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From people to policy to program: Empowerment in community primary health care

Rody, Nancy, Dr.P.H.
University of Hawaii, 1987
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FROM PEOPLE TO POLICY TO PROGRAM:
EMPOWERMENT IN COMMUNITY PRIMARY HEALTH CARE

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE
UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PUBLIC HEALTH

MAY 1987

by

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FROM PEOPLE TO POLICY TO PROGRAM:
EMPOWERMENT IN COMMUNITY PRIMARY HEALTH CARE
by Nancy Rody
A dissertation submitted to the Graduate Division of the University
of Hawaii in partial fulfillment of the requirements for the
degree of Doctor of Public Health

ABSTRACT

This study investigated the question: Can an empowerment process in primary health care contribute to the development of community competence in health practice? Empowerment was the independent variable and community competence was the dependent variable. The unit of analysis was the community primary health care program. Four community primary health care programs in Yap in the Federated States of Micronesia were examined, utilizing a participant-observer method.

Empowerment, the enhancement of capacities of people to control their own lives by defining, analyzing and solving their own problems to their own satisfaction, is seen as an action taken by an external social institution to develop and strengthen a community. A set of nine indicators of an empowerment orientation in a primary health care program was designed and used to examine the programs for empowerment of beneficiaries. Two of the programs, the Dispensary Primary Health Care (DPHC) Program and the School Health Program, were found to have an empowerment orientation. The other two programs, the Medical Civic Action Program (MedCAP) and the Maternal Child Health (MCH) Program were not found to have an empowerment orientation.

A set of seven indicators of community competence in health practice was designed and used to examine the four programs for evidence of the development of community competence in health practice. Community competence refers to a complex of behaviors related to the development of collective psycho-social strengths which lead to a gradual
enhancement of power and control at the community level. Two of the programs, the DPHC program and the School Health program, were found to be associated with considerably more community competence in health practice than the other two programs, the MedCAP and MCH programs.

The two programs with an empowerment orientation were associated with community competence in health practice, while the two programs which lacked an empowerment orientation were not. The study suggests that a primary health care program which empowers will be associated with community competence in health practice.

Recommendations are made for introducing the empowerment process into community primary health care programs.
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CHAPTER I
PURPOSE, FRAMEWORK AND PLAN OF THE STUDY

1.1 Community Participation in Primary Health Care

The involvement of beneficiaries in the planning and implementation of programs impacting upon them is a well-accepted goal of primary health care. The success of health improvement programs is thought to depend to a great extent upon the degree to which individuals or communities participate in the development and administration of the programs. Yet successful stimulation of participation has proved to be difficult.

Community participation in health, as defined by the World Health Organization (WHO) and the United Nations International Children's Emergency Fund (UNICEF), is the process by which individuals and families assume the responsibility for their own health and welfare and for those of the community, and develop the capacity to contribute to their and the community's development . . . (WHO-UNICEF 1978, p.3)

Often the use of people's human, material and financial resources has been substituted for participation, as a means of enhancing service delivery by a professionalized health system to underserved communities, rather than as an empowerment of individuals or communities to resolve their own problems in their own way, with limited involvement and assistance from health professionals. According to de Kadt (1983), the ultimate goal of primary health care should be to make ordinary people more truly able to cope with health problems without constant and immediate recourse to health professionals, to give people a much greater opportunity to be self-reliant with regard to the health problems which afflict them.

Such a goal is as relevant to citizens of wealthy countries with sophisticated health systems as it is to rural villagers in economically disadvantaged areas of the world. The promotion of individual autonomy not only promotes individual responsibility for health,
but also ultimately enables clients to accept or reject the services offered, demand that services be provided in a more effective manner or appropriate quantity, bargain with program providers, lobby to change the service system, or even bring about the discontinuation of inappropriate programs. In the long run, promotion of the capabilities of people to cope with their own health problems without continual recourse to health professionals can reduce health costs and improve health through the promotion of improved health behaviors and environmental improvements.

Analysis of the elements contributing to disease and death in Canada and the United States in 1978 suggests that perhaps as much as fifty percent of mortality is due to unhealthy behaviors, twenty percent to environmental factors, twenty percent to inherited human biological factors, and only ten percent to a lack of necessary professional health care (U.S. Public Health Service, 1979).

The considerable reorganization and decentralization of health systems required for community participation make that goal a distant dream. Health service systems usually do not easily make substantial policy changes, particularly when steps to be taken toward the goal of community participation are not fully defined.

This study analyzes four primary health care programs in order to make recommendations which may guide policies toward the development of increased community participation in primary health care programs. Specifically, the study is an investigation of this question:

Can an empowerment process in primary health care programs contribute to the development of community competence in health practice?

1.2 Conceptualization of Empowerment and Community Competence in Primary Health Care

The ideas of "empowerment" and "community competence" in primary health can be introduced by contrasting two different scenarios which could take place when a blood test
for anemia is done in a rural primary health care prenatal clinic. In Yap, anemia during pregnancy complicates pregnancy and delivery. The condition causes a significant amount of human suffering. The treatment of the condition is costing the health service department a great deal of money.

In the first scenario, a team of medical workers including a doctor has come to a village to conduct a prenatal clinic. The local health worker has been asked to notify the villagers as to when and where the clinic will be held, and to act as a clerk in handling paperwork during the clinic. The team conducts the prenatal examinations quickly and efficiently, which allows them to put all of the pregnant women in the village through the clinic in a single day. Blood samples are drawn and the samples tested with accurate equipment run by the generator which the team has brought along. Any women found to be anemic are given a month's supply of iron sulfate with instructions that they are to take one tablet a day and come back to the prenatal clinic when the team returns to the village in one month.

In the second scenario, the local health worker receives preliminary group training in prenatal care and the diagnosis and treatment of anemia. This training is sponsored by the health service department. Then one project expert comes to the village to work with the local health worker in setting up and conducting prenatal clinics. The local health worker conducts the examinations, with the visiting expert acting as a consultant. The local health worker examines the patient's skin, mouth, inner eyelids and fingernails for signs of anemia. She explains what anemia is, and why blood samples are being taken, to each patient as she draws a blood sample. She uses a simple battery-operated hemoglobin meter, an only marginally accurate instrument whose results may be open to several interpretations. She shares the results of the test with her patient. If the blood sample indicates anemia, she explains this to the patient. Unless the anemia is severe, she counsels the patient on how to incorporate locally-available low cost food sources of iron in her diet. If the anemia is more severe, she also gives the patient iron sulfate donated by
the health department, explaining how to take it with food to minimize nausea and enhance the absorption of iron by the body. She teaches her patient how to recognize simple symptoms of anemia herself. Because seeing each patient takes a long time and some home visits are made, it is several days before the visiting expert can leave.

From a short-term perspective, the project described in the first scenario appears to be the more efficient and cost-effective. Many more patients are seen in a given period of time, and their care is superior from the point of view of the credentials of those who have done the examination and the accuracy of the laboratory test. Many anemic patients receive treatment in a short period of time. The team can visit many villages, seeing many pregnant women throughout the area.

However, the situation in the village is re-examined a month later. The doctor-led team is supposed to be back for the next clinic, but because of transportation problems and lack of supplies due to a reduction in project funding, it is unable to come. The local health worker has been told by many of the village women that they do not plan to come back to the clinic again anyway, as they felt embarrassed at being examined by males. They did not like having to be stuck with a needle for no reason that they could understand. Several of the women who were given iron sulfate took it for only a few days and then threw it away because it made them nauseated. The local health worker does not know how to hold the prenatal clinic by herself, and she feels sure the villagers would not come to her for an examination anyway because they think it should be done by a doctor.

In the second scenario it would have been helpful for the single visiting expert to come back again, but in his absence the village chief decides that the local health worker should continue to hold the prenatal clinic. Mothers who found themselves to be anemic are anxious to come back and have the examination and blood test again, to ensure that they are having a healthy pregnancy and will have a safe delivery. If the new supply of iron sulfate does not arrive, the health worker concentrates on dietary counseling as the
treatment for those who are still anemic. The battery-operated hemoglobin meter needs only flashlight batteries, available at the village store.

In this second scenario the local health assistant and her patients have been empowered. Their ability to define, analyze and solve their own problems to their own satisfaction has advanced through the prenatal clinic project. Such empowerment has led to the development of community competence in health practice. Community members can effectively manage the health problem of anemia in pregnancy and manage their relations with external health agencies with regard to this problem. They are in control, the system is efficient and cost-effective, and better health is the result.

1.3 Definitions

Empowerment

Empowerment is defined as the enhancement of capacities for people to control their own lives by defining, analyzing and solving their own problems to their own satisfaction. Empowerment implies that the abilities of powerless, dependent people to overcome difficulty can be fostered to help gain more control over their own lives and over the resources needed to improve their lives. Rappaport (1981) states that where empowerment is the aim, implementers will necessarily find themselves questioning both social program policy and role relationships of program administrators to dependent people. Empowerment is both a plan of action and a symbolic ideology for social change. Newborough (1980) has suggested that the "public interest is the empowerment of people".

According to Rappaport (1981), empowerment implies that poor social adaptation and functioning results from negative social structure and lack of resources which prevent existing competencies from operating. It follows that a number of competencies are "already present or at least possible, given niches and opportunities."

An empowerment orientation leads to a variety of locally developed solutions to local
problems, rather than a single solution developed by outside experts. Different people in
different settings develop different solutions based on different assumptions, different
understandings and different values. Health problems have many different definitions as
well as different remedies. An empowerment orientation in health is based on this fact and
permits those solutions to naturally emerge or unfold.

Rappaport suggests two requirements of an empowerment orientation. It requires (1)
knowledge of many diverse local settings where people are already handling their own
problems in living, in order to learn more about how they do it, and (2) a search for ways
to take what is learned from these diverse settings and solutions and make it public, in
order to foster policies and programs which enhance control over one's own life.

Community Competence

The general concept of competence as applied to the interpretation and evaluation of
human behavior was suggested by Sullivan nearly forty years ago (Cottrell, 1976).
Several years later Foote and Cottrell proposed elements of what they termed interpersonal
competence, which was concerned with interactions between the individual, the family
and other socializing units (Foote and Cottrell, 1955). Later White used the term as a
concept describing the effectiveness of the interactions of an organism with its
environment (White, 1959).

Building on this foundation, Smith proposed characteristics of what he termed the
"competent self" (Smith 1968). Inkeles used the concept in terms of the socialization of
an individual to meet role expectations in social structures (Inkeles, 1966).

All of these investigators discussed the concept in terms of individual behavior, both as
an internal state and as it relates to interactions with society. Iscoe was one of the first to
relate the concept to community psychology (Iscoe, 1974). Cottrell and Iscoe were
among the first to use the term "competent community".

While there has been no clear theoretical model proposed or tested which links the
concepts of the competent self and the competent community, Cottrell and Iscoe have both observed that there are links between the elements of what have been isolated as elements of interpersonal competence, and elements which might characterize the effective or competent community. The individual elements proposed are a sense of being in control of one's life, an attitude of hope and interpersonal trust, and behavioral attributes such as problem-solving skills.

From this base, Cottrell extrapolated the following as characteristics of a competent community:

1. Can collaborate effectively in identifying the problems of the community.
2. Can achieve a working consensus on goals and priorities.
3. Can agree upon ways and means to implement an agreed-upon goal.
4. Can work together effectively to implement the required actions.

Thus, Cottrell sees a competent community as one that can cope effectively with its own collective problems.

A few investigations have applied the concept in research. Boardman developed an index of family competence (Boardman, 1972). Gatz and co-workers developed a community competence survey which asked residents what they knew about certain community services and how they would solve various hypothetical problems (Gatz, 1982). Goeppinger and Baglioni utilized a telephone interview questionnaire derived from Cottrell's work for assessing resident's perceptions of community functioning in five rural American communities (Goeppinger and Baglioni, 1985). None of these studies analyzed how various health program policies might support or suppress the development of community competence.

Certain conditions as well as skills and capabilities have been proposed as necessary for a community to function competently. These include a commitment by its members to the community as a valued relationship that is worthy of sustained effort. Community
members feel that what happens has a significant impact on their lives. They feel they have a recognized role to play, and they see positive results from their commitment. Such feelings grow as community members find that what one does can make a difference.

According to Cottrell, the competent community has a self-identity. It can accommodate and contain internal conflict, and can work toward resolution of such conflicts. Its members can make realistic critical analyses of situations. The community is able to articulate its views, needs and intentions, and communicate these effectively to the larger society. It is able to receive and process messages from the larger society. It uses experts and resources from the larger society without being controlled by them.

In a competent community people are articulate, know their way around the system, and know how to acquire and use the resources that are necessary to the functioning of the community. In effect, a competent community has "clout". Collectively its members no longer feel helpless and powerless. They can negotiate from a position of strength.

Competence differs from empowerment in that competence develops as a result of empowerment. Empowerment, the enhancement of capacities of people to control their own lives by defining, analyzing and solving their own problems to their own satisfaction, is primarily an action taken by an outside social institution working to develop and strengthen a community. This provides the catalyst for the community to develop competencies which lead to a gradual enhancement of power and control in the community.

1.4 Study Outline

It is hypothesized that a health program which empowers will result in increased community competence in health practice. Empowerment is the independent variable and community competence is the dependent variable.

The study starts by establishing a set of indicators which can be used to determine whether or not a health program is an empowering program. This is followed by the
development of a set of indicators of community competence in health practice. In order to show support for the hypothesis, it was necessary to show that programs with an empowerment orientation facilitate a considerably greater amount of community competence in health practice than do programs which lack an empowerment orientation.

Community, in this study, is taken to mean a relatively small group of people, living in close proximity, having a recognized leadership, and initially lacking in skills and resources to manage their own health problems.

The unit of analysis in the study is the community primary health care program. Programs in the islands of Yap in the Federated States of Micronesia were used to test the hypothesis. Four community primary health care programs were examined for the extent to which they empower, and the extent to which they have fostered community competence in the area of health addressed by the program. Because the aim was to examine policies which enhance empowerment and community competence in various types of primary health care programs, rather than the evaluation of specific health outcomes or methods of dealing with specific health problems, primary health care programs with differing target groups, services and expected outcomes in a single geographic area were selected. This approach allows the possible development of a set of guidelines which can be utilized to compare and evaluate policies for many different types of primary health care programs. Dissimilar programs in a single geographic region rather than similar programs in multiple geographic regions were selected, in an effort to find out if a tool could be developed for determining whether or not a set of primary health care programs operating within a single community or region are empowerment oriented and have the potential for developing community competence. While a set of criteria relating to similar programs in various places may be useful to centralized health authorities, it is not very useful to single geographic regions in setting policies and monitoring activities of varied locally-operating programs.
Guidelines have been developed for the examination and evaluation of primary health care programs such as maternal child health programs or school health programs. Such guidelines are found in documents such as United Nations or U.S. federal guidelines for health and social service programs (Office of Management and Budget, 1985). The guidelines focus on the evaluation of the provision of health services and of expected health outcomes. They do not provide guidance for the evaluation of program philosophies and policies. These guidelines are not easily adapted by local regions for the comparison of programs with differing target groups, service programs or expected health outcomes. Because of these difficulties, the aim of this study was to determine whether or not the concepts developed by Rappaport and Cottrell can be used to develop a more general set of criteria which can be applied to a variety of primary health care programs.

The indicators of empowerment and community competence are viewed as generic; therefore they were here applied to programs of different character. It is possible that they can with slight rewording be applied to health programs in general, or possibly even to social service programs other than health programs.

1.5 Principal Goal and Objectives of the Yap Case Study

Goal:

The goal of the research is to compare community primary health care programs in Yap which have varying amounts of empowerment-orientation, in order to determine whether or not there is meaningful difference in the extent to which they have fostered community competence in health practice.

Objectives:

The objectives are:

1. To design ways of assessing the extent to which a primary health care program is empowerment-oriented, by proposing some indicators of empowerment (independent variable).
2. To utilize these indicators to examine primary health care programs in Yap for the extent to which they empower clients.

3. To design indicators of community competence in health (dependent variable).

4. To utilize these indicators to examine primary health care programs in Yap for evidence of the development of community competence.

5. To compare these primary health care programs to determine whether those primary health care programs with a greater amount of empowerment orientation also have fostered a greater amount of community competence in health.

6. To identify likely consequences of the empowerment process in primary health care programs in Yap.

7. If the hypothesis is supported, to suggest methods of introducing the empowerment process in order to foster the development of community competence in primary health care programs.

1.6 Methodology

A participant-observation inquiry method was used in the study. According to D'Aunno and Price (1984, p. 70), "Participant observation" refers to inquiry in which researchers both systematically observe and participate in the day-to-day life of the communities, organizations, and groups they study. The critical feature of participant observation is the degree of involvement the researcher has with the "subjects" of the research.

An understanding of the writer's personal involvement with Yap may assist in the evaluation of these research efforts. Involvement with health programs in Yap began in 1975. This has included working for the Yap State Department of Health Services and living on Yap from 1975 to 1978 and 1985 to 1986, as well as serving as a foster parent for two Yapese children after moving from the island in 1978. During the period of 1979 to 1984 service as a consultant on several health programs in Yap occasioned regular
visits to Yap. Familiarity with the particular primary health care programs under study is detailed in Section 1.6.1.

Several investigators (D'Aunno and Price, 1984; Rogers, 1984) have found that immersion in the lives of people one wishes to understand minimizes the social barriers between researcher and "subjects". This enables the researcher to gain an intimate qualitative understanding of complex social phenomena from the perspective of persons who are experiencing them.

It was deemed desirable to study the programs holistically, not in isolation from the many forces that influence them. According to the WHO Expert Committee on Health Education in Primary Health Care:

Although it is possible to isolate specific behavioral patterns for epidemiological or etiological studies -- for instance certain behavioral patterns associated with social class differences, this does not imply that one can use these isolated traits as the target for health education efforts...There is a need for new health education models based on a sound knowledge of human ecology between the biological and environmental factors (both physical and social) that influence harmonious development (WHO 1983, p.7).

Raymond (1986) has found that the call has been made for future health research to be done in "natural settings". However, he states that such a call is too often for research within institutionalized programmatic settings. He feels that research on such programmatic settings and the persons involved in them is sorely needed. This focus for health promotion research assumes

the continuous, multi-directional processes of health promotion in which interactions and situational contexts comprise the inter-related, interwoven structure and suggest research into the dynamic interactions and mutual influence and causation of the person and his/her situation (Raymond, 1986, p. 29).
For these reasons, data was collected in a qualitative and descriptive mode, defined by Rist as "direct observation of human activity and interaction in an ongoing, naturalistic fashion" (Rogers, 1984). Precise estimates of single categorical criteria were not the goal of the study. The methodology used was based on guidelines described by D'Aunno and Price (1984). They advise loosely defining hypotheses and field settings in order to enable the observer to take advantage of first hand experience of the phenomena under study, and recommend that the participant-observer begin to collect information with more tentative, less detailed hypothesis than in experimental research, and go on to develop, revise and test hypotheses as he or she learns more about a setting. The development of the hypothesis for this study, for example, initially began with the assumption that the focus should be on the development of community competence by beneficiaries of the health programs. It was later found that, while it was essential to examine this phenomenon, it was equally necessary to look at the interactions among program personnel and between program personnel and beneficiaries. This led to the increasing prominence of empowerment as a precursor of community competence in the hypothesis.

D’Annuo and Price have found that the participant-observer approach enables a researcher to study phenomena accessible only through direct participation, increases the researcher’s knowledge of community processes, and allows the researcher to understand phenomena from the perspective of the person experiencing it.

There are problems associated with this methodology. D’Annuo and Price have found that participant-observation research produces changes in the behavior of the group under study. They caution against focusing on behaviors the researcher wants or expects to see, since this may result in disregarding unexpected aspects of a situation and sometimes "overlooking the obvious". Moreover, the effect that the researcher has on the group is difficult to determine. They use the term "going native" to describe observers who abandon their role as researchers to become completely a part of the group under study.
According to Rogers, participant observer research inevitably consists of both "what is out there and what is in the observer" (Rogers, 1984, p. 92). He has found that prejudice, preconceptions and provincialism can all distort findings. However, he also states that becoming a participant can be "absolutely vital" to genuine insights into the attitudes, values and beliefs of those being studied.

D'Annuo and Price recommend several strategies for dealing with the problems associated with participant-observer research which were utilized in this study. Rather than depending upon a single data-collection method, several data-gathering techniques, including structured interviews, reading of program documents and multiple observations of program activities, were used to determine the reliability of data. Sensitivity to the effect of the researcher on the group was maintained by keeping field notes of perceptions of self-perceived influences on the group's behavior, and by refraining from taking a leadership role in the four program's activities.

An attempt was continually made to guard as much as possible against seeing what one might wish or hope to see, as opposed to what actually occurred, by continually checking the interpretation of occurrences with the interpretations of others closely involved with them. This was particularly important since the investigator comes from a culture other than the one involved in the study. While it was impossible to eliminate observer bias, every attempt was made to limit it by relying wherever feasible on the interpretation of events by those intimately involved in the programs rather than on interpretations made by the investigator.

Rogers (1984) states that the unique nature, infinite complexity and subtlety of the kind of events studied through participant-observation render it difficult to replicate such research in any but its most general structure. The Yap primary health care programs are not representative of all primary health care programs. They were not selected "at random". What can be expected from a qualitative study of this nature is that from this
case study some general principles may be formulated which could be useful in developing and evaluating primary health care program policies in similar settings. Furthermore, the methodology and instruments developed to determine what conditions foster empowerment and community competence in health practice in Yap may be useful in other contexts.

1.6.1 Involvement With Primary Health Care Programs in Yap

The observations reported here are grounded in personal experience with primary health care in Yap which has extended over an eleven year period. This included, from 1975 to 1978, employment by the Maternal Child Health Program in the Yap Department of Health Services, working principally on rural village health promotion and disease prevention programs. It also included, from 1978 to 1981, working for the Trust Territory of the Pacific Islands government on various health education and disease prevention programs which involved regular contact with and travel to Yap to work with the Yap Departments of Health and of Education. From 1983 to 1985 it involved serving as the principal writer of the Island Health Series, a health education curriculum developed by the University of Hawaii College of Education's Curriculum Research and Development Group for use in school health programs in several areas of Micronesia, including Yap, and during this time period conducting teacher training in the use of these materials on Yap.

Since returning to Yap in 1985 to live and to work service has taken the form of advising all four of the primary health care programs which were selected for examination in this case study.

1.6.2 Indicators

The indicators of empowerment and of community competence in health which follow were used in the examination of the four programs. The indicators of empowerment were developed on the basis of the definition and discussions of the concept by Rappaport.
The indicators of community competence were developed out of an examination of the definition and exploration of the concept by Cottrell (1976), Iscoe (1974) and others.

Indicators of an empowerment orientation in health programs (independent variable) utilized in this study and upon which interview questionnaires were based are the following:

1. The program initially provides services which are immediate and visible, and which are perceived by both community members and local health workers as those they need.

2. The program, through its philosophy of decentralization, provides for the design of various locally developed solutions to meet varying local needs, rather than requiring the imposition of a single centrally planned solution to a variety of local situations.

3. The program provides flexibility for considering changes in response to requests from local health workers and community members.

4. The program has an established and frequently used method for communication between administrators, local health workers and the community.

5. The program provides for control and utilization of resources to be distributed throughout the program, with provision for an increasing amount of control at the local rather than the central level.

6. The program's supply and service systems are highly responsive to local requirements and requests.

7. The program's service providers are respected and trusted by community members, and are primarily responsible to local authority rather than to a distant central authority.
8. The program provides opportunities for local health workers and clients to experience success and reinforcement for taking responsibility for their own and their community's health.

9. The program credits successes to the local health workers and the community rather than to its program administrators.

The indicators of community competence in health (dependent variable) utilized in this study and upon which the interviews were based are the following:

1. Community members and local health workers see improvement resulting from the health program largely as a consequence of local action rather than action of the central health service department or other central agency.

2. As the community develops the ability to manage the program, its management moves from centrally located administrators to local health workers and community members.

3. Local health workers and community members know how to deal with the common health problems in the community addressed by the program, taking preventive steps when appropriate or utilizing curative services when necessary.

4. Community members and local health workers can make effective, reasonable demands for program resources from the central health authority, and have those demands fulfilled.

5. Community members and local health workers are able to contain and resolve internal conflict related to the program.

6. Community dependency on external program expertise and program resources is minimized, but this is not characterized by refraining from making use of appropriate external expertise and resources when needed.
7. Community vulnerability is minimized in the event that external program resources are reduced or completely withdrawn.

These criteria were used, not only by the investigator, but also by key program personnel and community members in formulating their evaluations of the programs. This was not done in any formal manner, but rather as a continuous process while working with these people on an almost daily basis. The focus of the criteria was restricted to the functioning of a program within the community and its effect on the community rather than to general community functioning.

1.6.3 The Four Programs

The following primary health care programs in Yap were selected for examination:

1. **Dispensary Primary Health Care Program**  A Yap State Health Department public health program which administers a system of health posts, called dispensaries, throughout the rural areas of Yap.

2. **School Health Program**  A Yap State Education Department program which provides simple health services and health education, and promotes a healthy school environment in village schools.

