Micronesian Migrants in Hawaii: Health Issues and Culturally Appropriate, Community-Based Solutions

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Abstract

More than 20,000 Micronesians have migrated to Guam, Hawaii, or the Commonwealth of the Northern Mariana Islands. Of these migrants, more than 8,000 now live in Hawaii. Factors in their home islands driving the recent emigration include the limited economic resources and struggling health care systems. Education systems in Micronesia are inadequate, and there are few job opportunities. The rates of infectious diseases remain high while at the same time, the epidemiologic transition in health has led to an explosion of non-communicable diseases. In Hawaii, the impact of the Micronesians emigration has been significant with most health and education expenses un-reimbursed. The health care costs alone are substantial as many Micronesians travel to Guam or Hawaii for medical treatment unavailable in their home islands. At the same time, Micronesians have difficulty accessing and navigating the health care system. While governmental, private, and academic programs already provide innovative and community-based services to the Micronesian population, more work remains to be done. Not only are additional services, tailored to the culture and needs of Micronesian migrants, needed but a keener awareness and understanding of the issues surrounding Hawaii's migrant population must be promoted among all public health stakeholders to ensure that the priority necessary to successfully address these challenges is recognized.

Keywords: Micronesians, migration, health

Introduction

Challenges to Health Care in Hawaii Posed by Micronesians

Faced with limited economic resources and struggling health care systems, at least 8,000 Micronesians have left their home islands in the western Pacific to live in Hawaii (although some estimates are higher). Many continue to arrive each week for various medical, social, and financial reasons. This is a result of the intricate historical relationship that certain Pacific Island nations of Micronesia have had with the United States, formalized under the Compacts of Free Association (COFA) in 1986. The Compacts enable citizens of these Freely Associated States (FAS) to travel and emigrate to the United States not as "immigrants" but as migrants without visas or time limits.

While Pacific Islanders come to Hawaii from many places in Micronesia, the largest group is the Marshallese, whose recent history is complicated by exposure to ionizing radiation from US nuclear weapons testing, conducted from the mid-1940s to the mid-1950s. However, people from the islands of Chuuk, the most populous group in the Federated States of Micronesia are the fastest growing community of Micronesians in Hawaii.

Throughout much of Micronesia, the burden of health issues is substantial. Infectious diseases present significant health concerns in that hepatitis B carrier rates are high, *Helicobacter pylori* is ubiquitous, and sexually transmitted diseases are prevalent. Additionally, the nations of Micronesia are undergoing an epidemiologic transition contributing to heavy burdens of chronic diseases including diabetes, obesity, cardiovascular diseases, and cancer. Social ills add to the list of health concerns. The rates of smoking in high school are extreme and the increasing rates of suicide, specifically among young males, are particularly concerning. Maternal child health issues include pregnancy complications, low birth weight, high infant mortality rates, and low immunization rates. Malnutrition problems co-exist with dietary related chronic diseases.

The estimated added cost to Hawaii's health care system posed by Micronesians for the years of 1996-2000 was at $86 million (U.S General Accounting Office, 2001). In the state fiscal year 2003, the Hawaii Department of Human Services spent approximately $18 million on medical assistance for Micronesian migrants under Hawaii's QUEST (income based health insurance) and the Medicaid Fee for Service Program. There were almost 10,000 client visits (unduplicated counts) under these two programs in the fiscal year of 2003 among Micronesian migrants; the majority (two-thirds) of clients participate in QUEST, with one-third participating in the Medicaid Fee for Service Program which is for those aged 65 years and older (Office of the Governor, 2004). In 2004, the state of Hawaii received a federal grant for only $10.5 million for the federal fiscal year of 2004 to provide health insurance under Hawaii's QUEST and Medicaid Fee for Service Program, for which $16 million was spent in the first 9 months of state fiscal year 2004 (Office of the Governor, 2004). Clearly the health costs of Micronesian migrants in Hawaii are sizeable and largely un-reimbursed.

