

Final Technical Report  
3-P-84-0227  
Primary Health Care in Tribal  
Communities (Philippines)

COMMUNITY PARTICIPATION IN THE PROVISION OF BASIC  
HEALTH SERVICES: THE CASE OF THE HANUNUO  
MANGYANS OF ORIENTAL MINDORO,  
PHILIPPINES

Final Report  
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"The medicine of tomorrow will be shaped by the people, for the people because the people themselves will determine their own condition, their own destiny."

M. Toure, 1979

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## ACKNOWLEDGEMENTS

When the project was conceptualized, the assumption was that population in underserved and inaccessible areas could be mobilized for health service delivery through a participatory mechanism. In going through the various phases of this operations research, we recognized the potentials of a participatory health program that can be sustainable if specific obstacles, both cultural and programmatic, could be addressed adequately. Such demonstration could provide useful insights to health program planners and implementors whose major goal is to extend the coverage of health services to the underserved minority.

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It is hoped that the results of this study would assist the government and other concerned organizations, in developing a culturally-relevant health program in the uplands.

THE AUTHORS



## EXECUTIVE SUMMARY

This operations research is aimed at demonstrating the feasibility and effectiveness of a culturally-appropriate health program that involves a tribal community in the provision of preventive, promotive, and curative health services. One Hanunuo Mangyan community, i.e. Barangay Binli, in the municipality of Bulalacao, Oriental Mindoro was chosen for the study. The project was divided into three phases: (1) an initial phase of baseline information procurement to determine the existing health situation, the health resource available, the health-seeking behavior and beliefs concerning illnesses; (2) a second phase of program formulation and implementation, and (3) a third phase of program assessment or evaluation. The entire project covered a total period of 33 months, from January 1985 to September 1987.

The baseline data was collected from the health service providers and the families in the village. The community had four traditional healer whose perceptions and management of illnesses were conventional rather than specific. The clinical assessment of the household members showed the existence of a number of health problems which were mainly infectious and communicable diseases, i.e. upper respiratory infection, skin diseases, parasitism, malaria, and nutritional anemia.

Environmental facilities were found wanting. The households utilize the bush for defecation and the sources of water supply were open springs and streams. Waste disposal was largely done through open dumping of garbage. The community exhibited a high pregnancy wastage, infant and childhood mortality--an average of only five out of seven children were born alive. Close to half of the children died in the first five years of life with the majority dying at infancy from preventable and communicable diseases.

Prenatal care was virtually unknown to the Mangyan and childbirth usually occurred at home with the husband or other relatives as attendants. Delivery was done in unsanitary conditions and the umbilical cord was mostly cut with the use of cogon grass. Complications in delivery were noted in the form of uncontrollable bleeding. Breastfeeding was universal and solid supplementation was given to the child at around six months.

Most of the families did not know the etiology of common diseases and they utilized herbal medicine in the management of illnesses. They claimed that no health personnel visited them in the previous year.

The information derived from the baseline study served as the basis for the development of a culturally-relevant training program in primary health care.

During the second phase of the project, the following activities were undertaken. A community assembly and consultation meetings were held to plan the population-based health program and to select the health workers who would receive training and extend health services to the community. A training program was conducted to the Hanunuo Mangyan health workers in the upland village by the staff of the Bulalacao Rural Health Unit utilizing a culturally-appropriate manual on primary health care. The manual was developed with the assistance of the representatives of the Department of Health, the Rural Health Unit, and public health consultants.

After the training, the health workers delivered mostly curative health services to their catchment areas. The community built two health clinics which were manned by the project nurse and some health volunteers who received clinic management training from the project nurse. The other major activities of the health program included an election of the officials of the village health care committees, emergency feeding project, immunization of preschool children, community meetings, community celebration of the launching and one-year anniversary of the health clinics, meetings between health workers and the project nurse, retraining of health workers, linkage with the Rural Health Unit, the establishment of a drug depot and an income-generating project. A project team composed of a nurse, medical consultant and two documentors were fielded in the area to supervise the health workers and to gather basic health-related information. The Rural Health Unit extended support to the community-based health program by providing medicine, vaccines, referrals, training, plastic toilet bowls, and by sending a malarial spray team and a mobile film-showing unit to the village.

The major problems encountered in the implementation of the health program were the dwindling number of health workers who delivered health care services in their catchment areas and in the health clinics and the

maintenance of the community's interest and support of the health program. Work demands from their homes and swidden farms, lack of trust and support by some of the households in their catchment areas were among the reasons posited by the health workers. On the other hand, the community's main reason for the problem cited was lack of cooperation and unity among the residents in the village.

Fifteen months after the implementation of the health program, an assessment of the health program took place. The results showed that the household had slight improvement in environmental sanitation facilities (i.e. toilet, water supply and garbage disposal), reductions in childhood mortality, miniscule improvement in delivery practices and increased knowledge of the etiology of illnesses. The management of illnesses remained largely traditional and a large proportion utilized the health clinic and health workers. It was noted that there was a reduction in the prevalence of illnesses, i.e. upper respiratory tract infection, skin diseases, anemia, malaria, and PTB. However there was a high rate of parasitism.

The health workers felt that they could adequately manage some illnesses with confidence, viz., headache, fever, diarrhea, stomachache, and scabies but they claimed difficulty in managing PTB, swollen parts of the body, malaria and vomiting. The majority of the health workers were assessed by an external medical evaluator to be adequately skilled in some aspects of clinical skills (clinic history, referrals, pulse taking, weigh taking, identification of the symptoms and treatment of malaria, PTB, skin disorders, parasitism, diarrhea, upper respiratory tract infection, knowledge and preparation of herbal medicine, malarial smear and ORESOL). They can also extend health counselling in the prevention and control of illnesses. They were, however, deficient in the reporting of clinical data, temperature and blood pressure taking, identification of symptoms and treatment of scabies, fungal infection, allergy, urinary tract infection and knowledge of immunization. They were also evaluated to have low leadership qualities.

The officials of the village health care committees perceived that they did not have clearcut delineation of their functions. The staff of the Rural Unit, on the other hand, perceived the community-based health program positively and underscored their contributions to the program.

Issues on community participation and project sustainability as well as recommendations to sustain and replicate the program are raised in the study.

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## Chapter One

### THE RESEARCH PROBLEM

In the health field in the Philippines, several themes began to dominate the thinking in the late 70's. Common to these themes is the concern for the community as the basic focal point and instrument of development efforts, the need to stimulate local initiative, and the recognition that problems such as health and population are too interrelated to be addressed by fragmented sectoral approaches. A reexamination of strategies and priorities in the health field has led to the recognition that in order to maximize resources, programs must pay attention to the community by encouraging local groups of people to accept responsibility for their own health needs, not only in carrying out various health services delivery functions, but also in setting new norms for health behavior. In the community-based health program, the community becomes the center of activity and responsibility. The clinic simply provides technical back up support to the community member. Field workers build a network of community members who take responsibility for the promotion and delivery functions and the initiative for the provision of the perceived health needs in the community.

#### Primary Health Care in a Tribal Minority in the Philippines

The universal Declaration of Human Rights in 1978 proclaimed the right of the individual to the highest attainable standard of health and the responsibility of the state for the health of people through the provision of health and social services. Towards this end, the present system of health care in developing countries is directed towards community participation and organization at the local level in individual villages and municipalities. The government's concern for the health and welfare of its population is reflected in the continual modification of the health program to suit the needs of the masses. Despite the massive efforts, large sectors of the population still have no access to any definitive form of health care. Basic necessities such as adequate housing, environmental sanitation facilities, and sufficient food supply are not available to the large majority of rural communities as well as the urban poor.

Infectious diseases continue to take a heavy toll, and infant mortality is at a high level. Many more are handicapped for the rest of their lives due to malnutrition and illness. The basic configuration of the health problem is the interaction between population and disease against the framework of poverty and ignorance. It is recognized that health problems of specific populations are tied to their culture, history, and socioeconomic status, and so are their responses to the crisis situation. While a health care delivery system exists, it is not certain that the health of a people is being adequately cared for. Health programs and schemes may be irrelevant to the specific needs of communities. Most often the system of health care in developing countries is transmitted from the technologies of developed countries with only superficial modification to meet indigenous requirements. Western technology has been introduced in health and medical services. Highly skilled medical personnel cater to the needs of the elite few focusing on curative care and virtually excluding the use of traditional tribal medicine. Each culture has its own health-seeking behavior which defines what constitutes health and its own perceptions towards pain, illness, debilitation and death.

The new approach to primary health care delivery recognizes the right of people to move out of static and structured systems and organize a modus vivendi in which they can have greater control over their environment. This new approach puts greater emphasis on the village health worker as a provider of a wide variety of services. This approach emphasizes the use of simple medical training and technology to supplement folk medicines with low cost or free medical services, village based strategies in health care, use of indigenous resources for health infrastructure and facilities, and active involvement of the people in village health planning.

### Background of the Project

A project was formulated by the De La Salle University Research Center aimed at developing an education program for three Mangyan communities in Oriental Mindoro which focused on a curriculum that is relevant to the needs of the community. As such, improved agricultural techniques, health and nutrition issues, as well as management skills were addressed in non-formal education classes.

In the course of the school program, the poor health situation of the community was manifested in episodic out-breaks of viral and respiratory illnesses which influenced school attendance and productivity. While the levels of morbidity and mortality had not been adequately quantified in these areas, it seemed that communicable diseases were of high prevalence due to a number of factors low level of health education, poor environmental sanitation facilities, protein energy malnutrition, and inaccessibility of medical services to the community. Given the limited government health services available, there is a need to underscore the importance of the community's participation in health care delivery by exploring the possibility of utilizing the health recipients as the providers of services. Therefore, it has become important to examine the various approaches to community health care delivery to determine which is most appropriate for a specific setting.

While the Department of Health of the Philippine government has been strongly committed to the extension of basic health services to poor people in the remote areas of the country, constraints in resources and trained manpower hinder the achievement of the enunciated goals. In 1978, the primary health care plan was adopted which aims to carry out a set of activities determined by the country for the provision of basic services to the people using appropriate technology. This goal is to be achieved through the training of volunteer health workers in the provision of preventive, promotive and curative services. Despite these efforts, a large number of communities remain underserved.

One outstanding feature of the contemporary rural development thrust in the Philippines rests in its growing concern for upland development. Notable also is the accompanying approach which gives sufficient attention to people's participation. Realizing that the greater magnitude and potential for developing the uplands lie in the abundance of labor resources in the area and in the full cooperation of the people themselves, attention is now focused on the important role that these communities can play in the success of their development efforts on their behalf. This approach to upland development brings out the importance of better understanding of people in these areas (Ellevera-Lamberte, 1983).

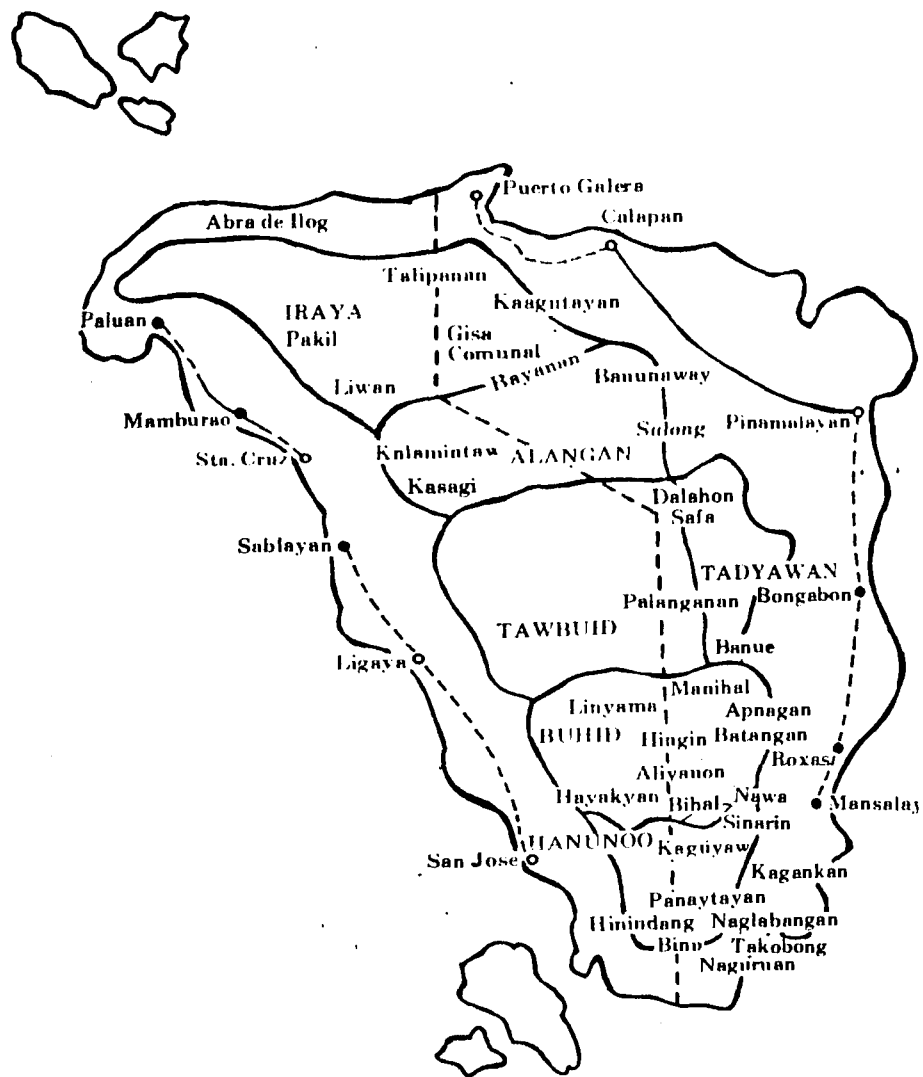
### The Tribal People of Mindoro

One hundred sixty odd kilometers south of Manila and at the end of Sulu sea lies Mindoro, the seventh largest island in the Philippines. Christian Filipinos, mostly Tagalog or Visayan farmers live in the lowlands and the coastal plains. In the rugged, more sparsely populated and less known interior live at least eight groups of pagan mountaineers known collectively as Mangyans. Most of these forest dwelling non-Christian groups live in small scattered settlements, speak mutually unintelligible languages, have little direct contact with each other or with the coastal Christians, and are loosely organized politically. They are peaceful folks who devote much of their time to subsistence activities, including integral shifting cultivation. The most populous of these relatively unassimilated ethnolinguistic groups are the Hanunuo who number approximately 6,000 and occupy about 800 square kilometers of forest and grass covered hinterland in the southeastern part of the island. Of this area, about 650 square kilometers are occupied almost exclusively by the Hanunuo (see Figure 1.1). Most of this territory falls within the southern-most municipalities of Oriental Mindoro: Mansalay and Bulalacao. The average population density for the entire Hanunuo territory is ten per square kilometer. This is unevenly distributed ranging from 25 to 35 per square kilometer in some forested areas to less than five per square kilometer in more exposed regions (Conklin, 1957).

The average Hanunuo has been described phenotypically as Early Asiatic, small stature and weight but slightly taller than the other Mindoro mountain peoples. Both sexes file their incisors flat, stain their teeth black, trim their eyebrows and wear their hair long. Men dress minimally in loincloth, women in tubular sarongs. Work knives, rattan pocket belts and betel ingredient baskets are normal accessories. Most Hanunuo are monolignual. They speak various dialects of a single Austronesian language which are genetically related. Hanunuo society is bilaterally structured, loosely stratified, and predominantly egalitarian. There is no stress on unilinear descent and there are no large corporate kin groups. A degree of authority and influence attaches to the status of eldest close kinsmen in any given group, and a skilled medium, smith or weaver gives prestige and such; but there are formally recognized or titled leaders even of a jural sort, no chiefs, no headsmen, and no servants.

Figure 1.1

Map of Mindoro Showing the Present Distribution of the Different Mangyan Tribes



Political integration is obviously weak and there are no tradition manifestations of warfare. In general, the Hanunuo live in small nucleated settlement averaging five or six one-family dwelling each. Houses are four cornered pile dwelling of wood and bamboo construction, hip roofed ordinarily with cogon grass thatch. Men make and repair metal blades for knives, axes, spears and other simple tools. Women plant, pick, gin, spin, dye, and weave cotton cloth for blankets and garments. Both sexes and all age groups except infants participate in other economic activities, the majority of which are associated with agriculture. Chickens, goats, and pigs are raised within the broader context of swidden farming. Religious activities include feast and ritual for deceased kinsmen, local supernaturals, and swidden crops (especially rice). There are only three discerned, discrete social groups in Hanunuo society: family, household, and settlement; the first based on kin ties; the latter two on locality. The basic and only corporate Hanunuo social group is the family, instituted by marriage. The Hanunuo are mostly monogamous although the resulting nuclear family may be extended horizontally by permitted but infrequent polygny or polyandry. The minimal local group is the household whose membership includes all those who live in a single house, use one hearth, and eat together. A Hanunuo settlement is a discrete local group the members of which refer to each other as close neighbor. Such a group is defined largely by its nucleation. Members of one's own community are treated as neighbors who are visited daily or frequent intervals without special announcement or preparation and in emergencies may be given certain kinds of swidden crops but never allowed to make formal payment for them. Communities have about 100 to 150 population.

