

## **The Health Predicament of The U.S.-Associated Pacific Islands: What Role for Primary Health Care?**

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The U.S.-Associated Pacific Basin consists of three Flag Territories and three Freely Associated States. Three Pacific Island entities are commonly referred to as "Flag Territories" as they are more closely associated with the United States:

1. American Samoa
2. Territory of Guam
3. The Commonwealth of the Northern Marianas Islands (CNMI)

Three self-governing "Freely Associated States" have the freedom to choose full independence and in many ways are treated as foreign countries.

1. The Federated States of Micronesia (FSM), composed of four states: Chuuk, Kosrae, Ponape, and Yap
2. The Republic of Belau (also known as Palau)
3. The Republic of the Marshall Islands (RMI)

After World War II, the United States asked for and took the responsibility for the health, education, and welfare of the peoples indigenous to these six jurisdictions under a United Nations Trusteeship. In this paper we argue that the involvement of U.S. institutions in the U.S. Associated Pacific countries has led to a situation in which Pacific Islanders are unable to care for their own health, that is, to a loss of autonomy. We characterize this process as one of the importation of a health system designed

in and for an industrialized country into Third World settings. Thus, public health and hospital systems have been developed and administered by expatriate managers, requiring workers with education from abroad. The health systems have become dependent upon outside technology and supplies, all of which are unaffordable. Hence, the health systems in many of the U.S. Associated jurisdictions are inappropriate, have been unsuccessful at improving health, and are not sustainable from either a financial or human resource standpoint.

Although the extent of historical ties with the U.S. differ among the island entities, they all have health care systems that were instituted by and patterned after the U.S. The influence of the U.S. model has been exerted through the armed forces, the Department of the Interior, the U.S. Public Health Service (USPHS), federal grants, requirements of reimbursement mechanisms such as Medicare and Medicaid, technical assistance and health professional workers from the U.S., and Pacific Islanders receiving their education in the U.S. The failure of the health systems is a lesson in cultural and technological incompetence.

### **Features of the U.S. Medical Model Adopted in the Pacific Islands**

Three salient features of the U.S. medical model that have been adopted in the Pacific Islands can be characterized below and are discussed as follows:

**An emphasis on curative medicine.** The

health care systems of the Pacific Island entities focus on curative medicine. Preventive medicine and public health are underemphasized. This is reflected in the disparities for budgeting for curative versus preventive and public health services in all the jurisdictions<sup>1,2</sup>.

**Outside referral for medical problems that cannot be handled locally.** Let us consider the example of the CNMI. In 1991, the CNMI signed a referral agreement with a proprietary hospital in the U.S. mainland. The terms of this agreement were that the CNMI would transfer funds each month to the hospital, building up an account. This account was used to pay for specialists who traveled to Saipan on brief visits and for the care of patients referred to the hospital. As part of the agreement with the mainland hospital, two ophthalmologists came on multiple visits to the Commonwealth Health Center (CHC) to see patients. The CNMI purchased laser equipment, and the ophthalmologists proceeded to perform laser procedures on a large proportion of the diabetic patients referred to them. Patients were flown to the mainland for procedures such as the repair of macular holes. Eventually, as the cost of referrals to the mainland began to exceed a million dollars per year, the self-referrals by these ophthalmologists took up over half this amount. The medical staff in Saipan thought that patients were being treated unnecessarily, but none had the expertise in ophthalmology to make an informed assessment. Finally, the CHC hired a full-time ophthalmologist, who reviewed the records of the ophthalmologists on the continental United States, indeed, found many cases of treatment for questionable indications. Since his arrival, far fewer laser procedures have been performed.

**Outside financing and responsibility for health.** Health care delivery and finance in these jurisdictions has been centralized. The responsibility for health has been taken away

from the individual and shifted to their governments, which in turn have shifted the responsibility to the U.S. government--which undertook the responsibility under the terms of the United Nations Trusteeship. There was never any meaningful or realistic transition away from this dependent relationship. In fact, the peoples and governments of the Pacific continue to believe that somebody else has the responsibility to care for them. The institutionalization of this type of thinking has been an extremely destructive to efforts by Pacific Islanders to improve their own health.