3. **SeaBee MedCAP Program**  A U.S. military program which provides simple medical services to rural areas of the central islands of Yap.

4. **Maternal Child Health Program**  A Yap State Health Department public health program which provides well-baby, prenatal and family planning services.

These four programs were defined as providing primary health care in Yap in that all provided health services in the field rather than in the central health facility, and all were initial points of health services contact by beneficiaries.

1.6.4 Data Collection

The data on primary health care programs presented in this study were collected principally in 1985-86. The data on Yapese history, culture and health services were
acquired over a much longer period, from 1975 to 1986, while living with the Yapese and working with Yapese health service programs.

Data on the primary health care programs were collected by observation of program activities, interviews of participants in the programs, and analyses of program documents.

Each program was analyzed in two basic dimensions: (1) whether or not the program was empowerment oriented, using the criteria described in section 1.6.2, and (2) whether or not the program fostered community competence in the area of health affected by the program, using the criteria described in section 1.6.2.

In order to answer the study question, it was important to understand how the people involved in the programs, both health administrators as well as local health workers and community members, viewed themselves in relation to the health programs. Multiple informants and a series of observations were used, in an effort to seek consistent reporting in order to obtain a consensual validation of results.

The study began with twenty-two direct, on-site, face-to-face intensive interviews with health administrators, local health workers and community members from islands throughout Yap. This was followed by discussions of the indicators of empowerment and community competence developed for the study with program and community leaders, reading of project documents, and observations of program activities. Many discussions were held with program administrators and community leaders. Almost daily observations of program activities were made for a period of more than seven months. These multiple methods of inquiry permitted cross-validation of results.

Short sets of questions were used to begin the initial interviews, in order to give structure to each interview and to assure a degree of consistency among the interviews. These questions were based on the indicators listed in Section 1.6.2. Each interview was begun by reviewing the questions with the interviewee and explaining their purpose. The questions were asked and answered in a non-formal "conversational" manner in order to
put the interviewee at ease. This was thought to be appropriate, as many of those interviewed spoke English as a second language, were unfamiliar with the term "research", and were often unsure of what was meant by being "interviewed". The answers to the questions were written while they were discussed with the interviewee. In almost all cases the question was discussed until the interviewee reached a conclusion, which was then written as the answer to the question. The questions covered the following:

1. The history of the program as recalled by the interviewee.
2. The current objectives and activities of the program, as understood by the interviewee, and whether or not these have changed over time.
3. Who, in the opinion of the interviewee, was in charge of the program -- the community or certain individuals in the community, program field personnel, central health department staff or more distant authority.
4. Whether or not the interviewee thought that the services being provided by the program were services perceived by beneficiaries and program field personnel as needed services.
5. How responsive service and supply systems were to initial input and subsequent requests for change made by beneficiaries.
6. How communications took place among program personnel and beneficiaries.
7. How responsive program personnel were to initial input and subsequent requests for change made by beneficiaries.
8. How the interviewee felt about the handling of problems related to the program.
9. How dependent the interviewee felt beneficiaries were on program personnel and how dependent program personnel in the field were on central health department personnel.
10. Whether or not, in the opinion of the interviewee, those providing program services were respected by the community.

11. Whether or not the interviewee felt that the program was contributing to self-reliance in health.

12. How confident the interviewee felt in handling the health problems being dealt with by the program.

13. In the opinion of the interviewee, what were the accomplishments of the program.

14. In the opinion of the interviewee, who was responsible for any program successes.

15. If the interviewee could make any change in or addition to the program, what would it be.

The same basic questions were asked in all initial interviews, even though those interviewed varied from naval commanders to field health workers to villagers from remote islands. In most of the interviews, wide-ranging discussions developed, and lasted for several hours. In several cases the interviews extended to more than one session. It was found that these detailed discussions provided an initial understanding of the attitudes, values beliefs and underlying assumptions which affected how the person being interviewed viewed the phenomena under investigation.

The fact that the information was being collected to be utilized as research data was revealed at the beginning of each request for an interview. As those drawn into the study expressed their hopes and doubts concerning the health programs under investigation, it became apparent that the research was facilitating understanding of the programs, not only by the researcher, but also by the "subjects" of the study. The results of the interviews and evaluations of programs according to the indicators of empowerment and community competence detailed in Section 1.6.2 were made known to program administrators and
community leaders as the research progressed, and were used collaboratively by both researcher and subjects to analyze and take action to improve the programs while the investigation was going on. Over the course of the study, interactions and discussions were repeated with many of the original interviewees, and there were numerous opportunities to observe the programs in action. The investigator worked with many of these people on a regular basis, and found that understanding of their opinions of, attitudes toward and hopes for the programs was greatly facilitated by this involvement.

The formal interviews were very useful in orientation to the programs and for introduction to participants and beneficiaries. They served primarily, however, to initiate the subsequent inquiry through detailed discussions, reading of project documents, observation of program activities and collaboration with program administrators on program improvements.

The analysis made in the study was necessarily interpretive, reflecting the quality and quantity of evidence studied and the investigator's judgement. Every effort was made to apply the criteria in an objective manner as possible, utilizing the evaluations of participants themselves in making the judgements. Results of the application of the criteria to each program were discussed with those administering each program, both in communities and with health program staff. In cases where their consensus of opinion differed from the investigator's, the consensus of those working with or benefited by the program was accepted. In certain instances there were strong disagreements between central health department personnel, community members and program personnel as to a program's activities and accomplishments. In these cases the availability of specific criteria for evaluation was most helpful, for it was possible to have those involved with a program reach far greater agreement on specific criteria than on their general opinion of a program.
1.7 Framework of the Presentation

This study involves a point-by-point comparison of four primary health care programs in a single geographic area on specific indicators of empowerment and community competence. The comparisons assess differences in the development of relevant community competence between programs with high and low empowerment orientations. The potential of each program for improving health status is then examined. Finally, specific and general conclusions are formulated, major issues are discussed, and recommendations are made.

Chapter Two provides descriptive overviews of the four primary health care programs under study. The examination of the indicators of the empowerment orientation of the four programs is presented in Chapter Three. This is followed, in Chapter Four, by an analysis of this data made by means of a review of the organizational behavior of the programs in relation to the issues raised by each of the empowerment indicators.

Chapter Five provides data collected on the four programs relative to the development of community competence. Chapter Six analyses this data. Chapter Seven provides conclusions, discusses issues raised by this study, and gives some recommendations for introducing the empowerment process to foster the development of community competence.

Appendix A documents the geographical, historical, demographic and cultural setting of the study. Despite its remote and somewhat inaccessible location, Yap has been governed by a series of colonial powers. Its strategic geographical location has occasioned recent international political interest in the islands which has had an impact on health programs there. Appendix B documents the historical development and current situation in health services in Yap.
CHAPTER II
OVERVIEWS OF THE FOUR PRIMARY HEALTH CARE PROGRAMS

2.1 The Setting

The islands of Yap, located just above the equator in the North Pacific, consist of a large central island divided by minor waterways, and a widely scattered chain of low coraline atolls, thirteen of which are inhabited. The total population is approximately 11,000. The central islands, which are known as "Yap Proper", lie about 450 nautical miles southwest of Guam and 1,100 nautical miles east of the Philippines. The atolls, called the "Outer Islands", are politically linked to Yap but inhabited by an ethnically and linguistically different population. About forty percent of the population of Yap lives in the Outer Islands.

Despite centuries of colonial rule, Yap still has a functioning culture based on the ownership of land, a social-caste system which is only beginning to show minor signs of break-down, a village subsistence economy co-existing with a money economy, a system of government in which traditional chiefs play a principal role, and a customary system of values and beliefs which still exerts a major influence.

The present health service system consists of twenty rural dispensaries scattered throughout the rural areas and Outer Islands of Yap, a hospital located at the administrative center of the islands, and a medical referral system through which patients can be sent from remote dispensaries to the hospital, and patients from the hospital can be sent to hospitals in Guam and Hawaii.

Four community health programs in Yap were selected for analysis in order to assess the hypothesis that a health program which empowers will result in increased community competence in health practice. Prior to examining the empowerment orientation and the fostering of community competence in the area of health addressed by each of the programs, an overview of each program is provided in this chapter.
The four are the major primary health care programs in Yap. Their characteristics are summarized in Table 1. Although there is some overlap in the target populations of the programs, most are geographically isolated from one another or target different sex or age groups.

Two of the programs, the Dispensary Primary Health Care (DPHC) Program and the Maternal Child Health (MCH) Program, are sizable programs with large staffs in comparison to the two other programs, the School Health Program and the SeaBee MedCAP Program. For the purposes of this investigation, this characteristic should not pose any significant problem. It is the degree of empowerment and the fostering of community competence which is examined, regardless of the size, scope or target of the program.

While the DPHC and the School Health Program are relatively new programs, the MCH Program and the SeaBee MedCAP Program have been in operation for more than twenty years. The time a program is in existence could have a confounding effect, in that a new program may not have had as much time to have the effect of empowering and fostering community competence. This issue is considered in the analysis of the programs.

2.2 Dispensary Primary Health Care Program Overview

The Dispensary Primary Health Care (DPHC) program provides basic health care, medical referral and preventive services through twenty dispensaries located in rural areas of Yap. These dispensaries are staffed by health workers with basic primary health care training, and are supervised and supported by a staff of two part-time Medex (one U.S. physician's assistant and one Micronesian graduate of a Medex program), and one part-time clerk, all based at the central hospital. Medex are graduates of a two year nursing program with an additional year of training as physician's assistants.

The program is part of the Department of Public Health. Administrative supervision is
<table>
<thead>
<tr>
<th>NAME</th>
<th>MISSION</th>
<th>SERVICES PROVIDED</th>
<th>TARGET POPULATION</th>
<th>APPROXIMATE ANNUAL CONTACTS</th>
<th>STAFF</th>
<th>BUDGET</th>
<th>SOURCES OF FUNDS</th>
<th>ADMINISTERED BY</th>
<th>YEAR BEGUN</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Health Program</td>
<td>To provide basic health services, improved school environment and health education</td>
<td>Health screening, simple treatment, improved environment and health education</td>
<td>2500 students</td>
<td>3,500</td>
<td>Director (half-time): 1 Health Worker: 1</td>
<td>$30,000</td>
<td>U.S. Federal Program; Yap State Budget</td>
<td>Yap State Department of Education</td>
<td>1980</td>
</tr>
<tr>
<td>Sickle MedCAP Program</td>
<td>To provide simple clinical services in rural areas</td>
<td>Sick Call in remote villages of Yap Proper and medical evacuation from Ulithi Atoll</td>
<td>342 rural villagers</td>
<td>4,200</td>
<td>Military Corpsman: 1 Part-time: 1 (Authorized by Health Department) Translator: 1 (support and salaries)</td>
<td>$16,000 (medicines) $62,470 (support and salaries)</td>
<td>Yap State Budget and Support and salaries</td>
<td>Sable Commander</td>
<td>1962</td>
</tr>
<tr>
<td>Dispensary Primary Health Care Program</td>
<td>To provide basic health care, medical referral and preventive services to rural areas</td>
<td>A series of clinics and health education programs at rural dispensaries</td>
<td>7750 rural villagers</td>
<td>24,500</td>
<td>Medex: part-time: 2 Clerk: part-time: 1 Health Workers: 20</td>
<td>$135,000</td>
<td>Yap State Budget and private gran</td>
<td>Yap State Department of Health Services</td>
<td>1985</td>
</tr>
<tr>
<td>Maternal Child Health Program</td>
<td>To provide health services to women of childbearing age and children aged 0-18</td>
<td>Prenatal, postpartum, family planning, well child and immunization services</td>
<td>2300 women</td>
<td>3,000</td>
<td>Graduate Nurses: 2 Praclicl Nurses: 2 Health Educator: 1 Dental Assistants: 3 Clerk: 1</td>
<td>$75,000</td>
<td>U.S. Federal Program and United Nations Fund for Population Activities</td>
<td>Yap State Department of Health Services</td>
<td>1965</td>
</tr>
</tbody>
</table>

Sources: Program documents and interviews with program administrators
provided by the Chief of Public Health, and medical supervision is provided by the Public Health Officer.

**History of Dispensary Operations in Yap**

Dispensaries were developed in certain rural areas of Yap by the U.S. Navy soon after its occupation of Yap at the end of World War II. Health workers were trained by the navy to staff these dispensaries, which were built by community residents. Health workers were paid "in kind" by their community.

With the election of a Micronesian Congress in the 1960's, political pressure was exerted which resulted in the payment of health worker salaries by the health services department. At this time, American Peace Corps volunteers became involved in the construction of new dispensary buildings. Communities contributed land and labor, and the government supplied building materials.

In the 1970s, U.S. federal "Hill-Burton" funds were obtained for commercial construction contracts for building new dispensaries in many communities. During this period the University of Hawaii provided training for some health assistants, who became Medex and were placed in supervisory positions over other health workers in their geographical areas. In 1985 one of these Medex, who had since obtained a Master's degree in Public Health, became the State Director of Health Services. Another is one of the part-time directors of the DPHC program, and four others are working in the DPHC program.

Prior to 1985, the number of patients seen in dispensaries was declining in relation to the number of patients seen in the central hospital out patient department. Supervision of dispensary operations was minimal, and dispensaries often lacked even the most basic supplies. Dispensaries in the Outer Islands continued to provide minimal services when supplies were available, while all but two of the dispensaries on Yap Proper were closed. The pattern of declining dispensary operations is similar throughout Micronesia, where
most dispensaries are now being closed in favor of centralization of health services in hospitals in urbanizing areas.

The Initiation of Primary Health Care In Yap

A primary health care program was begun in Yap in 1981. This was brought about through the work of WHO consultants to the FSM Department of Health Services, who urged the development of primary health care programs throughout the FSM. Although from the beginning primary health care programs were also administered by the Department of Public Health, they were not seen as part of dispensary operations. Basic clinical care had no part in the original program. The mission of the program was seen as the fostering of community and individual responsibility for the maintenance of health, with primary emphasis on prevention.

A state PHC steering committee was developed, and several pilot programs were initiated with funding support from WHO. Programs were begun in two rural areas of Yap Proper, Kanify and Rumung, and the Outer Island of Fais. These programs consisted primarily of visits by teams from the Department of Public Health, to give lectures on sanitation and related subjects. The meetings were poorly attended by villagers, and the programs declined. The only expenditure of WHO PHC funds in Yap in 1984 was for the purchase of a video tape machine for use in the central hospital. The remaining funds of about $8,000 lapsed and the program effectively ceased to function.

Integration of Dispensary Operations and Primary Health Care

In 1985, with the hiring of the new Director of Health Services, a renewed emphasis was placed on both dispensary operations and primary health care. Five new dispensaries were opened in 1985, and the fifteen existing dispensaries plus these new dispensaries were provided with additional support services in the form of central health department staff assigned to the program and, additional supplies and materials. The new director supported efforts by the director of the School Health Program to provide refresher
courses for Medex and health assistants working in dispensaries. The director held a PHC workshop which gradually led to the integration of PCH activities and dispensary operations. She hired a health promotion consultant, and encouraged the consultant to work closely with the dispensary program.

This integrated program has attempted to provide both preventive and curative services through the dispensary system. Because the felt need of most rural communities was thought to be curative medicine rather than preventive programs, initial efforts were directed at improving the supervision and support systems for dispensaries. Three new dispensaries were opened in Yap Proper, and plans were made for opening four more in Yap Proper and one more in the Outer Islands.

**Patient Contacts in the dispensaries**

In 1985, 20,166 patient contacts were made at the dispensaries. This is in marked contrast to a 76% decline in dispensary contacts in the period 1976 to 1981 in Yap Proper. In the Outer Islands from 1976 to 1981 there was a higher dispensary contact rate because the islanders had no alternative, but the number of patients traveling at government expense on the field trip ship to the central hospital increased faster than the population increased. The number of contacts per 1000 Outer Island residents declined by an annual average of 3% between 1974 and 1982.

During 1985-86, when dispensary services were expanding, the number of outpatients treated at the central hospital outpatient department remained relatively stable at approximately 15,000 contacts per year. This suggests that people who were not receiving treatment prior to the expansion of dispensary services were now receiving treatment, and/or were now seeking dispensary treatment for conditions for which treatment was not sought before. It may also be that they are receiving both dispensary and hospital care. Interviews with program beneficiaries in 1985/86 indicate that they are now more likely to seek care at a dispensary for minor ailments for which they would not
have sought care earlier, due to the inconvenience of journeying to the hospital. They also commented that they now use the dispensaries more often because the dispensaries are better supplied than in the past.

The dispensaries hold a daily "sick call" general clinic, and a series of weekly preventive clinics: well child, prenatal, tuberculosis and leprosy follow-up. Health education is provided at each of the clinics, in the form of patient counseling and informal health talks. The great majority of patient contacts are through the general clinic, although the numbers of contacts through the preventive clinics, particularly the well child clinic, are gradually increasing.

**Funding**

The FY 1987 DPHC budget is $135,000. Eighty-five percent of dispensary operations are funded through the Yap State Health Services Budget which is supported by state operational funds. This is insufficient to support all DPHC activities, which have drawn on a number of small grants from time to time. These have included some WHO PHC funds left over from 1984, some UNFPA Family Planning funds, and a 1985 one-time private grant of $20,000 from the JANNS Foundation, an American charitable foundation.

**Communications With Dispensaries**

Monthly reports are required of each DPHC worker. These reports are sent to the central DPHC office. The reports cover the number of patients seen in each clinic, numbers of house calls made, immunizations given, as well as details on diagnosis and treatment given to each patient, detailed medical referral communications and supply inventories.

Most Outer Island Dispensaries have radios for communications with the central hospital. A radio is located in the DPHC office, and bi-weekly radio "nets" are held by the Medex who direct the program. Dispensaries can call at any time, and reach a
physician for consultation, provided the radio system is functioning. Equipment malfunctions and radio interference are not infrequent. During October, 1985, to May, 1986, the radio to one of the Outer Island dispensaries was usually not functioning. During this period at bi-weekly radio nets there was usually at least one additional dispensary which could not send or receive messages due to static or interference problems. Twice during this period the whole system was inoperable for several weeks. There is no method of communicating with the dispensaries on Yap Proper other than physical contact, driving or going by small boat between the hospital and the dispensaries.

Yap Proper dispensary health workers close their dispensaries each Friday and come to the central hospital. They meet with the central DPHC office staff, drop off requisitions and pick up supplies, leave records of treatments given during the week, and usually attend a medical seminar given by one of the staff physicians.

Central staff visit Yap Proper dispensaries from time to time as the need arises. Two staff physicians occasionally visit dispensaries to assist in seeing patients. Students in training as dispensary managers often accompany these physicians. A physician as well as other health personnel usually travel on each field trip ship. Each Outer Island dispensary is visited an average of once every two to three months. Because the primary activity of the ship is commercial, the time in port at any island is dependent on the amount of business to be done. This usually averages less than one day in port. Most island residents are involved in these commercial activities, with the consequence that health teams generally have little productive time on the islands. Island residents are generally too busy to have time for interacting with the health team.

**DPHC Training Program**

The present DPHC program began in January 1985 with a refresher training program for Medex and health assistants. Fifteen workers completed the course in 1985, which consists of three month's didactic training in the central hospital and Yap Proper
dispensaries, and three month's field work in the worker's own dispensary. Graduates of
the program are termed "dispensary managers".

The trainees are evaluated through a series of tests and a final examination at the end of
the didactic training. During the field work period performance of various management,
treatment and prevention skills are evaluated by visiting DPHC central staff. A final
evaluation is made, which requires a score of 100% before the dispensary manager is
certified. Certification is not granted for scores of less than 100%. Salary increases are
dependent on certification. Any worker who does not initially pass the certification
examination is reevaluated at a later date.

By the middle of 1986 all dispensary health workers will have completed the refresher
course. Several have failed the course and have been replaced. A new pre-service class
for persons with no prior experience or training was begun in 1986 to provide personnel
for dispensaries which will be opened by the end of 1986. The initial training period for
these workers is nine months. Each of the trainees is required to be a resident of the
community in which he or she will eventually work, and selections are made in
consultation with each involved community's leaders.

2.3 Seabee MedCAP Program Overview

The Seabee MedCAP (Medical Civic Action Program) is a U.S. military program
provided through the Yap Civic Action Team, a group of "Seabees" who are stationed on
Yap. This group belongs to the U.S. Naval Construction Batallion (CB), hence the term
"Seabees". The Seabee team on Yap consists of a lieutenant who commands the group, a
chief, and eleven enlisted men, one of whom is a medical corpsman.

The Seabee Mission

According to the commanders of the two SeaBee teams who were on Yap during the
course of this study, the mission of the Seabee teams in Micronesia is to promote a
favorable U.S. military image in the islands through assisting with social and economic
development. The primary activity of the Seabees on Yap is to provide technical assistance with small construction projects in rural villages. Their presence on Yap is funded by the U.S. Department of Defense, at a cost of approximately $300,000 per eight month team rotation period. Air support and supply operations cost another approximate $100,000 per month. The Seabee teams remain in Yap for duty periods of eight months. At the end of this period a new team arrives for its eight month rotation. There is a four day overlap of the two teams, during which the old team orients the new.

The local administrative contact for the program is the Yap Community Action Program (YapCAP), an agency which administers a variety of community action programs throughout the state. For several years the YapCAP has focused on the provision of small water systems and related projects for rural villages, with the assistance of the Seabee team.

The military assistance program operates in a similar fashion throughout Micronesia. It has been in operation for more than twenty years, and has been involved in a variety of construction projects such as road construction and water channel dredging.

The Seabees are stationed at a small camp on Yap Proper. Their barracks and a maintenance shop for their equipment is located at the camp. A small dispensary, staffed by the corpsman, is also located at the camp. Each naval Seabee team has a corpsman who is responsible for providing simple medical care for team members, and for referring them to central U.S. military medical facilities when necessary. The corpsmen stationed on Yap are officially designated as independent duty corpsmen, with a background of three years of navy-sponsored clinical training.

The team is commanded by an admiral in Guam, who is in regular contact with the Yap team and other teams throughout Micronesia. The Seabee medical corpsman is supervised by a military physician stationed at the naval hospital on Guam. This physician visits the corpsmen stationed in the FSM once every three months.

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Seabee Involvement in Health on Yap

The SeaBee medical corpsmen have been involved in the Yap health service system since the first team arrived on Yap in the mid-1960s. The MedCAP Program is an outgrowth of a program originated in Viet Nam, where Seabees involved in building advance base components provided medical services in an effort to "win the hearts and minds" of villagers. The corpsmen generally are involved in holding "sick call" in remote areas of Yap Proper, traveling in a truck and using medicines provided by the Yap State Health Services Department. The corpsman treats an average of 300-400 patients per month. No health education is provided through the program. Prior to the period of this study, corpsmen have also been involved in other programs, such as the provision of first aid training to local health workers.

The corpsman has a Yapese assistant who serves primarily as a translator. The SeaBees try to provide the local assistant with on-the-job training. These assistants change with each team. The assistants are paid thirty-five cents an hour plus a $600 stipend at the end of the team rotation period. This salary is paid by the YapCAP. In 1985 the SeaBee commander fired the Yapese assistant, and a replacement was not hired for almost four months. Most of these assistants do not get jobs in any type of health program after they finish their training. The Yap State Health Services Department has endeavored to hire them, but usually there are no positions available.

There is a small missionary plane which flies to Ulithi Atoll in the Outer Islands. This plane provides free emergency medical evacuations of patients from Ulithi to the central hospital in Yap. Upon request, the Seabee corpsman will go on the plane to provide emergency services during such evacuations. The missionary organization does not charge for the corpsman's transportation.

The corpsman also holds sick call two mornings per week at Yap High School, which is located very close to the Seabee camp, and daily at the Seabee camp dispensary.
Relationship to the Yap State Health Services Department

The arrangements for services between the SeaBee team and the Yap health services department were quite informal prior to 1986. At that time growing concern over the role of the MedCAP Program in rural health care in Yap stimulated an examination of the program and the subsequent formalization of the relationship. A written agreement stipulated the types of services provided by the first 1986 team, the first time such a written agreement had been made. The Yap State Health Services Department requested that MedCAP sick call be held only in villages which do not have access to a health services department dispensary, and furnished the Seabee commander with a list of villages which are to be visited. This was a marked departure from the prior practice, in which the Seabee corpsmen were free to visit any villages they wished. The action was taken because many areas which were not previously served by health services dispensaries were provided with such facilities in 1985. Although the villages assigned to the corpsman in 1986 have a total population of only 342, many additional patients are seen because villagers come to Sick Call from neighboring villages and because the corpsman visits villages not authorized by the Yap State Health Services Department, despite the stipulations against this in the written agreement. Although the target population in Yap for this program is quite large, the State Health Department has restricted the target population because of the wish to expand the DPHC Program.

The written agreement between the Yap State Health Services Department and the Seabee commander stipulates that the contacts for the MedCAP program in the Yap health services department are the two directors of the Dispensary Primary Health Care (DPHC) Program. Before this agreement, contact was very informal, usually through the Public Health Department or the hospital pharmacy. Under the new agreement, all requests for medicines and supplies are routed through the DPHC office, and all procedures are to
have prior approval from the health services department. None of the medicines supplied are to be used at the SeaBee camp dispensary.