The estimated population of the Hanunuo Mangyan have remained constant. Twedell's estimate in 1970 placed the population at 6,000. In 1975-76, an estimate made by Barbian indicated that the population remained stationary at 6,000. The PANAMIN Office in 1981 put the population at 6,880 (Ellevera-Lamberte, 1983).

The economy of the Hanunuo is mainly agricultural and has essentially remained at a subsistence level. Their economic life is linked to the kaingin and forest, and the basic agricultural units are the kaingin farms usually planted during the west season with a vast array of crops--rootcrops, vegetables, legumes, bananas, fruit trees, corn and rice. Shifting cultivation and food gathering are the chief agricultural activities of

food gathering are the chief agricultural activities of the Hanunuo. Through careful agricultural rotation, the Hanunuo farmer cultivates a number of crops in the hillside kaingin. Basic staples are rice, corn, bananas, and rootcrops. Rice also is of primary concern to the Hanunuo in terms of both ritual and prestige values.

### The Pundasyon Hanunuo Mangyan School Project

Education is an immediate need expressed by Mangyan leaders. They recognize that cultural deprivation and exploitation emanate from the lack of knowledge of the surrounding world. They desire a Mangyan-appropriate education that is responsive to their needs and considerate of their culture in a changing world. Accordingly, the Pundasyon Hanunuo Mangyan (PHM), an organization that represents three Hanunuo communities, requested the assistance of the De La Salle University Research Center in the planning implementation and maintenance with the PHM of an elementary school with a culturally appropriate curriculum. The PHM represents approximately 250 families of Hanunuo Mangyans living in the sitios of Amindang, Bailan and Umabang in barangay Binli, municipality of Bulalacao in Oriental Mindoro. The PHM area comprises 4,200 mountainous hectares in the interior of southern Mindoro. The PHM School project aims to develop an elementary education program for children in the area. Using a participatory approach, a curriculum was developed that is relevant to the needs of the community. The curriculum package addresses the needs for literacy, food production, ecology, and understanding of the outside world.

In the long run, the school is expected to be self-sustaining. To help achieve this goal, a technical/agricultural component was incorporated in the project in 1985. Through the teaching of improved agricultural techniques, it is anticipated that food production will be increased, and income to support the school will be generated from the marketing of farm produce. Another means toward community sustainability of the school is the training of Hanunuo from the PHM communities to serve as parateachers who will eventually assume responsibility for teaching at the school.

The project was implemented in June 1983. In the course of project operations in the first year, there was



a noted seasonality of absences from respiratory, viral and gastrointestinal infections. An assessment of school participation at the end of the year indicated that of the 33.9% (36) pupils who dropped out from the school, 69% (8) had to do so because of prolonged illness, and one from injury. It also was evident that January and February were the months with a large number of absences due to illness. Due to the health status of the population, a health education component was incorporated in the school curriculum that will address the preventive aspects of health care. Responding to the health problems of the population, the International Development Research Centre (IDRC) gave a grant to the Research Center to undertake an operations research project aimed at testing the feasibility of setting up a simple health program in primary health care for Hanunuo Mangyans using the participatory approach and also aimed at determining the effectiveness of the program.

#### Justification for the Project

While no information specific to health and illness patterns has been obtained for the Hanunuo, there have been indications that for Mindoro island as a whole, diseases related to respiratory illness are most common--pneumonia, tuberculosis and bronchitis. Other prevalent illnesses are malaria, typhoid, dysentery and skin diseases. The frequency of tropical cyclones characterized by high velocity easterly winds accounts for the coolness of the mountains for most of the year. The sudden change in temperature seems partly to explain the high prevalence of respiratory diseases such as tuberculosis, common colds, bronchitis, pneumonia and asthma. In addition, the scarcity of and limited access to clothing materials and blankets required for the six months rainy season contribute to the high prevalence observed. The housing materials used--cogon, nipa, split bamboo and coconut palm--do not give enough protection from cold or rainy weather.

The environmental sanitation facilities are rather poor, characterized by the absence of safe water supply; this explains the high prevalence of gastrointestinal diseases in the area. Malnutrition is of a large magnitude since the diet revolves around boiled rootcrops.

Mangyan studies are in agreement with regard to their state of health. Without question, Mangyans have poor health, are generally malnourished and are consistently faced with communicable diseases and threats of malaria infection. However, no quantitative indices are available. The need to map out strategies to combat the problems is pressing. At the same time, Mindoro suffers from insufficient health facilities and health workers. The situation is bleaker for Mangyans, particularly for those living in the hinterlands, since health services are rarely available to them. If they are available, health services are delivered by religious missionaries and civic groups (Ellevera-Lamberte, 1983).

It also recognized that in the immediate future, government resources will be grossly insufficient to support the expected health requirements, and thus the need for a satisfactory method of mobilizing local support for health services provision is further underscored.

The need to explore alternative health care delivery strategies becomes pressing inasmuch as economic conditions preclude the sector resource expansion necessary to bring basic health services to the still underserved cultural minorities. As a consequence, communities are determining ways to expand health services by building on local resource capabilities. Health services delivery systems feature a wide variety of packages, the most attractive of which is the utilization of the potential recipients of services themselves as the providers.

The organization of communities and training of the residents in the provision of basic preventive, promotive and curative services will have wide and far reaching consequences in terms of the improvements of the health status of the residents. Besides, the demonstration effects of building community self-reliance in the provision and financing of basic health services will be useful for replication by other Mangyan tribes in the uplands.

The impact of improved health and nutritional status in terms of increased life expectancy and improved agricultural productivity is sufficient justification for setting up a community-based health program that is participatory.

### Review of Current Knowledge

Despite the upsurge of interest in the development of alternative strategies in the delivery of basic health services, there is a scarcity of literature on the issue. Most of the studies revolve around the training and utilization of a multipurpose health worker in the provision of basic health services--curative and preventive. Documentation has focused on the operation of such health delivery programs and their financing schemes (Carino, et. al., 1982; Alfiler, 1982). Besides, most of the projects have been in lowland communities with ready access to the health services and backup support of the medical profession.

There are studies, however, on Mangyan health conditions and practices. Notable are the absence of minimum health care, environmental sanitation facilities, and nutritional adequacy. Especially in the context of the poverty situation, climate appears crucial. The absence of a potable water supply aggravates the situation since the main source of drinking water are springs coming down from the mountains which are prone to contamination (de la Paz, 1968). Malnutrition is widespread since the typical upland diet is inadequate in certain respects. Due to scarcity of forest game, domestic animals are consumed only occasionally. There is a nutritional imbalance in favor of carbohydrates with relatively little of the other nutrients (Ellevera-Lamberte, 1983). These deficiencies lead to low body weights and threaten both physical survival and mental development particularly of the children. In addition, the overall quantity of food consumed is low and much influenced by seasonal availability. Hungry months (between harvests) are between June to September, during which time families eat only once a day or may go without food; therefore, this is also a period of much sickness (Leykamm, 1979). Pits, creeks or rivers serve as toilets and since these are the same sources of drinking water, uplanders are continuously exposed to gastrointestinal diseases.

The perceptions and beliefs regarding illness remain traditional. Sickness is believed to be caused by evil spirits that live on earth--in forest thickets, on mountain tops, in caves, on big stones, in springs, and in rivers and lakes. There are a number of evil spirits that are believed to inflict sickness such as aches, loose bowel movement, itchiness of the skin that can spread over

the whole body, boils, weight loss, toothache, sore eyes, blindness, dizziness and mental illness. Spirits of deceased ancestors are believed to go around as ghosts and cause sickness (de la Paz, 1968).

Likewise, health management remains traditional. Mangyans distinguish between sickness for which there is an obvious natural explanation and that for which there is none, i.e., the work of evil spirits. To the former belong scratches, cuts, bruises, wounds, insect bites, burns and pains. To the second category belong dysentery, measles, flu, skin ulceration, headache, respiratory illness and sore eyes. Those illnesses attributed to natural causes are given herbal remedies, and a folk healer is sought for offerings and divinations. However, Leykamm (1979) noted:

For sicknesses attributed to evil spirits, herbal treatment will not suffice, and the only one who can deal with them is the folk healer. It takes at least three years of preparation before the traditional curer starts to treat people. These three years are devoted to the acquisition of good spirits who will tell him what herbal medicine to use and give him personal protection against illness. During this period, the candidate faces a number of temptations to which he may succumb. Like everyone else, he works in his kaingin during the day for subsistence. If he is successful in his first treatment, he gains the people's confidence, but if the person dies, he is never approached again. For this service, the healer does not charge anything although he accepts presents in the form of sweet potatoes, bananas, or rice.

The folk curer usually treats patients in the evening because during the day he cannot call for the good spirit who comes out only at night. The patient describes the pain and his whereabouts prior to the illness. Verses are chanted that represent conversations between the healer and the spirits, and eventually, he sees the outcome of the illness in his dreams. Other rituals are performed for the sick--the shooting of arrows to hit the evil spirits, the killing of a chicken and a pig--both concerned with divination. Among the Hanunuo, besides the shaman, there are also the herbalist and the healer by massage.

The folk curer possesses one or a number of round and black sacred stones through which he can see the scars within the human body in his prayers. The medicine man places his palms on the painful spot and throws chants repeating the verses many times. Some plants and pieces of barks are used to protect the bearer against illness and to drive away the spirit. These are usually wrapped in a piece of bark cloth, abaca, or cloth and worn around the neck. The most popular charm is a piece of biya wrapped around the neck by babies and small children.

Two operations research projects on tribal health were funded by IDRC recently.

In 1982, St. Louis University College of Nursing launched a mobile nursing clinic for the provision of primary health care services in three selected communities in Benguet Province in Northern Luzon. The tribal group studied were the Ibaloi and Kakanai from Mountain Province. The mobile nursing clinic consisted of two components: the training of the volunteer community health workers and the provision of basic services at the primary health care level. At the end of the study period upon evaluation of the project it was observed that: (1) there was a reduction in the prevalence of respiratory, gastro intestinal, viral, and other infections; (2) improved basic sanitation was reflected by increased utilization of semideveloped water sources, sanitary close pit privies, sewage and garbage disposal systems; (3) the capability of some community members was developed through a training given to Volunteer Community Health Workers especially with the inclusion of Human Relations Training to the didactics and practicum aspect of the training; and (4) participation and involvement of the community members were maximized by allowing them to participate in the planning and implementation of the program (Lara, et. al., 1987).

In another operations project among the Nomad Tribe of Penans of the Baram District in Sarawak, the social organization served as the base in developing a relevant primary health care program (Chen, 1987). The communities were contacted and socially prepared for participation through the selection of husband-wife teams for service delivery and the creation of village development committees charged with the promotion of health among the settlement and related problems such as environmental

cleanliness, health education, agriculture, food production, water supplies and toilets. Manuals were mainly illustrative. The village clinic staff assisted the primary health care workers. Initial data collected indicate cleaner long houses, the cultivation of vegetables for home consumption, and increase in immunization coverage.

### Implications of the Study's Results

The theoretical and practical value of an operations research of community mobilization in health service provision is indisputable. Despite the plethora of information and consensus on the Mangyan's health and nutritional status, there have been no attempts to evolve a resource-based health program that is planned and implemented by the community. A health care program that considers the culture of the community and is anchored on the people's needs, values, patterns of interaction and existing institutions can be adapted by them and can provide insights concerning strategies and mechanisms by which they can improve their lot through the collective organization of efforts. This operations research will be useful in terms of documenting the mechanisms by which a community is mobilized to provide for their own health needs. The processes can be disseminated and replicated in their other upland and tribal communities with a minimum of external inputs.

It is hoped that this study will contribute significantly towards the goal of meeting the health needs of the tribal population as a result of the participation of the community in the provision of health services. It is said that when service recipients choose people among themselves for provision, then access and accountability may be guaranteed. Simplistic as it may seem, the concept of self reliance may be realized initially through a partnership between the community and the government. The training and utilization of community members should contribute to the development of people's capability for their own health care and should decrease dependence on service provided by others. After some time, community residents can be anticipated to have internalized the value of health and to be able to deal with minor ailments using indigenous resources. This research can offer valuable insights into the dynamics of operationalizing the concept of community participation towards effective health care delivery and development.

### Research Objectives

Against such a backdrop, this research project aims to determine the feasibility and effectiveness of community involvement in the provision of preventive, promotive and curative health services. Hence, the objectives formulated are to:

1. determine the current health situation and the health resources available, both indigenous and governmental, in the community;
2. identify the complex interplay of factors involved in the health seeking behavior of the residents;
  - 2.1 extricate the factors/conditions that facilitate or hinder the improvement of the health status of the population
  - 2.2 define the problems and difficulties encountered by the government in the provision of basic health services
3. develop and implement a community-based health care system that is jointly developed and managed by the community through the village health workers and the government; and
4. determine the feasibility and effectiveness of community involvement in planning and delivery of health services.

### Research Methodology: The Operations Research Approach

#### Research Site

The study was conducted in Barangay Binli, Municipality of Bulalacao, Oriental Mindoro. During the first phase of the project, the Barangay Binli sitios (meaning zones)<sup>1</sup>, Amindang, Bailan and Umabang, were included and

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The barangay is considered as the smallest political unit in the Philippines. The barangay is further divided into zones or sitios which consists of 50 or more households.

these areas covered 250 families. Towards the second and third phases of the project Amindang was excluded because many families residing in this sitio transferred to other parts of the community. Figure 1.2 shows the distribution of the 161 households for sitios Bailan and Umabang.

### Research Methods

The project had three major phases. Quantitative and qualitative research methods were utilized in the collection of data for each phase.

Phase I. This period covered six months starting in March 1985 and it included a survey of households, health assessment of the population and key informant interviews of the Rural Health Unit staff and the indigenous health providers in the area.

The survey covered 118 households and this represented 47.2% of the 250 households. The research instrument was an interview schedule and it covered the following areas: (1) household characteristics; (2) health-seeking behavior; (3) management of illnesses; (4) reproductive history, mortality, and morbidity history; and (5) prospects for community participation in a health program. Personal interviews were conducted to the male Mangyan household heads and the average duration of the interview was one hour.

The health assessment of the community included the following tasks: physical check-up, stool examination, blood smears for malaria, and anthropometry of preschool children. The first three tasks were conducted to 298 persons from 134 households. The physical check-up was administered by the project medical consultant while the stool examination and malarial blood smears were conducted by a medical technologist. Clinical assessment forms were utilized to determine the physical conditions of the residents. The anthropometry involved a measurement of the height and weight of 110 preschoolers and it was undertaken by the project nurse.

The Gomez classification system and the 1983 FNRI reference values for height and weight for age were utilized in identifying all degrees of protein-energy malnutrition.





The key informant interviews were conducted to two RHU personnel in Bulalacao and four traditional healers in the research site. The RHU interviews were aimed at determining the staffing pattern, services, work schedule, catchment area, and problems confronting the center. The traditional healers' interviews focused on the characteristics of the healers, their catchment areas, and their perceptions about the cause and management of illness. An interview schedule was utilized for this purpose.

Fieldwork was conducted for around four months and were processed in two months. Visual modules were developed from the data which were later validated and utilized during the planning meeting with the community.

Phase II. This phase involved a total of 21 months and it is divided into two sub-phases: the pre-implementation and implementation sub-phase of the health program. The pre-implementation sub-phase covered the following activities: the planning of the community-based health program, the preparation of training materials for village health workers, and training of the village health workers. The implementation sub-phase involved the execution of the community-based health program.

Pre-implementation sub-phase. In September 1985, two community meetings were held in Bailan and Umabang and the following items were covered during the meetings: presentation of the findings of the baseline study utilizing the visual modules prepared during the earlier phase, discussion of the health program which included the selection of 32 health workers (16 in Bailan and 16 in Umabang), construction of the health clinics, and planning of the training schedule of the health workers.