Not only do Micronesians add to Hawaii's health care costs, but the resulting strain on the health care system means that they, as well as other disadvantaged peoples, receive less than optimal health care. Because of limited English proficiency, pronounced cultural differences in communication styles, limited skills in navigating a complex health care system, and differing expectations by providers and patients, serious compliance issues arise such that health care providers almost uniformly regard Micronesians as 'difficult' patients. In addition, Micronesian populations tend to be transient within Hawaii (changing residences frequently), and some move back and forth, and to and from their home islands. This can be problematic for screening and follow-up of persons for prophylaxis and treatment, and continuity of care.

Background

"Micronesia" is a geographic reference term used to describe the numerous small islands and atolls in the western Pacific. The U.S. Territory of Guam and the Commonwealth of the Northern Mariana Islands (CNMI) are geographically part of Micronesia, but have experienced different histories relative to Spanish, Japanese, and U.S. military colonialism in the region. This has resulted in different political relationships with the U.S. The islands of Nauru and Kiribati are also geographically and culturally part of Micronesia, but as former British colonies, have developed different histories than the U.S. associated nations of Micronesia and are now more closely aligned with Australia and New Zealand than with the U.S.

The small Micronesian islands of Palau, Yap, Chuuk, Pohnpei, Kosrae, and the Marshalls comprise the former "Trust Territories of the Pacific Islands (TTPI)" (including the CNMI) and were placed 'in strategic trust' under the U.S. by a 1947 United Nations Mandate after World War II. Strategically located relative to U.S. military interests, particularly as sites for conducting atmospheric nuclear weapons tests, these

Micronesian islands constituted an additional colonial 'war prize' in the region, like the U.S. Territory of Guam and the other former U.S. colony, now the Republic of the Philippines (both acquired after the Spanish American War). Beginning in the 1960s, U.S. aid for the Trust Territories increased tremendously, along with huge investments in education, which led to a cash economy fueled by government jobs.
After the Compacts of Free Association with the U.S. went into effect in 1986, the former "Trust Territories of the Pacific Islands" (TTPI) of the western Pacific became the Freely Associated States (FAS) of Micronesia. The FAS consist of the Republic of Palau, the Republic of the Marshall Islands (RMI) and the Federated States of Micronesia (the FSM, comprising the states of Yap, Chuuk, Pohnpei, and Kosrae). The 1986 Compact was for the FSM and RMI; the Republic of Palau later negotiated a separate Compact agreement. More than 20,000 Micronesians have migrated to Guam, Hawaii or the Commonwealth of the Northern Mariana Islands since the Compacts of Free Association.

A significant reason for recent emigration of Micronesians is that the health and education systems in the FSM and RMI are inadequate. Both the Trusteeship and the Compacts of Free Association failed in these areas, mainly because both the initial Trusteeship and the Compact provided inadequate resources to get the Micronesian islands into a self-sufficient state in both self-government and the economy (Stevens, 1953, p. 177; USGAO, 2003). After more than four decades of the TTPI and 17 years of the Compacts, local self-sufficiency has not been realized, in part because strategies and resources to develop local leadership and management capacities were not included in the settlements. The amended Compacts (2003) are also poorly funded with regard to health and education; hence the prognosis for self-sufficiency is poor. The Compacts were not funded on a needs or standards of health/education framework, rather, they were political settlements. The monies and training resources are sorely insufficient to build an appropriate health/education infrastructure. This background is necessary to understand both the Trusteeship and Compact failures as the driving force for the emigration.

The Micronesian Migration

The 2000 U.S. Census listed 12,724 "Micronesians alone or in any combination" in Hawaii, of which 3,999 were "Guamanian or Chamorro alone or in any combination," which results in 8,725 non-Chamorro Micronesians in Hawaii. Most of the Micronesians are in Honolulu County (6,290) followed by the Big Island (1,460), Maui (1,045) and Kauai (246). The 2000 U.S. Census listed 22,223 non-Chamorro Micronesians ('alone or in any combination') in the total U.S. population. Thus, about 40% of this population resides in Hawaii.

The most recent figures have been compiled by Michael J. Levin of the U.S. Census Bureau's Micronesian Census in the summer of 2003. Tabular data from the Micronesian Census were provided to the University of Hawaii's Social Science Research Institute and the Hawaii State Department of Health. The 2003 Micronesian Census enumerated 24,607 migrants in Hawaii, Guam and Saipan (U.S. Bureau of the Census, 2004). Of these, 20,698 are considered to be the "compact impact" population, which includes post-1986 migrants and their minor children.