The corpsman is required to use Yap State dispensary daily worksheet forms for recording treatments given at sick calls, and to turn these in to the DPHC office on a weekly basis. The corpsman or his assistant is also required to record all medications and treatments given on patient charts in the Medical Records Department of the Yap Health Services Department each week. All of these requirements were put into effect in 1986. Prior to that time MedCAP corpsmen were not required to record medical treatments in any formal manner, and their requisitions for medicines were not routinely reviewed by the health services department.

One result of the attempt by the Yap health service department to have greater control of MedCAP activities has been a marked decrease in the number of patients seen by the corpsman. In the first half of 1986 the corpsman had an average of 350 patient contacts per month for a total of 4,200 patient contacts per year, while in 1985 the average sometimes reached as high as 2,000 patient contacts per month, according to the team commander.

**Funding**

The salary and support costs for the Seabee corpsman are approximately $68,000 per year. These costs include salary and benefits, housing and all other support, and are funded by the U.S. Department of Defense. Approximately ninety percent of the corpsman's time is spent in MedCAP activities, making the cost of this program component $61,200. The Yapese translator makes approximately $1270 per annum. The Yap State Health Service Department provided medicines and other supplies to the corpsman. In 1985 these supplies cost the health department approximately $16,000. The only function of the corpsman, other than working in the MedCAP Program, is to provide health care for the twelve-man SeaBee team. Since these are healthy young men, his
duties in caring for them are minimal, so most of his time is spent in MedCAP activities.

2.4 School Health Program Overview

The Yap School Health Program currently serves a population of approximately 2,500 students in grades 1-12 and 190 teachers. Fourteen schools are located on Yap Proper, and sixteen others are scattered throughout the Outer Islands.

Program Components and Funding

The School Health Program combines three components -- health services, a healthy school environment, and health education. The program is cooperatively supported by the Yap State Department of Education and the Yap State Department of Health Services. It is a locally developed program, funded by a U.S. federal grant of approximately $27,000 per year, which is part of a larger educational grant to the Yap State Department of Education. This funding is supplemented by the provision of certain services and supplies paid for out of state funds from the Yap State Department of Health Services.

History

Health education has been a priority of the Yap Department of Education for a number of years. Initially a health education program was begun with U.S. federal funds in 1974, but the program met with minimal success. Curriculum materials were developed and teachers were trained in their use. The materials were used in the classroom, but little change in the health status of school children was seen. Intestinal parasites, scabies, gastroenteritis and other common ailments of school age children in Yap did not decrease, according to interviewed public health personnel. Analysis of the possible reasons for the lack of success of the program by program developers in Yap led them to the conclusion that what was being taught in the classroom was not being reflected in the child's environment. There were lessons on washing hands after going to the toilet, but schools had no water or toilets. Children were taught when to seek medical services, but no
services were available unless families were willing to make the long journey to the central hospital, where medicine for prescribed treatment might not even be available.

In 1980, these problems prompted one of the original program developers to reorient the program toward development of a health service program for village schools. He believed that a school health services program would be the best way to begin a comprehensive school health program, because it had the potential of providing visible results in a short time, tangible proof that schools could improve the health of children in Yap. From this base he hoped that interest could be generated in improving the school environment and the health education program.

**School Health Services**

The School Health Services staff consists of a locally trained health worker supervised by the original program developer, who is now one of the directors of the Dispensary Primary Health Care Program. The health worker has been employed in the program since it began in 1980. The director has gradually turned the operations of the program over to the health worker, and is now much more involved with dispensary programs. His salary continues to be provided by the Yap State Department of Education. In return, by informal agreement, the Yap State Department of Health Services provides the services of several of its employees, such as a physician to assist with school health program screenings and a health educator, as well as medicines for use in schools.

The health services component of the program consists of screening examinations for first, fourth, eighth and twelfth graders, immunizations, and simple treatment for conditions such as anemia, intestinal parasites, infected sores and otitis media. Most medical problems are treated in the field when possible. Referrals to the Department of Health Services include conditions such as possible tuberculosis indicated by skin tests, dental caries, heart murmurs, and other problems not readily treated in the field. Compliance in taking medication for tuberculosis and leprosy is checked, and patients
who are not taking their medications are referred to the Public Health Department. Approximately 3,500 contacts are made by the health services component each year, for the screening examinations, immunizations, and treatments.

All students are routinely treated annually with a vermifuge (mebendazole 100 mg. twice a day for 3 days). Family members who request the medication are also provided with it. Intestinal parasites, particularly hookworm, ascaris, and tricuris, are present in virtually all school children. Routine vermifuge treatment is not given to all school children in the hope of eradicating worms, an impossibility given the present conditions of environmental sanitation which prevail in Yap. The treatment is instead used to prevent a general decline in health, anemia and other complications associated with intestinal parasite infections. On Yap Proper the medication is administered by the program health worker who travels to each remote school on a motorbike for the three consecutive days, carrying the medication in a backpack. The decreasing prevalence in anemia among school children in Yap is considered indicative of the success of the intervention.

Screening for anemia, defined as a hemoglobin of less than 12 g., is done with a simple battery-operated hemoglobin meter, also carried by the health worker in his backpack. Anemia has shown a decline from 10% to 5% of the annually screened student population in the last three years. Students with anemia are not treated with iron supplements, but rather with treatment for intestinal parasites and nutritional counseling for parents.

Parents are involved in the program through annual meetings at each village school on Yap Proper. General health education talks are given, and student health records are reviewed with parents in individual sessions. Referral slips are given to parents at these meetings, and follow-up is provided by the program staff to ensure that referred children come for appointments.

Services are provided to Outer Island Schools via the field trip ship. The program
director and the health worker make one trip each year, visiting all islands, weather permitting. The dispensary manager on each island is responsible for health screening of school children. Immunizations are given by the visiting program staff, and supplies are delivered.

**Environmental Improvement Program**

This program component began in 1982 as part of a five year plan for the general improvement of education in Yap. The primary focus of the five year plan was the decentralization of schools. A school clean-up campaign for Yap Proper was selected as an initial project of what became the Community Outreach Program. The goal of the program was to involve parents in an annual contest to have the cleanest school.

Schools are inspected by a board of Yapese leaders, who give them a numerical rating in a variety of criteria. The Yap State Health Services Department provides inspection of school drinking water, toilets and refuse disposition. Trophies are awarded to winning schools.

**School Health Education**

In 1984 the Yap State Department of Education contracted with the University of Hawaii for a revision and expansion of the original health education materials developed in 1974.

Yap State education staff persons were involved in the writing and review of the materials. Six teacher guides were developed for the elementary schools, and a series of teacher guides and student workbooks were developed for the secondary level.

Teachers in Yap Proper were trained in the use of the materials through a University of Guam extension course. A workshop was held in 1984 by the Yap State Department of Education Science Specialist in Ulithi Atoll in the Outer Islands. Teachers from other Outer Islands traveled to Ulithi for the workshop. Since that time the Science Specialist has taught several other workshops on the materials for teachers throughout Yap.
The curriculum is in use in all elementary schools in Yap, and in the secondary school on Ulithi Atoll. It is not in use at Yap High School, where the expatriate teacher prefers to use U.S. health education materials.

2.5 Maternal Child Health Program Overview

The Maternal Child Health (MCH) Program serves a population of approximately 2,100 children aged 0-4 years and 2,300 women of child-bearing age (15-44 years). Although the program could offer services to children through age eighteen, in Yap services are provided to school age children through the School Health Program.

A small MCH program began in 1965, and in the early 1970's U.S. federal funds were made available as part of a general extension of U.S. federal programs in health, education and related social services throughout Micronesia. The program is part of the Yap State Public Health Department, and is jointly supervised by the Chief of Public Health and the Public Health Officer, who is a physician.

Funding

The MCH Program is entirely funded by external agencies. Most of the funding is provided by several U.S. grants, which provide a total of approximately $65,000 per year for the operation of the program. These grants provide $23,000 for a family planning program which began in 1983, and $42,000 for all other MCH programs, which include Maternity and Infant Care, Crippled Children's Services, Immunization Services, and Dental Health of Children. An additional annual grant of approximately $10,000 which began in 1985 is provided for family planning activities by the United Nations Fund for Population Activities (UNFPA).

Several other externally-administered U.S. grants also contribute resources to the Yap MCH Program. These include sizable technical assistance grants administered by the FSM Health Services Department, the University of Guam and the University of Hawaii, as well as the regional U.S. Public Health Service office in San Francisco. The UNFPA
Program, based in Manila, also provides technical assistance in the form of consultants, supplies and equipment.

All of the U.S. grants are governed by U.S. federal regulations which are identical to those imposed in the United States. Yap State is required to adhere to all of these regulations or risk the loss of the grants. Reporting requirements are also identical to those in the United States. The UNFPA grant must adhere to the requirements of the granting agency.

The Yap State grants are administered by the Division of Health Services of the FSM in Ponape. All funds are routed through the FSM national Government financial system and then through the Yap State Government financial system. The FSM exerts more influence on the UNFPA grants than on the U.S. grants, but this appears to be more a function of the personalities of the two people responsible for administering each of the programs in Ponape than a function of program regulations.

The MCH Program is directed by a nurse who is a graduate of the Trust Territory two year nursing school located in Saipan. She has many years of experience as a hospital nurse, and became the MCH coordinator in 1985. She has had no training in maternal child health or public health other than that obtained by attending several short workshops in 1985. The staff consists of two practical nurses, a clerk, and three dental assistants. Although funded by MCH grants, the dental assistants are under the direction of the Yap State Dental Department, and do not have a daily working relationship with the rest of the MCH Program. A nurse-midwife, also a three year nursing program graduate with additional training in midwifery, administers the family planning program. She is part of the public health department, but she is not supervised by the MCH coordinator. The salary of a health educator is paid by the UNFPA grant, but this person is also not under the supervision of the MCH Program coordinator. The health educator is a graduate nurse
with additional Medex training, but no formal training in health education. Both of these employees, unlike the dental assistants, are part of the public health department.

The MCH Program in Yap provides weekly prenatal, postpartum and well-child clinics at the central hospital. Periodic visits are made to rural villages to immunize preschool children. These visits are made several times a year by staff using a van belonging to the program on Yap Proper. Several times a year a program employee goes on the field trip ship to the Outer Islands to give immunizations.

**Prenatal Services**

Prenatal services are offered at a weekly clinic held at the central hospital. Women are examined by a physician, and laboratory services are available. Approximately 90% or more of women living on Yap Proper receive at least one prenatal examination. Only about 15% of the visits occur in the first trimester; most take place in the third. Each patient averages four examinations, although sixteen are recommended in the MCH Program prenatal protocol. MCH prenatal services are offered only at the central hospital.

Outer Island primagravidas (women in their first pregnancy) are usually sent to Yap Proper on the field trip ship during their third trimester. They receive prenatal care and deliver at the central hospital. Outer Island multigravidas (women who have been pregnant two or more times) are usually delivered by traditional, untrained midwives. Health workers stationed at dispensaries in the Outer Islands have been trained to provide prenatal services and perform deliveries, but due to cultural taboos on many of the islands, they often cannot provide such services.

**Postpartum and Family Planning Services**

Postpartum services are offered at a weekly clinic at the central hospital. Examinations are performed by a physician. These services are not well utilized, according to records of outpatient visits kept by the state health department. Less than 20% of the women of Yap Proper receive postpartum examinations, while in the Outer Islands virtually none are
examined unless for a medical emergency such as excessive postpartum hemorrhage. Family planning services are offered primarily through the central hospital postpartum clinic. Many of the residents of Yap Proper are Roman Catholics, and not favorably disposed to family planning.

Family planning services are not ordinarily available in the Outer Islands. The family planning nurse has traveled to the Outer Islands on the field trip ship, but since the ship stops for only one day or less at each island and the island’s residents are occupied with commercial concerns while the ship is in port, there is little opportunity to provide services. Health workers stationed on the islands are not usually provided with family planning supplies. Women who desire permanent sterilizations are referred to the central hospital by local health workers, but this occurs very infrequently. Because virtually all residents of the Outer Islands are Roman Catholics, family planning is not widely accepted.

Nearly 70% of the infants born in Yap are classified as "high risk" by the health services department due to their (1) being of low birth weight, (2) born to women younger than 20 or older than 34, (3) born to women who have had four or more previous children, or (4) born within 32 months or less of their mother's last previous delivery. There is an increasing incidence of pregnancy in women below eighteen years of age, and many are having more than one child in the teen years. An average of less than 100 women per year in the whole of Yap State receive any type of family planning services. The 1986 goal of the program is to provide services to 200 women, and to provide family planning information to 1000 people.

The U.S. federal family planning grant is renewed each year based on performance. Performance is evaluated through monthly reports sent by Yap to the FSM, detailing the number and type of family planning services provided to women in Yap. In 1986 the grant to Yap was reduced somewhat due to a low number of family planning acceptors.
Through the last quarter of 1985 and the first half of 1986 the family planning nurse has been on extended maternity leave, and services have been curtailed as a result.

**Well Child Services**

A Well Child clinic is held weekly at the central hospital. Immunizations are given by the MCH staff. Well child clinics are also provided at the dispensaries, but these are not administered by the MCH Program. Most of the 0-4 year old children of Yap receive some type of well child services. Since one of the priorities of these services is immunizations, the immunization level is a good indicator of the provision of services. Forty percent of two-year old children are current on all recommended immunizations. After age two most families do not bring their children to the well child clinic. The immunization level for children six years and above who are current on immunizations approaches 100%, but most of these immunizations are given after the children begin school, by the School Health Program worker.

**Crippled Children's Services**

Crippled Children's Services (CCS) grant funds are usually utilized for off-Yap medical referrals, as a supplement to the state medical referral budget. Children may be sent to hospitals in Guam or Hawaii for treatment which cannot be provided on Yap.

During 1986 Yap had a total of 88 children on the CCS registry. In 1986 three of these patients were referred off-Yap for treatment, using CCS funds.

**Patient Contacts**

The total number of patient contacts for the MCH Program averages approximately 3,000 per year. An average of 2,100 of these contacts are in the hospital-based prenatal, postpartum, family planning and well child clinics. The prenatal clinic averages 1,050 patient contacts per year, the postpartum clinic averages 50 patient contacts per year, and the well child clinic averages 1000 contacts per year. Less than 100 MCH patients, all hospital prenatal clinic referrals, are given dental treatment per year. Prior to 1985,
children seen in the well child clinic were referred for dental treatment, but this practice has ceased. Immunizations given in the field on Yap Proper average 750 per year.
CHAPTER III

THE EMPOWERMENT ORIENTATION OF THE FOUR PROGRAMS

3.1 Indicators of An Empowerment Orientation

For the purposes of this investigation, empowerment has been defined as the enhancement of capacities for people to control their own lives by defining, analyzing and solving their own problems to their own satisfaction. A set of indicators of an empowerment orientation was proposed in Chapter One. These indicators were used as a guide in the examination of each program, and as a basis for structuring interviews with program administrators and various levels of staff and community members.

The development of an empowerment orientation is essentially an intentional or unintentional policy function of program developers and administrators. The issues addressed are policy issues, usually not under the control of mid to lower level staff or community members. However, mid and lower level staff as well as community members were interviewed, as well as top level staff, as the perceptions of program orientation at all levels gave important insights into policy implementation in each of the programs.

The results of the examinations of the programs for their empowerment orientation are presented in this chapter and summarized in Table 2. Each indicator is stated, followed by the results of the examination of each of the four programs for their orientation relative to that indicator. The findings are analyzed and interpreted in the following chapter.

3.2 Indicator One: the program provides services which are immediate and visible, and which are perceived by both community members and local health workers as those they need.

DPHC Program

Since 1985, a central aim of the DPHC Program has been the provision of early, low-cost treatment provided in a dispensary close to where people live. In 1985, the first year of the program, little if any effort was put into the provision of preventive services.
Table 2
THE EMPOWERMENT ORIENTATION OF FOUR HEALTH PROGRAMS IN YAP

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>DPHC PROGRAM</th>
<th>SEABEE MDCAP PROGRAM</th>
<th>SCHOOL HEALTH PROGRAM</th>
<th>MCH PROGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The program provides services which are immediate and visible, and which are perceived by both community members and local health workers as those they need.</td>
<td>Program began with clinical services, later added preventive services.</td>
<td>Clinical services</td>
<td>Program began with clinical services; later added preventive programs.</td>
<td>Clinical services not allowed under grants.</td>
</tr>
<tr>
<td>2. The program, through its philosophy of decentralization, provides for the design of various locally developed solutions to meet varying local needs, rather than requiring the imposition of a single centrally planned solution to a variety of local situations.</td>
<td>Program locally developed; has variety of funding sources; is not the same in all areas of Yap.</td>
<td>Program developed centrally by military in Guam.</td>
<td>Locally developed.</td>
<td>Externally developed; same in many geographical locations.</td>
</tr>
<tr>
<td>3. Program provides flexibility for considering changes in the program in response to requests from local health workers and the community.</td>
<td>Program highly responsive to requests for change.</td>
<td>Local requests for change usually refused.</td>
<td>Highly responsive to local requests.</td>
<td>Usually not allowed.</td>
</tr>
<tr>
<td>4. The program has an established and frequently used method of communication between program administrators, local health workers and the community.</td>
<td>Weekly meetings, bi-weekly radio conferences, village meetings.</td>
<td>None</td>
<td>Village school board meetings, parent conferences, school health meetings.</td>
<td>None locally, external visits infrequent.</td>
</tr>
<tr>
<td>5. The program provides for control and utilization of program resources to be throughout the program, with provision for an increasing amount of control at the local rather than at the central level.</td>
<td>Control being decentralized.</td>
<td>Tight central control by military commander.</td>
<td>Control being decentralized.</td>
<td>Tight external control.</td>
</tr>
<tr>
<td>6. The program's supply and service systems are highly responsive to local requirements and requests.</td>
<td>Efficient supply and service system.</td>
<td>Efficient supply and service system.</td>
<td>Responsive supply and service system.</td>
<td>Great difficulty in obtaining responses.</td>
</tr>
<tr>
<td>7. The program's service providers are respected and trusted by community members, and are primarily responsible to local authority rather than to a distant central authority.</td>
<td>Workers from communities; selected in cooperation with local leaders.</td>
<td>Corporal responsible to military commander only; has high status.</td>
<td>Health worker low caste; Education staff responsible to local and central authorities</td>
<td>Coordinator high caste; Staff centrally supervises.</td>
</tr>
<tr>
<td>8. The program provides opportunities for local health workers and clients to experience success and reinforcement for taking responsibility for their own and their community's health.</td>
<td>Decentralization fosters local responsibility.</td>
<td>Aim of program not compatible with development of local responsibility.</td>
<td>Competition used to foster local identification with program successes.</td>
<td>Not provided.</td>
</tr>
<tr>
<td>9. The program credits successes to the local health workers and the community rather than to its program administrators.</td>
<td>Geographical separation fosters local credit.</td>
<td>Military goal includes favorable navy publicity.</td>
<td>Publicity given to local communities.</td>
<td>Often critical of local people.</td>
</tr>
</tbody>
</table>
The community experience and contacts of the program developers had indicated that treatment services in rural areas was a strongly-felt community need in Yap. Treatment services are immediate and visible, and are the type of services interviewed villagers felt to be their priority need in rural areas.

It has not been easy for program developers to adhere to the goal of providing treatment services in advance of preventive services. Because the program is integrated with primary health care in Yap, some important members of the local bureaucracy and visiting consultants have repeatedly urged that the program be reoriented toward prevention. This prompted many debates within the health services department, primarily centered around two issues: (1) should preventive services in rural areas take precedence over treatment services? and (2) should the dispensary and primary health care programs be separate programs?

There has been no such debate on the part of dispensary managers and community members served by the program. When asked if the DPHC dispensaries were delivering the services villagers felt they needed most, every dispensary manager interviewed replied in the affirmative. None of the complaints villagers had about their dispensaries centered on the types of services offered; most were of the work habits of a few dispensary managers.

The traditional council of Outer Island chiefs, the Council of Tamol, has been highly critical of the increasing centralization of health services in Yap. They have repeatedly made demands for increased and improved supply and support services for dispensaries on their islands, for improved dispensary buildings, and for additional training for their health workers. The annual meeting of the Council of Tamol with the Yap State Health Services administration has reportedly been a stormy one, with many criticisms of health services by the chiefs. The 1986 meeting seemed to be a welcome change from this usual pattern. There were very few criticisms, and these centered around minor problems with
the work habits of some dispensary managers and one request for dispensary construction. Great appreciation was expressed by the chiefs for the improvements which had been made in the dispensary service system. New dispensaries had been opened, all dispensary workers had received training which upgraded their skills, and the supply system had been greatly improved.

**MedCAP Program**

The Seabee MedCAP Program, like the DPHC Program, has recognized the "publicity value" of treatment services and capitalized upon it. The program began with the provision of treatment services over twenty years ago, and this continues to be their primary goal. In Viet Nam the military recognized the positive public relations which could be developed by providing basic treatment services in underserved rural areas, and they have applied this principle in Micronesia. To quote one of the 1985 Seabee commanders in Yap, "Medical service is even better for publicity than construction projects." The Seabee MedCAP Program is very popular in Yap, even more popular than the DPHC Program. This popularity appears to be largely the result of the fact that the sole activity of the MedCAP Program has been to provide treatment services in underserved rural areas. The leaders of several villages not served by the MedCap Program have requested its services, and it has been difficult for the Yap Health Service Department to reduce the number of villages served by the MedCap Program, despite the fact that these villages are served by new DPHC dispensaries.

**School Health Program**

The School Health Program was reoriented toward treatment services in 1980, after an evaluation of the prior health education program indicated that the program was ineffective, at least in part because what was being taught in the classroom was not being reflected in the children's environment. Program activities are dictated by the types of health problems most prevalent among the target group and of greatest concern to parents,
such as intestinal parasites, anemia, otitis media, and scabies. Parents are then involved at the point of service delivery, in group meetings and counseling sessions. They go on to become the coordinators of the delivery of health services to their children.

The program developers feel that the fact that the restructured program began with the actual delivery of services resulting in demonstrated improvements in children's health is vital to the success of subsequent healthy school environment and health education components of the program. The successful involvement of parents and teachers as health service deliverers and the involvement of parents and teachers in health education projects has been enhanced by the feeling that change is possible, as observed in the efficient delivery of basic health services to their children. Escalating participation by parents and teachers was fostered by positive feedback in the initial health services component of the program.

**MCH Program**

According to the conditions of the grants which support MCH services in Yap, general treatment services are not allowable. This has proved to be a major handicap to the program. Vertical programs such as the MCH program, which provide only specified services to specified segments of the population, are not very popular with villagers. It is difficult to understand why health workers come to their village to see only certain people for certain conditions, when many people, male and female, young and old, are sick with a variety of conditions.

Worst of all, treatment is not given to anyone; the purpose of the visit is only screening and immunizations. Treatment is not given to sick mothers or children. If anyone is found to be sick, they are told to come to the central hospital for treatment. Since these MCH visits are made to remote areas because they are too far from the hospital for families to come in for preventive services, there is little likelihood that the visit will be made to the hospital for treatment services unless the condition is perceived as serious.
In 1986 an MCH team nurse accompanied the Seabee MedCAP corpsman on village sick call in order to share transportation. The nurse reported that he was amazed at the number of patients who attended sick call, and wanted to begin accompanying the corpsman "because he has so many patients". The nurse saw an opportunity to have many more well child contacts, but was soon reminded by the health services Medical Chief of Staff that the MCH program regulations permitted preventive services only.

**MCH Family Planning Activities**

In Yap the supply of family planning services far exceeds the demand. The family planning projects which are a part of the MCH program appear ill-understood and often are reportedly disapproved of by most communities in Yap. This project is a high priority of the FSM and external funding agencies, who view family planning as an integral component of overall economic development in Micronesia. Their view is that a high rate of population growth not only results in poor maternal and child health, but it also prevents increases in per capita income, creates unemployment, and reduces food supplies.

The view of many Yapese communities is that a high rate of population growth will actually increase per capita income and island resources. A significant depopulation of Yap has occurred within the memory of many chiefs and elders who are influential in their communities (See Appendix A). Population increase is seen as a source of political and economic power by these leaders. Coupled with the fact that most Yapese and Outer Islanders are Roman Catholics, family planning is apparently not high on their priority list of local needs. The Yap family planning program provides services which program administrators, not communities, see as a priority need.
3.3 Indicator Two: the program, through its philosophy of decentralization, provides for the design of various locally developed solutions to meet varying local needs, rather than requiring the imposition of a single centrally planned solution to a variety of local situations.

DPHC Program

The DPHC Program is unique in Micronesia. It was developed by the Yap State Health Services Department without outside input. It has, in fact, been soundly criticized by several external primary health care consultants because it does not adhere to the prevention-orientation of primary health care programs in the rest of Micronesia, and because it does not have an administrative structure similar to that of the programs in the rest of Micronesia.

Despite the criticisms, Yap has continued to develop its own unique DPHC program. That it has been able to do so is (1) apparently due to the strong belief of the Yap State Director of Health Services and the two Medex personnel supervising the program, (2) the appearance of their program as superior to any other primary health care program in Micronesia, and (3) coupled with the fact that Yap is geographically isolated and thus visited only infrequently by consultants.