In October and November 1985, informal consultations were conducted with the officials of the two sitios regarding the construction of the health clinic and the various ways by which the people from these areas could participate in the program. During these months, also, the project team developed the training manual that would be utilized for the village health workers training' workshop which was scheduled in December 1985. The training manual was patterned after the Department of Health's Primary Health Care materials but they were modified to suit the culture of the Hanunuo Mangyan. This resource material was drafted in English and was later translated into Mangyan script and Tagalog. The manual was developed with the assistance of two consultants from the College of

Public Health and College of Nursing of the University of the Philippines and the RHU staff of Bulalacao (see Appendices).

Towards the last week of November, the RHU midwives who served as the trainers of the Hanunuo Village health workers were briefed about the training manual and culture of the Hanunuo.

In December 1985, a five-day training seminar of the health workers was conducted in each sitio. Two RHU midwives served as the trainers of this activity and the translated manuals were the workshop's resource materials. The Bailan training was conducted in the old clinic house while the training in Umabang took place at the house of one of the village officials.

Implementation sub-phase. This phase of the project covered a total period of 15 months, starting in January 1986 until March 1987. Operational goals were developed by the project for the health program for this period, as follows: (1) to develop in the health volunteers the medical skills (i.e., communication, diagnostic, prescriptive and preventive skills) necessary for primary health care in tribal communities; (2) to encourage or enhance the use of herbal medicine in illness management; (3) to involve the tribal communities in the planning, decision-making and implementation of the Primary Health Care Program through the Village Health Care Committees; and (4) to provide the necessary linkages between the tribal community and the Rural Health Unit and other lowland agencies involved in Primary Health Care; and (5) to document the activities of the health program and the health providers and collect monthly and quarterly data of the households' demographic processes including illnesses and illness management practices as well as environmental and sanitation changes.

To obtain the foregoing operational objectives, the project developed specific strategies (see Table 1.1).

To carry out the strategies spelled out in Table 1.1, the project deemed it essential to field its own team in the upland community to serve as the intermediary between the community and RHU. Figure 1.3 shows the schematic diagram which depicting the role of the project team in the area. The role of the project team as the mediating group was expected to last only during the operational phase of the program. After this period, the tribal

Table 1.1

Operational Objectives and Strategies Utilized  
in the Implementation of the PHC Program

Operational Objectives	Strategy
<p>A. To develop in the health volunteers the medical skills necessary for PHC in the tribal communities</p>	<ol style="list-style-type: none"> <li>1. Field a project nurse in the tribal community to supervise and assist the health volunteers in performing their tasks;</li> <li>2. Provide additional training to the health volunteers in the areas of illness management, preventive health care, child delivery and health clinic management;</li> <li>3. Conduct regular meetings with the health volunteers to determine their strengths and difficulties in health care delivery in their catchment areas and the health clinics.</li> <li>4. Assign a medical consultant to visit the project area periodically to assess the health strategies of the project nurse and the skills of the health volunteers.</li> </ol>
<p>B. To encourage or enhance the use of herbal medicine in illness management</p>	<ol style="list-style-type: none"> <li>1. Identify the herbal plants that are existing in the community and determine their uses;</li> </ol>

Table 1.1 (Cont'd)

Operational Objectives	Strategy
C. To involve the tribal communities in the planning decision-making and implementation of the PHC through the formation of Village Health Care Committees	2. Conduct training on the uses and preparation of herbal medicine;
	3. Develop a manual in Mangyan and in Tagalog about the uses and preparation of herbal medicine.
	1. Conduct community meetings with the residents to determine the kind of PHC activities that the community is willing to support and participate in;
	2. Have the community residents choose the officials and members of the Village Health Care Committees and encourage them to define their expectations from the latter;
	3. Consult and seek the assistance of the officials and members of the Village Health Care Committees through meetings or dialogues about some health-related activities that the health volunteers and the project nurse plan to undertake;
	4. Encourage the Village Health Care Committees to regularly consult with the community residents through meetings or some other form of communication about the plans and activities of the health

Table 1.1 (Cont'd)

Operational Objectives	Strategy
D. To provide the necessary linkages between the tribal community and the Rural Health Unit and other lowland agencies involved in PHC	<p>volunteers and the project nurse.</p> <ol style="list-style-type: none"> <li>1. Inform the tribal community particularly the health volunteers about the services available at the RHU and whenever necessary, the other health-related agencies in the lowlands;</li> <li>2. Regularly inform the RHU about the activities of the health volunteers in health care delivery;</li> <li>3. Tap the RHU for health services and resources that it can extend to the community (e.g., regular supply of medicine, immunization, training for birth attendants, etc.);</li> <li>4. Select a group of health volunteers who can be trained to serve as the conduit between the tribal community and the RHU;</li> <li>5. Formally introduce the selected health volunteers to the RHU and familiarize them with the referral system and other coordination procedures of the RHU.</li> </ol>
E. To document the activities of the health program, health providers, and collect household data on demographic	<ol style="list-style-type: none"> <li>1. Assign two field documentors for the entire operational duration of health program;</li> <li>2. Assign the documentors to collect data of the activi-</li> </ol>

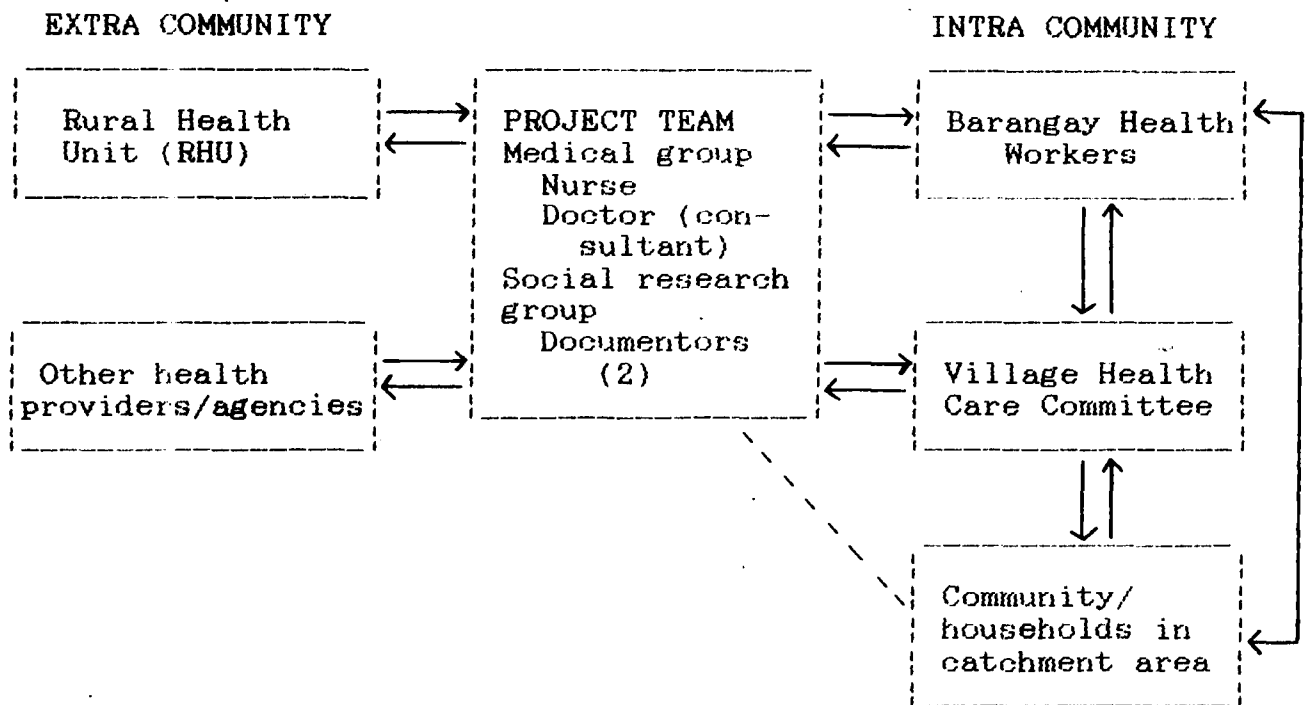
Table 1.1 (Cont'd)

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Operational Objective	Strategy
processes including illnesses and illness management practices as well as environmental and sanitation changes.	ties of the health volunteers in their catchment areas, during meetings with various groups, and in the health clinic;
	3. Make the documentors collect monthly as well as quarterly data of the households' demographic processes including illnesses and illness management pattern and changes in their environment and sanitation practices;
	4. Ask the documentors to come up with a monthly report with the foregoing data.

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Figure 1.3  
Health Program Operational Framework





community through its trained health workers were expected to manage the community's health care program and would directly link up with the RHU for health care services.

The project team that was fielded in Barangay Binli was composed of a medical staff and a social science staff. The medical staff comprised a project nurse and a medical consultant. The project nurse lived in the upland village for the entire duration of the project implementation phase and she was mainly responsible for directly linking up the project team to the community by further developing the health workers' skills and providing back-stop support to the RHU (e.g., immunization of Mangyan preschoolers, provision of curative services, and extension of referral services). The project nurse divided her time between the two sitios by staying in each area for around two weeks. The medical consultant was a doctor from the University of the Philippines College of Public Health who made periodic visits to the community to assess the health strategies of the project nurse and to provide medical assistance to the villagers.

The social science staff, on the other hand, consisted of two female researchers and they documented the activities of the health program and monitored the reproductive history, mortality and morbidity patterns of the Hanunuo households for a period of 15 months. Monitoring forms served as the instruments for recording these time series data.

The project team linked up as well with the village directly and with the two Village Health Care Committee officials who were elected by the two sitios to serve as the residents' representatives in voicing their wishes and needs to the health program.

In Umabang, the project team lived in a small nipa and bamboo staff house that was built by the project staff within the compound of the PHM school. In Bailan, the team utilized the health clinic cum staff house that was built by the community residents at the center of the village. Both houses had outhouses with plastic water-sealed toilet bowls which were donated by the RHU/Department of Health.

The project team reported to the DLSU Research Center in Manila every two months for at least one week to present their reports and to assess the direction of the project with the project leaders.

Phase III. This phase encompassed six months and it assessed the feasibility and effectiveness of the project in terms of community inputs, project outcomes and short-term changes in health status.

The following activities were undertaken: (1) re-interview of 145 households (which represented 90 percent of the total number of households) to assess the changes in health-seeking behavior, perceptions, attitudes and utilization of the health services; (2) clinical assessment of 211 persons from 78 baseline households, particularly physical assessment parasitological examination, and malarial blood smear were administered; 18 additional households who were not included in the baseline study were also clinically assessed; (3) assessment of the health workers in terms of their clinical skills, participation in the health program, and their perceptions about their own involvement in the program; (4) interview of the Village Health Care Committee officials and personnel of the Rural Health Unit.

The instrument for the reinterview of the households was an interview schedule which was basically similar as the one utilized in the baseline survey except for two additional blocks on community participation and project sustainability. Further, the block on morbidity and mortality in the past year was deleted because the 15-month monitoring data of the community's vital demographic processes by the documentors were utilized for this section (see Appendices for the instruments used during the evaluation phase).

The forms for the clinical assessment which were used in the baseline survey were also utilized in the evaluation of the population's health status.

The instrument for the clinical skills of the health workers was a structured observation form which incorporated indices on the diagnostic, prescriptive, and communication skills of the health workers. Another structured observation guide of the participation of the health workers in terms of attendance in meetings, training, and other health-related tasks was also developed. An interview schedule was constructed for the health worker in terms of their perceived current and future involvement in the health program.

For the Village Health Workers, an interview schedule was likewise developed to assess their perceptions of their current and future roles in the program. An interview guide was utilized in the interviews of RHU personnel and it focused on their present and prospective involvement in the delivery of health care services.

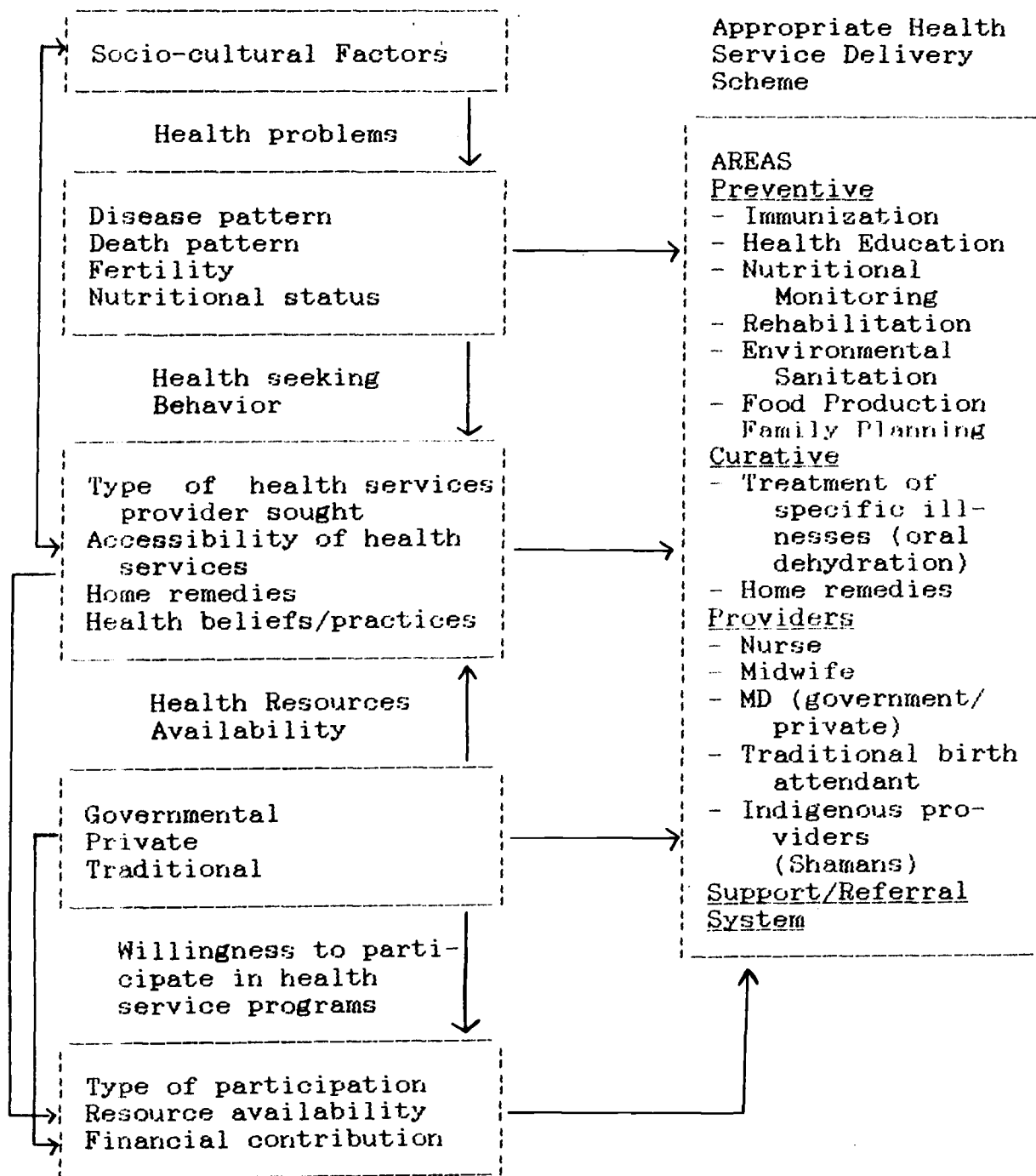
The reinterview of the households, interviews of the health workers in terms of their perceived involvement in the program, the Village Health Care Committee officials, and the RHU personnel were conducted by newly hired social science researchers. The clinical assessment of the households was administered by the medical consultant whereas the stool examination and extraction of blood samples for malaria were carried out by a medical technologist. The clinical skill assessment of the health workers was made by an external evaluator, another medical doctor who specialized in public health. The project nurse conducted the assessment of the health workers' over-all participation in the health program.

Fieldwork was conducted in the summer months of April to June 1987 and data processing and analysis were done from July to September 1987.

Analytical framework. The analytical model for the entire project is given in Figure 1.4.

Figure 1.4

A Model for the Formulation of a Strategy for Health Services Delivery by the Community



## ORGANIZATION OF THE REPORT

The report is divided into seven chapters. The first chapter describes in the addition to the background of the study, the current state of knowledge on tribal health and the specific methods utilized in the execution of this operations research.

The next chapter discusses the baseline information regarding the health and nutritional status of the community including the health service providers in the research site.

The third chapter presents the processes of the planning of the community-based health care program while the fourth chapter discusses the activities during the training workshop. The fifth chapter describes the health program implementation phase, particularly the participation in program operations of different sectors in the community as well as some difficulties encountered in program implementation. The sixth chapter presents the evaluation results in terms of the feasibility and effectiveness of the health program while the last chapter summarizes the study and raises policy and programmatic issues.

