be a challenge to establish, the recognition and encouraged implementation of the patient-centered care model will hopefully encourage providers to recognize the importance of culture and health beliefs and its relationship to improvement of the NHPI's health status and outcomes.

APPENDIX A: PROVIDED KEY INFORMANT INTERVIEW GUIDE

PURPOSE OF RESEARCH STUDY

The purpose of this research study is to determine what health beliefs and enabling resources influence the use of health services by Native Hawaiians and Pacific Islanders (NHPI). NHPI have some of the poorest health access and health outcomes in the United States. NHPI is a growing population and there is very limited information about NHPI because they comprise a very small percentage of the U.S. population. Your input will help provide insight and guidance to policymakers, providers, state and county health departments on how to improve health access and outcomes for the NHPI. This research study is also critical to the completion of my dissertation requirement for my doctorate in public health at the University of North Carolina at Chapel Hill.

With your permission, I would like to record this interview. Please be assured that your participation and comments provided for this interview will be kept confidential. May I begin?

INTRODUCTION

Please tell me about you and your organization?

1. Which sub-groups within the NHPI population have you worked with? Please describe your work with the NHPI or sub-groups within the NHPI.
2. In your opinion, how well do the NHPI understand how to use Hawai'i's health care system? Please explain.

HEALTH SERVICES UTILIZATION

For each NHPI sub-group that you worked with, please describe:

1. How does the NHPI sub-group feel about health care?
2. What would make the NHPI sub-group seek health care?
3. Where does the NHPI sub-group seek health care?
4. If the physician prescribes medication for the NHPI sub-group, what would be the reasons the NHPI sub-group might not take the prescribed medication?
5. If the physician recommends that the NHPI sub-group make a return visit, what would be the reasons for not returning?
6. If you worked with several NHPI sub-groups, did you observe similarities or differences in:

What makes them seek health care?

Where they seek health care?

How they seek health care?

HEALTH BELIEFS

1. In your experience, does the NHPI sub-group have any beliefs that affect when and/or where they seek health care? Please describe for each NHPI sub-group.

How does the NHPI sub-group define “healthy?”

How does the NHPI sub-group maintain their health?

How does the NHPI sub-group define prevention?

How does the NHPI sub-group feel about the recommendation that they must visit the doctor regularly to prevent them from getting sick?

How does the NHPI sub-group feel about the recommendation that taking medications as prescribed by your doctor is important to maintaining their health?

What does the NHPI sub-group think is important to being “healthy?”

ENABLING RESOURCES

In your experience, are what enabling resources affect when and where NHPI seek health care? Enabling resources can include health insurance, translator services and transportation to health care services. Please describe for each NHPI sub-group.

CONCLUSION

Have we covered everything that you think is important? Do you have anything that you may want to add?

CLOSING

Thank you very much for speaking with me. Your comments will provide much insights and guidance to my research study.

APPENDIX B: NHPI KEY INFORMANT INTERVIEW GUIDE

PURPOSE OF RESEARCH STUDY

The purpose of this research study is to determine why Native Hawaiians and Pacific Islanders (NHPI) use health services and what resources are needed to use health services. NHPI have some of the poorest health access and health outcomes in the United States. NHPI is a growing population and there is very limited information about NHPI because they comprise a very small percentage of the U.S. population. Your input will help provide insight and guidance to policymakers, providers, and state and county health departments on how to improve health access and outcomes for the NHPI. This research study is also critical to the completion of my dissertation requirement for my doctorate in public health at the University of North Carolina at Chapel Hill.

With your permission, I would like to record this interview. Please be assured that your participation and comments provided for this interview will be kept confidential. May I begin?

INTRODUCTION

1. When you think about health care, what is the first thing that comes to mind?

What makes you seek health care services? How do you feel when seeking health care services? What are you thinking about during this time?
2. How do you obtain health care (or medical services) in Hawai`i? Please tell me about all the places that you visit to get health care. Which places do you visit most often?
3. What do you like about health care in Hawai`i? What do you not like about health care in Hawai`i?
4. If originally from another country, please tell me about how you obtained health care or medical services back home. Please tell me about all the places that you would visit to get health care when back home. Which places did you visit most often?
5. What did you like about health care back home? What did you not like about health care back home?
6. What makes health care in Hawai`i similar to health care back home? What makes it different?