Seabee MedCAP Program

The Seabee MedCAP Program was externally designed. The program is the same throughout Micronesia.

The program was designed many years ago by the military, who have apparently seen no necessity of modifying it in the intervening years. The commander of the first 1986 Seabee team stated that the mission assigned to him by his superiors of supplying basic curative care to remote areas of Yap is the same for teams throughout Micronesia, and that this is essentially the same goal as that of the first Seabee team in Yap in 1962.
School Health Program

The School Health Program, like the DPHC Program, is unique in Micronesia. It was initially designed by an expatriate who has lived and worked in Yap for over twelve years, and was subsequently developed and implemented by a group of Yapese educators. Because no funding, local or external, reportedly could be found for supporting the program for its first year, the program director worked as a volunteer during this period. Yap thus avoided accepting external funding and its accompanying restrictions. The program received increasing local support, and when an external funding source which would allow the types of services apparently thought to be needed was located, the program applied for and received funding.

This is in stark contrast to most externally funded health programs in Micronesia. Health service departments generally accept externally funded programs despite the possibly inappropriate grant regulations and requirements, in order to obtain funds and increase their operational base.

MCH Program

Both the U.S. and UNFPA programs which provide funding support to the Yap MCH Program were centrally planned. Each year a "state plan" must be submitted to the FSM and then to the external funding agencies, but such state plans must adhere to the external agencies' notions of what an MCH program should be. These state plans reportedly vary little from year to year or from place to place; they are often reportedly prepared by taking the previous year's plan or a plan from another state, substituting new dates, names and reported numbers of client contacts, and xeroxing them for resubmission.

From time to time the MCH director or the Chief of Public Health attends conferences for the stated purpose of developing projects for the MCH Program, but these are apparently heavily influenced by the external funding and technical assistance agencies.
involved. As a result, the input of the conference attendee from Yap usually consists of support of decisions which are made externally and often not during the conference.

3.4 Indicator Three: the program provides flexibility for considering changes in the program in response to requests from local health workers and community members.

DPHC Program

Almost all requests for change in the DPHC Program by local health workers and the rural communities in which they live and work have been requests for dispensary construction and repair, and for changes in supply systems and manpower for their local dispensaries. Whenever these requests have been within the capabilities and resources of the program, they have been accommodated. Disciplinary actions and replacements for dispensary managers have been made in cooperation with community leaders, and supply services are based on their requests.

In 1985, the DPHC program reportedly obtained the cooperation of the Yap State Department of Public Works and the YapCAP in providing small amounts of materials and technical assistance for communities which wanted to make physical improvements to their dispensaries. Only one request, for an entirely new dispensary building to be constructed at government expense, was denied. It was explained that the government had no funds for dispensary construction, and that several communities had already built new dispensaries using local resources. It was later reported by the island's chief that the request was made by the community because the dispensary was located about a mile from the village and villagers complained that "it was too far to walk". The villagers did not make an application for construction materials or technical assistance in renovating the building.

MedCAP Program

From time to time, particularly in 1985-1986, efforts have reportedly been made by the Yap State Health Service Department to effect some changes in the MedCAP Program.
For example, in 1985 some health department staff met with the Seabee Commander to discuss some proposed changes. At the meeting health department personnel were observed telling the commander that many villagers thought that the MedCAP Program corpsman is a physician, and that medicines given out by the corpsman are U.S. military medicines, superior to those of the health department. The Yap State Health Services Department personnel were observed stating that they felt that the MedCAP Program was undermining the development of the local DPHC program. They stated that village dispensary managers were increasingly objecting to the MedCAP Program, as it undermined their prestige. In effect, dispensaries and the corpsman were competing for patients. It was further pointed out that the corpsman did not take vital signs before prescribing medicine, and was not familiar with well child or prenatal clinic protocols, or with the treatment of some diseases such as tuberculosis, leprosy or intestinal parasites which are prevalent on Yap. It was therefore requested that village MedCAP visits cease. At the meeting health department personnel were observed proposing that the corpsman instead be used in a training and technical assistance capacity in the DPHC Program, working primarily in emergency and field medicine, as these are areas of expertise for a military corpsman.

The team commander refused the requests. He was observed telling the health department representatives that the purpose of the MedCAP Program was for the corpsman to be seen in many villages, in order to promote the SeaBee goal of winning Yapese friends for the U.S. military. He stated that MedCAP programs throughout Micronesia are in unofficial competition to see the most patients. Their performance with earlier teams in each geographical area are also compared by their superiors. He was observed stating that he wanted his team to have the corpsman that saw the most patients in Micronesia. He stated that his corpsman was only available to see patients directly, not to train Yapese health workers in programs such as the DPHC.
The fact that the DPHC Program was only a year old at the time and seemed to have far less political support than the MedCAP Program appeared to have made it possible for him to take a stand which was in direct opposition to the requests of the local health service department.

**School Health Program**

Most local requests for change in the School Health Program have reportedly come from village school principals and teachers, regarding administrative procedures such as forms used for reports and timing of services. These have apparently been accommodated by the program staff. On occasion parents have also reportedly made requests for changes in arrangements for school improvement projects or timing and agendas for parent meetings, to which program personnel have also positively responded. There seems to have been no particular problems in this regard, although no major changes have apparently been requested.

**MCH Program**

The Yap MCH Program was observed to generally respond to changes in regulations and program plans imposed by external funding agencies, but not in response to local requests. Yapese MCH administrators report proposing only minor changes to the external agencies, such as changes in the dates reports are to be submitted. Most of the local requests reportedly pertain to reprogramming of funds for purposes not originally stated in the annual budgets; these are often because the allocations of funds are slow and expenditures originally planned cannot be made in the time remaining before the end of the funding period. Apparently sometimes no action is taken and the funds are lost.

**3.5 Indicator Four: the program has an established and frequently used method of communication between program administrators, local health workers and the community.**

**DPHC Program**

The DPHC Program was observed to have frequent, regularly scheduled meetings with
dispensary managers, who in turn have regular meetings with community members. On one day each week the Yap Proper dispensary managers close their dispensaries and come to the central hospital for meetings with central staff. These meetings are used to discuss problems which may have arisen during the week.

Bi-weekly radio conferences were observed being held with Outer Island dispensary managers by the central staff. A radio linking most Outer Island dispensaries is located in the DPHC office, and dispensary managers can call at any time, provided the system is working. Each Outer Island atoll has a radio, but individual islands do not. To use a radio some dispensary managers reportedly must make a boat trip across the atoll lagoon.

The DPHC Program was not observed to have developed a uniform method of communicating with community members. This has been left up to each dispensary manager. Some have formal monthly "health committee" meetings, some meet informally with village chiefs, and some have meetings with community members after mass in the village church. All interviewed dispensary managers expressed satisfaction with the methods of communication they have developed.

Formal annual meetings are reportedly held by the traditional Outer Islands chiefs' council and health services administrators, including DPHC central staff. These meetings have written agendas, and the chiefs may request written answers to their questions, or submit requests in writing. The health department seems to give priority to any recommendations of the council.

**MedCAP Program**

Observations indicated that there are no regularly scheduled meetings of MedCAP personnel with health services administrators or community members. The local contact for the Seabee Program is the YapCAP board of directors, a group comprised of twelve representatives of various government agencies and six community representatives. The board meets monthly to discuss Seabee construction projects along with other YapCAP
business, but the MedCAP Program is rarely on their agenda. Throughout 1985 and the
first half of 1986 the MedCAP Program was reportedly not discussed in any of the
monthly board meetings.

School Health Program

Village school boards have been reportedly developing as part of the Yap State
Department of Education's five year decentralization program, and the services of the
School Health Program are apparently included in the items discussed in regularly
scheduled school board meetings.

Annual parent health meetings were observed to be held at each school. School Health
Program Staff hold individual conferences with parents to discuss the results of their
children's examinations, and a general discussion is held. Health education talks were
observed which provided information on topics of greatest interest to parents.

In order to foster parent participation in these meetings, attendance reportedly is taken
and the schools with the highest participation rates are given official recognition through
the award of certificates. This seems to capitalize on the collective orientation of the
Yapese and on inter-village competitiveness, a prominent feature of Yapese culture. The
meetings are usually well attended, with sixty to ninety percent of the parents in
attendance.

Medical referral slips with appointments for children whom the health worker feels
should be seen by a physician were observed to be distributed at these meetings. The
health worker was observed giving parents his reasons for making the referral, and
making arrangements to meet the parent and child at the central health department on a
specified day of the week, when children from the school health program are seen.
Appointment-keeping by parents has reportedly been quite good.

The School Health Program health worker was observed visiting all schools on Yap on
a regular basis, going to each school at least once a month. He stated that he is at the high
school on almost a daily basis. He reportedly communicates with principals and teachers
during these visits, and is available to answer any questions parents may communicate
directly to him during his visits, or indirectly through their children or the school staff.

The curriculum specialist assigned to supervise the health education curriculum
reportedly visits schools on Yap Proper on a weekly basis, to work with teachers and
parents. She visits Outer Island schools once a year, and holds classes for teachers when
they come to Yap Proper each summer for in-service training.

**MCH Program**

There are no observable systematic mechanisms for communication between local
health workers, community members and MCH staff. There is no board or other local
group which appears to have input into the program. There is an external Micronesian
MCH board which meets from time to time, but Yap has no representation on the board.

Several times a year the external administrators and representatives of external funding
agencies reportedly make monitoring visits to the Yap MCH Program. Their visits are
usually two to three days long and generally confined to the central hospital and the Yap
State Finance Department.

3.6 **Indicator Five:** the program provides for control and utilization of resources to be
distributed throughout the program, with provision for an increasing amount of control at
the local rather than at the central level.

**DPHC Program**

Once a dispensary manager has completed the refresher training course and is certified,
he or she is apparently given an increased amount of control over program services and
resources.

Dispensary managers were all asked who they thought had more control over their
dispensary, themselves and their community or the central health services department.
Most said that they and their community had more control. A typical dispensary manager
comment: "Before they (members of his island community) thought the dispensary was not theirs, but now they think it is their own." The DPHC Program central staff has apparently fostered this attitude through its emphasis on including dispensary managers and community leaders in decision-making as the new program has evolved.

Village chiefs have reportedly gradually assumed more and more authority over dispensaries. Village councils were observed to select dispensary managers, censure them if their work is not satisfactory, and negotiate with the health department for any desired changes in dispensary services.

MedCAP Program

When asked who is in charge of the MedCAP Program, the 1986 Seabee Commander replied that it was the YapCAP Board, but as was pointed out earlier, this board rarely if ever discusses the program. In actual practice MedCAP Program resources appear to be under the control of the Seabee commander and medical corpsman, with no provisions for control at any other level in the program.

School Health Program

Interviews of school principals indicated that they generally felt that they and the local school boards are in control of their school's health program. School Health Program resources in the form of health curriculum materials, medical supplies for first aid kits and for classroom demonstrations and supplies such as paint for school clean up projects were observed to have been placed at the disposal of village schools, under the supervision of their principals. Training courses have reportedly been held for village school staff personnel in the use of these materials and supplies, and they are given complete control of the materials which they have learned to use in the training courses.

Village school boards reportedly have been established for all elementary schools. These boards are usually composed of the traditional leadership of the community. They
seem to have great influence on the administration of all school activities, including health program activities.

**MCH Program**

The local MCH Program was reported to have no authority to make any local changes in resource allocations such as personnel activities or fund expenditures without prior approval of the external funding agency. No instances of such requests were found. Activities are apparently controlled at the central and external agency level. Not infrequently, when activities planned by the external agencies are not locally supported and requests for change are ignored, the local MCH staff reported experiencing difficulties in implementation which results in abandonment of the activities after token efforts have been made. This was most noticeable in the family planning programs, where strenuous efforts have evidently been made by the FSM to limit the discretion of local program implementers. The FSM family planning coordinator stated that she did not feel that the Yapese program workers could be "trusted" to carry out their functions unless she controlled their activities very closely. MCH program administrators and community leaders in Yap have apparently responded with effective stalling actions, to the evident frustration of external program administrators.

3.7 Indicator Six: The program's supply and service systems are highly responsive to local requirements and requests.

**DPHC Program**

Prior to 1985, requisitions for supplies from dispensaries reportedly were severely scrutinized by the central health services department, and usually revised considerably downwards. The central health department administrators apparently distrusted dispensary managers and assumed that excess supplies were being ordered and that they were being misused. This policy has been reversed in the present DPHC program. All supply requisitions were observed to be filled as requested, and strenuous efforts are made
to have these supplies delivered in a timely fashion. According to one of the program administrators, "We trust our people, and we try to give them everything they ask for. So far there has been little if any abuse of the system, and we don't think there will be."

Health workers were observed joking with program administrators about requisitions for motorcycles and speedboats, but the trust that exists between administrators, dispensary managers and communities appears to have supported the development of an efficient supply system. Whether this will continue to be the case as the program matures is unknown. The improved supply system was observed to have resulted in a greater overall usage of medicines and other supplies by the health department, with consequent increases in expenditures. The DPHC staff seems to have been successful to date in arguing for the cost effectiveness of early treatment and in thus obtaining increased budgetary allocations for dispensaries.

**MedCAP Program**

The MedCAP Program places great emphasis on efficiently supplying medicines to remote villages. The Seabee corpsman was observed requisitioning medicines from the central hospital pharmacy on a weekly basis, and taking a generous supply of medicines to all village MedCAP visits. Patients at village MedCAP visits reported requesting simple medications such as pain relievers, antacids, or vermifuges and have their requests promptly satisfied.

**School Health Program**

The School Health Program reportedly provides most necessary supplies and services to village schools. Occasionally items such as bandaids and gentian violet have been restricted as students were demanding them on a daily basis. Bandaids and the purple skin medication seemed to develop into highly desirable body decorations, even for teachers. Schools were therefore reportedly supplied with gauze, adhesive and scissors for making bandaids, and were cautioned against inappropriate uses of medications. Both the
Department of Education and of Health Services have central staffs which appear to provide necessary supplies and services for village school health activities upon request.

**MCH Program**

Funding for supplies for local MCH activities is provided by the external funding agencies. Their response time is very slow, according to Yapese program administrators. At a 1985 FSM health services meeting in Ponape attitudes highly critical of programs in Yap were observed. These attitudes are similar to attitudes displayed by program administrators in Yap toward the FSM health department administrators. There is an apparent feeling of distrust between the local program administrators and the funding agencies which seems to interfere with the development of a responsive supply system.

3.8 Indicator Seven: the program's service providers are respected and trusted by community members, and are primarily responsible to local authority rather than to a distant central authority.

**DPHC Program**

DPHC services are provided through dispensary managers. Their backgrounds reportedly vary considerably. Some have been employed in dispensaries for many years, others have been only recently hired. Some have considerable training while others do not. The respect and trust each community has for its dispensary manager was observed to vary, not only according to the educational and experience background of the individual, but seemingly also according to his or her traditional status in the community. The DPHC staff appears to have endeavored to be sensitive to these community attitudes. No dispensary was observed to have a manager considered low caste by the community served.

Beginning in 1986, doctors from the hospital reportedly began to make scheduled visits to DPHC dispensaries in Yap Proper, to see patients already screened by the dispensary managers and to provide additional training to dispensary managers and health
education presentations to villagers. These visits seem to have added considerably to the prestige of the dispensaries.

The geographical isolation of dispensaries has apparently fostered local supervision of dispensary managers, who report that they feel as much responsible to their village chief and the village elders as to the distant health department.

**MedCAP Program**

The SeaBees call their corpsman "doc", and many villagers who were interviewed thought that the corpsman was a physician. Local doctors reportedly rarely visited villages in Yap before 1986; to see a doctor one usually has to come to the central hospital. The corpsman appeared to have great prestige in the remote villages he visited.

The MedCAP corpsman is reported to be responsible to his local commander and to a military doctor in Guam. His clinical practice was not observed to be supervised by a local physician. Local physicians and Medex reported questioning his treatment of certain patients, but no specific efforts were observed to have been made to control and supervise his treatment activities.

**School Health Program**

The health worker who provides school health services is an Outer Islander who is reportedly considered low caste by the people of Yap Proper. His low status has seemingly been compensated for in part by the fact that he works with children, who are also low in relation to general society in Yap. According to Yapese custom, people are "children", in that they have little voice in family or village affairs, until they are forty years old. Small children are considered particularly "low" and unworthy of the notice of elders in important matters. They are to be cared for in the most loving way possible, but their opinions are of no value. A variation of this attitude is applied by the Yapese to Outer Islanders. Such people are apparently thought to be the responsibility of the Yapese, to be
fed and cared for as necessary. However, as with children, the opinions of Outer Islanders evidently have no importance to the Yapese.

The School Health Program Director was observed to have made a conscious effort to foster the school health worker's image and knowledge through providing opportunities for him to attend training programs in Guam and Palau. Despite these efforts, the low status of the worker still seems to hamper his effectiveness, particularly when dealing with the staff of other health and education programs in Yap.

There was no such problem observed with village school personnel. The teachers who provide health education services come from the villages in which their schools are located, and their caste levels are similar to those of most community members. Principals are also local community members. Like dispensary managers, they feel responsibility to village chiefs and elders, as well as to the central department of education. Although young teachers encounter greater difficulty in working with families than do older teachers, this difficulty is partly compensated for by the fact that they usually have more education than older teachers.

MCH Program

The nurse who directs the MCH program reportedly has a very high traditional caste level in Yap, as do several others working in the program. Provided it is not abused, high caste ranking of personnel in any program seems to promote the success of activities in Yap.

The MCH staff is supervised by and responsible to central health administrators and external funding agencies; there was no responsibility to community authorities observed.
3.0 Indicator Eight: the program provides opportunities for local health workers and clients to experience success and reinforcement for taking responsibility for their own and their community's health.

**DPHC Program**

The isolation of dispensary managers and the communities they serve appears to enable communities to claim responsibility for any successes achieved by their program and blame failures on the distant health department. This luxury appears to be an accident of geography, not the result of a conscious policy decision by the central DPHC Staff.

The DPHC Program awards certificates to all dispensary managers who complete the training course. Group certificates with the names of villagers who complete village primary health care workshops were observed being awarded ceremonially to village chiefs by health service administrators. All certificates are signed by the governor of Yap, and are displayed in the dispensaries.

**SeaBee MedCAP Program**

During the period of this study the only observable activities of the MedCAP Program were treatment services offered at the "sick call" visits to villages. These visits consisted of sick people presenting themselves to the corpsman for medical treatment. No training for Yapese health workers or health promotion activities for Yapese communities were observed taking place. Thus there seemed to be no opportunities for Yapese to take and increased responsibility for their own or their community's health as a result of the MedCAP Program.

**School Health Program**

The School Health Program has apparently capitalized upon a strong Yapese cultural tradition, competition among villages, to promote local responsibility for health. Each year there was reported to be a competition for having the "healthiest" school. This is the school which has the cleanest buildings and campus and the best toilets, water catchment,
refuse disposal system, school garden and so on. School evaluations were observed being made by a team of Yapese leaders and technical experts. Each team member gives a numerical rating in a variety of criteria, and the overall rating for each school is calculated and reportedly made public.

First, second and third place trophies are reportedly awarded to winning schools at graduation ceremonies in each village. These ceremonies are marked by traditional dances and ceremonies, and are well-attended by local leaders as well as parents. Participation in the competition was observed to be voluntary. In the first year of the program reportedly not all schools took part. By the second year, however, all schools participated and their annual participation has continued for four years. Competition has proved so intense that the inspection team has apparently felt it necessary to take photographic evidence of the results of each school's efforts, as evidence to other schools of the winning school's efforts. Improvements have been seen each year of the program, and improvements have reportedly been maintained.

**MCH Program**

The administrative structure of the MCH Program seems to allow few opportunities for local health workers and clients to experience success in taking responsibility for their own health. All services observed were provided by the central staff to essentially passive clients. Local health workers, the dispensary managers, were seen to be ignored or actively criticized by the MCH staff, who evidently see dispensary managers as lower level health workers lacking the status of MCH staff personnel.

**3.10 Indicator Nine: the program credits successes to the local health workers and the community rather than to its program administrators.**

**DPHC Program**

The geographical isolation of village dispensaries seems to foster the assumption of credit for DPHC Program success by local health workers and the community. The
central staff of the program was not observed making any efforts to claim public credit for improvements resulting from program activities. They instead gave credit to dispensary managers and communities in community meetings and meetings with other health department personnel.

**MedCAP Program**

Credit for MedCAP successes were observed to be claimed by the SeaBees during the period of this study. They were observed publicizing their activities both locally on the Yap radio station through announcements of village visits, and through press releases of their activities to the daily newspaper in Guam, which is sold on Yap.

**School Health Program**

The school competitions and awards which are an important part of the School Health Program seem to have had the effect of giving credit for program successes to the local schools and communities. As with the DPHC Program, program administrators were not observed making any efforts to publicly claim credit for program successes in the community.

**MCH Program**

Because the administrative structure of the MCH Program does not seem to involve local health workers and community members in implementing program activities, there is apparently no opportunity for crediting them with success for improvements which result from the program.

MCH staff generally exhibited a paternalistic attitude toward the clients they served. They evidently saw themselves as experts who must urge ignorant, reluctant mothers to seek necessary prenatal, postpartum and well child care. The "quota" system imposed by the FSM requiring targets of numbers of patients to whom services should be provided seems to foster a tendency to blame quota shortfalls on women who do not avail themselves of the services offered at the MCH clinics.
CHAPTER IV
ANALYSIS OF THE FOUR PROGRAMS' EMPOWERMENT ORIENTATION

4.1 General Results of the Empowerment Examinations

The differences in the empowerment orientations of the four programs, as assessed with the nine indicators, were marked. This chapter reviews what the programs did, intentionally and unintentionally, to empower. Table 3 summarizes the analysis.

The bureaucratic context of each of the programs appears to have had a major impact upon its empowerment orientation, as did the commitment of program administrators to decentralization of control. The empowering primary health care program involves lower level staff and community members in initial policy development and on-going decision making. None of the four programs studied had an initial organizational structure which permitted such an orientation. As with most health programs, they were centrally planned by a health bureaucracy, located either within the government of Yap or in an external agency.

4.2 Services Provided

Three of the programs, the DPHC Program, the MedCAP Program and the School Health Program, began their programs with immediate, visible treatment services. They appear to have have achieved considerable community support by doing so.

The regulations imposed by external funding agencies apparently prevent the MCH Program from providing treatment services. The well-child and prenatal services provided by the MCH Program are reportedly understood by communities as needed, but the desire for such services is far exceeded by the desire for treatment services. Family planning services were not considered a priority.

A program which begins with action, providing the services which clients perceive as those which are needed most, is probably more likely to gain the trust of those clients than a program which does not. The development of local confidence in the program as one
Table 3

SUMMARY OF THE EMPOWERMENT ORIENTATION OF FOUR HEALTH PROGRAMS IN YAP

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<thead>
<tr>
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<th>DPHC</th>
<th>MEDCAP</th>
<th>SHP</th>
<th>MCH</th>
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<tr>
<td>SERVICES PROVIDED</td>
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<td>+</td>
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</tr>
<tr>
<td>LOCAL VS. CENTRAL PLANNING</td>
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<td>-</td>
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<tr>
<td>RESPONSE TO LOCAL REQUEST FOR CHANGE</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
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<tr>
<td>COMMUNICATIONS</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>CONTROL OF PROGRAM RESOURCES</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>RESPONSIVENESS OF SUPPLY AND SERVICE SYSTEMS</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>STATUS AND SUPERVISION OF SERVICE PROVIDERS</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>LOCAL OPPORTUNITIES FOR EXPERIENCING SUCCESS</td>
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<td>-</td>
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<td>-</td>
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<tr>
<td>CREDIT FOR PROGRAM SUCCESSES</td>
<td>+</td>
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(+- signs roughly indicate empowerment orientation in each program reported by informants and observed for each of the indicators.)
which is sensitive to local needs may then enable program administrators to move on later to promoting the development of prevention-oriented programs, with the support, participation and escalating involvement of beneficiaries. The successful involvement of beneficiaries is enhanced by the demonstration that change is possible, and that program administrators are committed to providing the services which community members feel are most important and necessary.

4.3 Local Vs. Central Planning

The DPHC Program and the School Health Program apparently are unique programs locally designed to meet local needs. The MedCAP Program and the MCH Program are single centrally planned solutions applied to a wide variety of situations in different geographic areas.

A single centrally developed solution devised by outside experts does not appear conducive to enhancing people's capacities to define, analyze and solve their own problems to their own satisfaction. But an empowerment orientation could lead to a variety of locally generated solutions. Different people in different settings will have different solutions to their problems, based on different understandings of what the problems are and how they can be solved.

A program with an empowerment orientation is genuinely committed to the strengthening of local capacity to create locally developed solutions.

4.4 Response To Local Request For Change

The DPHC Program and the School Health Program structure appear to provide for flexibility in response to local requests for change; the MedCAP and MCH programs administrative structures do not.