## Chapter Two

### THE HEALTH AND NUTRITIONAL STATUS OF THE COMMUNITY: PRE-IMPLEMENTATION PHASE

The formulation and implementation of an adequate participatory health program hinges on a comprehensive knowledge of the health situation and the resources available in the community, the perceived health problems, the health seeking behaviour of the population, and potentials for tapping the community in the health service delivery.

This chapter provides a description of the health resources in the study sites as well as the socioeconomic profile of the population. It also presents the community's health conditions, their health beliefs and practices, and their health-seeking behavior. Prospects for community involvement in future health service delivery are likewise discussed in this chapter.

Information obtained from these data sets served as a useful frame in evoking the community interest in developing the health program, provided the base for program prioritization and served as the basis for the formulation of a culturally appropriate training program.

#### Health Resources in the Study Sites

The research site had two major health providers: the government health staff in the Rural Health Unit of Bulalacao and the traditional healers who are based in Barangay Binli.

#### The Government Health Staff in Bulalacao

The Rural Health Center in the municipality of Bulalacao is manned by the following personnel: a rural health nurse, a dentist, a sanitary inspector, three barangay health workers and three midwives. The Health Center's services include quarterly immunization, curative care, weighing of preschoolers, control of communicable diseases, environmental sanitation, family planning, and maternal and child care. The Center is open from 8:00 to 4:00, Monday through Friday, and 8:00 to 12:00 on Saturdays. It services an average of 20-40 patients per day. Coverage RHU has been low; a chart based on 1981

figures showed that only 18% of the total households in the 15 barangays of the municipality were covered. Aside from the municipal health center, only two other government clinics have been established in the other barangays. Among the problems enunciated by the staff were lack of drugs and limited manpower resources. The staff felt that the villages chosen as the study site was too far for them to render adequate services.

### The Traditional Healers

Four traditional healers were identified in the study areas. One healer, who is relatively old, did not know his age. The others have an age range of 24 to 39. Three are married and one is a widower. Three are male and one is female. Their training ranges from four to six years.

Bapa W is a traditional healer or shaman. Bapa is a kinship term of respect for someone older than oneself. He resides in the sitio of Umabang. He lives with his second wife and is childless. He claims that he has practised traditional medicine for more than 10 years and that he learned the art from his relatives and ancestors. According to reports, he goes into a trance as part of the diagnosis.

Robert Kasberg, a Peace Corps Volunteer (PCV) in the area until 1982, established a health clinic in Umabang and trained a few people as paramedics. However, the clinic has fallen into dis-repair and is hardly used at all. The book When There Is No Doctor is consulted by the paramedics for medical techniques, and herbs are grown and utilized.

It will be noted that aside from Bapa W whose perception and management of illness remain traditional, the three other folk healers utilize a combination of herbs and drugs, a result of their exposure to the training by the PCV and the Programa sa Pagpapaunlad ng Mangyan (PPM). Notable, however, is the lack of knowledge of the cause of disease and of the proper management of illnesses.

These healers claim to have a wide coverage of the population. The problems presented to them were mainly stomachache, backache, gastrointestinal disorders, malaria, parasitism, fever, and headache. Their services are rendered for free. Table 2.1 presents the perceived

Table 2.1

## Causes and Management of Specific Illnesses as Perceived by the Four Traditional Healers

Illness	TRADITIONAL HEALERS			
	BW	MC	AM	EC
Gastrointestinal Disorders				
Cause	heat duhat bark boiled and ingested	dirty food/heat medicines (boiled bark of duhat & guava, diatabs)	dirty surroundings	dirty food
Management			boiled tree bark	ginger/sambong/herbs
Cough/Colds				
Cause	lack of bath	heat and rain	don't know	weather
Management	boiled lemon leaves ingested	drugs (unspecific)	none	none
Fever				
Cause	bad air	rain/heat	don't know	heat and rain
Management	cold herbs pressed placed on forehead	drugs (biogestic & aspirin)	drugs (aspirin & biogestic)	drugs (aralen tablets)
Measles				
Cause	don't know	weather	weather	don't know
Management	dried wild cat genitals and roots of certain plants rubbed on skin	drugs (unspecific)	aspirin/aralen	none
Malaria				
Cause	fatigue	rain/heat	unclean surroundings	mosquito bite
Management	tree sap ingested	drugs (aralen tablets)	aralen	boiled tree bark ingested
Skin Disorders				
Cause	heat or bad air	unsanitary conditions	dirt	unclean surroundings
Management	tree sap rubbed	drugs (unspecific)	herbs	none
TB				
Cause	unknown	unsanitary conditions/ heavy work	crowding	cigarette smoking/ hard work
Management	roots of forest trees rubbed at back	drugs/(Penicillin) injection	drugs (unspecific)	boiled tree bark ingested



etiology and management of specific illnesses by the traditional healers.

### Results of Clinical Assessment

One hundred thirty-four households were clinically assessed by the medical consultant of the project. Physical check-up, stool examination, and blood smears for malaria were done. Two hundred ninety-eight people were examined, and the following health problems were delineated: for males, upper respiratory tract infection (70.4%), skin diseases (59.3%), anemia (40.7%), other nutritional disorders (38.3%), and parasitism (ascaris, trichuris) (43.2%). Malaria was evident in 17.3% of the male population. For females, the following problems were notable: nutritional disorders (64.5%), anemia (50.7%), goiter (35%), parasitism (39.6%), skin diseases (31.3%), and upper respiratory tract infection (29%). Dental caries were observed in 20% of the female population. (See Table 2.2).

Table 2.2

Prevalence of Specific Illnesses by Sex  
(Percentage of the Population)

<u>Illness Category</u>	<u>Males</u>	<u>Females</u>
Anemia	40.7	50.7
Nutritional deficiency	38.3	64.5
Goiter	3.7	35.0
PTB	2.5	11.5
Upper respiratory tract infection	70.4	29.0
Malaria	17.3	9.7
Dermatosis	59.3	31.3
Gastroenteritis	2.5	2.3
Parasitism	43.2	39.6
Caries	18.5	20.3
Eye Infection	1.2	1.0

### Results of the Baseline Survey

Interviews were completed with 118 households representing 73% of the 161 households which were initially listed. The nomadic nature of the population precluded comprehensive procurement of baseline information. Nevertheless, in Table 2.3 it is shown that the households are representative of the community at large. The 118 households have a population of 587--306 males and 281 females. Of the population six years and over, females of the population six years and over, nearly two in three (65.7%) of the population six years and over, nearly two in three (65.7%) have never been to school, while 29% have had a primary education (less than four years of schooling). More than a fourth (25.5%) of the population do not know their ages, and of those who specified their ages, 60.4% were below 15 years; this is reflective of a high fertility and high dependency burden. This percentage is much higher than the Philippine national level of 41% for children below 15 years.

#### Food and Livestock Production

Almost all of the households (99.2%) have livestock. This includes pigs (73.7%), chickens (5.7%) and carabaos (34.7%). Likewise, fruits and vegetables are grown in their yards (98.3%). The vegetables commonly grown include stringbeans, okra, kadyos, legumes, tubers, squash, camote and eggplant. The fruit trees are bananas, mango, coconut and jackfruit. About 26% of the households sell their produce.

#### Environmental Sanitation Facilities

The toilet used is mainly the bush (94.9%), while waste is dumped on the ground (68.6%). The sources of water supply are springs and streams (75.4%), and water is stored in bamboo or plastic containers. However, walls are made from tree bark (35.6%), bamboo (27.1%) and buri (25.4%). Assessment of the environmental sanitation facilities indicates that to ensure the reduction of gastro-intestinal and respiratory illnesses, more vigorous efforts should be undertaken to improve the facilities (Table 2.4).

Table 2.3

Percentage Distribution of the Population  
by Selected Characteristics

	<u>No.</u>	<u>%</u>
<u>Sex</u>		
Male	306	52.1
Female	281	47.9
Total	587	100.0
 <u>Education Completed</u>		
(Pop. 6 years and older)*		
None	272	65.7
Primary (1-4)	119	28.7
Intermediate (5-6)	21	5.1
High School	2	.5
Total	414	100.0
 <u>Age (Years)</u>		
0 - 4	131	22.3
5 - 9	94	16.0
10 - 14	39	6.7
15 - 19	39	6.7
20 and above	134	22.8
Don't know	150	22.5
Total	587	100.0

\*Including those who did not specify their age but who looked 6 years of age or more.

Table 2.4  
 Percentage Distribution of Households by  
 Environmental Sanitation Facilities

	<u>No.</u>	<u>%</u>
<u>Toilet Facilities</u>		
Pit privy	6	5.1
Bush	<u>112</u>	<u>94.9</u>
Total	118	100.0
<u>Source of Water Supply</u>		
Improved well	29	24.6
Open spring/stream	<u>89</u>	<u>75.4</u>
Total	118	100.0
<u>Water Container</u>		
Bamboo	38	32.2
Plastic	49	41.5
Jars	1	.9
Bamboo and plastic	<u>30</u>	<u>25.4</u>
Total	118	100.0
<u>Waste Disposal</u>		
Burying	5	4.2
Burning	32	27.1
Dumping	<u>81</u>	<u>68.6</u>
Total	118	100.0
<u>Housing Materials</u>		
Walls: tree bark	42	35.6
bamboo	32	27.1
buri	30	25.4
coconut leaves	12	10.1
open	<u>2</u>	<u>1.0</u>
Total	118	100.0

Field observation reports indicate that household members do not wash their hands before eating. Food is served in coconut shells or enamel plates. The cooking pot is set on the floor for all members to partake of the food. Drinking water is taken from a coconut shell or plastic container known as tabo. Good personal hygiene is hardly observed at all. Dirt darkens the legs and feet of the population and the teeth are badly mottled. The houses are single detached without partitions. Inside are one or two cooking pots, coconut shell bowls, enamel plates, basin, plastic containers, a hammock, boxes, kerosene lamps and a sleeping mat. Houses are not kept tidy. The floors are dirty and the adults spit everywhere. Children play without slippers and go up and down the dwelling unit unmindful of the filth they bring onto the floor where the family eats and sleeps. Animals such as carabaos, chickens and pigs roam freely in the area.

#### Reproductive History and Childhood Mortality Experience

In Table 2.5, it is shown that the average number of pregnancies is 6.7 and the average number of children born alive is 4-6. Fetal wastage as perceived by the mother either in the form of abortion or miscarriage is relatively high - 13.8% of all pregnancies. This might be attributed to the poor nutritional status of the mothers (high percentage of anemia, 51%) and to the hard labor in the fields even pregnancy. Childhood mortality (deaths in the first five years of life) represent 46.2% of all live births--a relatively high figure. More than half (52.8%) of the total childhood deaths occur in infancy and 85.2% in the first five years of life. The causes of death are preventable in nature--53.2% from respiratory distress, 15.6% from gastrointestinal disorders, 9.0% from malaria and 10% from nutrition related causes (Vitamin B deficiency, anemia, and xerophthalmia). Nearly half of the wives (43.1%) plan to have more children--an average of three more. The major reason given is to have more work hands in the kaingin (65.1%). Most of the households perceived a high childhood mortality rate in the community (86.4%).

From the survey, it could be gleaned that the potential fertility of Mangyans is high. If the 13.8% pregnancy wastage is eliminated, the average number of pregnancies can increase to 7.6. Two forces determine the pronatalist attitude of the population--biological factors

Table 2.5

## Fertility and Mortality Pattern of the Households

Mean number of pregnancies	6.7
Mean number of children ever born	4.6
Mean number of children alive	3.5
Fetal wastage rate (% of pregnancies)	13.8%
Childhood mortality rate (% of children born alive)	46.2%
Proportionate mortality rate in infancy (% of infant deaths to total childhood deaths)	52.8%
Proportionate mortality rate in the first five years of life	85.2%
Percentage of childhood ceaths attributed to:	
Respiratory illness	53.2%
Gastrointestinal disorders	15.6%
Percentage wanting to have more children	43.1%
Average additional number of children Desired	3
Percentage giving garm assistance as reason for wanting more children	65.1%
Percentage with no sex preference for their children	66.1%
Percentage perceiving a high childhood mortality in the community	86.4%

(high pregnancy wastage and childhood mortality) as well as economic factors (the need for more farm hands to tend the kaingin). The average family size desired is about 8. However, contrary to earlier beliefs of specific sex preferences, 66.1% of the households professed no preference for either a male or female offspring.

Mortality and Morbidity Experience

A major limiting factor in the accurate estimation of morbidity and mortality among Hanunuo Mangyans is the absence of vital registration and the cultural practice of not reporting deaths to strangers as a curse might befall the households reporting such an event. Table 2.6 summarizes the mortality experience of the communities.

Mortality. About 7.6% of the households reported having a family member who died in the previous year. Of the nine deaths that occurred, eight (89%) were of those below four years of age of which four (44.4%) occurred in infancy. The causes of death were diarrhea (26.4%), respiratory illness (47.7%), and nutrition related factors. More than a third (36.4%) of the deaths were unattended. Of those reported being attended, the persons mentioned were the PPM staff (a private health group based in Barangay Binli), the health center staff, and the traditional healers. Of the nine deaths, four were given drugs (aspirin) and the rest were given herbs.

Morbidity among Preschoolers. Among the 150 preschoolers, 134 (89.3%) got sick in the previous year. For those who got ill, 68 (50.7%) had respiratory problems, 44 (32.8%) had gastro-intestinal disorders and 13.4% had malaria.

Table 2.6

Distribution of Population by Morbidity  
and Mortality Experience

Percentage of HH having a family member who died	7.6%
Percentage of deaths below 4 years of age	89.0%
Percentage of infant deaths to total deaths	44.4%
Deaths due to diarrhea in relation to total deaths	26.4%
Deaths due to respiratory illness in relation to total deaths	47.7%
Percentage of preschoolers ever ill in the past year	89.3%
Percentage with respiratory problems	50.7%
Percentage with gastrointestinal disorders	32.8%
Percentage using herbs	56.7%
Percentage with home management of illness	68.6%

While a fourth (25.4%) of the population was not aware of the seasonal occurrence of illnesses, it is perceived that most of the illnesses occur in the early part of the year (January) and during the summer months (May-June). While 47.8% reported only one episode of illness, the rest reported repeated bouts. Management is done at home through the use of herbs like dita, alibhon, duhat, guava leaves, banana leaves, sambong, pasbakon, lemon leaves and drugs. Home management is usually done with relatives particularly with the parents of the patient (68.6%). About 73.1% claimed to have been cured and 26.9% mentioned recurrence of the illness.

For older members of the household, respiratory illnesses, malaria and gastroenteritis were often mentioned. The same type of management was given (i.e., self-medication through herbs and drugs). However, the response seemed to be better since 80% of the respondents claimed to have been cured.

#### Health Seeking Behavior

The community's health-seeking behavior were sought in the following: during pregnancy, pre-natal care, delivery, and postnatal care.

Pregnancy. In Table 2.7, the health seeking behavior as reflected in pregnancy, delivery and postnatal care is given. The signs of pregnancy as perceived by the respondents include the cessation of menstruation (84.0%) and the preference for certain foods (11.8%). However, no prenatal consultation was made in 94% of the cases. Likewise, no medication was taken during pregnancy.

Prenatal care. Antenatal care is unknown among Mangyans. Dietary taboos are rather minimal; 92.4% of the respondents did not avoid any specific foods during their pregnancy. For the remaining six cases who mentioned certain dietary restrictions, the foods avoided were bitter twin bananas for superstitious beliefs (i.e., fear of having twin children) and (i.e., hemorrhage may occur). Likewise, 81.7% of the respondents did not have any food preference during pregnancy. The remainder mentioned preference for non-bitter foods, meat, sour foods, coconut heart, cassava, and fruits due to their flavor and to gain strength. No specific precautions were taken to ensure a safe delivery in 95.4% of the cases. The remaining five



Table 2.7

## Health Seeking Behavior

Percentage with no dietary tabo during pregnancy	92.4%
Percentage with no food preference during pregnancy	81.7%
Indicators of Labor:	
Cramps, abdominal and waist pain	99.1%
Place of Delivery:	
Home	92.3%
Parent house	4.6%
Home of traditional birth attendant	3.1%
Attendant at delivery:	
Husband	64.6%
Own self	7.7%
Relative	26.1%
Traditional birth attendant	1.5%
Percentage cutting umbilical cord by cogon grass	79.2%
Percentage with complications in delivery	47.8%
Percentage with uncontrolled bleeding of those with complications	79.4%
Percentage perceiving high maternal death rate	57.4%
Percentage observing dietary restric- tions after delivery	32.1%
Avoidance of relapse as reason for such restrictions (of those avoiding restrictions)	95.4%
Percentage taking rice porridge after delivery	58.1%
Percentage breastfeeding	99.1%
Mean age at supplementation	6 mos.

claimed they stayed at home and avoided meat and twin bananas in their diet.