Almost one-half of the total impact migrant population is comprised of those 18 years or less (47.3%). The vast majority of the impact population of Marshallese migrated to Hawaii (80.1%), along with 16.6% of the Chuukese impact population. Note that 23.3% of all migrants to Hawaii reported being from ethnic groups in the Federated States of Micronesia. Two-thirds (65%) of the impact migrants migrated between 1986 and 1999, and 35% migrated in the year 2000 or afterwards. Among those in the

impact population who were aged 16 years or older, 59.3% of those from the Republic of Palau, 57.9% of those from the Federated States of Micronesia, and 34.3% of these from the Republic of the Marshall Islands report being in the labor force. Micronesian migrants are generally not highly educated and have low job skills, and for those over 16 years who are employed, in Hawaii they tend to be concentrated in service, sales, production, and laborer jobs. Comparing the 2000 U.S. Census data with the 2003 Micronesian Census, Micronesian migrants, and particularly impact migrants were less likely to report being in managerial/professional or sales and office jobs and more likely to report being in construction, extraction, and maintenance or production, transportation and material moving occupation.

Significant impact has resulted from this migration, with the costs to Hawaii at $86 million dollars for the years 1996-2000 (mainly un-reimbursed health care costs, and educational costs) (USGAO, 2001; 2003). Actual costs are probably much higher because Hawaii does not have estimates for all costs from 1986-1995. Other costs such as public safety and welfare have also been identified. Micronesians who enter the U.S. under the Compacts of Free Association are not eligible for food stamps or TANF (Temporary Assistance to Needy Families); however, they are eligible for financial assistance under state funded programs such as TANOF (Temporary Assistance to Needy Other Families) if they meet eligibility requirements. They are eligible for MEDQUEST and/ or QUEST-NET (health insurance) if they meet the eligibility requirements for federal poverty levels. Following the federal government enactment of the Personal Responsibility and Work Opportunity Reconciliation Act in 1996, Micronesian migrants were not eligible for Medicaid for five years following their entry into the U.S. (Office of the Governor, 2004).

From an epidemiological perspective, Micronesians may facilitate spread of communicable disease to Hawaii from Asia. This is supported by current data for tuberculosis, Hansen's disease, and sexually transmitted diseases. In addition, chronic diseases such as diabetes and cancer have increasingly affected Micronesians, many of whom travel to Guam or Hawaii for treatment unavailable in their home islands. Numerous programs in the Department of Health provide services to Micronesians and there are concerns about how best to reach out to the Micronesians to facilitate such services such as vaccinations or follow-up treatment for TB or Hansen's disease.

In order to understand the health impacts of Micronesian migrants in Hawaii, it is important to delineate not just the trends in morbidity or mortality associated with migration, but also the recent cultural, political, and economic histories and situations of Micronesians in their home islands relative to their experiences of the health transition (see Butt, 2002).

The (Incomplete) Health Transition in Micronesia

There are several historic change processes that encompass 'the health transition' (see Nutrition Transition). The demographic transition occurs when societies transition from high fertility and high mortality to low fertility and low mortality. Related to this change is the epidemiologic transition whereby societies transition from a high prevalence of communicable or infectious diseases (associated with malnutrition, famine and lack of sanitation) to a high prevalence of non-communicable or chronic/degenerative diseases (associated with urbanization and lifestyle habits). Related to the epidemiological transition in particular is the nutrition transition, where societies have a high prevalence of malnutrition which evolve and transition to a high prevalence of dietary related chronic diseases (based on a diet high in fat, sugars and processed refined foods). Large shifts in dietary and physical activity patterns have occurred worldwide and Micronesia is no exception. However, it is important to point

out that health transitions occur as an uneven disjointed process and cannot be understood solely in reference to changing disease or death rates (Finau, Wainiqolo, & Cuboni, 2002a; 2002b). Finau and his colleagues in Fiji point out that in the Pacific, health transitions are linked to globalization, imperialism and colonialism and "imbalances in power relations." In the case of Micronesia, this is directly related to U.S. military colonialism after World War II and subsequent de-colonization beginning in the 1980s.