No matter how well a program is planned, during implementation, problems will occur and changes will be found to be needed. Program developments are difficult to predict in any detail before implementation takes place.
A truism in public health suggests that communities can help to make primary healthcare programs more appropriate to varying local conditions, not only by participating in the original development of programs, but also in the on-going modification of the programs subsequent to their implementation. One of the most important characteristics of a truly responsive and empowering primary health care program, then, is its positive response to requests for change to those who fund and regulate such programs, from local health workers and beneficiaries.

4.5 Communications

The DPHC Program and the School Health Program both seem to have established methods of communication between program administrators, local workers and the community. Neither the MedCAP Program nor the MCH Program were observed to have established such communication systems.

The availability of easily used methods of communication between local health workers, communities and program administrators is vital to widespread participation in planning and implementing program activities. Without communication, program administrators seem to work in an information vacuum which fosters the centralization of control of program activities.

4.6 Control of Program Resources

The DPHC Program and the School Health Program have focused efforts on increasing decentralization of the control of program resources. The MedCAP Program and the MCH Program are characterized by tight central control of resources.

Resources, in the form of funds, workforce and supplies, are necessary for any primary health care program. Control and utilization of resources is in most cases considered synonymous with control of the program. With increasing decentralized participation in the disposition of resources comes increasing local empowerment.
4.7 Responsiveness of Supply and Service Systems

Three of the programs, the DPHC Program, the MedCAP Program and the School Health Program, have responsive supply and service systems. The MCH Program does not.

It was reported and observed that program administrators in all four programs experience difficulties in purchasing necessary supplies because of a relatively inefficient local government finance and central supply office. This frustration is intensified by the remote location of Yap, which means that it takes a long time for receipt of supplies. All program administrators complained of the difficulties encountered in obtaining supplies. The administrators of the DPHC, MedCAP and School Health programs seemed committed to providing efficient supply systems despite these difficulties; the external MCH administrators did not appear to have a similar commitment.

Without the commitment of program administrators to the provision of supplies and services when and where they are needed, health programs can be severely handicapped. The health program which delivers action, not promises, will probably be the program which wins the greater support of local health workers and community members.

4.8 Status and Supervision of Service Providers

The status of the MCH staff is seemingly high, most likely due to their caste level. The MedCAP corpsman's status is also high because of the widespread belief that he is a physician and because he represents a respected institution, the Seabee team. The status of the School Health Program health worker is low because of his caste level, but teachers and principals in the program do not suffer from a similar problem. The status of the DPHC dispensary managers is fairly high in their individual communities.

Without the respect and trust of community members, health program workers are usually ineffective in carrying out program activities and even more ineffective in involving community members in such activities. This is particularly important in Yap. Successful
implementation is promoted through compatibility with tradition, and in Yap the concept of
status is a dominant feature of the culture.

Program workers in the DPHC and School Health Programs are as much responsible to
local authorities in the forms of traditional chiefs and their councils as they are to central
government agencies. Local control is promoted through having program workers
responsible to local authority rather than distant central authority. The escalating
involvement of the community has resulted in a local capability to control these health
programs to satisfy their own perceived needs. This is not true of the MedCAP or MCH
programs.

4.9 Local Opportunities For Experiencing Success

The DPHC and School Health programs were observed to provide planned
opportunities for local health workers and communities to experience success and
reinforcement for taking responsibility for their own and their community's health. The
MedCAP Program and the MCH Program did not seem to provide such opportunities.

The development of constructive processes which promote participation and shared
commitments is facilitated when local health workers and community members experience
success. The process is cyclical; success promotes further success. Performance validated
in this way enables the community to develop increasing pride and interest in tackling its
own problems.

4.10 Credit For Program Successes

Local health workers and community members seem to share the credit for program
successes with program administrators in the DPHC and School Health programs. The
MedCAP Program administrators, on the other hand, actively promote the image of the
military in Yap through taking credit for MedCAP successes. The MCH Program was not
observed actively involving nor giving any credit to local health workers or community
members. It appeared to be often critical of them.
The recognition of successful performance promotes a setting in which local health workers and community members report feeling increasingly capable of controlling their own lives and health. When positive feedback is received on collective performance, a shared sense of worth seems to emerge among community members. Further action is stimulated, which in turn produces further positive feedback, setting up a cycle of positive performance and feedback (Raymond, 1986). The program which recognizes this concept and actively promotes the recognition of local success fosters the development and use of further community problem solving skills.

4.1.1 Summary Evaluations of the Empowerment Orientation of the Four Programs

DPHC Program

The DPHC rates well in relation to all nine of the indicators of empowerment. It began with treatment services, perceived by villagers as their greatest need. The program persisted in providing such services, even when actively opposed by some members of the local health service administration and external consultants. It is a locally designed program which appears to meet unique local needs, and it was observed to be flexible in responding to requests for change from local health workers and communities.

An extensive system for communication between program administrators, local health workers and communities has been established by the DPHC Program. Control of program resources is distributed throughout the program, and supply and service systems are reported by local health workers and community members as efficient and highly responsive to local requirements and requests.

Generally, dispensary managers appear to be respected and trusted by community members. Dispensary managers are responsible to their local chiefs, as well as to the central program administrators. Both managers and community members are provided opportunities for and given credit for taking responsibility for their own health. Power and
control in the program is increasingly being shifted from the central authority to village authority.

**MedCAP Program**

The Seabee MedCAP Program rates well on three of the nine indicators. The program provides immediate, visible services which are desired by local communities. It has a highly efficient supply and service system. The program staff are respected and trusted by community members. It is a generally well-managed program which delivers highly efficient services where they are needed.

The MedCAP Program does not appear to have fostered the capacities of the Yapese people to analyze and solve their own health problems to their own satisfaction. It is viewed by the local health department as undermining the development of locally-controlled, self-sufficient health programs by the refusal of navy program administrators to allow corpsmen to participate in the training of Yapese dispensary personnel or to refrain from making MedCAP visits to villages with dispensaries staffed by trained Yapese health workers, even though these workers are capable, in the estimation of the health department, of performing the activities currently carried out by corpsmen.

**School Health Program**

The School Health Program may be positively described by eight of the nine indicators. The low status due to the low caste of the health worker employed in the health services component of the program is the only area not reflecting strength. The program began with services village teachers and parents saw as those their children needed most, and apparently built interest in preventive programs after villagers grew to trust the program. It is a unique program, developed locally to address local problems.

The program has an organized local communication system, and control of program resources is decentralized. Supply and service systems seem responsive to local needs, except in a very few instances where waste of supplies was noted. Opportunities are
provided for local communities to experience success and reinforcement through the medium of the annual school health competitions. Schools and communities increasingly control and manage outside resources through mechanisms initiated by the external program managers of the School Health Program.

The School Health Program appears to provide a setting which facilitates the development of constructive processes. It gives communities opportunities to exercise existing skills or to develop new skills. Such opportunities include participation in the treatment of the health problems of children in the community, the improvement of village schools, and participation in classroom health programs. Successful performance results in positive feedback in the form of improved child health, visibly improved schools and tangible products of school health projects. Performance validated in this way seems to improve the self-image of the community, stimulating further performance which leads to further increases in self-esteem, giving community members the courage and interest to repeat such behaviors (Raymond, 1986).

The direction of the School Health Program is reaching outward, already influencing the development of the DPHC program, which is modeled on the School Health Program. A program which was initially targeted at one of the healthier groups of the population, school children, has demonstrated success and enhanced the self-esteem of parents and other members of the community. From this base it has been possible to reach others in the population who are in greater need of services, through the DPHC Program.

**MCH Program**

The MCH Program does not appear to have a high degree of empowerment orientation. The program is positively characterized by only one of the nine indicators, the status of service providers. Its program staff are high caste and thus have a prominent position in Yap. Because some of the services provided, such as immunizations, are seen as necessary
by community members, it may rate marginally well on indicator one, services perceived by the community as those they need.

The preventive services provided by the MCH program, particularly the family planning services, are those seen by external and central administrators as needed, rather than those seen by local communities as needed. External administrators do not seem to welcome local planning or requests for change from local administrators. The activities of the program are highly fragmented, and there is little communication between staff personnel, both local and external. Far from promoting opportunities for local health workers and clients to experience success and giving them credit for doing so, the quota system requiring specified numbers of patient contacts per year has reportedly fostered a highly critical attitude of local MCH staff toward local health workers and clients. If these quotas are not met, it is viewed as the "fault" of women who refuse to avail themselves of services.

Most of the factors which prevent the program from empowering local clients seem to be functions of the external administrative structure of the program. Local program administrators frequently express frustration with these external regulations, but seldom question the right of external funding sources to impose them.

The external FSM health agency appears to assume that a clearly formulated plan backed by central decision-making authorities is appropriate and should be implemented in Yap. Well-articulated goals and detailed specifications of actions which are to take place through hierarchial authority, trained staff and close supervision are the guiding concepts of the MCH Program.
CHAPTER V

THE DEVELOPMENT OF COMMUNITY COMPETENCE BY THE FOUR PROGRAMS

5.1 Indicators of Community Competence

The competent community has the ability and the collective political will to (1) feel that it has a recognized role to play; (2) see positive results from commitment to locally defined goals; (3) articulate its views and intentions, and communicate these effectively to the larger society; (4) make use of experts from the larger society without being controlled by them; (5) acquire and use resources. Collectively the members of a competent community do not feel powerless. They have the skills and capabilities to negotiate from a position of strength. They feel that what they do makes a difference. They have "clout".

The development of community competence was investigated. A set of indicators of community competence in health practice was proposed in Chapter One. These indicators were used as a guide in the examination of each program. The results of the examinations of the programs for the promotion community competence in health is presented in this chapter and summarized in Table 4. The findings are analyzed and interpreted in the following chapter.

5.2 Indicator One: community members and local health workers see improvement resulting from the health program largely as a consequence of local action rather than action of the central health service department or other central agency.

DPHC Program

Villagers served by the DPHC Program stated that they think the program contributes to better health in their communities. When asked why dispensary services have improved, most villagers feel that it is the result of action by themselves and by their local community leaders.

They have good reason to believe that this is so. The primary advocates for improved
Table 4

THE DEVELOPMENT OF COMMUNITY COMPETENCE IN FOUR HEALTH PROGRAMS IN YAP

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>DPHC PROGRAM</th>
<th>SEABEE MEDCAP</th>
<th>SCHOOL HEALTH</th>
<th>MCH PROGRAM</th>
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<tbody>
<tr>
<td>1. Community members and local health workers see improvement resulting</td>
<td>Seen as a consequence of local action</td>
<td>Seen as a consequence of local</td>
<td>Seen as a consequence of local</td>
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<td>from the health program largely as a consequence of local action rather</td>
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<td>action; local programs seen as less</td>
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<td>than action of the central health service department or other central</td>
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<td>effective</td>
<td>action</td>
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<td>agency.</td>
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<tr>
<td>2. As the community develops the ability to manage the program, the</td>
<td>Moving to local communities</td>
<td>Being retained by central military</td>
<td>Moving to local communities</td>
<td>Being retained by central authority and external agencies</td>
</tr>
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<td>management of the program moves from centrally located administrators</td>
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<td>authority</td>
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<td>to local health workers and community members.</td>
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<td>3. Local health workers and community members know how to deal with the</td>
<td>Capabilities increasing</td>
<td>Capabilities not increasing</td>
<td>Capabilities increasing</td>
<td>Capabilities not increasing</td>
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<td>common health problems in the community addressed by the program, taking</td>
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<td>preventive steps when appropriate or utilizing curative services when</td>
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<td>necessary.</td>
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<td>4. Community members and local health workers can make effective,</td>
<td>Demands usually fulfilled</td>
<td>Only demands which support military</td>
<td>Demands usually fulfilled</td>
<td>Demands usually not fulfilled</td>
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<td>reasonable demands for program resources from the central health</td>
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<td>goals fulfilled</td>
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<td>authority, and have those demands fulfilled.</td>
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<td>5. Local community members and health workers are able to contain and</td>
<td>Conflict resolved by communities</td>
<td>Conflict resolved by central</td>
<td>Conflict resolved by communities</td>
<td>Conflict resolved by central authority</td>
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<td>resolve conflict related to the program.</td>
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<td>authority</td>
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<td>6. Community dependency on external program expertise and program</td>
<td>Little external dependency</td>
<td>Significant external dependency</td>
<td>Little external dependency</td>
<td>Significant external dependency</td>
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<td>resources is minimized, but this is not characterized by refraining</td>
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<td>from making use of appropriate external expertise and resources when</td>
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<td>High vulnerability</td>
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<td>needed.</td>
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<td>7. Community vulnerability is minimized in the event that external</td>
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<td>program resources are reduced or completely withdrawn.</td>
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dispensary services for many years have been the members of the Outer Islands Chiefs Council. The DPHC Program administrators appear to have made consistent efforts to include local leaders in major program decisions such as the selection and supervision of dispensary managers, and in DPHC activities such as the construction and renovation of dispensary buildings, and community primary health care workshops.

As the DPHC Program has developed, community leaders seem to have increasingly involved themselves in DPHC activities. Prior to 1985 dispensary managers usually consulted health department administrators but not local leaders on dispensary management questions. Managers are now observed to increasingly consult local leaders in addition and usually before consulting health department administrators. This is most evident in dispensary construction renovation projects. Dispensary managers were also observed to consult community leaders in more medically oriented matters, such as whether or not to send patients to the central hospital for treatment.

**MedCAP Program**

Villagers also stated that the MedCAP Program contributes to better health in their communities. They expressed great appreciation for and admiration of the services provided by the program. However, this improvement in health is not seen as a consequence of local action. It is seen as the result of the navy providing services to them.

Most villagers interviewed cited the following as reasons for preferring MedCAP services to services provided by Yapese health workers:

- The Seabee "doc" is an American doctor. He is much better than Yapese health workers.
- The Seabee medicines are better than medicines from the hospital or the dispensaries. They are stronger, and fresher.

When asked if the corpsman really is a doctor, the usual answer was "That's what I heard." Several gave examples of getting medicine from the hospital or dispensary that "didn't work", and then going to the corpsman and being given medicine that did work.
Investigation of several cases revealed that both the Yapese health worker and the corpsman prescribed the same medication in the same dosage, but the belief was firm that the treatment provided by the American corpsman was better than treatment provided by a Yapese health worker.

School Health Program

The School Health Program appears to demonstrate to parents that primary health care services can be delivered to their children. The program has shown that simple treatment of conditions which parents have long accepted as a routine part of growing up, such as intestinal worms, can result in visible improvements in their children's state of health. Parents reportedly became involved in group meetings and individual counseling sessions with program field staff. Discussions of specific health problems were observed, coupled with demonstrations of simple home treatments and suggestions for future prevention.

The active participation of parents and teachers in the school clean-up campaigns and health education projects seemed to be enhanced by the growing feeling that change was possible and that local people's participation was a vital part of its success. The change in the physical appearance of village schools from 1982 to 1986 has been remarkable. Once dilapidated buildings, covered with graffiti, are now observed to be repaired and freshly painted. Schools have water catchments and latrines. Garbage is burned or used in compost piles. Parents have built bamboo and thatch buildings for meetings and other school activities. Most schools have flower plantings, and many have vegetable gardens.

For many years the Yap State government had been responsible for maintenance of village schools, and the schools were very poorly maintained. When work was needed, schools reportedly waited, sometimes for years, for it to be done. The responsible government officials complained that staff and students did not take care of the facilities, and cited many cases of vandalism. The general attitude of villagers was expressed by an
Outer Island chief to a group of visiting government officials. They were surprised to find that the village church was a beautiful building, very well maintained, but that the nearby village school was a virtual wreck. They asked the chief the reason for the difference. "The church is ours, and the school is yours", replied the chief.

Schools in Yap are now seen as the property of the local community. The highly visible improvements in those schools are the result of local community activities. Communities are justifiably proud of the fact that they have accomplished much more than was ever accomplished by the central government.

**MCH Program**

Most villagers interviewed thought of the MCH program as the program that "gives babies shots". There was little if any reported involvement with program activities in the communities. The MCH field visits appear to consist only of immunization activities; infants are not weighed or examined. The only interaction observed with mothers was one way communication to tell them when the next immunization is due.

DPHC dispensary managers and MCH staff were observed to exhibit antagonistic feelings toward one another. They were highly critical of each other's methods. Dispensary managers are required to follow detailed prenatal and well child protocols which include examinations, counseling and record keeping procedures which are not required of the MCH personnel, and they thus feel that they provide better services. On the other hand, MCH personnel express beliefs that they have better educational backgrounds and know more than the dispensary managers, and they feel that dispensary managers are careless with supplies such as vaccines. The apparent distrust of dispensary managers and the paternalistic attitude of the MCH staff toward village mothers has apparently stood in the way of the promotion of local involvement in MCH Program activities.
5.3 **Indicator Two**: as the community develops the ability to manage the program, the management of the program moves from centrally located administrators to local health workers and community members.

**DPHC Program**

Local communities in Yap appear to be increasingly taking a leading role in the management of their dispensaries, both in daily dispensary activities and in the construction and renovation of dispensary buildings. Communities, which once consulted central authorities before taking action, now frequently take independent action and then inform central authorities later, if at all. As an example, DPHC program central staff were taken by complete surprise in 1986 when the entire Council of Tamol suddenly arrived at the central hospital, stating that they wanted to meet with health department administrators, dispensary managers who were at the hospital for training, and with education department members. The required group hastily assembled and was told by the chiefs that they wished the group to work on the problem of substance abuse by island children. Marijuana use and gasoline sniffing were causing great concern, and the chiefs expected the health and education departments to do something about it. A plan was formulated for developing a substance abuse health education project as a result of the meeting.

Several communities in Yap Proper became interested in the DPHC program in 1985, and decided to build dispensaries. As a result two entirely new dispensaries were built in 1985 and another begun in 1986. These dispensaries were planned and built by local communities. The DPHC Program was not involved in the initial decision to build the dispensaries or where to locate them; these decisions were made by each community. At the communities’ request, YapCAP provided technical assistance and some construction materials such as concrete. Other materials and labor were provided by the communities. The DPHC Program administrative staff has not objected to its lack of involvement. In most cases the community decisions were *fait accompli*, well along in implementation.
before DPHC program administrators even knew about them. The communities had apparently assumed DPHC participation once the dispensaries were built.

Communities have also been observed to have had substantial input on the selection of staff for the new dispensaries, and have bypassed the DPHC program staff in making contact with government officials concerning both dispensary construction and staff. This has apparently occasioned no conflict. Moreover, it would appear that the willingness of the DPHC staff to accept community control of the projects is a logical outgrowth of their policy of fostering community involvement in the program.

**MedCAP Program**

As described in Chapter Three, the Seabee commander has been observed to have refused to allow the MedCAP Program to support efforts to promote local management of health problems by utilizing the corpsman to train Yapese health workers, or to support moves to have village health care provided by local dispensary managers instead of the corpsman. The SeaBees have been observed to use their political base to promote their own activities. For example, knowing of the growing feeling in the local health department that their program was undermining local self-sufficiency, the commander made contact with legislators and other Yapese leaders to ask for support of the MedCAP Program. He asked the Yap legislature to purchase a new truck for the program, and urged leaders of communities served by new DPHC dispensaries to request MedCAP services. Local health department administrators stated that they viewed his actions as directly counter to the development of local abilities to manage health projects.

**School Health Program**

The major change observed taking place in the School Health Program in recent years has been the gradual integration of the School Health Program and the DPHC Program. The School Health Program served as the model upon which the DPHC Program was developed. As the School Health Program expanded and achieved an increasing degree of
community involvement, it began to reach outward from schools to individual families and the community. This stimulated the development of a program which could serve the whole community, rather than just school children. The result was the DPHC Program.

Direct field services by central program staff have been integrated with services provided through the DPHC dispensaries. Dispensary managers generally seem to feel that they should be in charge of all health services provided to their community: they welcome assistance but seem to believe that it should be under their control. This has occasioned observed conflict with other programs such as the MedCAP and MCH programs, but not with the School Health Program.

Screening and treatment services once provided by the School Health Program health worker are now observed being provided by village dispensary managers, with assistance from him. The school health worker has not objected to this change. He used to have a practical nurse to help him with providing services, but this employee is no longer with the program and has not been replaced. Had he not lost this staff person, or had the same administrators not developed and implemented both programs, the change in the program might not have been effected with such ease.

**MCH Program**

External administrators and funding agencies appear to allow little input from Yap in the development and management of MCH activities. All of the MCH efforts in Yap seem to be characterized by the imposition of centrally and externally planned programs, designed to be administered and controlled by a central MCH staff in Yap. There was no observable project or activity in the MCH Program which is locally developed and unique to Yap. The involved funding and technical agencies do not appear to have the flexibility to accept substantive local decision-making, or to trust local administrators to design and implement their own programs. Although the stated intention of all involved external funding agencies has been to develop programs based on local needs and local input, the
organizational schemes for program development do not, in reality, permit such input. The reasons generally cited for not allowing each geographical area to plan a unique decentralized program are the press of time and the difficulty of communicating with the various local governments.

An example of the problems with program development is a 1986 proposal for a project to promote breastfeeding in Micronesia. The proposal was originated by the University of Hawaii in cooperation with American MCH program officials in Washington D.C.

The project was designed by the external agencies and presented to representatives of Micronesian MCH programs in a meeting in Guam. Although the input of each representative was said to be considered in the development of the proposal, the project activities planned for each of the six geographical areas of Micronesia were identical in every detail. It does not appear likely that such divergent areas would all independently have come up with identical program plans. In reality the "input" was observed to have consisted primarily of statistics on breastfeeding and details of hospital procedures with regard to breastfeeding and bottlefeeding on Yap. MCH Program staff stated that they considered the compilation of the required input an unpleasant chore.

Control of local activities by external administrators is generally imposed through the budgetary process; funds are allocated for specific activities only. Funds are allocated with detailed stipulations as to allowable categories of expenditure. The Yap State finance system enforces these spending restrictions, and auditors check that no unallowable expenditures are made.

The UNFPA Family Planning at the FSM Health Services Department was observed to have used the financial system to achieve tight control of family planning activities in Yap. In 1984, the FSM family planning office developed a plan and obtained funds for family planning programs throughout the nation. The activities to be carried out in Yap, as well as in the other states of the FSM, in 1985 and 1986 were stipulated in the plan. The Yap
UNFPA grant funds were retained by the FSM and issued in small increments, only when activities specified in the FSM UNFPA plan were carried out in Yap. An FSM UNFPA staff person visits Yap several times a year to monitor these activities.

Continual conflict was observed between the Yap health department and the FSM family planning office. As an example of the problems encountered, the grant paid for the salary of a health educator. Two entirely different job descriptions for the employee were developed, one by Yap and one by the FSM. A detailed set of family planning activities was planned by the FSM, to be carried out by health workers in Yap. The plan was reportedly made without consultation with the Yap health department. Many planned activities were thought to be inappropriate to the Yapese culture by local health workers, and they appeared to be reluctant to implement them. There was evidence of passive resistance on the part of program administrators in Yap, and few of the required activities were observed being carried out.

Such external planning and control is characteristic of the Yap MCH activities. In none of the MCH projects investigated for this dissertation did the external agency in effect say to Yap, "You may have maternal child health problems with which you feel you need external assistance. We may be able to provide X amount of money and/or technical assistance to you to address those problems. Plan a program which you feel will meet your unique needs, in any way that you feel would be appropriate, and we will consider it for funding. After it is funded you can manage program activities and funds locally."

5.4 Indicator Three: local health workers and community members know how to deal with the common health problems addressed by the program, taking preventive steps when appropriate or utilizing curative services when necessary.

**DPHC Program**

It appears that the adequate provision of basic curative services is leading to a growing confidence of communities in their dispensaries. According to a health worker from
Seliap in the Outer Islands, "These are what they want, treatment and advice. Now women request for me to be close by for their deliveries, to tell them what to do". The worker was quite proud of the growing trust his community has in him, enabling him to work cooperatively with traditional midwives despite the cultural taboos against male participation in births.

Many dispensary managers are having similar experiences. All of the managers, when asked it they felt capable of handling the common health problems of their communities, replied that they did. This feeling appears greatly enhanced by their recent training course, and the fact that they can rely upon the central health department to send them needed supplies.

**MedCAP Program**

The goals and method of operation of the MedCAP Program seem to preclude any support of the increase of local knowledge and abilities to handle local health problems.

**School Health Program**

The health education activities of village teachers appear to promote expanding abilities to handle local health problems. The curriculum materials used by the teachers were specifically written to support this aim. Through activities students are encouraged to observe, collect and organize information, experiment, and apply new information to various situations. Students are encouraged to apply what they have learned to their daily lives. Parents and community members were observed to be involved in the program through demonstrations at parent meetings and classroom activities which call for experts in areas such as traditional gardening and fishing. Local health workers were observed participating in classroom activities such as "practice" physical examinations which students perform on each other under supervision.

The increasing interest and involvement of parents has been demonstrated by the kinds of questions they ask and the requests they make of health program staff. Rather than
passively accepting reports of screening examinations, they were observed raising questions about what was done in order to satisfy themselves that their children were receiving adequate care. A parent who observed the school health worker giving medication to children in the school yard went immediately to the program administrator to complain of the procedure and insist that more formal procedures be followed. This seems to be in sharp contrast to the observed passive acceptance of the activities of professional staff in the MedCAP and MCH programs.