### **Problems Engendered by the U.S. Involvement in the Pacific**

Our thesis in this paper is that the U.S. medical model has proved to be a failure in the Pacific Islands. We base these findings, in part, on our own experience in the U.S.-Associated Pacific Islands. We identify the following problems and discuss these problems in turn:

1. Health problems characteristic of developing nations remain, while the prevalence of the so-called diseases of development continue to increase.
2. Its health benefits have been felt by only a small proportion of the populace.
3. It has proved to be too costly for the Islands to continue to sustain.
4. The technology has been inappropriate for the needs of the Islands.
5. It has fostered unrealistic expectations among the populace.
6. The system has fostered dependency.

*1. Health problems characteristic of developing nations remain, while the prevalence of the so-called diseases of development continue to increase.* The Pacific Island jurisdictions are said to be undergoing the "epidemiological transition," in which health problems related to under-development and inadequate infrastructure such as poor water

supplies, infectious diseases, and malnutrition are gradually supplanted over time by the diseases that are most prevalent in the developed world, such as heart disease, cerebrovascular disease, and cancer<sup>3</sup>. In the Pacific Islands, however, the diseases of under-development remain entrenched, while the diseases of development increase dramatically. For example, the ironic situation in which children are under-nourished while adults are over-nourished exists in much of the Pacific. Thus, while children in the RMI and Chuuk suffer from high rates of vitamin A deficiency and anemia, many adults are obese<sup>4-6</sup>. In fact, rates of obesity in the Pacific are among the highest in the world<sup>7-8</sup>. Diseases such as diabetes<sup>9</sup>, hypertension, and heart disease increase in concert with obesity.

Meanwhile, infectious diseases such as sexually transmitted diseases, hepatitis B, and tuberculosis continue to be highly prevalent problems<sup>4,6,10-11</sup>. While, indeed, the prevalence of such problems have much to do with poverty<sup>12</sup>, they are partially amenable to public health interventions.

2. *Its health benefits have been felt by only a small proportion of the populace.* A large proportion of the island populations do not receive adequate primary, secondary or tertiary health care services. The basic infrastructure for public health and preventive services is neglected fiscally and politically. This situation results from the overwhelming emphasis on curative care. Access to the island referral centers (hospitals) from outer areas is difficult because of distance and because of poor health planning to adequately address these needs. The tertiary health services that are provided, such as the intensive management of patients at the end of their life, are often not meaningful. Of course, the logic of such interventions is adopted from practice patterns in the U.S. Referrals are often made on the basis of the political power that one is able to exert rather than on the basis of medical need.

3. *It has proved to be too costly for the islands to continue to sustain.* As the nature of U.S.-style medicine is that yet another intervention can always be found, the possibility of further expenditures on off-island referrals is limitless. Limited as the financial resources of the islands are, the growth of the referral budgets often leads to cuts in other essential government services. Many island districts have devoted an inordinate proportion of their health budgets (up to 40% and more) to referrals<sup>1</sup>. In the CNMI, as of 1991 the government referral program cost six million dollars, while the operation budget for the Commonwealth Health Center was thirty million dollars. Subsequently, the referral budget grew until it became unsustainable. Finally, in 1995, the referral program was temporarily closed. Additionally, when referral budgets are exhausted, moneys are taken from primary health care or hospital budgets. In several jurisdiction monies are taken from education departments or other government sectors. It is not unusual to run out of hospital medications and supplies because of large referral expenditures.

4. *The technology has been inappropriate for the needs of the islands.* Given the lack of technical equipment and expertise in these islands, one imperative would seem to be to bring them equipment. But there are potential traps in such endeavors<sup>13</sup>.

Let us consider the case of the CT scan in Saipan. In 1991, when the CNMI signed the referral contract, as part of the agreement, the hospital sent the CNMI its old CT scan. At that time, at the Commonwealth Health Center there was no radiologist, no radiology technicians trained in the use of CT scans, and no room in the hospital for such equipment. The CT scan arrived forthwith, and sat in storage until 1995, when it was taken out of storage and found to be non-functional. This case illustrates several points. Firstly, the infrastructure necessary for

the implementation of new equipment was not in place. An expensive and sensitive piece of equipment thus deteriorated in storage while the physical plant was expanded, at a pace determined by intermittent funding. Furthermore, the human resources to use such equipment was not available. No plans were made for funding maintenance costs. A highly technological piece of equipment was acquired, not as part of an overall plan, but in an ad hoc manner—perhaps more for reasons of politics and prestige than of health needs.

In areas where logistical support is difficult, considerations of technological complexity would support the use of peritoneal dialysis over hemodialysis in end-stage renal failure. In Belau, however, as a number of prominent figures had been receiving hemodialysis, the choice was made to pursue hemodialysis.