Delivery. The major indicators of the approaching delivery by the mothers are stomach cramps, pain in the abdomen and waist, (99.1%) and the rupture of the "amniotic sac." Once these signals come, the women do not leave the house, they tie their waist and massage the abdomen or have their abdomen massaged. Most of the deliveries occur at home with the husband attending, and the variants for delivery are:

- |   |       |
|---|-------|
| a) lying down and massaging the abdomen                   | 41.7% |
| b) sitting with a cloth around the waist tied to the roof | 10.7% |
| c) kneeling with the abdomen being massaged               | 23.1% |
| d) standing with the waist tied against a post            | 4.6%  |

In accounting for the absence of hygienic practices, de la Paz (1968) notes that

When a young mother is about to give birth, she is almost left alone with her labor pains. The husband helps her by massaging her abdomen. In case a midwife is present in the settlement, she may be called to help out in the delivery of the child. Most of the time it is the husband who attends to the wife. Immediately after delivery, the husband bathes the child or simply cleanses it with a damp cloth. With a sharp bamboo stick, he cuts off the umbilical cord. The mother is given a sponge bath and made to drink some portions prepared from boiled leaves, roots, and barks. They believe that the mother's strength will be restored in no time."

Another account of a Mangyan delivery by the same author is as follows:

The mother was half bare and the child completely bare. The mother pulled something. It was the cord. Then, another, the placenta. She did it in a sitting position and managed the whole affair alone. The Mangyan father cuts the

umbilical cord with his bolo, cleans the child with a cloth while the mother drinks a potion from boiled leaves, roots, and barks.

Herbal conctions such as anahaw, honey, betel nuts, and banana leaves are taken for ease in delivery.

In the study communities, the cutting of the umbilical cord is done through the use of cogon grass in most cases (72.9%) followed by the use of thread (14.5%). All of the respondents felt that it was easy to do this. A high percentage (47.8%) reported having delivery complications in the form of uncontrolled bleeding (79.4%) and abdominal cramps (18.2%). Management is done through hot compress (23.7%), by massaging the abdomen (12.7), and by rubbing with boiled pasbakon (a tree bark) and banana leaves (9.1%). Most of the respondents discerned a high maternal mortality rate (57.4%) due to dystocia (inability to evacuate the infant - 59.1%), abruptio placenta (28.8%), and severe bleeding (7.6%).

Dietary restrictions are observed after delivery by 32.1% of the respondents. The foods avoided to prevent relapse and bleeding include corn, tubers, coconut, meat, cassava, mongo, papaya, and sweet foods. Porridge is taken by 58.1% of the respondents followed by rice (14%) to regain strength. No additional precautions are made by 80% of the mothers, and the rest stay at home for about a week without doing any work.

Traditional healers and some village elders are often sought by women who want to have abortion. These health providers claimed that they have a foolproof method of inducing abortion. They said that there are special vine and tree roots and barks in the village that they use to make a potion. The reason given for inducing abortion is poverty. Cases of unwanted babies being given away for adoption due to poverty have also been reported.

Postnatal Care. The prevalence of breastfeeding is evident in the reports of 99.1% of the women. No nipple cleaning was observed among the mothers and babies are breastfed on demand. Very few (6.1%) received advice from their mothers and among those who did, this was in the form of herbs and foods. No specific foods are taken during lactation. Very few mothers gave their babies food and milk supplements initially. Supplementation occurred quite late--an average of six months after birth, and porridge was the main food given. Milk supplements were

also mentioned and they included noted milk brands such - Alaska, Liberty and Nido. Porridge is likewise given when a child is ill.

After birth, the child is always with its mother until it is weaned. There are some older children (those who are between three to five years old) who continue to breastfed. The child is constantly with the mother, at times slung on her shoulders, and is brought along by the mother wherever she goes, whether she is in the clearing, visiting another settlement, or washing in a nearby spring.

### Perception and Management of Specific Illnesses

The household heads were queried about their perceptions of the causes and treatment of different common illnesses in the community particularly diarrhea, measles, respiratory tract infection, tuberculosis, parasitism and skin diseases. The results are as follows.

Diarrhea. Details on the perception and management of specific illnesses are given in Table 2.8. More than three-fourths (77.1%) of the respondents did not know the causation of diarrhea. Of those who gave a response, most felt that it was due to overeating and inhalation of germs (15.3%). The symptoms mentioned were watery stools (57.6%), stomach cramps (26.3%) and vomiting (4.2%). The major therapy given is duhat boiled and ingested (53.4%), dita boiled (4.2%), guava leaves (3.4%), and 13.6% do not use any remedy at all.

Measles. More than half of the respondents (53.2%) did not know how measles occurred. The rest posited bad air (15.3%), weather (16.1%), overeating (3.4%), and dirty surroundings (7.6%). The manifestation mentioned was skin rashes. No medication was given by 66.9% of the households; of those who gave medication, the herbs mentioned were boiled dita leaves, boiled bignay, tanglad leaves, boiled lemon leaves, and tobacco seeds.

Respiratory Illnesses. About a third (30.5%) of the respondents did not know the etiology of respiratory illnesses, although more than half (59.3%) attributed it to the weather. The major manifestations cited were colds, cough, fever and head-aches. Again, herbs are ingested such as dita, sambong, ginger, banana, bangkal, alibon roots, lubigan roots, and karambong juice. About a third (35.6%) take aspirin.

Table 2.8

Perception and Management of Households  
of Specific Illnesses

Percentage with no knowledge of the etiology of:	
Diarrhea	77.1%
Measles	54.2%
Cough and Colds	30.5%
Malaria	33.1%
TB	63.6%
Parasitism	54.2%
Skin Disease	68.7%
Percentage using traditional healers	92.0%
Percentage reporting not being visited by any health personnel in the past year	98.5%
Percentage willing to join a health program	92.4%

Malaria. Malaria was attributed to the weather by 51.7% of the respondents, while 33.1% did not know the cause of the disease. The others reported dirty food, unsanitary environment, and weak body. The manifestations cited were fever (46.6%), chills (38.1%), headaches and fever. About 42.4% take tablets from the Peace Corps trained healers, while the rest take herbs like dita, sambong, sambariba, pasbakon, bangkal, lemon leaves and bitter bark.

Tuberculosis. About 63.6% of the respondents did not know the cause of tuberculosis, The rest who had some notions about this disease perceived that dirty food, dirty surroundings, hard work, weather, sprain and dried perspiration as the causes of this illness. The manifestations reported were spitting of blood (65.3%), coughing, and weak body. No medication was given by 45.3% of the respondents, and another 47.5% did not know how to manage the illness. Only two respondents mentioned barayong bark and roots.

Parasitism. More than half of the respondents did not know the etiology of parasitism. The rest gave ingestion of dirty food (21.2%) and playing on the ground (21.2%). The manifestations reported were excretion of worms (66.9%) and bulging of the belly (16.1%), while 1% did not know the outward appearance of the illness. No therapy was reported by 44.9% of the respondents, and 49.2% did not know how to treat it.

Skin disease. A substantial portion (68.7%) of the respondents did not know the cause of this ailment. About 13.6% indicated playing with dirt and 11%, playing in the grass. The manifestations given were scabies and itchy skin. Again, 68.6% did not know how to treat it, and 29.7% did not have any specific prescription at all.

### Family Planning

Most of the respondents were not aware of family planning practices (87.7%) as well as voluntary termination of pregnancy (93.9%). Only seven respondents mentioned having used a method--five through the intake of pills and two through potions of roots of trees. It is common for couples (89.2%) to refrain from sexual relationship post partum for an average of three months.

### Utilization of Health Services

The persons utilized for health services were mainly the traditional healers (92%) who prescribe herbs, massage the patient, and occasionally modern drugs. Most of the services are rendered for free, but in certain instances beads which costs from 25-50 centavos are given by the patient's family as gifts or donations to the traditional health provider. Consultation of the traditional healers ranges from one to five times during the year. An overwhelming majority of the people (98.5%) bewailed the lack of health personnel to visit them for their health problems. However, 4% visit the health center for varied purposes and 8.5% go to the PPM (Programa sa Pagpapaunlad ng Mangyan) to ask for free medicines.

### Potentials for Tapping Community Resources

A large proportion (92.4%) of the respondents signified their interest in joining a health care program as trainees for health care services in the community, and they are willing to put in any amount of time that is needed by the program (81.1%). Only 7.2% were willing to render service for one day per week. About 75% mentioned any day as convenient, while 6.3% mentioned Sundays. They were interested in to become involved in weighing and feeding programs, family planning, immunization campaigns, health education, and environmental sanitation.

### Dietary Pattern

Since food intake is very deficient in protein, vitamins, minerals and other essential nutrients, Mangyans are susceptible to various kind of diseases. Their diet often consists mainly of root crops like yams, togue (munggo sprouts), sweet potatoes, ube, sago, peanuts, edible vines and fruits. Rootcrops are sometimes supplemented with game such as wild birds and chickens, wild pigs, deer and monkeys. Fish, eel and shrimps are caught occasionally in the streams and rivers, and rattan shoots are gathered. Honey is collected principally for children. During the year, community experiences periods of food shortage particularly in the months of April to June. These months are considered lean periods and it was observed that there is often a dip in the intake of specific food items such as rice and corn among the households.

### Nutritional Status of the Preschoolers and Mothers

Malnutrition is prevalent as evinced by the clinical signs presented by the children and the mothers. Children with kwashiorkor were spotted in the households. The stomach are often bloated, signs of anemia are evident, and the hair is thinning and discolored. Earlier studies described that more than 75% of the preschoolers had weights for heights below the Food and Nutrition Research Institute (FNRI) standards and that generally, the nutritional status of the children is below the normal level. Sixty one per cent of the wives had weights for heights below the FNRI standards. Using the Waterlow's classification (Table 2.9), it is observed that only about a third (31-45%) of the preschoolers were normal. A large percentage of the infants were either stunted (37%) or wasted (18.5%). Among those 1-3 years of age, 26% were wasted, 28% were stunted and 15% were both stunted and wasted. Again, 28% of the 4-6 years of age were wasted and 34% were stunted. About 52% of the preschoolers and 47% of the mothers were below the standard weight for age (See Figures 2.1 and 2.1). Using the FNRI standards (Table 2.10), it was observed that more than half of the preschoolers (53.7%) were malnourished at the second and third level. Another 39% were in the primary malnourished category. Only 7.4% of the children can be considered normal. The high degree of stunting is a reflection of chronic malnutrition which affects the children over a long period of time and is less amenable to intervention

measures. The link between nutrition and infection is not clear since 33.3% of normal children either had no illnesses or were sick of non-preventable causes (e.g. injuries) compared to a range of 27 to 52% among the malnourished. Among the latter, the proportion of illnesses due to gastrointestinal causes ranged from 12 to 25.4%. The relationship between malnutrition and infection is more marked in respiratory illnesses where the prevalence is only 16.7% in normal cases but ranged from 36 to 40% among the malnourished (Table 2.11).

Table 2.9  
Percentage Distribution of Preschoolers by  
Nutritional Status According to  
Waterlow's Classification

Age Group	Normal	Stunted	Wasted	Stunted Wasted	TOTAL
0 -11 mos. ( 1 yr. )	44.5	37.0	18.5	--	(27)-100%
12-47 mos. (1-3 yrs.)	30.7	28.4	26.1	14.8	(88)-100%
48-72 mos. (4-6 yrs.)	34.0	34.0	27.7	4.3	(47-100%)
TOTAL	55 (34.0)	51 (31.5)	41 (25.3)	15 ( 9.2)	162 (100)



Figure 2.1  
Weight/Height Distribution of Hanunuo  
Mangyan Women in Relation to  
FNRI Standards

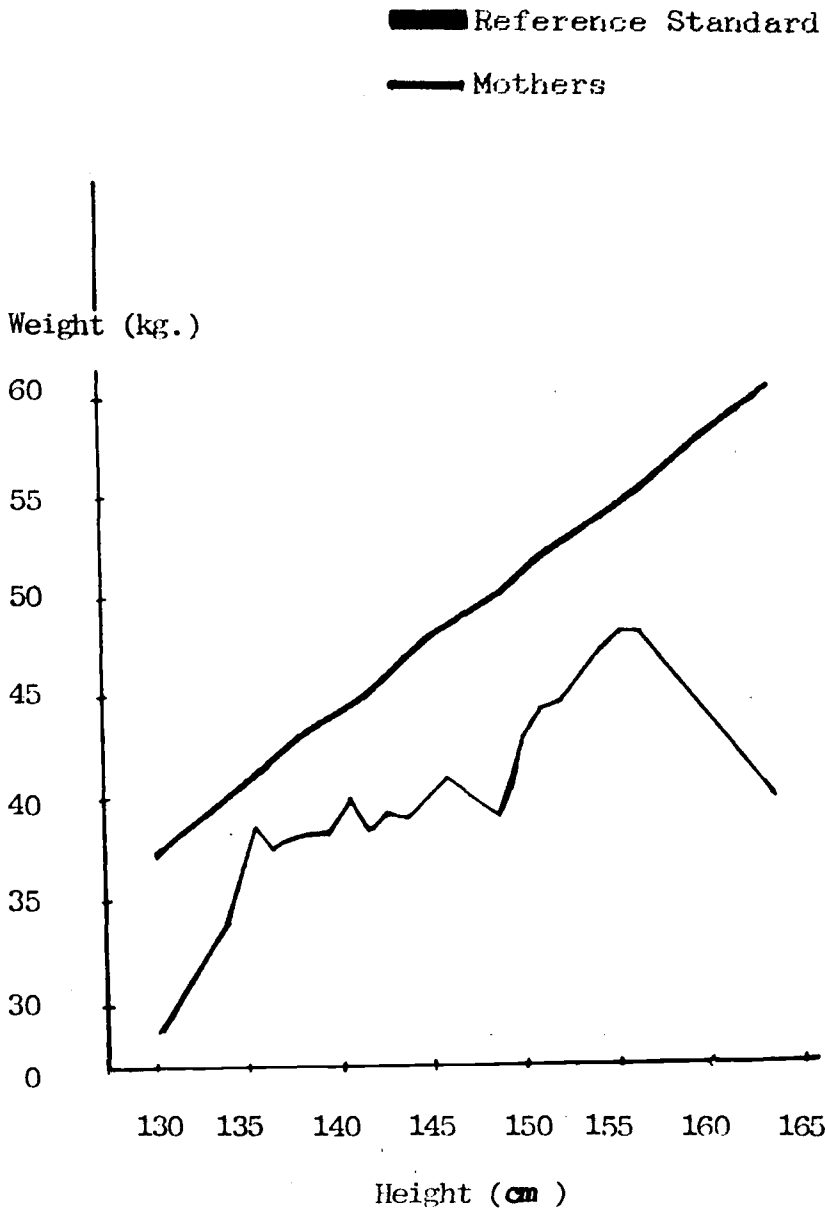


Figure 2.2

Weight/Height Distribution of Hanunuo Mangyan  
Preschoolers in Relation to  
FNRI Standards