**MCH Program**

Most village women stated that they felt capable of handling health problems related to pregnancy and child health. Traditional medicine appeared to play a strong role in this area of health practice.

The Yap State Health Service Department considers the level of maternal and child health in the state to be quite low, as evidenced by a high infant mortality rate, low level of prenatal and post partum care, low immunization levels and an increasing incidence of malnutrition in young children. However, village women did not appear to share their concern. This difference in perception is symptomatic of the lack of communication between program staff and clients. Maternal and child health could be improved in Yap through helping mothers to deal with some basic and common health problems with which they do not currently have the resources and knowledge to deal. However, the structure of the MCH Program has apparently not fostered the creation and support of such abilities.

**5.5 Indicator Four: local community members and health workers can make effective, reasonable demands for program resources from the central health authority, and have those demands fulfilled.**

**DPHC Program**

As discussed earlier, local demands for DPHC resources in the form of supplies, services and personnel were observed to be usually fulfilled, provided they were within
the resources and capabilities of the program. When they were not, DPHC administrators were observed to have made efforts to find new ways of fulfilling them.

For example, every dispensary manager interviewed placed improved radio communications at the top of his or her priority list for improving dispensary services. None of the dispensaries on Yap Proper and several in the Outer Islands do not have any reliable form of radio communication between their area and the central population center. There are no telephones. The cost of supplying radios to all of these areas, estimated at $70,000, is far beyond the budget of the DPHC Program, but in response to the need the program administrators are exploring possibilities of external funding for the program.

**MedCAP Program**

MedCAP Program administrators seem willing, even eager, to provide additional services to villages who request them. The program was observed to actively promote requests for expansion of its village sick call activities.

However, the program administrators were observed to be unwilling to fulfill other requests, such as the requests for change in program activities from the local health department. MedCAP administrators were observed to be willing only to accommodate requests which promote their own goals.

**School Health Program**

As with the DPHC Program, the School Health Program was observed to have made specific efforts to provide resources in the form of supplies, services and personnel in response to requests from schools and parents.

**MCH Program**

There was little observable interaction between local communities and the central MCH administrators, and no instances of local requests for program resources were found.

At one point MCH program administrators in Yap were observed to have made a significant effort to change its pattern of use of resources supplied by an external funding
agency. In 1975 the Yap MCH Program changed its operations in order to integrate treatment and prevention services in an effort to make more patient contacts. A team of a Medex, a nurse and a health educator made regularly scheduled monthly visits to all rural areas of Yap Proper. The stated purpose of the visits was to hold well child clinics, but in fact the clinics were well child clinics combined with general sick call. A variety of basic medicines were taken, together with vaccines and other well child clinic supplies. Well children brought to the clinic were examined and immunized, but any villager who was sick was also examined and treated or referred to the hospital. Occasionally the MCH team took such patients back to the hospital with them after the clinic was over. House calls were also made for giving immunizations and for chronic patients, usually elderly people. Compliance in taking tuberculosis medication was checked. The clinics were very well attended, usually with fifty or more patients being seen per daily clinic. The level of immunizations and well child examinations was greatly improved over previous levels, when the program was confined to providing preventive well child services only.

This MCH activity continued for over one year, until its scope was discovered by a visiting funding agency official. The project was immediately stopped because it did not adhere to grant regulations. Thereafter the numbers of children treated in field well child clinics has greatly declined. By 1986 no well child field services were available, other than the immunization team which visits rural areas. Since 1976 few demands have been made for change in the way in which program resources are utilized.

5.6 Indicator Five: local community members and health workers are able to contain and resolve internal conflict related to the program.

**DPHC Program**

In interviews with dispensary managers many instances were given of ways in which local communities handled conflicts with regard to dispensary services. Most problems are settled by village meetings, usually involving the village chief and council of elders. In
some instances problems related to work habits of certain dispensary managers were
referred to the central health authority, with recommendations from the communities as to
the action which they thought should be taken.

Problems were also observed to be referred to the two traditional councils of chiefs and
occasionally to elected legislators. Both dispensary managers and villagers expressed
satisfaction with the various methods used to contain and resolve internal conflict.

**MedCAP Program**

There seemed to be little conflict with regard to the MedCAP Program prior to the
development of the DPHC Program. Primarily, problems centered on devising schedules
which were satisfactory to villagers and the program administrators, and these were easily
settled.

With increased rural dispensary services in 1985, conflict was observed developing
between administrators of the Yap health department and the MedCAP Program. The Yap
health department has stated to the Governor of Yap that the MedCAP Program should be
discontinued. The conflict continues, and even the governor of Yap has not been able to
resolve the issue as of this writing. The health department states that it feels that the
MedCAP Program undermines the development of self-sufficiency in health, and that it
should be discontinued. The Seabee commander states that they are providing a valuable
service and should be allowed to continue to do so. According to the Director of Health
Services, the Governor agrees with her position, but will not request that the program be
discontinued because he is concerned that if he does so it will have adverse effects on
Yap's relationship with the SeaBees.

**School Health Program**

Few instances of local conflict over the School Health program were found. School
principals and parents expressed general satisfaction with the program, and felt capable of
resolving any problems with regard to it. Occasionally there appeared to have been
conflict between parents and school health program personnel centering on treatment given to individual children, and this has been referred by the local school to the central education department. In all such cases school health program personnel deferred to the wishes of the parent.

**MCH Program**

There was relatively little MCH activity observed at the village level, and therefore few instances of conflict other than those which developed between the MCH staff and the local dispensary managers. These problems were observed to have continued unresolved for many months. Both field workers and administrators were observed in conflict, and remained so until there was intervention from external sources. As a primary health care consultant, I was asked in 1986 to assist in resolving the issues and in developing ways in which the two programs could work together at the community level.

5.7 Indicator Six: community dependency on external program expertise and program resources is minimized, but this is not characterized by refraining from making use of appropriate external expertise and resources when needed.

**DPHC Program**

The DPHC Program was observed to have depended very little on external expertise and resources. Two small grants, totaling less than $15,000 were made available to the program for dispensary manager training in 1983-84. A one-time private foundation grant of $20,000 was obtained in 1985. Other than this, all funds for operations of the program, which amount to approximately $135,000 per year for all dispensary operations and salaries are provided by the Yap State operational budget.

There seemed to be little use of external expertise; if anything the program appeared to have developed in spite of external consultants recommendations which generally ran contrary to local plans. Consultation and guidance on the development of Primary Health Care programs was observed being provided to Yap by WHO in 1984 and 1985, which
sent consultants to assist the Yap health department in the planning and implementation of a primary health care program.

The WHO consultants reportedly recommended that Yap begin its primary health care program with the formation of an "intersectoral committee" which would be charged with planning, coordinating and overseeing the program. The consultant stipulated that the committee membership was to consist of representatives of all branches and agencies of the central government, and serve as the motivating force for primary health care. It was reportedly recommended by the consultants that village committees should also be formed, and that they should meet with representatives of the central intersectoral committee. The consultants recommended that these meetings be held in each village, with suitable feasts for which WHO would pay. At the village meetings members of the intersectoral committee would relay the decisions of that committee to the village committees, and the village chief and village committee members would "give their blessing" (in the words of one consultant observed in Yap) to the projects planned by the intersectoral committee.

The Yap health department reportedly sought legislation supporting the formation of such committees. The legislation failed to pass, reportedly because there were already approximately one hundred and twenty government committees and boards involved in many types of government programs in existence at the time. It was reportedly felt by many members of the Yap State Legislature that a small number of government employees belonged to a great many organizations with overlapping functions, and that committee meetings took too much time of many government employees. Mention was also reportedly made of the fact that some individuals thought that primary health care should be a grassroots program, not one controlled by the central government.

The visit of the WHO consultant in 1985 was followed by a WHO-sponsored FSM primary health care workshop. At this meeting the other states of the FSM were observed reporting that they had set up intersectoral committees and that none had been successful in
establishing primary health care programs. All three committees were reported as either inactive or disbanded. The WHO consultant urged the reactivation of the committees, and was observed to be highly critical of Yap for not forming such a committee.

One village in the state of Ponape had reportedly begun a primary health care program as a result of the work of the Ponape committee. The workshop participants and the WHO consultant made a site visit to observe the village projects. The village had undertaken a major clean-up project and gotten rid of over-the-water toilets and pig pens on the village lagoon area as recommended by the central government committee. The village leaders who met with the WHO consultant and workshop participants had some questions to ask. Why, since they had done so much work, did the government do nothing to fix the road to their village? Why was the government dumping raw sewage from the capital town of 10,000 inhabitants into their jointly shared lagoon, while the central government committee has made them get rid of the toilets and pig pens over the same lagoon for their village of 1,000? A health department sanitation technician who was with the group confirmed that raw sewage was indeed being dumped as described.

The WHO consultant was observed telling the village leaders that it was their role to work on small problems. He stated that the bigger problems were much harder to solve and best left to the central government. The villagers were observed to be noticeably dissatisfied with the answer. After the meeting the consultant expressed anger at a particular villager who had been quite outspoken in the meeting. "I just found out that he is a school teacher", said the consultant. "He should be supporting primary health care and health education, not causing problems."

In Yap, the development of critical attitudes on the part of local health workers and villagers has been observed to be supported, not criticized, by the Yap DPHC Program. Community meetings were observed during which DPHC program administrators actively sought criticism and suggestions for improvement of the program. The DPHC Program
seemed to have declined much of the advice and direction for program administration
given to it by external WHO primary health care consultants.

**MedCAP Program**

Local dependency on external expertise and resources appeared to be fostered by the
MedCAP Program. Program administrators were not observed taking steps to foster local
independence from such external expertise and resources.

**School Health Program**

The School Health Program, by 1986, was observed to have considerably reduced its
dependence on external funds from the U.S. Once almost entirely supported by a U.S.
federal education grant, the program is now supported by a combination of approximately
fifty percent federal grant funds and fifty percent local funds from the departments of
education and health. These funds provide salaries for the two program employees, and
for the medical supplies used for school health services.

A one-time external grant was used for the development and printing of health
education materials, as well as for part of the teacher training in its use.

**MCH Program**

The MCH Program was observed to be heavily dependent upon external resources; all
MCH activities are externally funded by the U.S. government and the UNFPA. The
extent of this dependency is most evident in the conclusion, discussed under Indicator
Seven, that the program would apparently end if external resources were withdrawn.

5.8 Indicator Seven: local vulnerability is minimized in the event that external program
resources are reduced or completely withdrawn.

Due to the political changes occurring in Micronesia in 1986, investigation of the
programs with regard to this indicator was particularly revealing. New agreements being
negotiated by the U.S. government and the FSM government put the budgets of many
social service programs in jeopardy; the new emphasis on economic development raised
many questions as to the advisability of reorienting Yap State government expenditures. This redirection of priorities was coupled with the fact that many U.S. federal programs would cease under the new agreements.

**DPHC Program**

The DPHC Program was observed to be the only program studied which was able to increase its operational budget in 1986. This was apparently accomplished through persuasion of health department officials and other government officials that primary health care could reduce overall government expenditures for health, coupled with a specific plan to begin charging small fees at village dispensaries through a village health maintenance organization program.

**MedCAP Program**

Prior to the development and expansion of the DPHC Program, local vulnerability to the loss of MedCAP resources appeared to be high. No local person was observed to have been trained or available to take over the program, and there were no local funds available to replace lost external funds for support of the corpsman. Now all rural areas of Yap appear to have access to dispensary services which can replace services once provided by the MedCAP Program.

**School Health Program**

In 1986, the regulations governing the School Health Program grant were reportedly changed by external grant administrators, with the result that many of the screening and treatment services provided by the program would no longer be allowed. Rather than changing the program in response to these new external requirements, the program staff was observed to have sought new funding through the Yap State operational budget. The needed funds and resources were provided, and the program was observed to continue to function as before, in response to local needs.

The School Health Program is being gradually integrated into the DPHC Program, and
as such is included in the cost reduction plan developed for that program. Many services once provided by school health program staff are now observed to be provided by dispensary workers.

**MCH Program**

MCH Program administrators were apparently delighted to learn in 1986 that all U.S. MCH federal program funds would continue to be available under the new agreements between the U.S. and the FSM. There had been great concern observed on the part of the Yap health department that the program would end in 1987 if external funds were withdrawn. While it seemed that the Yap health department would have made very effort to continue immunization activities and the UNFPA would have supported family planning efforts, reportedly most MCH staff salaries would have been withdrawn and their activities would have ceased.
CHAPTER VI

ANALYSIS OF THE PROGRAMS' DEVELOPMENT OF COMMUNITY COMPETENCE

6.1 General Results

The results of the examinations of the four programs for the development of community competence as assessed by the seven indicators are discussed in this chapter and summarized in Table 5. Conflicts which have arisen as a result of the development of competencies in certain of the programs are also discussed.

There were wide observed differences in the indications of development of community competence by the four programs. While the DPHC and School Health programs performed well in all seven areas, the MedCAP Program and MCH Programs did not.

6.2 Improvement as a Result of Local Action

Most villagers interviewed reported improvements such as greater availability of dispensary and school health treatment services in rural areas, improved dispensary and school facilities and better trained health workers and health teachers as the result of local action by village chiefs, councils of elders, teachers, parents and dispensary managers. They reported feeling that their local leaders have made demands on central authorities, and have had their demands met. They felt that their leaders had done a good job of organizing community participation in these programs. They apparently viewed the activities of the MedCAP Program and the MCH Program as the result of actions by outsiders, who made program funds available and provided services. Interviews and informal conversations indicated that many village people had the feeling that the MedCAP Program was superior to any local health program in rural areas.

6.3 Decentralization of Management of Programs

The management of the DPHC Program appears to be moving from central program administrators to local dispensary managers and community leaders; the management of
Table 5

SUMMARY OF THE DEVELOPMENT OF COMMUNITY COMPETENCE IN FOUR HEALTH PROGRAMS IN YAP

<table>
<thead>
<tr>
<th>Indicator</th>
<th>DPHC</th>
<th>MEDCAP</th>
<th>SHP</th>
<th>MCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement as a result of local action</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Decentralization of program management</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Local abilities to deal with health problems</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Fulfilling local demands for resources</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Resolving internal conflict</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Minimized and appropriate use of external resources</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>Minimized local vulnerability to withdrawal of resources</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
</tbody>
</table>

(+ and - signs indicate the development community competence reported by informants and observed to be fostered by the programs for each of the indicators.)
the School Health Program seems to be moving to village school staff, dispensary
managers and village school boards. The management of both the MedCAP Program and
the MCH Program remains with central program administrators.

6.4 Local Abilities to Deal With Common Health Problems

Villagers appear increasingly confident of the abilities of their dispensary managers to
deal with common health problems, as expressed by the increasing number of persons
coming to dispensaries for treatment. There is growing interest evidenced by communities
in becoming involved in learning how to make effective use of available services, including
preventive services, of the DPHC Program. Increasing numbers of requests are being
made, for example, for dispensary-sponsored village health workshops. In 1985, there
was only one request; in the first half of 1986 there were four. The School Health Program
has also fostered the feelings of capability for dealing with health problems of children by
the village school staff and parents, through teacher and parent involvement in the health
services and health education programs, and through village school improvement projects.
Such growing feelings of capability for dealing with local health problems are not
characteristic of the interactions of villagers and staff of the MedCAP and MCH programs.

6.5 Fulfilling Local Demands for Resources

Local health workers, teachers and villagers increasingly feel that they can make
demands for DPHC and School Health program resources, and have those demands
fulfilled if the demands are within the capabilities of the program. MedCAP resources, in
the form of the distribution of medicines by the corpsman are also provided in response to
local demands, and these demands are in line with military objectives in Yap. However,
requests for training assistance by the local health department were not fulfilled. Few
demands have been made locally for MCH Program resources; the general feeling
expressed was that they would not be fulfilled and that they are largely irrelevant to local
health needs.

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6.6 Resolving Internal Conflict

Conflict arising in villages with regard to the DPHC and School Health programs has generally been resolved locally by village leaders and members of the community, using traditional methods of conflict resolution by village chiefs and councils of elders, and the two high chief's councils. Certain matters such as work habits of some health workers have been referred to the central health or education departments, together with recommendations as to the action which villagers feel should be taken.

There has been very little, if any, involvement of communities and their leaders in the administration of the MedCAP and MCH programs, and therefore little need for the development of methods of resolving internal conflict related to the program. If there are problems, the central authority takes care of them, and villagers are not involved.

The conflicts arising out of the growing problems between the DPHC, MedCAP and MCH programs have not been resolved locally. They have required intervention of the highest order, involving the Director of Health Services and her advisors and the Governor of Yap State. These conflicts are still not resolved.

6.7 Minimized Dependency Upon and Appropriate Use of External Resources

The DPHC and School Health programs have both made use of external grant funds, but are primarily supported by state funds. There has been little use of external expertise by these programs. The DPHC Program has been developed in opposition to some recommendations of external consultants, such as the recommendations by WHO that primary health care in Yap be controlled by a central government committee and that it focus initial efforts on preventive services.

The MedCAP and MCH programs were found to be heavily dependent on external resources. The MedCAP Program makes inappropriate use of external expertise, according to health department officials. They feel that there are Yapese health personnel capable of rendering the services which the program provides through expatriates.

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6.8 Minimized Local Vulnerability In The Event Program Resources Are Withdrawn

The DPHC Program, and the School Health Program which is gradually being integrated with it, were observed to have taken steps to develop specific plans for decreasing their dependence on government funds. No such plans have been made by the MedCAP or MCH programs, and it seems likely that the programs would cease to exist if external funds were withdrawn.

6.9 Conflict Between the DPHC and MedCAP Programs And The Development of Competency

Conflict between the DPHC Program and the MedCAP Program was observed to be growing steadily in 1985 and 1986. Initial efforts to reorient the MedCAP Program to support local primary health care goals met with failure. MedCAP administrators were seemingly confident of their political base and were observed to be highly uncooperative. Observed attempts were made by the DPHC Program administrators to bring their problems with the MedCAP Program to the attention of Yap State Health Service Department and Public Health Division administrators in 1985, but with little success. High level health service administrators reported that they recognized the degree to which the MedCAP Program was undermining the development of local capabilities, but they appeared to be most reluctant to intervene.

In May of 1986, the Yap State Director of Health Services asked the Governor of Yap to notify the Seabee commander that the MedCAP Program was to cease.

Two months before the decision was made, health department officials had become increasingly vocal about their unhappiness with the MedCAP Program. The Chief of Public Health had become convinced that the program was interfering with local public health programs, and expressed a desire to strictly limit or decrease the activities of the program. The Director of Health Services supported his recommendation, and began to plan for the eventual discontinuation of the village sick call visits. The director stated that
she was increasingly concerned because of reports that the corpsman was holding sick call in villages not included under her written agreement with the Seabee commander.

The Public Health Officer voiced growing dissatisfaction with the MedCAP Program. By April of 1986 he was openly questioning the medical competency of the corpsman and his lack of supervision by a physician. The Public Health Officer urged that a committee be formed to review the qualifications of anyone coming to practice medicine in Yap. Prior to this time, all licensing and credential reviews were made by the FSM.

The concerned parties at the health department met in April of 1986 to discuss the MedCAP Program. The Public Health Officer was observed telling the group that "We should not sit back and let them talk to us the way they do. I will tell them 'If you want to help me I will tell you how to help me'".

At that meeting it was decided that the health department would ask that the MedCAP village sick calls be discontinued when the current team left in September of 1986, and that the next team would be used in village sanitation programs. There was great concern as to the reactions of villages which would lose the MedCAP services, and specific plans were made to provide such services through the health department.

The group subsequently met with the Seabee commander. He was observed telling the group that the program was in place, successful and should be "left alone". The group appeared reluctant to confront the commander directly, but eventually achieved an understanding with the commander that the health department wished to reorient the program toward having the corpsman work in training activities. Final agreements were not effected however, and it seemed clear that the issues were not resolved.

Continued discussion of the matter and review of the aims of the health department was observed. This apparently led to the decision by the director of the health department, one month later, to ask for complete discontinuation of the program. This was a complete policy change at the highest levels of the health department, and seemed to show a
willingness to face the unfavorable political consequences of the decision. It is by no means certain that the MedCAP Program will in fact be discontinued as a result of the decision; the firm political base of the program in Yap appears to almost certainly guarantee that there will be additional conflict before the issue is ultimately resolved. But the observed growth of the capability on the part of Yapese health department administrators to make such an unpopular decision represents courage which comes out of an apparently growing confidence in their own abilities to handle health services in Yap.

6.10 Conflict Between the DPHC and MCH Programs

The issues involved in the conflict between the DPHC and MCH programs seem far more complex than those between the the DPHC and MedCAP programs. There is no clear issue of a foreign-operated program which undermines a local one. The competition is between two locally staffed programs. There may be obvious advantages to close cooperation and resource sharing between the DPHC and MCH programs, but these are apparently not evident to the personnel of the two programs.

Program staff were observed tentatively beginning to work cooperatively on a few activities. Dispensary managers and MCH staff personnel are attempting to develop a method of improving the preschool immunization program, through cooperative action under the direction of health department administrative personnel who have not been directly involved with either program for any length of time. Other cooperative programs were observed being planned, but again by external health department staff rather than the administrators of the programs themselves.

There seems to be more hesitancy to work cooperatively on the part of DPHC personnel than on the part of MCH personnel. Dispensary managers as well as DPHC central staff display a certain arrogance when discussing MCH activities. They generally report that the MCH staff is less capable than they are. The MCH staff express similar feelings about the DPHC staff, but somewhat less vehemently.
The DPHC is a young program which is going through a period of successful expansion. Its support base in both rural areas and in the health department is apparently growing. In its competition with the MCH Program it has the advantage of being able to provide basic curative services in villages which, by reason of its funding regulations, the MCH Program cannot. The DPHC program’s growing popularity and the feelings of capability and competence of dispensary managers as well as central staff have enhanced feelings of pride in themselves and their program, but there is evidence that feelings of complacency and egotism may also have developed as a consequence.
CHAPTER VII
EMPOWERMENT AND THE DEVELOPMENT OF COMMUNITY COMPETENCE IN PRIMARY HEALTH CARE

7.1 Results

Four primary health care programs in Yap were observed and studied in order to investigate the question: Can an empowerment process in primary health care programs contribute to the development of community competence in health practice?

A set of nine indicators of an empowerment orientation in a primary health care program was designed and used to examine the four programs for evidence of empowerment of beneficiaries. Empowerment was defined as the enhancement of capacities for people to control their own lives by defining, analyzing and solving their own problems to their own satisfaction. It is primarily an action taken by an outside health delivery institution to develop and strengthen a community's health practices. "Community", in this study, was taken to mean a relatively small group of people, living in close proximity, having a recognized leadership, and initially lacking in skills and resources to manage their own health problems. Two of the programs, the DPHC Program and the School Health Program, were observed to have an empowerment orientation. The other two programs, the MedCAP Program and the MCH Program, were not.

A set of seven indicators of community competence in health were designed and used to examine the four programs for evidence of the development of community competence in health practice. Community competence in health practice was defined as the collective abilities of a community to articulate its views, needs and intentions regarding health to the larger society; to accommodate and resolve internal conflict; to receive and process information about health from the larger society; and to use health experts and resources from the larger society without being controlled by them. Community competence in
Table 6

SUMMARY OF THE EMPOWERMENT ORIENTATION AND DEVELOPMENT OF COMMUNITY COMPETENCE IN FOUR HEALTH PROGRAMS IN YAP

<table>
<thead>
<tr>
<th></th>
<th>EMPOWERMENT</th>
<th>COMMUNITY COMPETENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPENSARY PRIMARY HEALTH CARE PROGRAM</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>SEABEE MEDCAP PROGRAM</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SCHOOL HEALTH PROGRAM</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>MATERNAL CHILD HEALTH PROGRAM</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(+ and - signs indicate the presence or absence of an empowerment orientation and the presence or absence of the development of community competence in health practice in each of the four programs, as observed and as reported by informants.)
health practice is normally developed by a community with the support of an outside health delivery institution, and results in a gradual shift of power and control to the community. Two of the programs studied, the DPHC Program and the School Health Program, were found to have fostered a considerably greater amount of community competence in health than the two other programs, the MedCAP Program and the MCH Program.

It was hypothesized that a health program which empowers will result in increased community competence in health practice. Empowerment was the independent variable, and community competence was the dependent variable. It was observed that the two community primary health care programs in Yap with an empowerment orientation were associated with a considerably greater amount of community competence in health practice than were the two programs which lacked an empowerment orientation. The DPHC and School Health programs were found to be associated with a considerably greater amount of community competence in health practice than the MedCAP and MCH programs. This investigation of the four community primary health care programs in Yap supports the hypothesis. The findings are summarized in Table 6.

7.2 Possible Confounding Effect of the Four Programs' Lifespan

As pointed out in the overviews of the four programs in Chapter Two, the DPHC and School Health programs are relatively new programs in Yap. The DPHC program has only been in operation for one and one-half years. The School Health program has been in operation for five years. In contrast, the MedCAP and MCH programs have been in operation in Yap for more than twenty years. One concern at the beginning of this study was that the time the programs have been in existence could have a confounding effect, in that a new program may not have had as much time to empower and to foster community competence.