Another case is that of the hospital in Majuro, RMI. The prefabricated construction that does not allow air to circulate makes the hospital unbearably hot, and forces the use of expensive air-conditioning in critical areas. Further, the construction materials are not suited to the humidity and salt spray of low-lying atolls and are rapidly corroding.

*5. It has fostered unrealistic expectations among the populace.* Perhaps the most insidious effect of the involvement of such institutions on the islands is the raising of the expectations of the populace. The local medical practitioner is seen as inferior to the specialist in the tertiary center. In some areas the indigenous practitioners trained in Western medicine are seen as inferior to their American counterparts. Referral off-island comes to be seen as a right by those who are well-placed. Attempts to provide medical care become struggles with patients and families who desire referral over care provided locally.

*6. The system has fostered dependency.* With

regard to this point, the dependence of the Pacific Islands health care systems on economic support from the U.S. government was dramatically demonstrated by the termination of Section 301 funding. Subsequent to the USPHS "Report to the Congress on Health Services in the U.S. Pacific Island Jurisdictions" in 1986, Congress funded Section 301 of Public Law 99-239 Grant Programs, also known as the "Pacific Basin Initiative." As part of the cutbacks in federal spending, Congress passed a bill in July 1995 authorizing the rescission of Section 301 funding. This led to much consternation on the part of those charged with funding health services in the Pacific Islands.

In the Republic of the Marshall Islands funding is being phased out for all U.S. Federal health and education grants as agreed upon in the 15 years (1986-2001) of the Compact of Free Association. Also, other non-health and education related U.S. support is coming to an end. The decreasing funding support has created a tremendous strain and decline of health services in the Republic. To support the U.S. initiated health system and expectations—U.S. support was expected and depended on.

Historical ties to the U.S. notwithstanding, given that the Pacific Islands entities are not included in the fifty states, the government of the U.S. appears unwilling and unable to bring these jurisdictions to the level of development of the U.S. And thus, the level of economic development in the Pacific Islands is likely to remain low. [The per capita GNP at market prices was \$1,500 in the FSM in 1989<sup>15</sup> and \$1,539 in the RMI in 1991<sup>16</sup>]

### What Role for Primary Health Care?

It appears unlikely that Section 301 funds will be reinstated, and renegotiating the Compact for countries such as the RMI will have unpredictable outcomes. Given that federal funds are increasingly difficult to obtain, the question then arises, to whom can the Pacific

Islands turn for economic support? Perhaps other extramural sources will provide funds in the future. And what sort of health programs would extramural sources be willing to fund? If the Pacific Islands were to turn to the World Bank, for example, would the structural adjustment programs of the World Bank be of overall benefit or harm to the health of the people<sup>17-19</sup>? In any case, it would seem logical to plan for "realistic" economic resources. The cost-effectiveness of the entire approach to health care services will therefore need to be assured.

We believe that a more cost-effective and appropriate model for the Pacific Islands is Primary Health Care (PHC), as recognized and emphasized at the International Conference on Primary Health Care held in 1978 in Alma Ata, capital of Kazakhstan, Soviet Central Asia<sup>17</sup>. Although some maintain that the prospects for

implementing PHC widely are poor<sup>18</sup>, the goals of the PHC approach remain as relevant as ever. Article VI of the Declaration of Alma Ata follows<sup>16</sup>:

Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination<sup>14</sup>.

Unfortunately, the concepts of primary health care have been subverted by selective primary health care (SPHC), a strategy of categorical disease control, directed at infectious diseases

**Table 1** Health Indicators of Pacific Islanders

Country/Ethnic Group	Year	GDP per capita (\$US)	Life Expectancy (yrs)	Infant Mortality per 1000 live births
Hawai'i	'92	25,288	72.0	6.5
Kānaka Maoli (Hawaiian)	'92	----	68.0	9.2
Nauru	'90	17,934	*55.5	31.0
Northern Marianas	'92	9,235	66.8	17.9
Guam	'92	8,414	72.1	9.2
Chamorros in Guam	'92	----	69.0	11.4
American Samoa	'90	4,529	70.3	11.0
Cook Islands	'91	3,416	69.8	*31.3
Belau (Palau)	'90	3,289	67.0	21.4
Fiji	'91	1,991	*63.1	17.2
Marshall Islands	'92	1,576	*61.1	*55.2
FSM (Pohnpei, Chuuk Yap, Korsae)	'92	1,474	64.1	*52.0
Tonga	'90	1,396	69.0	9.8
Paupa New Guinea	'90	999	*49.6	*72.0
Western Samoa	'91	722	*63.1	28.0
Kiribati	'91	461	*60.2	*65.0