The rapid health transition in Micronesia concomitant with deliberate 'Americanization' has led to an explosion of non-communicable disease such as obesity, diabetes, cardiovascular diseases, and post-World War II radiation-induced and subsequent lifestyle associated cancers. The rapid (and incomplete) health transition in Micronesia has resulted in demographic changes including high fertility and out-migration, nutritional changes whereby obesity and malnourishment co-exist, and epidemiological changes whereby both infectious diseases and chronic diseases are present. Technological changes have led to decreases in physical activity patterns due to urbanization.

In 1997, an extensive assessment of the health status of Micronesians and the existing health care infrastructure by Dr. Angela Diaz deemed it a "health crisis" (Diaz, 1997):

> "Epidemiologically, the [U.S. associated] Pacific [islands] have become a springboard for tropical diseases making their way eastward from Asia to the U.S. Infectious diseases, like tuberculosis and human papilloma virus, can develop on the islands and remain undetected until they reach epidemic proportions. The constant migration of island populations and of military personnel station in the islands and nearby Hawaii, heighten the potential for serious consequences…" (p. 116).

Diaz points out in some areas of the Freely Associated States, people live in crowded urban areas which resemble slums of developing countries (e.g. overpopulated and crowded, with poor sanitation, inadequate housing, an unstable food supply, and rampant substance abuse) (Diaz, 1997, p. 117). Infectious diseases that are continuous threats or make "periodic assaults on the population(s)" in Micronesia include measles, tuberculosis, hepatitis B, Hansen's disease, and sexually transmitted diseases. High fertility rates along with lack of pre- and post- natal care lead to low birth weights and high infant mortality (Diaz, 1997, p. 122).

In addition to infectious diseases, non-communicable diseases and chronic conditions such as diabetes and obesity co-exist along with malnutrition and dietary problems such as vitamin A deficiencies and anemia. Numerous studies of Pacific populations have illustrated that the problems of dietary related chronic diseases, especially diabetes and obesity, are pervasive among Pacific Islanders (e.g. Native Hawaiians, Samoans and Micronesians) (Chung et al., 1990; Maskarinec, Novotny, & Tasaki, 2000; McMurray & Smith, 2001).

Exacerbating the health problems in Micronesia is the lack of resources and health infrastructure resulting from deliberate U.S. 'de-colonization.' After World-War II, the U.S. provided funds for facilities, infrastructure and programs; however, for the RMI and the FSM (unlike Guam and the CNMI or Palau), the pubic health infrastructure after the Compacts lacks resources, and is plagued by shortages of supplies and trained staff (Diaz, 1997, p.118). Diaz (1997) describes the relationship created by the U.S. as one of dependency, and this has been facilitated by federal block grants over more than 40 years. The changed relationship with the

U.S. after the Compacts has only hastened this trend. Diaz, along with Tokuda, Cernada, & Kuruhara (2001), describe possible strategies for health care beyond the Compacts of Free Association. In the meantime, both Guam and Hawaii have become catchment areas for Micronesian migrants and their associated health problems.

Health Status of Micronesians in their Home Islands

Health statistics from the Federated States of Micronesia show that the majority of deaths and hospitalizations are due to non-communicable diseases (heart diseases, diabetes, chronic lung diseases, cancer, malnutrition and obesity) (World Health Organization, 2004). Moreover, high fertility along with pregnancy complications, high infant mortality rates and low immunization rates are apparent. The age structure of the population is young, with 44% below the age of 15. These health trends are linked to increasing use of hospital services, while at the same time, rural village dispensaries close down due to lack of funding and supplies (Micronesian Seminar, 2004).