This was not found to be the case. The two older programs were the programs found not to have an empowerment orientation and to have developed the least community
competence. This raises the question of whether or not the opposite may be true, that the development of community competence is a function of the newness of a health program rather than its empowerment orientation.

This does not seem to be plausible when considering the organization of the four programs studied. The two older programs have undergone little change in function or orientation since they began. They started as highly centralized and tightly controlled programs, perhaps as a result of social circumstances at their creation. They have remained centralized and tightly controlled. The two new programs began with a specific focus on increasing decentralization of control. Whether they will maintain this orientation remains to be seen, but the increasing development of community competence in the villages of Yap with regard to the areas of health practice targeted by these programs would work against increasing centralization. Yapese villagers now seem to feel that they should be in charge of their village dispensaries and schools, they apparently feel competent to be in charge of them, and it does not seem likely that they would relinquish control without a struggle.

The fact that the MedCAP and MCH programs were externally planned by a centralized foreign authority while the DPHC and School Health programs were planned by Yap to meet its local needs appears to have had far greater impact on the development or lack of development of an empowerment orientation than has the lifespan of any of the programs.

7.3 Issues Raised: Empowerment Vs. the Machine Model of Program Implementation

Health programs all share one ultimate goal: to maintain and improve health. A successful health program should work toward this goal in the most efficient and cost-effective manner possible. The application of this principle to the issue of whether or not empowerment and community competence in health should be encouraged requires one to carefully examine both the intrinsic value of an empowerment orientation as opposed to the generally practiced top-down paternalistic "machine" model of program
implementation, and the long-term as well as short-term benefits of empowerment vs. the machine model.

At least from the perspective of a western, democratic orientation, participation in and control over one's own destiny, including health, has an intrinsic value. The human rights implications are inescapable; power wielded by a central health authority over individual and community health is subtle but part of a centralized institutional authority. The pervasive belief, not only among health professionals but also among many beneficiaries of health programs, that experts should solve one's health problems leads to a sense of incapacity and loss of control of one's own health. The issue is particularly relevant in the developing world, where it is intertwined with issues of traditional authority, colonialism, dependency, and foreign influence. But the rhetoric of community participation is almost universal in primary health care programs, regardless of what political or economic system is involved. In most of the literature on primary health care participation is regarded as an obvious good that will enable people to mobilize for their collective benefit. However, viewed from a short-term perspective, does the promotion of empowerment and community competence foster efficiency and cost-effectiveness in health programs?

Benefits to competent communities can accrue more rapidly than expected. A case in point was the outbreak in late 1985 of severe gastroenteritis in a remote outer island of Yap. The island's dispensary manager sent a radio message to the central hospital that he was out of intravenous fluids and oral rehydration salt packets, and that he was faced with many cases of serious dehydration, some in infants which might be life-threatening. The health department responded by attempting to organize an expedition to the island. The only available ship had mechanical problems after going out to sea for half a day, and it had to return to Yap. Repaired, the ship, carrying intravenous solutions, oral rehydration salt packets and a seasick doctor finally arrived on the island three days later. Meanwhile, the outbreak of gastroenteritis had been handled by the local dispensary manager and
community members by preparing a local oral rehydration solution out of coconut juice and salt. The dispensary manager had learned this method in a DPHC training course, and he taught it to other community members. The medications which arrived late by ship proved to be unnecessary.

But rather than encouraging local initiatives, many administrators of health programs ascribe to the machine model of program implementation.

This theory views implementation as a quasi-mechanical exercise in which organizational units and individual implementers form a delivery system and program clients become receptacles for the services delivered (Warwick 1982, p. 40).

Organizational policies are developed to reach certain preordained goals. Employees are not individuals with unique talents, but incubents for positions with prescribed duties directed by superiors. Administrators are to make pre-defined decisions which will "move their part of the machine" (Warwick, 1982). Local health workers are the extremities of the centrally-directed delivery apparatus. These unquestioning workers are expected to provide program benefits to passive recipients.

While this model may seem extreme, in reality administrators of health programs usually prefer programs with centrally developed, clearly defined goals, and clients and local health workers who do not ask questions or make demands. This is at least partly because involvement of local health workers and beneficiaries in decision-making interferes with the administration of "efficient" treatment and prevention programs. Taking the time to have beneficiaries examine health systems for themselves and interact with local health workers to develop their own solutions is likely to appear inefficient in the short-term analysis. It is more "efficient" to keep communities dependent and lacking in competence, to teach them how to fit in with the system. Any parent can understand how much easier it is to manage the behavior of a tiny child who unquestioningly accepts
the edicts of a knowledgable adult, than to attempt to empower a rebellious teenager who questions everything and all too often acts in opposition to his or her own best interest. Patience and support will help most such unruly youngsters attain competent, independent adulthood, but the path to this goal can be a rocky one.

It seems to be a truism that much of the development of health services programs in this century has been based on the pattern of the caring parent who helps children and tells them what to do. This pattern has been translated into the customary framework for the delivery of medical services to clients. The recent emphasis on the concept of prevention in health utilizes a logical extension of this model, continuing to view people in difficulty as children. The poor and disadvantaged are seen as dependent persons to be helped, socialized, trained in certain skills and have their illnesses prevented. Many programs, plans and structures reflect this orientation.

It has been observed that, despite much rhetoric to the contrary, most community primary health care programs are organized from the "top down" rather than from the "bottom up", in that the professionalized health system and other government agencies usually initiate and retain power and control over the programs (Nichter, 1984). Nichter has found that, while "community participation" and "bottom up planning" have become fashionable themes in international health circles, they remain largely unfulfilled (Nichter, 1984). According to Morley, Rohde and Williams, community participation in primary health care is commonly misinterpreted to mean simply the mobilization of the people's resources of money, labor and materials for government-planned and -controlled programs (Morley et al, 1983). A detailed analysis of sixteen primary health care programs in Central and South America indicated that community participation in primary health care... is almost always considered by health system planners and administrators as a means of resolving problems of service delivery by the system to the community, rather than as a process for enabling the community to resolve
its own problems in its own way, with support and assistance from the health system (Pan American Health Organization 1984, p. 1).

There is a paradox in the way that community participation in primary health care is seen by many health systems.

It is often perceived as a supplement to the health system -- a means to enlist additional cooperation and resources to support the system's programs, on its terms and under its control. At the same time, however, most systems recognize the need for greater community responsibility for health maintenance, both individually and collectively. The paradox lies in the fact that a sense of community responsibility for health activities and conditions grows out of community involvement in and control over activities, which the health system is not usually organized to promote or, in some cases, even to accommodate (Pan American Health Organization 1984, p. 30).

The Yap study shows that an empowerment orientation can develop and be accommodated within an existing health system, provided that there is commitment to the concept of community participation and increased local control within the system. This orientation leads naturally to the development of a bottom-up organization increasingly controlled by local people. Provided the commitment to an empowerment policy is made by program developers and specific empowerment policies such as those suggested in Section 7.4 are implemented, true community participation -- as opposed to community "participation" as a tool for manipulation -- is possible.

This study suggests that a primary health care program which has competent local health workers and develops the health skills of community members may likely result in communities becomingly increasingly competent in solving their own health problems to their own satisfaction. Such communities will likely experience decreasing needs over time for external resources.
However, it may be argued that so long as the central health service program and its associated resources continue to be available, the most efficient health system may still be a tightly controlled, highly centralized one. But, should such services and resources be suddenly withdrawn -- not an unlikely circumstance in times of fiscal conservatism or of disaster -- the dependent community will not be in a position to deal effectively with the ensuing problems. On the other hand, a community which has developed the competency to handle many of its own health problems may be in a much less vulnerable position.

The ability of such a community to deal effectively with many of its health problems may far exceed that of the community which has not been provided with opportunities to develop community competence in health.

To think of empowerment as merely a "bottom up" model may likely be too simplistic; it is a transactional process in which a policy decision made at a high level of program administration permits an experience of increased power and competence at the mid and lower program levels and levels of community/citizen involvement. The process may provide transactional opportunities for people to grow, to thrive, and to be in charge of their own lives. As control and power gradually shift to this level, a cycle of reciprocal interactions (transactions) between all programmatic levels and the community is established. According to Warwick,

The essence of implementation in the transactional view lies in coping with environmental diversity, uncertainty and hostility...Program environments are (1) multiple, (2) shifting; and (3) difficult to predict in any detail before implementation takes place (Warwick 1982, p. 182).

The decision to accept these uncertainties is fundamental to rejection of the machine model and acceptance of a dynamic empowerment process as the organizing concept of policy development for community health programs.

Empowerment and competency have been the organizing concepts of this study. The
investigation explored the conditions under which the policies of health programs are more or less likely to empower. It was found that the development of health competencies hinges on the adequacy of planning for and execution of the empowerment strategies which go into the design and implementation of a community primary health care program. The interactions of a health program with its cultural, political and bureaucratic settings, the commitments of program staff at all levels, and the reactions of program beneficiaries can all affect the empowerment process.

7.4 Suggestions For Introducing the Empowerment Process in Order to Foster the Development of Community Competence in Primary Health Care Programs

This study found that a policy of empowerment in a primary health care program may be related to the expression of community competence in health practice. Although the Yap study does not present findings from a broad spectrum of community primary health care programs, the following general principles have been formulated which may be useful in developing policies for primary health care programs which empower and thus foster the development of community competence in other primary health care program settings. Derived from the indicators of empowerment, the following prescriptive policies are recommended in order to develop primary health care programs which will empower individuals to promote their health in the supportive context of an increasingly competent community:

1. The program should begin with action, not promises -- services which are high priority felt needs of the community, provided in an immediate and visible manner.

2. Local people should be helped to develop their own unique solutions to the health problems which are most troublesome to them, in an atmosphere of mutual trust, respect and cooperation between themselves and program administrators of external agencies.
3. Program administrators of external agencies should expect and respond positively to local requests for change as the program evolves, allowing local people to make mistakes and learn from their mistakes in a climate of joint confidence.

4. A formal and frequently used two-way interactive system of communication should be developed, based primarily on the methods of communication which are familiar to local people, even when program administrators face issues of local people "going behind their backs and over their heads" as the program evolves.

5. A highly responsive supply and service system should be one of the highest program priorities, permitting the community to express needs and requests.

6. Decentralized control of resources should be encouraged by program administrators and demanded by local people.

7. Providers should be respected and trusted by local people, be under both local as well as program supervision, and be accountable to community leadership.

8. Opportunities for beneficiaries to experience success should be provided in every phase of the program, and credit for any improvements should be publicly given to local people.

Policy recommendation number four may appear contradictory. However, both direct and round-about communication encourage the development of effective communication; what is appropriate is the development of as many formal and informal ways to solve problems as possible. The goal is frequent two-way communication -- the methods will vary from place to place and from group to group, even within a single health program. Each Dispensary Manager in the DPHC Program, for example, had his or her own method of communicating with community members. The fact that there was frequent communication was more important to program administrators than trying to set up a
formal communication system such as a uniform system of village health committees. Village chiefs sometimes went "behind the backs and over the heads" of program administrators in communicating with central authorities concerning village health problems; this was perceived as part of an evolution, positive evidence of growing competence rather than as an action to be resented. It demonstrated an escalating participation in health. Eventually more routine and predictable channels of communication developed.

Policy recommendation number eight permits a community to achieve a sense of collective esteem, a sense of community pride. According to Raymond (1986), this stimulates the development of settings which provide opportunities for collective and individual health actions. A sense of community pride gives communities courage to initiate and persist in future actions which will promote health and well-being.

7.5 Indications for Future Inquiry

Further inquiry into the utility of empowerment and community competence as organizing concepts for primary health care could take several forms. The Yap case study has examined primary health care at a critical developmental stage in Yap. Increasing local recognition of the centrality of the community in health programs may warrant studying developments in Yap several years from now, to determine the extent to which the health department may or may not continue to be willing to share control of programs with communities, and the extent to which communities may or may not increasingly share control of health programs.

It could also be useful to assess primary health care programs in similar settings, using the tools developed in Yap. This might be helpful in determining whether or not the methods developed in the Yap case study are generally appropriate for the examination of a set of primary health care programs operating within a single community or region, to ascertain whether or not they are empowerment oriented and associated with community.
competence. This may be useful in the evaluation of program philosophies and policies by health program administrators. Such research might contribute toward the determination of whether or not the concepts developed by Rappaport and Cottrell could be used to develop a general set of criteria which could be applied to a variety of primary health care programs.

Eight recommendations have been made for introducing empowerment into community primary health care programs. These should be tested in other primary health care program development settings, to determine whether or not they may result in empowerment and be associated with increasing community competence in health practice.

Research might also focus on the identification of settings where an empowerment orientation may not be appropriate or useful. While the Yap study indicates that such an orientation may be helpful in developing community competence in health in rural primary health care programs, this does not necessarily mean that empowerment is universally appropriate in the planning of health care programs. In certain settings the machine model may be more satisfactory. Identification of such settings together with settings where empowerment is more appropriate may be of value to the international primary health care movement.

7.6 The Agents of Empowerment

Who are the agents of empowerment and what should they do or not do in order to empower communities? What should communities expect from a central health authority? From health program staff? What help do empowered people need or want?

Central health authorities, local health program managers and health program beneficiaries are all potential agents of empowerment. Empowerment is not a "loner" activity. If beneficiaries are to define, analyze and solve their own problems to their own satisfaction, it follows that they must work cooperatively with local program staff and central health authorities in establishing policy. Likewise, the central health authority must
encourage an independence of action of lower level staff and a respect for the demands of beneficiaries. This is the foundation that gives local health workers and program beneficiaries the firm footing to become functionally interdependent and cooperatively related to each other and to the central health authority. Educational processes must continually strengthen community competence, keeping it up to date and relevant to changing problems and possible new approaches.

Some may say that these empowerment policy guidelines would be unrealistic and unacceptable to funding agencies which support many of the current community primary health care efforts around the world. If health professionals turn over a large measure of the control of primary health care activities to relatively untrained and inexperienced local people, how can efficient and effective health programs be developed? Isn't such empowerment bad management?

The central premise of the argument against relinquishment of control is that rapid action in achieving externally defined health goals is more important than the development of local competencies in health practice. If a choice has to be made, and it usually does, short-term effectiveness is seen to outweigh long-term empowerment, because effectiveness serves a higher goal of rapid health improvement. But the Yap study, and the accumulating experience in community primary health care elsewhere challenges the assertion that centrally planned and controlled solutions to diverse local health problems are the most effective means of improving health. Paternalistic coercion by a central health authority almost invariably promotes a backlash of passive resistance, waste of resources and the ultimate failure of program outcomes to resemble those specified in original program plans. Ultimately, we must see beyond short-term goals and recognize not only the effectiveness, but also the inherent justice of enhancing the capacities of people to control their own lives.
APPENDIX A

THE STUDY SETTING

8.1 Geography

The islands of Yap consist of a single high island divided in four places by minor
waterways and an excavated canal, and a widely scattered chain of low coraline atolls,
thirteen of which are inhabited. The main island, often termed "Yap Proper", lies about
450 nautical miles southwest of Guam and 1,100 nautical miles east of the Philippines.
The island is about 38 square miles in size, consisting of the town of Colonia situated at
the central harbor, and approximately 100 small villages. The atolls, called the "Outer
Islands", are tiny islands politically linked to Yap Proper but inhabited by an ethnically and
linguistically different population.

The climate is humid, characterized by frequent heavy rains in the summer and periodic
droughts, especially in the spring. The months of May, June and November carry the
danger of typhoons.

The vegetation of Yap Proper is highly varied, with shorelines consisting primarily of
mangrove swamps and occasional coconut groves. Backshore areas contain swamps
which are frequently exploited for taro cultivation. Valleys and lower hillsides are usually
forested, and plateau areas are covered with pandanus, grasses and ferns. Yapese forests
contain breadfruit, papaya, Polynesian chestnut, banana, citrus, betel nut, bamboo,
banyan and other broadleaf trees.

By contrast, the vegetation of the Outer Islands is limited by their sandy, alkaline soils,
shallow water lens and frequent drought. Coconut and breadfruit trees dominate,
interspersed with low scrub and cultivated food plants such as taro, banana and papaya.

A lagoon with a protective barrier reef surrounds Yap Proper, with similar lagoons
surrounding many of the Outer Islands. The calm, shallow waters of the lagoons provide
Map 1

YAP AND THE FEDERATED STATES OF MICRONESIA

Map 2

ISLANDS OF YAP STATE

protection and feeding grounds for numerous fish and other marine life. Animal life on
the shore is limited to insects, a few lizards and birds, fruit bats and rodents.

8.2 History

Little is known of the early history of Yap. Radiocarbon datings of around A.D. 179
have been made of charcoal samples from archeological excavations (Labby, 1976). This
time depth is reflected in the distinctive Yapese language and culture. Yapese tradition
holds that there has been a succession of political and cultural orders on Yap, characterized
by shifting village alliances and periodic warfare. A system of tribute obligations which
persists today supports the belief that Yap was once the center of a loose island "empire"
stretching more than one thousand miles across what are now called the Western Caroline
Islands.

The first Western explorers probably reached Yap in the early sixteenth century, but
Yap did not suffer from direct colonial interference until about one hundred years ago
(Labby, 1976). There are a few very old people alive on Yap today who have lived under
four foreign governments: Spanish, German, Japanese and American.

The Spanish established a trading post on Yap in 1869, and later an administrative
settlement in 1885. They focused their colonial efforts on building churches and
converting the population to Catholicism. Germany purchased Micronesia from Spain for
$4.5 million in 1899 as an addition to the commercial empire it was building in the North
Pacific. A cable station for communications was built by the Germans on Yap.
Traditional political units were reorganized into administrative districts for the purpose of
providing labor. The German administration forbade warfare, trained a Yapese police
force and attempted to establish extensive copra plantations. World War I brought a halt to
these projects.

In 1914, Japan seized control of Yap and the rest of German Micronesia. Japan's
control of the islands was confirmed in 1920 by the League of Nations. The prevalent
attitude of the times toward colonization of areas such as Yap is reflected in Article 22 of the Covenant of the League of Nations which contained the following provisions:

To those colonies … which are inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world, there should be applied the principle that the well-being and development of such peoples (is) a sacred trust of civilization … The tutelage of such peoples should be entrusted to advanced nations who by reason of their resources, their experiences, or their geographical conditions can best undertake their responsibility (Jackson and King-Hall 1932, p.13).

Though dubious from the current perspective, these lofty sentiments might describe the public face of Japanese intentions in Yap, but actual Japanese plans may be more accurately reflected in an evaluation of Japanese actions in the area by a professor of economics of Tokyo Imperial University in 1932. His lengthy report concludes:

The last question left for our consideration is whether there is a necessity to put forth all these efforts for the protection and increase of a people so backward and uncivilized … Generally speaking, a native population is most essential in the exploitation of a colony, especially when importation of foreign labor is impractical … The future expansion of industry and trade in the islands will depend in yet larger measure upon the Japanese colonists whose superior efficiency and productive power will diminish the importance of native labor … Viewed from a realistic, utilitarian point of view, it may seem more profitable for the government to leave the natives to dwindle naturally and let the Japanese immigrants fill their place (Yanaihara 1940, p.297).

This evaluation was particularly poignant in view of the fact that the Yapese population had dwindled from a widely-accepted estimated pre-contact high of about 40,000 to 50,000 (a count based on ancient house foundations using an average of four persons per
household) (Lingenfelter, 1975). The population was reduced, mainly by imported diseases such as whooping cough and venereal disease, to 7,808 in 1899 according to a German census. The population was 3,391 in 1937, according to a Japanese census (Yanaihara 1940). A Japanese medical survey team working at the time reported that the yearly mortality rate was 181 and the birth rate was 67 with a diminishing of the population by about 114 per year. They predicted that the Yapese people would be extinct by 1961 (Fujii, 1943). By 1946, when the United States occupation of the islands began, the Yapese population was 2,582 (Lingenfelter, 1975).

American interest in the Yap cable station, which was a point of intersection for the U.S. Trans-Pacific Cable System’s San Francisco - Honolulu - Guam - Manila - Shanghai connection, prompted the negotiation of a U.S./Japanese treaty guaranteeing U.S. access rights to the island in 1922. The present strategic importance of Yap and the other islands of Micronesia, was foreshadowed by a 1919 editorial in The Nation:

We are not after Yap in order to make it safe for democracy, or even to assure it self-determination … It is one of the bases and centers of cable and radio communication in the Pacific … It is not the Bureau of Education but the United States Navy that is interested in Yap (The Nation 6 September 1919).

The Japanese developed a sizable colony centered around commercial and administrative activities, with the Yapese playing little part in it. The official 1937 census indicated that only four percent of the Yapese population were employed in Japanese concerns (Labby, 1976). With the military strengthening of the island by the Japanese came forced requisitions for Yapese labor from villages. Resistance by the Yapese to such demands resulted in beatings and executions of village chiefs, as well as destruction of traditional stone money and other valued items of Yapese culture. The Japanese made no secret of the fact that they considered the Yapese vastly inferior to themselves. Attendance
at a five-year Japanese language school was mandatory and discipline in these schools, as in everything else, was harsh and uncompromising (Labby 1976).

Yap was frequently bombed and strafed by U.S. forces from 1943 to 1945. Near the close of 1945 the end of the war in Yap was signaled by leaflets dropped from an American plane. A navy photographer on the plane snapped photos of a lone Yapese magician bravely out in the open casting spells to prevent the plane from dropping any more bombs on his island. The occupation of other areas was not as peaceful. Believing that the planes flying overhead were Japanese, the people of the remote atoll of Woleai raised a tattered Japanese flag which had been left by departing Japanese forces, and were heavily bombed as a result.

In 1947 the islands were included in the Trust Territory of the Pacific Islands, a United Nations trust which gave administrative control of the area to the United States. From 1947 to 1951 the navy followed a policy of minimal interference in Yapese affairs. When the administration of the islands was transferred to the Department of the Interior in 1951 changes were instituted which led to gradually increasing American influence.

In 1979 the people of Yap elected their first Yapese governor. The islands are now a state in the Federated States of Micronesia (FSM), which signed a Compact of Free Association with the United States in 1986. This agreement gives the U.S. certain military rights and control over foreign relations in return for yearly funding assistance to the island governments for a period of fifteen years. The island governments have almost complete authority over internal affairs, but none over foreign relations. The United States has the right to build military bases in certain designated areas, and to bring US Navy vessels into Micronesian waters.

8.3 Population

The current population of Yap is approximately 11,000. Sixty percent of the population resides on Yap Proper, while forty percent lives in the scattered Outer Islands. One of the
most interesting aspects of population in Yap is the reversal of the dramatic population
decline of over ninety percent in the last century which had resulted in the fear of extinction
of the Yapese race. The population has steadily increased since 1946. Over 42 percent of
the population is now below the age of fifteen. The current rate of increase in population
is estimated at 2.6 percent per year, a complete reversal of the trend during the Japanese
occupation, when the population was estimated to be declining by 2.9 percent per year
(Fujii, 1943). The current estimated crude birth rate of 34 per 1000, a decreasing infant
mortality rate, and an estimated crude death rate of 3.7 per 1000 have spurred recent
concern over the possibility of over-population. The Yap State Development Plan strongly
recommends that family planning and population education be strengthened in order to
slow the rate of natural increase (Yap State First Five Year Development Plan, FY 83-87).

8.4 Culture

Despite the decimation of the population during the early part of the twentieth century,
Yap still has a functioning culture based on the ownership of land, a social-caste system
which is only beginning to show minor signs of breakdown, a village-subistence
economy existing side-by-side with a money economy, a system of government in which
traditional chiefs play a principal role, and a traditional system of values and beliefs which
still exerts a major influence.

The culture of Yap is based on the concept of a personal and family relationship with
the land and the sea area within the reef, and a system of reciprocal rights and
responsibilities to one's family and village. People in Yap are named for a piece of land to
which they belong as much as the land belongs to them. The people invest their labor,
maear, in the land and reef, and thus define their relationship to their tabinaw, a complex
of one's land, household and family. To thank someone in Yap is to say kum magar,
"you have worked on my behalf".

The Yapese community unit is a distinctly defined village in which land and sea
resources are exploited and protected by communal cooperation. Each bit of land and reef within the village unit is individually owned, yet products are generously shared within kinship and village groups. Each village is governed by a hereditary chief, whose authority is kept within bounds by a council of village elders.

Each village is accorded a "caste" ranking, established by the recurring bouts of warfare which characterized Yapese politics until it was forbidden by the Germans at the turn of the century. This "froze" the ranking into an intricate system of high-caste landowning villages, pilung, and low-caste tenant or serf villages, pimilingay (Lingenfelter 1975). The inhabitants of the Outer Islands are considered "children" in this caste system, and they are bound to certain villages on Yap Proper by ties of kinship, tribute and interdependence called sowai. The Yapese further assign levels of comparative value to every piece of land and every person in Yap. Land and people are tabugul -- high and pure -- or tay, low, impure and dirty.

The ranking and caste system are very much a part of modern Yapese society. Recently a Yapese nurse who was found to be quite drunk on weekend duty at the Yap hospital by the American Chief Nurse defended himself as pilung (high-ranking person) rather than attempting to excuse his behavior on other grounds.