HEALTH SERVICES UTILIZATION

In the past year, can you recall a time when you or a member of your family saw a doctor or other health worker?

1. What made you seek health care?
2. Where did you seek health care?
3. How did you feel about your visit? What did you like about your visit? What did you not like?
4. If your doctor asked you to return after that visit and you did not return, what would be your reasons for not returning?
5. If your doctor recommended that you take medications after that visit and you did not take the medications, what would be your reasons for not doing so?
6. Are there ways that your doctor or nurse could be more helpful to you and your family? What would you like to see happen?

HEALTH BELIEFS

1. What do think being “healthy” means?

Tell me how do you maintain your health?

In terms of maintaining your health, how do you define prevention?

How do you feel about the recommendation that you visit your doctor regularly to prevent you from becoming sick?

Sometimes we have to take medication for a long time to prevent us from becoming very sick. What do you think about that recommendation?

ENABLING RESOURCES

Are there any services or resources that would make your visit to a doctor more useful and helpful?

CONCLUSION

Have we covered everything that you think is important about health care? Do you have anything that you may want to add?

CLOSING

Thank you very much for speaking with me. Your comments will provide much insights and guidance to my research study.

APPENDIX C: SAMPLE TABLE 1

ENABLING RESOURCES	NHPI
Language Translator	Most
Transportation	Some
Health Insurance	Some
Cultural Sensitivity	Most
Regular Source of Care	Few

APPENDIX D: METHOD FOR LITERATURE REVIEW

Studies from the following databases were examined. The databases included: the Cochrane Library, MEDLINE, CINAHL, ISI Web of Knowledge, ProQuest, Social Science Citation Index, Google Scholar, ERIC, and EBSCO.

Key Words and Search Strategy. The key words searched were behavioral health model, Native Hawaiian, Pacific Islander, health beliefs, enabling services, health services use or utilization. The search strategy was as follows:

[Each population} and Andersen

[Each population]and behavioral health model

[Each population] and health beliefs and services and use

[Each population] and enabling and health and services and use

Inclusion/Exclusion criteria

Inclusion criteria. Only research specifically addressing the attitudes/beliefs, enabling services, and health service use or utilization Native Hawaiians and Pacific Islanders, including comparisons with the NHPI sub-groups or other racial groups was evaluated.

Exclusion criteria. Research assessing specific disease interventions to improve health outcomes (e.g. clinical trials, chronic disease management model) for Native Hawaiians and Pacific Islanders were excluded. Research assessing only culture but not related with use or increased use of health services was excluded. Research identifying Pacific Islanders as not Polynesian, Micronesian, and Melanesian was also excluded. No time or language limits were applied but should be noted that NHPI was only recently separated from the Asian population in 1997.