The Republic of the Marshall Islands has different problems compared to the FSM, with malnutrition, accidents, sepsis, pneumonia, and cancers as the five leading causes of death (World Health Organization, 2004). Kroon et al. (2004), in a study funded by the National Cancer Institute, found that cancer is the second leading cause of death in the Marshall Islands, and is probably associated with nuclear weapons testing in the region. The Marshallese people exposed to high amounts of radiation due to U.S. nuclear weapons testing have markedly increased rates of thyroid cancers. Other cancer risk factors include high rates of smoking, alcohol use, and STD's among adults. Children in the RMI are at high risk for vitamin A deficiency, iron deficiency, and anemia (Palafox et al., 2003), while at the same time obesity is highly prevalent among adults, especially adult women (McMurray & Smith, 2001, p. 106). The Marshallese population has one of the world's highest growth rates, and the facilities for safe water and sanitation have been outstripped by this fast growth rate. An outbreak of cholera in Ebeye in 2002 illustrates this situation (Beatty et al., 2000). Other diseases that plague the RMI include tuberculosis, Hansen's disease and syphilis (World Health Organization, 2004).

Palafox and his colleagues, along with other researchers all point to a number of factors associated with lifestyle and other diseases in Micronesia: increased poverty, rapid demographic change, decline of home foods production, and the replacement of nutritious traditional foods with imported foods of low nutritional quality (Palafox et al., 2003, p. 405). That these trends were fueled by U.S. dollars and the 'Americanization' process is quite evident.

Non-Communicable Diseases Among Micronesians in Hawaii

There is currently not enough data or information about chronic diseases among Micronesians in Hawaii. Anecdotal evidence suggests that there are significant problems of obesity, diabetes, cardiovascular diseases, and lifestyle associated cancers.

In an overview of the Hawaii Immigrant Health Initiative in 2003-2004 by the Hawaii Primary Care Association, which includes Compact migrants, the top ten reasons for 7,108 patient visits among Micronesians were: 1) essential hypertension, 2) diabetes mellitus, 3) supervision of normal 1st pregnancy, 4) disorders of refraction and accommodation, 5) supervision of other normal pregnancy, 6) routine infant or child check, 7) symptoms involving respiratory system and other chest symptoms, 8) disorders of lipid metabolism, 9) contraceptive management, and 10) gynecological examination (Hawaii Primary Care Association, 2004).

Communicable Diseases Among Micronesians in Hawaii

In Hawaii in 2003, while half (60.2%) of new cases of tuberculosis came from those born in the Philippines, about 10% of cases come from those born in Micronesia in recent years (Hawaii Department of Health Tuberculosis Control Branch, 2004). Examining five-year trends in new cases of tuberculosis from Pacific jurisdictions, 61 out of 65 cases came from the Freely Associated States of Micronesia (Hawaii Department of Health Tuberculosis Control Branch, 2004).

Sexually transmitted diseases are also major health concerns for Micronesians in Hawaii. (Hawaii Department of Health, STD/AIDS Prevention Services Branch, 2004). Primary and secondary syphilis morbidity has been declining since the 1980s in Hawaii, yet Micronesians and Samoans comprise fully one-fourth of the cases of primary, secondary, and early latent (infectious stages) syphilis cases reported from 1999-2003. Pregnant women also represent 92% of cases of early syphilis -which have resulted in several cases of congenital syphilis, all among Micronesians. For gonorrhea and chlamydia, while numbers have been steadily increasing in recent years among all ages, with peaks in younger age groups in Hawaii, Micronesians are also represented in about one-fifth of reported cases among Asian/Pacific Islanders; this represents disproportionately more cases than would be expected since they comprise less than 1% of Hawaii's total population (Hawaii Department of Health, STD/AIDS Prevention Services Branch, 2004). This has serious public health implications as mucosal inflammation caused by syphilis, gonorrhea, chlamydia, and other STDs increase the risk of HIV infection. AIDS cases among non-Hawaiian Pacific Islanders are still few in numbers: 10 AIDS cases (10/244) in 2003-2004 and 16 (16/595) cases in 2000-2004). However, HIV transmission among Micronesians may potentially increase without early detection because young Micronesians tend not to present for healthcare unless they feel very ill.

Hansen's disease is endemic in Micronesia. In Hawaii prior to 1996, while new cases were mainly diagnosed among Filipinos and Samoans, this trend changed, with "the combined new case totals from the Federated States of Micronesia and the Republic of the Marshall Islands outnumbering the Philippine and Samoan totals" (Maruyama & Bomgaars, 2002). This trend has continued, with 52% of all new Hansen's disease cases being diagnosed in Micronesians in Hawaii (Hawaii Department of Health, Hansen's Disease Program, 2004). While rates are low in places like Yap and Kosrae in the FSM, other Micronesia islands in the FSM and the RMI are recognized by the World Health Organization as having the highest case detection rates of Hansen's disease in the western pacific region in 1999 (World Health Organization, 2003a, 2003b, 2004).