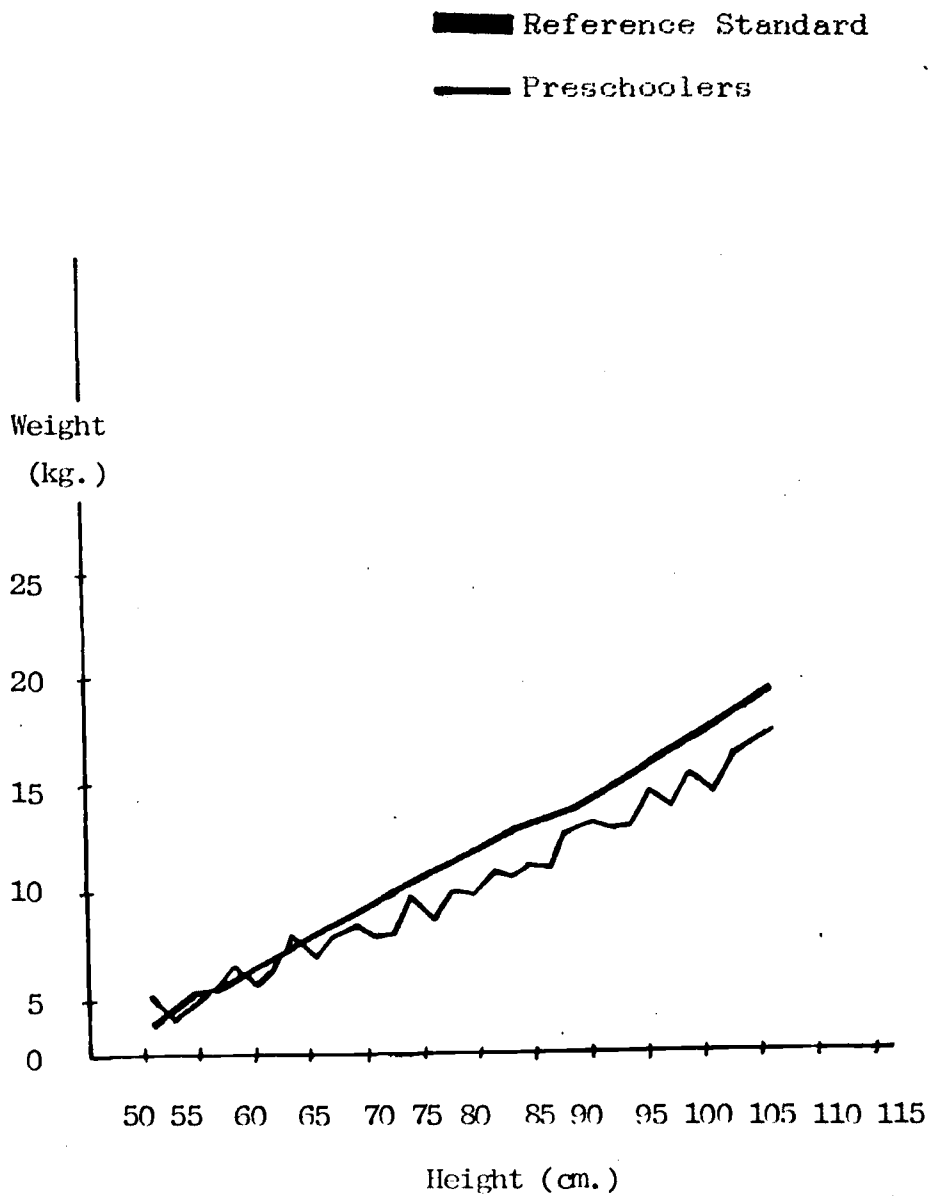


Table 2.10  
 Distribution of Preschoolers According  
 to Nutritional Status Using the  
 FNRI Standards

Age Group (mos.)	Normal Weight	o 1	o 2	o 3	TOTAL
0 - 12	13.8	34.5	44.8	6.9	(29)-100%
12 - 23	5.7	28.6	34.3	31.4	(35)-100%
24 - 35	9.5	19.1	38.1	33.3	(21)-100%
36 - 47	6.7	53.3	30.0	10.0	(30)-100%
48 - 59	5.5	44.5	50.0	--	(18)-100%
60-above	3.5	51.7	37.90	6.9	(29)-100%
TOTAL	: 12 :	: 63 :	: 62 :	: 25 :	: 162 :
	: ( 7.4) :	: (38.9) :	: (38.3) :	: (15.4) :	: (100) :

Table 2.11  
 Illness Experience in Relation to  
 Nutritional Status

Nutritional Status	Gastro Intes- tinal	Respi- ratory	Others	None	TOTAL
Normal	50.0	16.7	8.3	25.0	(12)-100%
o 1	25.4	47.6	7.9	19.1	(63)-100%
o 2	22.6	37.1	14.5	25.8	(62)-100%
o 3	12.0	36.0	20.0	32.0	(25)-100%
TOTAL	39 (24.1)	64 (39.5)	20 (12.3)	39 (24.1)	162 (100%)

### Summary

The baseline information on the health and nutritional status of the Hanunuo Mangyan population in Barangay Binli was drawn from three sources--community service survey, clinical assessment, and personal interviews with the health providers. Assessment of the government health services in the community indicated a low coverage (approximately 18%) of the households due to lack of manpower and drug supply. The four healers who were interviewed manifested a general lack of knowledge of disease causation as well as of proper management. The clinical assessment undertaken revealed problems involving the respiratory tract, nutrition, parasites, skin diseases, malaria and dental caries.

The population is largely young with 60.4% below 15 years of age. A substantial number do not have any education, and the major source of livelihood is kaingin (swidden) farming.

Environmental sanitation facilities are poor--94.9% use the bush as their toilet, 75.4% procure water from open streams and springs as the stored this either in bamboo or plastic containers.

The pretransition nature of the society is exhibited in the high fertility and mortality of the population. The average number of pregnancies is seven, and the number of children born alive is five. Fetal wastage occurs in 14% of the households, and 25% of the total livebirths end in childhood death. The major causes of death are preventable--53% from respiratory distress, 16% from gastrointestinal disorders, 7% from malaria, and 10% from nutrition-related causes. The average family size desired by the household heads is eight for the major reason of adding more manpower or farm hands for swidden agriculture (kaingin).

The recall of deaths occurring in the previous year was relatively poor, and of the nine deaths reported, all were children. The causes were diarrhea, upper respiratory tract infection and nutrition-related. The illness prevalence was 89% in January and the summer month of May and June. Again, the aforementioned causes were cited. Intervention for illnesses was made at home largely by family members with the use of herbs.

As for childbirth, no prenatal care is sought. Deliveries are undertaken at home either by squatting or by lying down, and with the husband as the attendant. No septic precautions are taken. The umbilical cord is cut with the use of cogon grass or thread. Complications of delivery are rather common (48%) in the form of uncontrolled bleeding and abdominal cramps which are managed by a hot compress, abdomen massage and herbs. Unfortunately, nourishing foods are avoided and food intake is limited to porridge and rice.

High maternal mortality is likewise reported. Breast-feeding is prevalent in 99% of the wives, and food supplementation for infants occurs late,--about six months from delivery. Again, porridge and leftover foods are taken.

The lack of knowledge of the etiology of specific illnesses is notable and is compounded by nontherapy or the use of traditional healers whose health management is inadequate. Stunting and wasting are prevalent among the preschoolers, and from 55.5% to 69.3% of the children are malnourished. About 52% of the preschoolers and 47% of the mothers are below the standard weight for age. Using the FNRI standards, only 7.4% of the preschoolers have normal weights for age. The link between nutrition and infection is rather nebulous. However, no concrete relationship was obtained between gastrointestinal illness prevalence and malnutrition, while for respiratory illness the prevalence is higher in the malnourished group. Cognizant of these problems, the residents signified their interest in participating in a training program for the provision of specific health services such as weighing and feeding, immunization campaign, family planning and health education.

The absence of medical personnel as well as the unhygienic practices among Mangyans are responsible for the high mortality and mortality rates observed in the three sitios. Despite the growing acceptance of modern medicine, health facilities are non-existence in these communities. The more important health problems confronting the Mangyans are the following: (1) Environmental sanitation or the lack of sanitary toilets, the absence of potable water supply, improper storage of water and the problem of water pollution result in the widespread incidence of cholera, dysentery, diarrhea, skin disease and tuberculosis; (2) Lack of medical personnel and drugs; (3) Inadequate knowledge of curative and preventive health

care emanating from the ignorance of the etiology of illness and its subsequent improper management; (4) Lack of adequate prenatal care and septic delivery practices and absence of maternal and child health programs; (5) Poor nutritional status due to improper dietary practices and lack of food supply; and (6) Lack of health education.

All of these problems point to the need for adequate information and training on health care, for lectures and for dissemination of media instruments for teaching health practices.

## Chapter Three

### PLANNING OF THE HEALTH CARE PROGRAM

A participatory development project should begin with the substantive participation of the local community in its planning. This involvement of community members from the very start of a project can ensure that their ideas and viewpoints are given full consideration in the planning and design of the activities that are to be implemented and can serve as a means for initiating community decision making in project administration. Community participation in project planning is a primary factor in the ultimate success and sustainability of a participatory development project insofar as it enables the community to perceive that the project is of their own making and design rather than that of an outside agency. Some of the areas in which a community can participate in the initial planning of a project include whether or not it will be involved in the project, who among its members will participate, what will be the nature of its participation in the project, and how will it be able to have decision making authority in the project.

This chapter is concerned with the planning of the community based health care program with the Hanunuo community. It includes discussion of the dissemination of the health survey results to the community, the decision making of the community to participate in the health care program, the recruitment and selection of villagers to serve as community health volunteers, and the organization of village health committees to participate in project planning and decision making.

#### Dissemination of Survey Results

Baseline information on the health and nutritional status of the Hanunuo villagers was obtained from three primary sources, that is, a household health survey, a clinical assessment of villagers conducted by the medical consultant and medical technologist of the project, and structured interviews with the health care providers in the villages. Those data were processed and analyzed, and the more significant results from the health survey and clinical evaluation were selected for the research dissemination to the community. To ensure that the Hanunuo would be able to understand the findings presented

to them, large drawings that illustrated the research results were produced for the the dissemination.

Several days prior to the dissemination meetings in sitios Bailan and Umabang, project staff members met with the village officials to discuss the preparation for the dissemination and other aspects of the health care project. In both villages, agreements reached with the officials concerned the date, time and specific locale of the dissemination and their responsibility for informing the other officials and community members of the upcoming dissemination. Also presented to the village officials during the meetings were the other topics that would be discussed after the dissemination including the implementation of the community health care program, the training of the health workers and the construction of health clinics in each village. In addition to those meetings in Bailan and Umabang, a project staff member went to the village of Amindang, which was initially included in the project site, to invite the residents to the dissemination in Umabang.

The dissemination meetings were held in the larger houses in the sitios with the people sitting on the floor facing the project staff members. The sessions began with one of the staff members presenting the rationale for the household health survey and clinical evaluation and for the dissemination of the research results to the community. The project nurse then discussed the more salient findings from the health survey and the clinical assessment. The topics presented to the villagers included the socioeconomic and demographic profile of the villages, their most prevalent illnesses and diseases, the primary causes of death among villagers, their fertility and mortality patterns, their perception and management of specific illnesses, including their use of herbal plants, and their major health problems.

Also reported to the community during the dissemination was that almost all of the survey respondents (92%) had indicated an interest in participating in a community based health care program and that they had expressed a willingness to devote "any amount of time" that was required for such a program (81%). The villagers were told that the kinds of health care activities they had indicated an interest in joining were family planning, immunization, health education, and environmental sanitation.



The above information from the health survey and clinical assessment was presented to the Hanunuo through a lecture which was supplemented by large, colored drawings that illustrated the topics discussed: for example, sketches of Hanunuo figures were used to depict the signs and symptoms of their common illnesses. The general atmosphere of the dissemination was somewhat informal insofar as people asked questions or offered comments during the course of the presentation rather than remaining silent through it.

As for the community's response to the dissemination, the villagers appeared very interested in the research results and responded by expressing confirmation of some of the findings and by asking questions and commenting on other results that were not immediately clear to them.

The dissemination meetings in both villages lasted for almost two hours and were well attended. In Bailan about 85 adults were present including almost all of the village officials, while in Umabang about 70 adults attended including 10 visitors from Bailan who came to listen to the presentation once more. Also attending the dissemination in Umabang were the midwife of the government health center in Bulalacao, the nearest lowland town to the project site, and the sanitary inspector of that town. They, along with the community health nurse of the health center, had been invited to the dissemination. The midwife and the nurse previously had agreed to conduct the training of the health care workers scheduled for a few months later.

#### Community Decision to Participate

Following the presentation of the health survey results, the proposed community based health care program was discussed with the villagers, and they expressed their ideas and offered their suggestions for its implementation. In Bailan, after a general discussion of the proposed health care program led by project staff members had been conducted, the villagers were given the opportunity to discuss the health program among themselves. They asked their village officials to give their comments and thoughts regarding the program, and community members responded to them with questions and comments. One of the issues raised by the leaders was the necessity for maintaining cleanliness in the village, particularly in the core settlement area. In this regard, they stated

that pigs and other farm animals should not be allowed to roam freely throughout the village. The officials also brought up the possibility of building toilets, and some community members responded that it would be difficult and would require much time and effort. Nonetheless, the community consensus was that they should construct pit latrines, and this is the primary reason why during the training workshops the practicum assignments given to the trainees was to build a toilet facility near their homes.

The major decisions concerning the proposed community health care program made by the members of both villages during the dissemination meetings were that they wanted to participate in the health program and that they were willing to assume the duties and responsibilities that are involved in such participation. They also agreed to construct health clinics in the village centers for the health program for which they would provide the necessary materials and labor through arawatan or communal effort. They also decided that the training workshops for the community health workers would be held in their villages in December since by then the rice harvest would be completed, and thus they would have the necessary time to devote to the training. Also during the dissemination meetings, the prospective health care trainees were presented to the villagers and were given their approval to participate in the training. The trainees agreed that they would provide their own food and lodging during the training period.

#### Recruitment and Selection of the Community Health Volunteers

The recruitment of villagers to be trained as community health workers was conducted in the first phase of the project, particularly during the months of July and August 1985. During the course of data gathering activities, a project staff member informally asked individual villagers if they would be interested in serving their community as health care providers and also explained to them the nature of the tasks and responsibilities involved in doing such work. Other villagers, upon learning of the proposed community-based health care program and of the possibility of being trained to provide health care services, approached the staff member to inquire about participation in the training. An informal list of potential trainees was thus compiled based on those initial inquiries with villagers.

The primary criterion in the recruitment of the villagers who would be trained as health care providers was expressed interest in participating in the health care program since they would be serving the community as volunteers. All villagers who indicated such an interest were accepted for the training workshops. However, a prerequisite for being accepted as a trainee was the ability to read, write and understand Pilipino, the national language of the Philippines, or literacy in the Hanunuo language. Knowledge of Pilipino was necessary because the training workshops were conducted in that language, and the training manual and other written materials used during the training were in Pilipino. However, for those trainees who cannot read or write Pilipino, a Hanunuo translation of the training manual was provided to them.

A secondary criterion for acceptance as a trainee was harmonious interpersonal relationships with other villagers. This factor was considered necessary because in order to serve the community properly and to ensure that villagers would not hesitate in seeking their services, the health workers had to be community members who, at the least, were not disliked or socially avoided by other villagers. Indeed, prior to the training workshops, negative comments were expressed to project staff members about particular volunteers for the training. But rather than exclude those villagers from participating in the workshops, caution was used in assigning them to the households to which they would provide health care services.

Another secondary factor taken into consideration in the recruitment of the trainees was their location of residence. Since the project area consists of two core settlements that are both surrounded by numerous outlying clusters of households, some of which are quite distant from the village centers, it was necessary to ensure that the health care providers came from both the core settlements and the surrounding hamlets so that all villagers throughout the project site would have access to health care services. Thus, villagers from both the core and outlying areas were recruited for the training.

The volunteers for the training workshops were presented to their respective communities for their approval during the health survey dissemination meetings held in both project villages. Each of the volunteers was individually introduced to the community which gave its

approval to them as a group by acclaim. Thus, the ultimate selection of the trainees to serve as health care workers was the community's decision, although a project staff member did the initial recruitment of interested villagers.

### Profile of the Health Workers

A total of 37 villagers were trained to serve the Hanunuo community as health workers--16 in Umabang and 21 in Bailan. As evident in Table 3.1, the great majority of them are females (81%), while only seven are males. Their average is 26 years with those in Umabang (28 years) somewhat older than those in Bailan (24.5 years). The age range of the volunteers is from 15 to 52 years, although five persons do not know their exact age which is common among the older villagers. Most of them are married (73.0%), while the others are still single (13.5%), have been widowed (10.8%) or are separated (2.7%). In terms of educational attainment, 18 or almost one-half of the health workers have had no formal education, while their average number of years of education completed around two years with the highest grade attained being the sixth grade. The occupation of all of the volunteers is farming with the exception of one person who is still a student. With regard to locale of residence, about one-third (35.1%) of the health workers live in the core settlement area of the villages, while the remainder reside in the surrounding area in dispersed hamlets that consists of small clusters of households.

At least six of the community volunteers had received previous health training a few years before the implementation of the health care project. Three villagers, two in Umabang and one in Bailan, were trained as community paramedics by American Peace Corps volunteers who previously had served in the villages.

Three other villagers, again two from Umabang and one from Bailan, received health care instruction from a non-government organization that provides assistance to Mangyan communities, the Programa sa Pagpapaunlad ng Mangyan (Mangyan Development Program). However, the health training provided those villagers was not within the specific context of a community-based health care program.