APPENDIX E: CHART OF LITERATURE REVIEW SOURCES

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Andersen	Literature Review	Asians Pacific Islanders	613 abstracts downloaded from MEDLINE database. Time frame: 1980-1994.	Codes established based on components of Behavioral Model Frequencies	Studied on specific sub-groups has decreased (17 Asians/Pacific Islanders assessed). Most studies observed were population characteristics or evaluation/clinical outcomes. Studies of perceived or consumer satisfaction few. Asians/Pacific Islanders are underrepresented in published work. Studies needed on cultural influences on health status and outcomes of healthcare system for ethnic sub-groups of Asians/Pacific Islanders.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Barr	Focus Groups	African American; Latino; Native Americans; Pacific Islanders	41 adults; patients recruited from 3 agencies that provide either social support or clinical services in the San Francisco Bay area	Used standard qualitative data analysis to develop “map of terrain” of respondent’s experiences and perceptions relating to characteristics of patients healthcare organization encounters that impede or increase access to healthcare	African-American and Native American satisfied with physician services. However, patients of all groups felt that that non-physician staff was disrespectful. Native Americans and Pacific Islanders felt that physicians’ negatively stereotyped them when providing prevention and patient education.
Beckham	Descriptive	Native Hawaiian Samoan	116 participants; 74 percent were either Native Hawaiian or Samoan	Frequencies Means + or – SD Paired Students’ T-test with Pearson Correlation for baseline and post-intervention HbA1c data	Community health workers had positive impact on diabetes management defined in terms of improved HbA1c data.
Braun	Focus Groups	Native Hawaiian	8 focus groups; 45 cancer survivors from both rural and urban locations	Participatory research method; Open-ended questions; Code book of themes and sub-themes; EpiInfo used for survey data	Improving access to care and incorporating cultural values in health education and services can enhance survivorship and quality of life.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Capstick	Literature Review	Cook Island Fijian Native Hawaiian Samoan Tongan	N/A	N/A	Groups do not have Western biomedicine view; holistic and spiritual belief and practice of health; pluralism and pragmatism in health-seeking behavior.
Choi	In-depth interviews; key informant interviews	Marshallese migrants	17 health and social service providers 10 key informants 20 migrants	Purposeful snowball sampling method Core categories General consensus codes Narrative analysis	Marshallese are driven by perception of “present”; do not understand the concept of preventive care; dependent on parochial networks; concentrated on allopathic health care and public assistance.
Dang	Descriptive cross-sectional study	Cambodian Laotian Thai Tongan (Pacific Islander)	1,708 women with limited English proficiency; recruited from community clinics, churches, temples, supermarkets, and other community gathering sites	Multivariate logistic regression models/odds ratio	Women using medical interpreters have greater odds of getting breast and cervical cancer screening and pap smear.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Hughes	Focus Groups	Native Hawaiian men	54 men recruited from three urban and rural areas on the Island of O`ahu and one group from the Island of Hawai`i	Eight open-ended focus group questions were analyzed	Exploratory only. Identified possible issues related to care, perceptions, attitudes, as well as cultural values identified.
Jasti	Literature review Descriptive	African-American Hispanic Asian Pacific Islander Native American Native Alaskan	Data from 1994-1996 Continuing Survey of Food Intake; ethnicity defined by White, Black, Hispanic, and other.	Frequencies; chi-square	More research needed on health beliefs, attitudes, and socio-demographic determinants for supplement use by culture and ethnicity.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Kakai	Descriptive Interviews	Caucasian Japanese Non-Japanese Asian Pacific Islander	1,168 mail survey identified as using complementary and alternative medicine; participants from state-wide population based cancer registry; 140 interviews	Frequencies Correspondence analysis (profiles, masses, chi-squares)	Caucasian preferred objective, scientific, updated information; Japanese preferred media, commercial sources, providers; Non-Japanese Asian Pacific Islander preferred person-to-person communication with physician, social groups or other cancer patients. Cultural view important when understanding health-seeking information behavior.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Ponchillia	Literature review	Native Americans Mexican Americans Pacific Islanders (Nauruans)	N/A	N/A	Respect elders or those with spiritual powers; the circle of life or group life is primary; value silence; privacy; hospitality; pragmatic 'accepts what is'; preventive care may not be part of culture; extreme modesty; illness may be supernatural; negativity may cause bad things to occur; concept of time is different—family is priority over meeting social workers; traditional healers reinforce 'cure' of problem; healers leave something tangible behind.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Simon	Literature review	African-American American Indian/Alaska n Native American Asian/Pacific Islander Hispanic/Latina Women	N/A	Cultural Explanatory Model	Makes suggestions how to incorporate culture into early detection strategies for breast cancer. Asian/Pacific Islander women are fatalistic; believe that cancer is the result of bad karma; prefer Eastern medicine and modesty; use community health advisors; build on cultural traditions of storytelling, oral history, group concepts.
Stoil	Focus groups	Samoan Native Hawaiian Chamorro	6 focus groups, each consisting of 4 to 8 Pacific Islanders born between 1917 and 1939 from Los Angeles area; modal age 76; Medicare beneficiaries	Focus group proceedings subject to thematic analysis and level of consensus expressed for each belief or statement	Attitudes were influenced by colonial health care experiences in U.S. territories; Samoans influenced by prayer and traditional healings of care; Native Hawaiians also influenced by traditional healings of care. Psychosocial factors more important than English proficiency or health insurance.

Author	Study Design	Population	Data Source	Analytical Methods	Findings
Vogler	Cross-sectional, exploratory, descriptive self-administered survey	Native Hawaiians	Convenience sample; 61 participants	Frequencies Leininger's phases of qualitative analysis	Native Hawaiians expect family centered, holistic, respectful, and accepting health care. Culturally competent means open, direct and honest communications expressed with concern.
Weir	Descriptive	Asians Native Hawaiians Pacific Islanders	Patient data collected from 4 community health centers (New York, Washington, Hawai'i). Patient data included number of users, medical encounters, enabling services.	Frequencies Logistic regression/odds ratios	Enabling services are critical for access to healthcare.
Yamashiro	Literature review	Asians Pacific Islanders	N/A	N/A	Indigenous healing practices and other culturally appropriate treatments influence help-seeking behaviors for mental health services.