In 2003, in the midst of the measles epidemic in the Republic of Marshall Islands, 11 cases were reported in Hawaii in persons of Marshallese ethnicity; 3 of these cases were imported via air travel from the RMI. This highlights the risk of disease importation into a community where herd immunity for particular infectious illnesses may not be high enough to prevent further disease spread (Hawaii Department of Health, Disease Outbreak Control Branch, 2004).

A recent study about birth outcomes among FSM and RMI women in Hawaii from 1996 to 2002, and based on data from Hawaii, the FSM and the RMI, found that both late entry into prenatal care and lack of needed STD screening may be one of the causes of their high infant mortality rates in their home islands (Arakaki, Anderson, Yoda, & Samifua, 2004).

As an illustration of the complexity of issues for Micronesian migrants in Hawaii, it is helpful to look at the Department of

Health's Easy Access Project (EAP) statistics. EAP provides services and referrals for immigrants and migrants identified for potential health problems and works in conjunction with the Bilingual Health Services Program to provide language translation services. EAP program statistics for fiscal years 1999-2005 illustrate that Micronesians comprised fully 12.8% of the EAP service population, yet they comprise less than 1% of Hawaii's total population. These data suggest other problems that Micronesian migrants face, particularly for housing. Micronesians, like most of the EAP clients (e.g., immigrants from the Philippines or China), need assistance with finding jobs and most do not speak English very well. However, Micronesians also reported the lowest ratio of rooms per number of persons in their residence (averaging five rooms for 8-10 people); they were the most likely to report unsatisfactory housing arrangements than other immigrants and migrants in the EAP. In the 2003 Census, Micronesian migrants also reported higher numbers of persons per household and persons per family than the non-impact migrants.

Community-Based Approaches to Change

Several projects currently ongoing in Hawaii subscribe to a variety of community-based approaches, including the use of community engagement, outreach, and networking. Community engagement is the process of working collaboratively with groups who are affiliated by geographic proximity, special interests, or similar situations with respect to issues affecting their well-being (CDC, 1997) - a process of mobilizing existing organizational and other networks in those communities to accomplish new purposes.

One instance where community engagement was exceedingly successful is described here. Under a grant from the Hawaii Community Foundation, titled "Mo' Better Together" organization, community, and church leaders came forward to join in a series of community-based meetings where participants were encouraged in focus groups to articulate what they saw as their most pressing needs as new migrants to Hawaii, and to determine how best to create or use existing resources to alleviate the problems. Health remained an important concern, but the participants also mentioned the need for assistance with affordable housing, job training and placement, legal counseling, education, transportation, and health insurance. As a result of these needs and resource assessment activities and important collaborations with numerous agencies to actively address identified priorities have resulted.

This instance illustrates the value of networking whereby the meeting organizers were able to get the word out into the community rapidly, effectively reaching all key stakeholders in a timely manner.

One can also recognize the benefit of qualitative data for the purpose of such a forum, whereby "Simply counting deaths, cases of disease, and other events will not give a complete picture of health disparities…. researchers must talk with people in the community to get their personal stories and opinions." This type of research goes beyond traditional quantitative studies (CDC, 2002). Furthermore, for formerly colonized indigenous peoples throughout the Pacific, it is recommended that any research and evaluation being conducted should use an indigenous peoples centered model (Palafox et al., 2002).

Most importantly, linkages within the community itself was created, bringing together a multitude of independent groups, (such as the Nations of Micronesia, Micronesians United and the Micronesian Community Network), to effectively strive for common goals as a united voice rather than working separately to achieve similar goals on their own. Collaboration between all stakeholders has been an essential ingredient to the success of this endeavor thus far.