Table 3.1  
Socioeconomic and Demographic Profile  
of the Health Workers

	<u>Bailan</u>	<u>Umabang</u>	<u>Total</u>
<u>Sex</u>			
Males	5	2	7
Females	16	14	30
<u>Average age (in years)</u>	24.5	27.9	26.1
<u>Civil Status</u>			
Married	14	13	27
Single	3	2	5
Widowed	3	1	4
Separated	1	0	1
<u>Education</u>			
None	8	10	18
Average (number of years in school)	2.0	1.7	1.9
<u>Occupation</u>			
Farmer	20	16	36
Student	1	0	1
<u>Residence</u>			
Village proper	7	6	13
Outlying hamlet	14	10	24

#### Coverage Areas

In terms of their assigned catchment areas to which they were responsible for providing health services, the average number of households assigned to a health worker was 4.3 (including his or her own family). The health providers in Bailan served slightly more households than those in Umabang. As evident in Table 3.2, the number of families in a coverage area ranged from three to as many

as seven, although an attempt was made to distribute the households as equally as possible among the volunteers in a village.

Table 3.2

## Number of Households Served By A Health Worker

<u>Number of Households</u>	<u>Number of Health Workers</u>		
	<u>Bailan</u>	<u>Umabang</u>	<u>Total</u>
3	3	4	7
4	8	9	17
5	8	1	9
6	2	1	3
7	0	1	1
	21	16	37
Average number of assigned household	4.3	4.4	4.1

The families assigned to a health worker were determined by the project nurse primarily according to the location of residence of the worker. Those volunteers who live in the core area of the village center, while those surrounding the village proper were responsible for households in those areas. The primary reason for this division of services among the health providers was to minimize the distance between a volunteer's residence and his or her coverage area in order to facilitate the regular provision of health care since the Hanunuo are widely dispersed in numerous hamlets throughout the project site. For example, Umabang's 66 households are divided among the village center (17 households) and 13 outlying hamlets that have from 1 to 15 households. Bailan has 93 households and consists of the village proper (23 households) and 23 surrounding hamlets that range in size from 1 to seven households. Furthermore, the number of hamlets in Bailan increased to 31 later in the implementation phase of the project as a result of families moving to new swidden fields, in some cases quite distant from the central village area. In both villages, the closest hamlets to the village center are a thirty

minutes' walk away, but the more distant hamlets can be over two hours away by walking. The dispersal of villagers in different settlement sites is compounded by the hiking from one hamlet to another quite tiring if not difficulty, especially during the five-month rainy season from June to October when the trails are muddy and slippery.

In Bailan, which has considerably more households and outlying hamlets than does Umabang, the health volunteers were responsible for households in as many as three hamlets (including the village proper) with almost two-thirds of them serving two or three hamlets. This situation was made necessary because of the lack of health providers in the majority of hamlets in Bailan such that, for example, most of the workers in the village proper also were assigned to one or two hamlets that are as far away as a two hours' walk. In such cases, the distance from a volunteer's residence to his or her catchment area affected the delivery of health services as will be discussed later in this chapter. In contrast to the situation in Bailan, only one health provider in Umabang served families in more than one hamlet.

#### Organization of Village Health Care Committees

Village health committees were organized by the project nurse in both of the project villages during the first month of the project implementation phase. The committees are composed of health workers, their husbands, community officials and other villagers and have ten members, most of whom are males. Each of the committees is chaired by the sitio kapitan or village headman who was appointed as chairman by the project nurse. Given the participatory orientation of the health care program, the objective in organizing those committees was to enable the community at large and not only the health workers to have a formal and direct means of participating in project planning and decision making. That is, the committees were intended to serve as the means by which the community can provide inputs into the planning and implementation of the project by informing the project staff of their desires, needs and views regarding project plans and activities.

In the village of Umabang, there was no difficulty encountered in organizing the health committee insofar as nominated community members were willing to serve on it.

This willingness might be due to the fact that two-thirds of the elected committee members were also health care workers and thus were already participating in the project. However, in the other project village, Bailan, it took over an hour to organize its health committee because of the unwillingness of villagers to serve on it. The organization of the health committee was held during a general community meeting with project staff members regarding the health care project which was attended by about 100 people. During the discussion of the health committee, villagers reiterated that they wanted to participate in the project and agreed that a committee is necessary to assist the project staff members, the health volunteers and the wider community in initiating and implementing project activities. Nonetheless, almost everyone who was nominated for the committee declined to serve. The villagers were then given some time to decide among themselves who should serve on the committee. Following their discussion, the previously nominated persons accepted the nominations and were elected by the community by acclaim.

After the community meeting, a project staff member informally interviewed one of the newly elected health committee members as to why villagers were reluctant to serve on the committee. He said that perhaps it is because of their fear of the traditional responsibilities and duties involved and also of being blamed by others for any negative results. The villagers' apprehension that holding a formal position in a community project means that they will have additional work to do is perhaps based on their misunderstanding of the intended function of the village health committee in the project. It seems that the villagers viewed the committee primarily as a means by which the project staff would be provided with assistance in the form of voluntary labor for the implementation of project activities. Even during the data gathering phase of the project, villagers had been asked to bring up supplies and materials needed by project staff members from the foothills, which are a considerable distance away from the village. Furthermore, they have their own work to be done in their swidden fields. Apparently, the villagers did not view the health committee as a means by which they could actively participate in project planning and decision making, perhaps because this point was not emphasized strongly enough to them.



### Summary

In planning the community-based health program, consultation meetings with leaders and community members were conducted. Even the selection of village health workers and the village health care committees were done with the approval of the community. Such approaches were adopted to ensure participation from the community during the implementation phase of the health program.

## Chapter Four

### THE TRAINING PROGRAM

This chapter describes the initial training program for the Hanunuo health care workers. It discusses the preparation and contents of the handbook that was used in the training of the health workers, the format of and activities undertaken during the training workshops, the results of an evaluation of the workshops by the health workers, problems encountered during the training, and provisions for continued training of the health care providers.

#### Preparation of the Health Workers' Handbook

The instruction manual that was used to train the Hanunuo health workers, "A Handbook for the Barangay Health Worker in Mangyan Communities", was adopted from the primer developed by the Department of Health (DOH) of the Philippines for its nationwide Primary Health Care Program, which is being implemented primarily in lowland urban and rural communities. The DOH's manual was revised for use in Hanunuo communities by the project consultants --a physician and public health nurse with considerable experience in primary health care. The revision took into consideration the health and nutritional problems, indigenous health beliefs and practices, local resource availability, and overall cultural context of the Hanunuo, information that was obtained through the household health survey, clinical assessment, and observations and interviews conducted during the first phase of the project. For example, a section on medicinal plants was added to the handbook since it was observed that the Hanunuo use certain plants from the area in their treatment of various illnesses and ailments. This section includes instructions on the preparation and directions for use of various medicinal plants that can be used in the treatment of common illnesses in the area such as fever, cough, headache, diarrhea, stomachache, and cuts and burns. On the other hand, a module on soap making was omitted from the revised handbook because some of the important ingredients were not available locally or would have to be purchased at relatively considerable expense (see Appendix).

The revision of the handbook also took into consideration the lack of formal education on the part of most of

the Hanunuo and their assumed level of understanding such that certain sections or sentences that were thought to be too difficult for them to comprehend were either rephrased or omitted altogether. Furthermore, in order to make the manual culturally relevant and appropriate to the Hanunuo and also to enhance its understanding by them, numerous illustrations that depict Hanunuo figures, material objects, common plants and fruits, and other familiar features from Hanunuo village life were added to accompany the text.

After the handbook had been revised, it was translated from English into Filipino, the national language of the Philippines, by project staff members. This Filipino version of the manual was then translated into Hanunuo using their syllabic script by a Hanunuo college student. The Hanunuo version of the handbook is presently being finalized by a Dutch priest who has lived and worked among them for many years and who has attempted to standardize their syllabic script.

#### Contents of the Manual

The general objectives of the handbook are to instruct health care trainees so that they would be able to do the following: (1) understand the roles and functions of the village health worker in promoting health and preventing disease within the context of primary health care; (2) provide basic health care and services to the community; (3) to conduct household instruction in health and related subjects relevant to the prevailing health problems in the community; and (4) maintain a record of the services rendered to individuals and families within their assigned service area.

The contents of the training manual consist of the following topics: (1) concept and goals of primary health care; (2) roles and functions of the village health worker; (3) maternal and child care, including pregnancy, childbirth and post-partum care; (4) family planning; and (5) nutrition. The handbook also includes instructions on first aid for bleeding, wounds, fractures, burns and animal bites and on the detection, treatment and prevention of specific illnesses such as tuberculosis and common respiratory infections, diarrhea, parasitism, malaria, and skin diseases, all of which are prevalent in the project area. Each of the above topics is presented as a separate module with specific objectives that the

trained community health worker should be able to meet. The handbook also includes instructions on the preparation and administration of locally available plant materials for the treatment of common ailments, for example, bananas to prepare a powder for the treatment of diarrhea, and tamarind, ginger and limes to concoct a cough syrup. In order to foster understanding and learning of the contents of the manual, each of its sections is accompanied with sketches that illustrate the instructional material.

#### Training of the Trainors

The trainors for the primary health care training of the Hanunuo health workers were a community health nurse and a midwife from the Department of Health's health center in Bulalacao, the nearest lowland town to the project site. They were asked to conduct the training because it was hoped that through this initial experience with the village health workers a collaborative linkage between the health care project and the health center could be developed. Prior to the training of the village health workers, the project nurse underwent training in Primary Health Care under the Department of Health. Besides, the public health nurse and midwife underwent a DOH-sponsored training for nurses and microscopic training on Malaria and Sputum Examination for TB Bacilli, respectively.

Two weeks before the training of the health care providers, a two-day workshop was conducted in Calapan, the provincial capital of Oriental Mindoro, for the trainors by the project consultant who had prepared the handbook for the instruction of Hanunuo villagers. The workshop was intended to familiarize the trainors with the contents of the manual and to provide them with instructions and teaching techniques on how to conduct the training for Hanunuo.

#### Training of the Village Health Workers

Training workshops for the community health workers were conducted for five-day periods in the two project areas in December 1985 using the handbook as a resource guide. The workshops sought to provide the trainees with a minimum level of skills and knowledge so that they would be able to assume initially their duties and responsibilities as health care providers. It was fully realized that

the trainees would have to be provided with additional training during the ensuing year. As noted above, the trainers were a nurse and a midwife from the health center in the nearest lowland town.

The trainees numbered 16 in each of the project villages of Bailan and Umabang or a total of 32. Some of the prospective trainees who had been given the approval of the villagers during community meetings held in September 1985 chose not to participate in the training, while others who expressed an interest in joining the training were allowed to do so. Twenty-five (78%) of the trainees were females, and 75% were married, while 15.6% were single and the others were widowed. Although some of the trainees do not know their exact age, the majority of them appeared to be between twenty to forty years old. The trainees came from both the core settlement areas of the villages and their outlying hamlets, some of which are two hours' walk from the village proper.

Some of the reasons given by the trainees for participating in the training workshops were: to help others with their health problems, to know what to do in the event of illness in the family, to know what medicines to use for particular illnesses, to learn about family planning, and to learn preventive health care measures.

The trainees included the village paramedics who previously had been instructed on providing health care services to the community by American Peace Corps volunteers who had worked in the research sites before the project began. Two paramedics are from Umabang and one is from Bailan. However, the traditional healer or shaman in Umabang was ill during the training period and was not able to attend the workshop.

The training workshops were conducted in the month of December because that is when the villagers are least occupied with agricultural work following the rice harvest in October and November and before the preparation of their fields for planting early in the coming year. In Bailan the training was held in the home of the village paramedic, which is one of the larger houses in the community, while in Umabang it was held in the partially constructed health clinic. Both of these structures are located in the core settlement areas of the villages.

Specifically, training courses were conducted in Umabang and Bailan on November 30 to December 7, 1985 and

December 9 to 12, 1986, respectively. There were 16 health workers in Umabang (2 males and 14 females) and 15 health workers in Bailan (4 males and 11 females) who completed the training courses.

### Training Program

The training sessions began with the trainers introducing themselves to the trainees who individually did the same. The trainers gave a brief introduction about primary health care and the activities that would be conducted as part of the training during the following week. Each trainee was given a copy of the handbook for personal use, a notebook for recording lecture notes and pencils. The trainees generally sat on the floor of the structure facing the trainers with some of the mothers tending to their babies or young children.

The basic format of the instruction method was that the trainers would write information from the handbook concerned with a particular topic on a blackboard. Then the trainees would copy it in their notebooks, and then the trainers would lead a discussion of the subject matter by reviewing it for the trainees and by asking them a few questions. The trainers also used illustrated posters and other drawings as visual aids to supplement their lectures and discussion in order to enhance the learning of the trainees. As with the illustrations in the manual, the visual aids depicted Hanunuo figures and familiar objects and situations from village life. After each section of the handbook had been discussed the trainers reviewed the material with the trainees by asking them several questions. In general, the trainers attempted to create a congenial and somewhat informal atmosphere for the training sessions. For example, they led the trainees in singing songs together to serve as "ice-breakers" so that the trainees would feel less inhibited during the classes and would be willing to participate more in the discussions.

The trainers agreed to divide the topics included in the training handbook and assign among themselves topics they could handle adequately. Teaching-learning activities included lecture-discussions conducted in Tagalog or translated to Mangyan by the participants themselves, demonstrations and visualization of pictures and illustrations. Learning resources included the use of flip-charts, chalkboards, pictures, training handbooks,

notebooks and pencils. A question and answer portion, role playing and return demonstration served as evaluation activities at the end of each training session.

Aside from lectures, the training workshops also included demonstrations and "hands-on" instruction. The trainees were shown how to collect sputum samples for tuberculosis detection tests and blood smears for malaria tests, procedures which they then performed on each other. They also prepared various kinds of herbal remedies, such as a banana powder for treatment of diarrhea, a cough syrup made from locally available fruits and roots, and a protein supplement for malnourished children made from powdered beans. The trainees also learned how to prepared a sugar and salt solution for oral rehydration therapy as treatment for diarrhea.

The training also included practicum assignments given to the trainees. Their first task was to compile a listing of the members of the households within their assigned catchment areas, i.e., the households to which they were assigned to provide health care services. A longer term practicum assignment was that each of the trainees construct a pit latrine for the use of their families within the next month and a half and that they encourage the households within their catchment areas also to build such toilet facilities. During the training workshop held in Bailan, to serve as an example to the community, village officials constructed a pit toilet through communal labor for the use of project staff members based in that village.

The training workshops ended with a verbal question and answer review session to determine the extent of knowledge retention on the part of the trainees. The trainers prepared what they considered to be general questions on the subjects they had discussed and read them to the trainees. In both villages the results were somewhat disappointing insofar as only some of the trainees were able to answer the questions correctly, while the majority, particularly the women, did not even attempt to answer the questions. Following the training, some of the trainees were informally interviewed as to why they had not responded to the questions posed by the trainers. They said that they were afraid that the trainers might become angry with them if they gave the wrong answer. Apparently, despite the efforts of the trainers to make the trainees feel at ease during the workshops, they still felt somewhat uncomfortable with the trainers, perhaps a

reflection of the general reserved behavior of Hanunuo among strangers and outsiders, particularly lowland Filipinos.

An additional five female villagers from Bailan were trained as community health workers by the project nurse during a five day period in April 1986. The training followed the same format as in the initial training workshops; it covered the same topics from the handbook and involved similar teaching techniques such as lecture, discussions, visual aids and demonstrations. Three health workers who had been trained previously assisted in the second training by dictating material on the blackboard to the trainees making it easier for them to take notes. However, as in the previous training workshop in Bailan, the performance of the trainees during review sessions following the completion of each topic and during the final review session was poor. Only a few trainees attempted to answer the trainer's questions, while the others remained silent even when they were asked questions directly by the trainer. However, their non-response did not necessarily mean that they did not know the answer to the persons seated next to them. It would seem that the new trainees, like the previous ones, were hesitant to express themselves in such a classroom-type setting.

#### Problems Encountered

A major problem that arose during the training workshops involved the language in which it was conducted. The trainers used Pilipino, the national language of the Philippines, in their lectures and in their written presentations on the blackboard and visual aids since they are unfamiliar with the Hanunuo language. All of the trainees can speak and understand Pilipino to varying degrees of proficiency with the men in general having a better command of the language than the women because of more frequent interactions with lowland Filipinos. However, several of the female trainees cannot read Pilipino and so had problems in copying notes from the blackboard. In such cases, they had to have the persons seated next to them translate the information to them in Hanunuo while they wrote it in the Hanunuo syllabic script. After the training, the villagers stated that they would have preferred that it had been conducted in their own language because they could have understood the lectures and instruction better and also could have expressed



themselves more freely. As a result, almost all of the trainees said that they found the training workshops difficult, primarily because of the language problem.