APPENDIX F: CHART OF NATIVE HAWAIIAN AND PACIFIC ISLANDER GROUPS

NATIVE HAWAIIAN AND PACIFIC ISLANDER GROUPS		
POLYNESIANS	MICRONESIANS	MELANESIANS
Native Hawaiian	Guamanian or Chamorro	Fijiean
Samoaan	Mariana Islander	Papua New Guinean
Tahitian	Saipanese	Solomon Islander
Tongan	Palauan	Ni-Vanuatu
Tokelauan	Carolinian	Other Melanesian
Other Polynesian	Kosraean	
	Pohnpeian	
	Chuukese	
	Yapese	
	Marshallese	
	I-Kiribati	
	Other Micronesian	

APPENDIX G: CONSENT FORM

**University of North Carolina at Chapel Hill
Consent to Participate in a Research Study
Adult Participants**

Consent Form Version Date: _____

IRB Study # [IRBNO WILL BE INSERTED]

Title of Study: HEALTH CARE SERVICES UTILIZATION AMONG NATIVE HAWAIIANS AND PACIFIC ISLANDERS: THE EFFECT OF HEALTH BELIEFS AND ENABLING RESOURCES

Principal Investigator: Karen Ho

Principal Investigator Department: Health Policy and Management

Principal Investigator Phone number: XXX-XXX-XXXX

Principal Investigator Email Address: karenho@email.unc.edu

What are some general things you should know about research studies?

You are being asked to take part in a research study. To join the study is voluntary.

You may refuse to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. You may not receive any direct benefit from being in the research study. There also may be risks to being in research studies.

Details about this study are discussed below. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. You should ask the researchers named above, or staff members who may assist them, any questions you have about this study at any time.

What is the purpose of this study?

The purpose of this research study is to determine what health beliefs and enabling resources influence the use of health services by Native Hawaiians and Pacific Islanders (NHPI). NHPI have some of the poorest health care access and health outcomes in the United States. NHPI is a growing population and there is very limited information about NHPI because they comprise a very small percentage of the U.S. population. This study is an attempt to provide insights and guidance to policymakers, providers, state and county health professionals in working and improving health care access and outcomes for NHPI.

Are there any reasons you should not be in this study?

You should not be in this study if you are not part of the NHPI population as described by the federal census criteria.

How many people will take part in this study?

Approximately 24 people will take part in this study.

How long will your part in this study last?

This study only requires one to two hours of your time. There is no follow-up.

What will happen if you take part in the study? This study will ask about what health beliefs and enabling resources influence your use of health services. Your participation is voluntary. You may choose to not answer a question for any reason.

How will your privacy be protected?

Participants will not be identified in any report or publication about this study. Although every effort will be made to keep research records private, there may be times when federal or state law requires the disclosure of these records, including personal information. This is very unlikely, but if disclosure is ever required, UNC-Chapel Hill will take steps allowable by law to protect the privacy of personal information. In some cases, your information in this research study could be reviewed by representatives of the University, research sponsors, or government agencies (for example, the FDA) for purposes such as quality control or safety.

What if you want to stop before your part in the study is complete?

You can withdraw from this study at any time, without penalty. The investigators also have the right to stop your participation at any time. This could be because you have failed to follow instructions or because the entire study has been stopped.

Will you receive anything for being in this study?

There is no compensation for being in this study.

What if you have questions about this study?

You have the right to ask, and have answered, any questions you may have about this research. If you have questions about the study (including payments), complaints, concerns, or if a research-related injury occurs, you should contact the researchers listed on the first page of this form.

What if you have questions about your rights as a research participant?

All research on human volunteers is reviewed by a committee that works to protect your rights and welfare. If you have questions or concerns about your rights as a research subject, or if you would like to obtain information or offer input, you may contact the Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu.

Participant's Agreement:

I have read the information provided above. I have asked all the questions I have at this time. I voluntarily agree to participate in this research study.

Signature of Research Participant

Date

Printed Name of Research Participant

Signature of Research Team Member Obtaining Consent

Date

Printed Name of Research Team Member Obtaining Consent

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