identified as causing the most easily preventable morbidity and mortality<sup>19</sup>. The SPHC strategy has been adopted by many international health agencies, including UNICEF with its GOBI (growth monitoring, oral rehydration therapy, breast-feeding, and immunization) program<sup>20</sup>. Whereas the PHC viewpoint is that communities themselves should control the inputs and outcomes of programs for health improvement, outside professional experts make the decisions in SPHC programs<sup>21</sup>. While the ideology of PHC can be viewed as a criticism of existing health systems owned by technologists and managers, as PHC developed from criticism to a description of alternatives to definitions to programs to lists, the lists finally became reified (taking on a life of their own) into the objective and substituted for fundamental change in ideology<sup>2</sup>.

In the U.S. health care system, health care is treated as a commodity, the old model for its distribution being private practice and third party reimbursement, the new model being managed care and capitation. The degree to which health care in the U.S. is embedded in the market economy makes it difficult to institute the tenets of PHC. Similarly, it will be more difficult to institute PHC in areas such as Guam and the CNMI, where U.S.-style health care financing is more firmly entrenched.

Thus, with regards to public funding for health care, the Island governments should prioritize funding for PHC activities. Activities such as off-island referral should not be funded unless PHC activities are fully funded. If off-island referral is to be publicly funded, strict provisions must be instituted for the rational use of funds for the most medically justifiable cases. Given that the expectations of the populace have been raised by the current systems in place, however, perhaps those with the means should seek private insurance for off-island referrals. For example, if the government of the CNMI seeks to reduce its health budget through privatization, rather than privatize essential on-

island services (such as laboratory or pharmacy), perhaps it should look into privatizing the off-island referral system.

What can be done with little resources is evident from Table 1 (see previous page). Tonga, a relatively poor nation, has good health indicators. Nauru, relatively rich from proceeds from phosphate mining, has poor health indicators. Western Samoa, which has a per capita gross domestic product (GDP) less than half that of the Marshall Islands and FSM has half the infant mortality rate.

**Table 2** Comparative immunization rates at 2 years old

Jurisdiction	Percent
American Samoa	61.0
CNMI*	56.4
Fed. States of Micronesia	72.2
Guam	39.7
Rep. of Marshall Islands	49.0
Rep. of Belau	92.4

\*Commonwealth of the Northern Mariana Islands  
Source: PIHOA Data Matrix, U.S. Public Health Report, Sept. 1994

In Table 2, immunization rates at age 2 are compared. The district with the medical system most influenced by the U.S., Guam, has the lowest immunization rate. The rate for the CNMI is also low. Two districts with relatively low per capita GDPs, Belau and FSM, have relatively high immunization rates. Within the FSM, Yap has a decentralized clinic system in which each village clinic takes responsibility for the health maintenance of its inhabitants. This allows for maximum coverage for preventive interventions such as immunization.

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interventions such as immunization.

Kenneth Warren, one of the originators of SPHC, notes that China, Sri Lanka, Kerala state in India, and Costa Rica achieved good health indicators in the context of low per capita GDPs. He notes that the contributing factors common to these states were a commitment to equitable distribution of social goods in general as well as health services in particular, and access to education, and adequate nutrition<sup>22</sup>.

One positive development was the Pacific Basin Medical Officers Training Program, which trained Pacific Islanders according to PHC and community health principles. Unfortunately, its ten years of funding has run out, and the program is closing down.

### Conclusions

The external institutions that seek to provide services to Pacific Islanders would do well to examine the overall effects of their efforts. We have outlined how the involvement of U.S. institutions in the Islands has led to the loss of the ability of the Pacific Islanders to care for their own health. Salient features of the U.S. medical model that have been adopted in the Pacific Islands are an emphasis on curative medicine, recourse to outside referral for medical problems that cannot be handled locally, and displacing the responsibility of health care away from the individual. The resulting problems range from a situation in which the diseases of under-development co-exist with those of development to a fostering of dependency.

We suggest that the Pacific Islands need to invest their scarce resources in primary health care first. However, the transition to a PHC model is not simply a re-direction of resources toward more cost-effective programs. It involves a change in mind-set, in priorities, and commitment. PHC is of the people and by the people; it implies community involvement. In sum, grabbing the brass ring of high technology tertiary care not only breaks the bank. It also

breaks the promise of healthy people and healthy societies.

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