8.5 Yapese Values

The Yapese take pride in the fact that they are considered the most traditional and conservative people of Micronesia. That the traditional culture of Yap is still so much a part of daily life is particularly surprising in view of the fact that Yap has been ruled by so many colonial powers and has suffered much greater depopulation than other areas of Micronesia. Perhaps these difficulties have impelled the people of Yap to preserve as much of their cultural identity as possible. This is in direct contrast with much of the rest of Micronesia, where traditional cultural practices are quickly disappearing. Yap's first governor was inaugurated dressed in a traditional loincloth, with accompanying customary
presentations of stone money and ethnic dances. The governors of the other states of the FSM were inaugurated in western business suits.

Some understanding of how traditional conservative values affect Yapese orientations to the establishment of health and other programs in the islands is important for this dissertation. According to Platt:

Yapese are circumspect. While dishonest people are certainly not admired, neither is the man who says more than he has to. The successful man here is he who is well-spoken but able to keep his own counsel when he has to. When the chief speaks at a meeting, he may explain an action he is contemplating but not why -- simply put, the air is full of politics and it is better to trust a man than to know exactly why he does everything he does (Platt 1969, p.1).

Those who attempt research in Yap do well to keep Yapese circumspection in mind. At the turn of the century a German investigator of Yapese religious beliefs and practices wrote:

The eager researcher, anxious to get to the bottom of things, will be assured, in the friendliest possible way, that his interlocuter really knows nothing at all about these matters. As a proof of his good will, he will refer the researcher to other persons, who, he says, are better informed. If you do find someone who is willing to talk, you get tales and stories in vast quantities; but after you have written until you get finger cramps you end up knowing as much about the essential matters as when you started (Walleser 1909, p.2).

The differing cultural contexts of the Yapese and of foreigners who come to Yap to work with them in health programs and other enterprises are an important factor in understanding value conflicts which may arise. Lingenfleter (1981) characterizes Yapese values as "person" oriented, and American values as "task" oriented. She found that
Yapese value priorities differ from those of Americans in several basic ways, which are summarized in Table 7.

The frustration of many foreigners charged with completing tasks in cooperation with the Yapese can be understood if it is kept in mind that in Yap the concept of the world and of life lacks any time-urgency. There are few things on Yap which demand immediate action at a particular time. Things eventually get done and few Yapese are ever in a hurry. This orientation cannot be interpreted as apathy; it is merely the normal manner of living on Yap (Schneider, 1957).

Although the generalities presented in Table 7 help in understanding some troublesome value conflicts which are examined in this dissertation, it should be clearly kept in mind that while they reflect some general Yapese values, they do not necessarily represent the values of all Yapese people. Many Yapese are capable of adapting to the event orientation of village life as well as the time orientation of working for the government, just as some foreigners have welcomed the relaxed Yapese attitude toward time and the Yapese emphasis on personal relationships, resource sharing and other appealing Yapese values.

Many of the Yapese values probably developed out of the reality of living on what was once a very crowded and isolated little island. After living on small islands for more than thirteen years, I have come to appreciate the social necessity of confrontation avoidance, strong social control and the value of personal over contractual relationships. Typical American aggressiveness may be socially useful in a large country with a highly mobile population, but it is a troublesome attitude on an isolated little island where efforts to maintain relationships are absolutely necessary to operate effectively.

8.6 Current Political and Economic Setting

Yap is now governed by a popularly elected governor and lieutenant governor, and a legislature consisting of popularly elected representatives and two traditional councils of chiefs, the Council of Pilung from Yap Proper and the Council of Tamol from the Outer
Table 7

Order of Priorities in Person and Task Value Orientation

<table>
<thead>
<tr>
<th>Person</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acceptance of ascribed rank as a beginning principle for ordering social relationships</td>
<td>Achieved rank more important than ascribed</td>
</tr>
<tr>
<td>Non-crisis orientation</td>
<td>Crisis orientation</td>
</tr>
<tr>
<td>Personal relationships</td>
<td>Contractual, role-specific relationships</td>
</tr>
<tr>
<td>Friendships</td>
<td>Frendliness</td>
</tr>
<tr>
<td>Confrontation avoidance as a solidarity strategy</td>
<td>Confrontation as strategy for increasing mobility</td>
</tr>
<tr>
<td>Sharing resources for social capital</td>
<td>Accumulating resources for economic capital</td>
</tr>
<tr>
<td>Strong social control of individual achievement</td>
<td>Weak social control of individual achievement</td>
</tr>
<tr>
<td>Stability as expressed in surface harmony of relationships</td>
<td>Change as necessary for growth</td>
</tr>
<tr>
<td>Event</td>
<td>Time</td>
</tr>
</tbody>
</table>

Islands. The current governor is from Yap Proper and the lieutenant governor is from the Outer Islands. Both officials are well-educated and experienced government officials, but because neither comes from the highest caste levels they are careful to consult the traditional chiefs councils before making major decisions. The nominations of those who run in Yapese elections are heavily influenced by the traditional chiefs.

Nowhere is the Yapese value of stability as expressed in surface harmony of relationships more noticeable than in the public postures of the executive and legislative branches of the Yap government. Decisions are almost always made sub rosa and announced only after a consensus had been reached.

The conservatism of the Yapese is evident in the management of government finance. Yap is justifiably proud to be the only state in the FSM whose government is operating with a financial surplus. All of the other FSM states and the other newly emerged countries of Micronesia operate with deficit spending.

Economically, Yap is heavily dependent on U.S. aid for support of government operations. The Department of Health Services and all other governmental agencies as they presently exist could not function without significant foreign aid. However, the tiny islands of Micronesia possess few natural resources. Little emphasis has been given to building local sources of revenue since the time of American occupation.

Currently large amounts of funds are being made available to the new governments of Micronesia for economic development under the new compact agreements. The spirit of entrepreneurship is not widespread in a society which values strong social control of individual achievement and the sharing of resources for social benefits over the accumulation of resources for economic benefits. For these reasons the probability is that the government of Yap will remain dependent on foreign aid for many years to come.
APPENDIX B

HEALTH SERVICES IN YAP

2.1 Traditional Medicine in Yap

Traditional medicine, chiefly herbal medicines and massage treatments, has been practiced in Yap for centuries and still flourishes today. In 1917 the German anthropologist Muller gathered material on traditional medicine on Yap, and found that the Yapese made a distinction made between individual sickness and the devastating epidemics which had taken the lives of so many of the people of Yap. It was felt by many that the raging epidemics were caused by demons conjured by magicians conspiring with rival chiefs, while individual sicknesses had multiple causes such as the breaking of taboos or unhealthy living habits. Muller found that treatments consisted mainly of herbal medicines coupled with rituals. Some simple surgery was being performed, such as the piercing of the mucous membranes of the nose to cause a nosebleed as a cure for headache, and the opening of skin pustules and abscesses. Muller made some reference to cutting the abdomen for cesarean cases, but cites no specific examples (Muller, 1917).

Although traditional medicine is largely ignored by the government health service department, the extent of treatment by herbal medicines is probably quite large. A study made just after the end of World War II indicated that at least 19 plants were being used for medicinal purposes, even at a time of great social disruption and depopulation (Hunt, 1947-48).

In response to a brief questionnaire which I developed and analyzed in 1986, village health workers in Yap reported that many Yapese use both traditional and western medicine. One worker estimated that 75 percent of his patients use only western medicine, and 25 percent use traditional and western medicine. Another feels that her patients will come to the hospital for "strong" medicine like pain relievers but will still use traditional
medicine, even while patients in the hospital ward. She is positive many people come to the doctor for a diagnosis and then go back to their villages for traditional medicine.

The most common complaints treated with traditional medicines are muscle and joint pain, dislocations and fractures, headache, stomach pain, asthma, cellulitis and infected wounds. Most of these traditional treatments have a magical or psychological component. A Yapese Public Health nurse reported that, although the results of the use of traditional medicine have not been investigated in Yap, some people have a strong belief in it. He personally feels that some traditional medicines are truly effective.

Traditional medicine was first supplemented in a small way by some medical care given to the Yapese by Spanish missionaries. Although the Spaniards established a military doctor and a small hospital on Yap by 1885, little health care was provided by this facility to the Yapese people.

9.2 The German Health Service System

The German administration of Yap found what must have been an aftermath of diseases brought to Yap by early explorers and traders which had decreased the population from the estimated pre-contact high of 40-50,000 to 7,808 in 1899. This situation was met with great energy by the Germans, who set about preventing the importation or spread of any more epidemics or venereal diseases. There were some reports of patients being examined against their will (Useem, 1946). The German health service gave smallpox vaccinations to 438 men, 23 women and 67 children in 1903. By 1912 1500 people had been vaccinated on Yap. The German administration forbade the sale of liquor, attempted to stop the traditional institution of prostitution at the men's clubs, and decreed an end to village warfare.

In October of 1903, 50 Yapese died of a disease that may have been influenza. Reference is made to a possible epidemic of plague which might have been spread from Hong Kong, where plague raged each summer. A small island near the German
administrative office was used as a quarantine station. Ships were cleared by this station, where goods were disinfected before their release onto Yap. Japanese vessels were beginning to appear in Yapese waters, and their crews as well as those from China were carefully examined for venereal disease, cholera and plague before being allowed to go ashore.

In 1899, Germany established a small hospital staffed by one physician as part of its administration on Yap, and by 1903, had built another new 40-bed hospital facility. Two more hospitals and a clinic were begun in 1906, but never completed. In reports covering the years 1901-1903, the German deputy district officer wrote that it would be a long time before the people of Yap acquired enough confidence in German medical treatment to bring their sick to the hospital and leave them in the hands of the doctor. He noted that the "natives resist sanitary measures strongly." The doctor attempted to demonstrate the effectiveness of foreign medicines and first aid measures. The report continues:

The necessity of having special facilities for children was shown by the large number of them who were treated. Most of the diseases treated began in early youth. Gradually the Yap people became persuaded that it was a good idea to send in their children for treatment, in order that the complaint might not continue to an advanced age (Hunt, 1947-48, p. 157).

The hospital routine was simple but efficient. Two hospital orderlies cared for the patients, assisted by ambulatory patients. Washing, baths, and bandage changes took place starting at 9:00 a.m., while any sick German soldiers, German policemen or Yapese were seen by the doctor. By noon, all male patients had been attended to. At 2:00 p.m. any surgical procedures were performed, under chloroform narcoses. At 4:00 p.m. work began in the women's section of the hospital. This routine was generally finished in one to two hour's time. Patients were expected to provide their own food. The end of the daily medical rounds usually consisted of rubbing a gray ointment on patients. The
function of the ointment was not recorded. This was efficiently accomplished by having the patients form a circle and each rub the ointment onto the back of the person standing in front of them. In 1903, 420 patients were treated, with 218 being admitted as hospital patients. Many were long-term chronic cases. Reports noted that as many as 100 patients were crowded into the 40 bed facility at one time. By 1904, the total number of patients had increased to 520.

A 1903 health survey of the Yapese indicated that lung complaints, skin and venereal diseases were prevalent. Malaria, dysentery and "similar tropical diseases" were thought to be "completely absent". It was noted that the treatment of skin diseases demanded the largest part of the doctor's time. Three to four hundred cases of skin ulcers (yaws) were reported. An educational program was instituted to facilitate the detection of yaws at an early stage. The Germans felt that fatal illnesses were only partly responsible for the depopulation which was taking place on Yap. Yaws was equally responsible. "The young people of both sexes who had these complaints were often in a disgusting state of appearance and it was against all custom to have sexual relations with such sufferers."

Respiratory diseases, from common colds to tuberculosis, were prevalent. The Germans despaired at treating tuberculosis, as "living conditions and climate continually fostered colds, and religion and superstitions were closely connected with the frequent occurrence" of tuberculosis.

During this period the doctor asked each district chief to send one "boy" for four weeks of medical training. This trainee then returned to his district with medical supplies to set up an aid station. First aid was given, and trainees selected cases to send in to the hospital. Further training was planned for the health workers in this program.

**9.3 Japanese Health Services**

The plans of the Germans came to an end in 1914 with the assumption of control of Yap by a Japanese naval commander. Eventually the League of Nations Class C Mandate
required the Japanese to promote the material and moral well-being of the Yapese people. The Japanese were the only colonial power to effect substantial emigration to Micronesia from their homeland, and thus health services were established to serve both the Yapese and Japanese populations.

The Japanese built a civilian hospital in the administrative center of Yap, with separate wards for Japanese and Yapese patients, as well as a smaller military hospital. The civilian facility was staffed by two Japanese doctors, a pharmacist and four Japanese nurses. Ten young Yapese women were recruited and trained as nurses. Four other Yapese were trained to work as health assistants in rural areas of the main island. The Japanese doctors visited these rural areas once a year.

Many Yapese women came to the hospital for deliveries, and a prenatal clinic was held at the hospital. The annual infant mortality rate averaged 67 per 1000 births from 1926 to 1931 (Yanaihara, 1940).

An island in the main harbor was designated as a quarantine area for leprosy patients. Thirty-two were sent to live there in isolation for the remainder of their lives, although relatives managed to visit and take food to them fairly regularly.

The Japanese reported an epidemic of an unknown disease in Yap in 1915, which they attributed to the fact that Yapese wore traditional loincloths and grass skirts. The Japanese reported that they gathered the district chiefs and talked about change of costume "until they nearly fell down", but to no avail. The epidemic dropped off, convincing many Yapese that there was no connection between clothes and the epidemic (Useem, 1946). Japanese concern with persuading the stubborn Yapese to wear clothes runs throughout the writings from the period of Japanese rule. The Yapese traditional dress, according to the Japanese

served to rob the body of heat and become a means of carrying dirt and infection ... they cannot well afford to remain behind in the matter of clothing ... we must
take upon ourselves the responsibility of teaching them the proper use of clothes
(Yanaihara, 1940).

It was felt that the bare skin of the Yapese was more exposed to skin diseases, and that there was a greater likelihood of catching cold when wearing traditional dress (Nagasaki, 1934).

There was also disquietude over the traditional high-roofed Yapese houses, which were described as "little more than a dark hole of a house, with the thatch roof a reservoir of water ... The floor a grill of poles on the ground with earth vapors rising through the cracks". Strict health regulations were written in order to force the Yapese to conform to Japanese health ideas, and the Japanese were willing to pay half the cost of the housing and clothing schemes. Model houses were built, and by 1935 one hundred had been completed. Progress in making the Yapese wear clothes instead of traditional dress had little success. Mothers were told that infants "were not to be dried in the wind nor wrapped in a banana leaf". A large bath towel was issued to wrap each infant (Nagasaki, 1934).

9.4 The First American Health Services on Yap

Soon after taking possession of Yap, the United States Navy built a small quonset hut hospital near the bombed remains of the Japanese hospital. The hospital was staffed by two military doctors, a pharmacist’s mate, four Guamanian and five Yapese nurses. The Yapese nurses were from among the group which had worked in the Japanese hospital. Health assistants were trained to provide health services in seven dispensaries on the main island of Yap, and health assistants were trained for the Outer Islands. Naval doctors visited the Outer Island dispensaries, but not those on the main island. Some of the Yapese nurses were sent to Guam for further training.

Navy doctors complained of the lack of equipment, supplies and running water at the hospital, and the lack of skilled technicians to assist them. Communication with patients
was difficult, as few if any Yapese spoke English and navy personnel were rotated every few months, making it almost impossible for them to learn Yapese.

Token efforts were made to encourage the building of latrines. A sanitary inspector was designated from among navy enlisted personnel, but since the Yapese recognized his low status, his instructions were largely ignored. Sprayers and DDT were given away, but supplies of DDT soon expired and the equipment was in frequent disrepair. Water purifying substances were made available, but were seldom used.

Naval medical personnel took great pains to develop Yapese confidence in American medicine and show deference for Yapese customs. This concern with not antagonizing the Yapese led to a non-assertive approach to health problems and the administration of health services. Physicians were reluctant to make gynecological examinations or perform autopsies. A Yapese nurse who worked in both the Japanese and American hospitals feels that health care was better in the Japanese hospitals because of the discipline imposed on the hospital staff by the Japanese. Many older Yapese today express some nostalgia for the Japanese system, because of its emphasis of control and discipline, and are critical of American democratic attitudes. In Japanese times, so they say, young people behaved themselves because the Japanese beat them if they did not. The Japanese emphasized what they saw as good medical practice at the expense of custom; the Americans attempted the reverse. The Yapese have been pleased with neither.

A 1948 tuberculosis survey was hampered by American efforts to not be aggressive in the search for patients. All dealings were through Yapese chiefs, who were worried that the next thing would be a repeat of forced physical examinations and autopsies. The survey doctor was met at the pier and taken to a spot selected for the clinic and lectures. After a token number of patients had arrived and been examined, the doctor was led about the village and expected to make a few comments about what he saw. Finally the doctor
was escorted to the pier with what must have been a collective sigh of relief from the villagers and the doctor.

9.5 Health Services and the Depopulation of Yap

The Yapese population diminished by 33 percent from 1920 to 1937, an average of nearly 2 percent per year. It had diminished by 21 percent from 1899 to 1911, a somewhat lower average of 1.75 percent per year, even without taking compounding effects into consideration. The five year average birth rate for the years 1925-1929 was 14.4, while the death rate for the same time period on Yap was 44.1. The Japanese calculated that the Yapese population was decreasing at a rate of 29.7 per thousand per year, and evidenced concern for the "ever-declining people of Yap who live in the constant shadow of extinction" (Yanaihara, 1940).

Japanese concern with this situation led to an ambitious health survey on Yap in 1934. The entire population of the central island, 3556 persons, was examined. Only 31 percent of the examined population were considered by the Japanese to be healthy. Of the 2456 people deemed sick, 508 had tuberculosis diagnosed by the presence of bacilli in the sputum, and another 432 had swollen lymphatic glands of the neck which were assumed to be indicative of tuberculosis. Other conditions cited were trachoma, leprosy, syphilis and chronic bronchitis.

In a second survey the total population of the central island over 8 years of age other than males over 60 years and females over 50 years were examined for evidence of venereal disease. Thirty-three percent were diagnosed as having a sexually transmitted disease, mainly gonorrhea, "almost the same rate as in the case of inspection of Japanese prostitutes", reads the official report. The report notes that

Though it was a matter of extreme difficulty to force the general inspection of the sexual organs of all inhabitants, there was no other way to determine the prevalence of venereal disease among them (Fujii, 1943).
Examinations were conducted by forcibly stripping and examining patients in mixed groups. Consultations were often held by male Japanese doctors over the exposed bodies of Yapese women (Schneider, 1955). Though the traditional grass skirts and loin cloths to which the Japanese objected expose the female breasts and a portion of the male buttocks, the Yapese are quite modest and reserved in regard to exposure of certain portions of the anatomy. The public exposure of the Japanese medical examinations was a humiliating and degrading experience for the Yapese, who retain very vivid and bitter memories of the medical field work of the Japanese.

It is not at all certain that the conditions diagnosed by the Japanese as gonorrhea actually were that disease, or some other condition. The treatment for the disease at that time involved prolonged and repeated injections into the bladder for men and intravaginal solutions for women. The Japanese physicians effected few cures in the aftermath of the survey.

American medical personnel stationed on Yap after the end of World War II found a very low incidence of gonorrhea and no history of extensive cases and cures in the past. Although the Americans agreed that Yap had a large proportion of infertile women, they attributed this to self-inflicted abortion rather than venereal disease. Several anthropological investigations supported this theory (Hunt et al 1949 and Schneider, 1955). The thesis has since been questioned by Underwood (1973), whose analysis of demographic data collected from 411 Yapese women in 1966 indicated that low frequency of coitus and pathology of the reproductive organs are more important causes of low fertility than intentional abortion.

An American investigator on Yap in 1946 asked some Yapese what they thought caused the decline in population. The reasons they gave included a high rate of divorce, poor nutrition among women, poor housing conditions, venereal disease and early marriages (Useem, 1946).
The population of Yap has greatly increased since the end of World War II, concurrent with the increasing availability of antibiotics and other improved treatments, but the high incidence of self-induced septic abortion as well as the high birth rate are currently of major concern to the health department on Yap.

9.6 The Present Health Service System

The health service system established by the American occupation forces on Yap formed the nucleus upon which the present health service system is based, although there are important influences from the older Japanese and German systems to be found both within the government health system and in the attitude of the Yapese people towards it.

The first organized health service system, that established by the Germans at the beginning of this century, was curative-oriented and tightly controlled by the German administration. Preventive efforts centered on German efforts to control and prevent the importation of further disease into Yap. The Japanese system was characterized by even greater centralized efficiency and domination. Prevention efforts involved attempts to force Japanese regulation of almost every aspect of everyday private life on Yap, and these efforts were bitterly resented. The attitude of both the Germans and the Japanese was highly paternalistic. The Yapese were considered a very primitive people, to be cared for by the enlightened occupation forces. In matters of health, they were urged to leave things to the "expert" foreigner.

The Americans took a much more democratic and deferential attitude in establishing U.S. health services on Yap, in an effort to foster a positive political relationship with the islanders. The Yapese did not entirely welcome this effort, as evidenced by a prevalent attitude on Yap today that the Japanese were much more efficient than the Americans. Preventive efforts received far less emphasis than provision of clinical services, at least in part because of the fear that intrusion into Yapese private life would generate resentment of the American occupation forces.
The present health service system consists of twenty rural dispensaries scattered throughout the rural areas of Yap, a hospital located at the administrative center of the islands, and a medical referral system through which patients can be sent from remote dispensaries to the hospital, and patients from the hospital can be sent to hospitals in Guam and Hawaii.

The Yap State Health Service Department has a 1986 operational budget of $1,294,000, and a staff of 135 employees. It is directed by a Yapese woman with a background as a nurse and medex (physician’s assistant), as well a graduate degree in public health from an American university. There are three Yapese doctors, two Palauan doctors, one Filipino and two American doctors in the department. The Micronesian doctors are Medical Officers (MOs), not MD’s. Their medical degrees are from a medical school in Fiji, which does not grant MD degrees. Most health service employees are Yapese. The only other expatriate employees are two nurses, a laboratory technician and one employee in the Dispensary Primary Health Care (DPHC) program.

The health department is funded almost entirely by the United States. A new 50 bed multi-million dollar hospital was built by the United States for Yap in 1979. Until the Yap DPHC program began in 1985, many village health posts, called dispensaries in Yap, had been closed or were desperately in need of support and supplies. Almost all health services at the time were curative-oriented and located in the central hospital facility. Almost all funds and other resources of the health department are concentrated in supporting the hospital and paying costs of patients referred from Yap for tertiary treatment in Guam or Hawaii.

9.7 The Yap Department of Public Health

The Public Health Department is funded by a combination of direct U.S. aid from U.S. Public Health Service categorical grants and from the Yap state budget, which is supported by U.S. aid. The categorical grants amounted to $119,000 in 1986, while the state budget
allocation in 1986 was $97,000. The direct grant programs pay the salaries of thirteen employees, and the state budget pays for an additional seventeen employee positions, for a total public health staff of thirty employees.

The department is directed by a Yapese administrator who does not have a background in public health. He is assisted by a Public Health Officer, a Palauan doctor who has lived and worked in Yap for many years.

The reliance upon U.S. Public Health Service grants and technical assistance has resulted in the development of an organization modeled after a U.S. public health department, with a variety of vertical programs targeted at various diseases and specific population groups.

The model is in many ways inappropriate for Yap. There is no leprosy program, for example, but there is a heavily funded hypertension program, despite the fact that leprosy is prevalent on Yap while hypertension is much less so. The leprosy attack rate in the FSM is now one of the highest in the world.

In 1986, a U.S. Public Health Officer with expertise in communicable disease control was loaned to the FSM for a period of several years to provide technical assistance on communicable disease. His primary concern in working with the Yap Public Health Department is to set up a program to combat AIDS, although no cases of this disease have been reported in the FSM and it is not considered a major problem in this geographic area. He was asked for assistance with leprosy and tuberculosis control in Yap but was unable to respond, as he had little knowledge of these diseases and no funds at his disposal for working on these problems.

There is general dissatisfaction with public health programs in the state, but no clear notion of how to go about remedying the situation. The vertical program structure of the department has resulted in the development of teams or individuals working on specific diseases or with specific target populations. These teams work fairly independently of one
another, each providing separate services in the hospital and in villages. This is a costly approach which requires large numbers of employees in relation to the amount of services provided. The Maternal Child Health (MCH) village program with its staff of six, for example, saw an average of 62 children per month, a little over 10 children per employee, from October of 1985 to February of 1986 in village visits to give immunizations. Each of the various program teams makes separate village visits to perform functions such as giving immunizations, taking blood pressures of known hypertensives or collecting samples of village water supplies for testing.

The Yapese have been impelled toward the development of isolated vertical public health programs by the requirements of U.S. grants and technical assistance recommendations. There is concern with these problems, yet the value the Yapese place on personal relationships, confrontation avoidance, surface harmony of relationships, a non-crisis orientation and deference to rank, have made it particularly difficult to spurn the U.S. programs and funds in order to establish a public health department which provides integrated services at a lower cost.
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