Other projects that have encouraged networking and collaboration have been initiated as well. Members within the Hawaii Department of Health recognized the need for a forum where separate units that serve Micronesians independently could meet to discuss cross-cutting issues affecting immigrants and migrants to Hawaii. Since then, regular meetings have resulted in the exchange of ideas and information among participants representing the Public Health Nursing Branch, the Tuberculosis Control Branch, the STD/AIDS Prevention Branch, the Hansen's Disease Branch, the Maternal and Child Branch, the Immunization Branch, as well as the Chronic Disease Prevention and Control Branch, and Bilingual Health Services. Networking through this forum has also enabled collaboration with numerous external agencies who have participated in forum meetings, including the University of Hawaii, Hawaii Primary Care Association, the Pacific Islands Primary Care Association, and the Pacific Island Health Officers Association.

Cultural Appropriateness

Culturally appropriate methodologies have been employed to better engage communities in capacity building. One is to provide culturally and linguistically appropriate health education materials and services. The Chronic Disease Management and Control Branch programs are making sure information is available in languages for Hawaii's diverse population, including booklets on diabetes for Micronesians in their own languages (Hawaii Diabetes Prevention and Control Program, 2005). The Bilingual Health Services program has one Marshallese language interpreter and is seeking resources to hire a Chuukese interpreter as well. Because it is difficult to retrieve official and medical documents once migrants have left their home countries, the Immunization Branch (HDOH) is producing translated in-country videos detailing what documents migrants should have before coming to Hawaii. Networking had enabled planners to develop contacts in the Freely Associated States. Thus they were able to identify public health colleagues who could collaborate with the Micronesian ministries of health in the key step of distribution and implementation of the videotapes. Other health-related videos are being produced in languages for several migrant groups including Marshallese, Chuukese, and Samoan.

Recognizing that religion was often an integral part of Micronesian society, several public health projects (including those for health screening and delivery of immunizations) have been faith-based endeavors. The Public Health Nursing Branch has since set up a Support Ministry Program within Micronesian churches (both Marshallese and Chuukese) in order to build internal capacity to address health-related and other concerns. The support ministers have been taught to help families complete forms for health insurance (e.g., QUEST), financial assistance, Social Security, I-94 forms, and low cost housing through their churches.

Further Steps

Despite the significant and encouraging progress described above, much more remains to be done. Additional surveillance is needed to assess the health situations of Micronesians and other at-risk migrants. The ability to be able to report on the prevalence of both communicable and non-communicable diseases is apparent, as well as the ability to track costs and the number of people served in programs. Partnerships with Community Health Centers and contractors to advocate for reporting systems and surveillance are also needed.

Issues of quality of care, epidemiological risk, and costs of treating Micronesians in Hawaii need to be addressed systematically. More demographic research needs to be conducted to provide accurate characterizations of each Micronesian community in Hawaii, to predict changing trends of migration and to examine their socio-economic foundations.

Community-based participatory research among Micronesians in Hawaii and in the US associated Pacific islands needs to be continued and intensified. This includes in-depth ethnographic qualitative studies and household surveys. Much more information is needed to assess Micronesians' changing attitudes toward health and illness, expectations and needs, levels of individual and community awareness of health risk factors, and the cultural factors that may impede clear communication with others.

Solutions to the situations posed by the impact migrants are complex. Examination of epidemiological data on the disease burden among Micronesians in the Freely Associated States and migrants in Hawaii clearly demonstrates on-going health problems and other disparities. Network building takes time to gain trust with Micronesians. Further, not much is known about Micronesians and their experiences and situations when they migrate. Efforts to learn about them are needed in order to direct appropriate resources and services for their needs. Such efforts are increasingly more likely to succeed if communities are engaged with health providers and others interested in their well-being.

Strategies for improving health care in the home islands of Micronesia need to be better coordinated at the local, national, and international levels. The health care needs of the FAS emigrants in Hawaii need to be addressed and improving the level of health care and education in the FAS should be a priority. Networking opportunities with local officials in Micronesia will be pursued and Hawaii will remain a strong advocate and voice for national support for health and education for the Freely Associated States, our neighbors in the Western Pacific.

Hawaii Department of Health programs will continue to work with partners in the Micronesian communities in Hawaii to facilitate a process so that the communities are engaged as equal partners to understand and facilitate their concerns. These communities participate in and will be an integral part of developing a health care strategy for their people in the state.

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