On their part, the trainers also said that they found the training very difficult, requiring patience and repetition, but they also considered it challenging. They said that the trainees require clear explanations and constant encouragement so that they can develop confidence in themselves as health care providers.

The only drop-out from the training workshops occurred in Bailan on the fourth day of instruction, and the reason involved the language used in the training. The husband of a trainee withdrew his wife from the workshop because she said that the other trainees were not assisting her in taking notes from the blackboard. The trainee cannot read or write in Filipino, although she can write using the Hanunuo script. When she mentioned her situation to the trainers, they asked those seated near to her to translate the material on the blackboard to her in Hanunuo so that she could take notes since this procedure had been used successfully in Umabang during the previous workshop. But apparently the assistance provided her was insufficient.

The Hanunuo version of the handbook also presented a problem during the training workshops. Because the Hanunuo syllabic script has not been fully standardized, most of the trainees said that they had difficulty reading the manual due to variations in the shape of the syllable characters. As a result, most of the trainees preferred the Pilipino version of the handbook for their personal use, except for those trainees who cannot read that language.

Another problem during the training workshops was the non-attendance of trainees from Amindang, the third village in the project site, who were supposed to attend the workshop held in Umabang. Although some Amindang villagers had indicated a desire to participate in the training, no explanation was given for their not attending. However, in the next few months following the training during the planting season, the people in Amindang, which was a small village of less than twenty households, dispersed over the surrounding area to be closer to their swidden fields, in effect, disbanding the village.

### Provision for Continued Training

Since it was realized that the training workshops were much too short to expect that the trainees could adequately perform their tasks, project plans called for them to receive review and additional training during the course of the project implementation period. The review training was to have been conducted during the monthly meetings of the health workers with the project nurse. It was planned that the entire handbook would be reviewed once again with the health workers during these meetings.

### Summary

The training workshops for the village health workers were conducted by the nurse and midwife of the Bulalacao Rural Health Unit in the two village sitios. Each training was conducted for around five days. The resource material was a handbook which was developed by external project consultants who were well versed on primary health care. The training methods consisted mainly of lectures, demonstrations, role playing and visualization of pictures and illustrations. The major difficulty raised during the training was the use of Filipino instead of the Hanunuo Mangyan language as the medium of instruction. The short duration of the village health workers' training warranted additional training and review sessions during the implementation phase of the project.

## CHAPTER FIVE

### HEALTH PROGRAM IMPLEMENTATION

The most critical phase of the health program was the implementation period for it did not only test the capabilities of the health workers to deliver health services to the community but it also demonstrated the ability of a tribal group to engage in a population-based health program.

This chapter presents the major activities that took place during the implementation phase of the health program. It also describes the roles, inputs and performance of the various groups that are involved in the program. Problems that surfaced in the course of project implementation are also discussed.

#### Highlights of Program Activities

The implementation phase of the health program covered a total period of 15 months, starting in January 1986 to March 1987. The activities that took place can be generally classified as organizational (e.g., meetings of various groups within the community, training of health workers) health service delivery and linkage with the Rural Health Unit and other health-related agencies in the lowlands. The presentation of activities is divided into five quarters.

#### First Quarter, January to March 1986

This quarter was perhaps the most crucial period for it served as the take-off phase of the health program. It was at this stage when the various groups involved in the health program began to fulfill commitments made during the planning meeting in September 1986.

Two community meetings took place in January--one was in Sitio Umabang and another was in Sitio Bailan. The major topics discussed in both meetings were the general health program, roles and functions of the health volunteers, usage of herbal medicine, immunization of pre-schoolers, the health clinic construction status, and the maintenance of the health clinics. In the same meetings, the community residents of the two zones formally elected the officials of the health care committees.

In the same month the health workers received their medical or first aid kit from the project team. The kit was a small plastic colored bag containing a pair of scissors, small bottles of alcohol and tincture of merthiolate, small packs of cotton, gauze and adhesive bandages. The majority of the health volunteers began to provide health care services to the households in their catchment areas. The health services that were rendered were mainly curative and herbal medicine was administered in almost all types of illnesses. A few health volunteers started environmental sanitation campaign in their coverage areas, particularly toilet construction.

Aside from extending health services to their catchment areas during this period, the health volunteers had several meetings with the project nurse. These meetings served as sharing sessions regarding experiences and difficulties in health care delivery, review sessions of some topics that were taken up in the initial training, and planning period for some health-related activities. An important meeting between the health volunteers, project nurse and residents suffering from tuberculosis also took place. In this activity, the etiology, treatment, and prevention of tuberculosis were presented by the project nurse with assistance from some health volunteers.

The most significant community event that took place in the first quarter was the completion of the two health clinics in February, four months after the two villages agreed to construct these health facilities. The formal opening of the health clinics was marked with a whole-day celebration by the members of the entire community in each village.

The first immunization of preschool children also took place in February; only BCG and DPT shots were given to the children. The vaccines were provided by the Rural Health Unit but because of the limited number of RHU personnel, the immunization was administered by the project nurse.

In March, the selection and first training on health clinic management of the health volunteers who offered to operate the health clinic was conducted by the project nurse. In Bailan, the trained health volunteers began to operate their health clinic right after the training but this lasted for only one week due mainly to work requirements in their swidden farms and the distance of the health clinic from the homes of the health workers.

In the same month, the health workers received their identification cards from the Provincial Health Office in Calapan, certifying their status as government Barangay Health Workers which entitled them to free health services in any government hospital and health center.

### Second Quarter 1986

From April to June 1986, a considerable number of health volunteers continued to extend health care services to their respective areas. Five additional health volunteers in Bailan received training from the project nurse in April, bringing the total number of health volunteers to 37. In the same month, 11 health workers volunteered to participate in a two-day training for hilot or birth attendants by the midwives of the Rural Health Unit in Bulalacao. Towards the culmination of the training, the RHU donated five birth attendants' kits<sup>1</sup> to the community and two weighing scales. Two birth attendant kits were given to the Umabang health clinic while three were sent to the health clinic in Bailan.

In May, the Umabang health volunteers who received training on clinic management began to operate their health clinics three times a week. In the same month, the second immunization was administered by the project nurse to the preschool children. The BCG, DPT, and OPV vaccines were provided by the RHU. Aside from the vaccines, 40 water-sealed toilets were also donated to the community by the Department of Health through the RHU. Each health volunteer was given a toilet bowl with instructions from the the project nurse regarding its proper installation. To demonstrate the construction and usage of the toilet bowl, the project team constructed one toilet in each sitio which was later utilized as the project team's toilet.

Also in the same month, the project medical consultant conducted a field visit to the area and extended medical services to the community residents as well as advice to the project nurse for a period of about two weeks.

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Each birth attendant's kit contained a kidney basin, a pair of bandage scissors, soap, a soap dish, a brush, three empty bottles, a small pack of cotton, rubber suction tube, and plastic sheet.

Other activities for the month of May covered the construction of bamboo fence around the health clinic by the health volunteers and planting of herbal plants within the clinic's compound. The fence was intended to protect the herbal garden from destructive stray animals in the community.

Aside the foregoing activities the health workers met with the officials of the health care committee for some project plans and needs. They also met regularly with the project nurse and continued their review of some illness management techniques.

In late May, the weight and height of 163 young children, particularly preschoolers, were measured. The results were alarming for over half of the preschoolers were found to be moderately and severely degree malnourished (second and third degree malnourished based on the FNRI standards). The poor nutritional status of the young children as well as the low supply of food in the community (the months of June to August were considered lean months in the Hanunuo Mangyan's agricultural cycle), led the project team, the health volunteers, and the health care committees in consultation with the community residents to embark on an emergency feeding project for malnourished children. The activity was planned to last for around two months and supplementary food would be solicited from the Rural Health Unit and other lowland agencies. The emergency feeding project was to be accompanied by a training on food preparation and nutrition education to parents of malnourished children. It was also planned that for the entire duration of the emergency feeding project, supplementary food consisting of mungo beans, powdered anchovies and powdered milk would be given every week at the health clinic to the entire household with malnourished children. The weight of the malnourished children would be monitored every week.

### Third Quarter 1986

In late July 1986, the emergency feeding project was launched. Information dissemination was conducted by the health volunteers and the health care committee officials to the households with malnourished children in their catchment areas regarding the procedures of the feeding project. The community was likewise mobilized by the village health care committees to procure from the foothills several sacks of powdered milk that were donated

by the Rural Health Unit, one sack of mongo beans and several kilos of dried anchovies that were donated by the project team. The major activities of the emergency feeding project were: (1) the training on nutrition education and food preparation by the project nurse and health volunteers to parents of malnourished children as well as to other interested parents; (2) weekly distribution of food shares to households with malnourished children; and (3) weekly monitoring of the weight of malnourished children by the health workers at the health clinic.

The third immunization to preschoolers also took place during this period with vaccines from the Rural Health Unit. The children received BCG, DPT, and OPV, vaccines from the project nurse. Fewer health volunteers continued to provide health services in their catchment areas and attended meetings with the project nurse during this period. Another health clinic management training was conducted by the project nurse to a new group of clinic watchers in Bailan and Umabang. After the training, the clinic watchers took turns in managing their health clinics on certain days.

Three community meetings were convened in September to discuss the issue of diminishing interests in the community and among health workers. Other health-related topics, particularly the emergency feeding projects, the management of the health clinic, and linkage with the Rural Health Unit and other lowland agencies were discussed.

#### Fourth Quarter, 1986

The emergency feeding project was continued until October because the Catholic Relief Services donated several sacks of corn soya milk as well as some boxes of medicine to the community. The residents were once again mobilized by the village health committees to pick up these supplies from the foothills. A demonstration of how corn soya milk should be prepared, nutrition education training to parents with malnourished children, as well as weekly distribution of corn soya milk to households with malnourished children were the major activities undertaken by the health volunteers and the project nurse.

The medical consultant of the project team visited the research site at this time and he extended health

services to the community. In addition, he made a preliminary assessment of the clinical skills of the health volunteers. Due to inclement weather, less than half of the health volunteers were able to see the medical consultant at the health clinic for assessment. The initial evaluation showed that the health workers were adequately skilled in obtaining clinical history and interviewing the patients, identifying common illnesses, and in prescribing drugs and herbal medicine. Their inadequacies were in diagnosis, particularly in temperature and blood pressure taking and abdominal examination of pregnant women.

Another less formal assessment was conducted by the project nurse during this period regarding the health volunteers' basic skills as health providers. Based on her personal supervision of their activities in the field, the project nurse noted that around two-thirds of the health workers were proficient in curative skills such as the management of diarrhea, fever, cough and headache; less than half were skilled in preventive health care techniques. The Umabang health workers were assessed to be better skilled than the Bailan health workers. The health workers also felt that they needed a retraining workshop to beef up their health skills and knowledge, particularly in those areas where they were inadequately skilled.

For this quarter, the number of health volunteers who provided health services in their respective assignments and who regularly attended to hold regular meetings with the project nurse further dwindled despite encouragements from the project team.

Retraining or review sessions of some illness management and prevention were started by the project nurse. The health volunteers who offered to become health clinic watchers continued to receive training on clinic management particularly on the dispensation of over-the-counter drugs, maintenance of clinic records, growth monitoring, and other administrative procedures in the maintenance of the health clinic.

In Umabang, the health volunteers and the officials and members of the health care committee met regarding the cash donations received by the health clinic from the residents who utilized the services and drugs of the clinic. Upon the suggestion of the project nurse, the health volunteers and the health care committee officials agreed to use the money for an income-generating project.



The donated amount would be utilized to procure beads to enable some skilled residents to make bracelets and other trinkets. These products would be sold within or even outside the community. Members in the community who were skilled in bead making would be commissioned to do the work. Earnings or profits derived from the income-generating project would be divided between the worker and the health program. It was agreed that the money earned by the health program could be borrowed or utilized by other community members involved in the income-generating project mainly for emergency purposes, (i.e., hospitalization in the lowlands) and to procure additional materials for the IGP. The IGP served as a kind of health financing scheme for the community.

During this quarter, the project nurse started to train four health volunteers to link up with the Rural Health Unit in the lowlands. The health volunteers were chosen by the project nurse based on their ability to provide health services in the community and their capacity to communicate with the RHU. The health volunteers were brought by the project nurse to the RHU to demonstrate the linkage procedures with this government health unit. And whenever someone from the community was seriously ill, the project nurse would ask the four health volunteer to accompany her and the patient so that they could observe referral procedures from the RHU to these health institutions.

Towards the end of the quarter, the Rural Health Unit provided BCG, DPT, and OPV vaccines for the fourth immunization of preschoolers in the community; the project nurse continued to administer the vaccines to these children.

Apart from the vaccines, the RHU through the Provincial Health Office Staff from the provincial capital, sent an anti-malaria team to the community. The team sprayed anti-malarial chemicals to practically all the houses in the community. A malarial blood smear of the upland residents was also undertaken by the team. In addition, another team from the same office brought their mobile film showing facility to the community and showed a movie in Umabang about family planning and preventive health care practices. Due to Bailan's distance and relatively rough terrain, the film was not shown in this area.

### Fifth Quarter 1987

During the last quarter of the implementation phase of the health program, i.e., January to March 1987, the following major activities were undertaken.

Seven community meetings were convened during this period. The January meetings focused on the preparation for the celebration of the first year anniversary of the health clinics, the income-generating projects, and the establishment of a drug depot. The March meetings continued to concentrate on the foregoing topics and on the linkage of the community with the RHU and other low-land agencies.

In January and February, the residents of the two sitios, villages, of Umabang and Bailan, had a one-day celebration in each area to commemorate the first anniversary of their health clinics. The health volunteers as well as the other residents of the community were mobilized to prepare the food and to participate in the program for this activity.

Another major event in the last quarter was the establishment of the Botika sa Barangay or drug depot in both villages. The health volunteers, the village health care officials, and project nurse agreed that the medicines that were relatively more expensive and were not usually available at the health clinic or even at the RHU such as antibiotics for tuberculosis should be sold in the drug depot. The drug depot would be managed by a health volunteer who lived in the center of the village; her home would serve as the community drug depot. The health volunteers and the village committee officials agreed that for the drug depot to have a regular supply of medicine, no credit would be extended to its patrons. Because the Provincial Health Office no longer had a program supporting the Botika sa Barangay, the project team had to utilize a small amount of its project funds (around P600) in procuring the first set of medicine for the drug depot. The medicines that were bought served as a kind of a donation to the community.

Retraining of the health volunteers by the project nurse in each village was also conducted during the last quarter. The retraining period lasted for about a week and the approach was more informal than the initial training because there were more discussions and sharing of what had been learned. Although there were some

discussions on the uses of over-the-counter drugs, the main focus was on the uses and preparation of herbal medicine. In these retraining sessions, some health volunteers helped identify new herbal plants in the community and assisted in the construction of a manual in the Hanunuo Mangyan language on the uses and preparation of herbal medicine.

The project nurse also continued to familiarize the selected health volunteers with their responsibilities in linking up with the Rural Health Unit. These health volunteers were in fact the ones who picked up the vaccines from the RHU for the fifth immunization of the preschoolers in their community.

Another significant activity that took place in the community was the establishment of the income-generating project in Bailan Village. The approach utilized by Umabang for the small cash donations from its health clinic funds was adopted by the Bailan health care committee officials, health volunteers, and other residents in starting their own IGP,

Having heard from the project nurse about the IGP of the two villages, the Bulalacao-based social worker of the Department of Social Welfare invited some officials from the village health care committees and health volunteers from the two sitios to meet with her about the possibility of applying for a group loan for additional capital for their IGP from the DSW's Self-Employment Assistance Program. The meeting took place in the DSW office towards the end of March. After the DSW meeting these representatives met with their respective villagers and decided that they would avail of the DSW loan assistance program.

#### Participation of the Various Groups in the Health Program

As indicated in the operations scheme of the project, the health program called for the participation of different sectors in the community. This section provides a description of the specific involvement of the following: the Barangay Health Workers or volunteers, the Village health care committees, the community residents, the project team and the Rural Health Unit.

Major Activities Undertaken From January 1986 to March 1987 of the PHC Program

Major Project Activities	YEAR AND MONTH												1987		
	1986												Jan	Feb	Mar
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>Meeting</b>															
1. Between project nurse, health workers and tubercular patients		xxxxx													
2. Between project nurse and health workers		xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	
3. Between project nurse, health workers, and community residents	xxxxx							xxxxx				xxxxx	xxxxx	xxxxx	
4. Between project nurse, health workers, village health care committee	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx				
<b>Training</b>															
1. Birth attendants				xxxxx											
2. Retraining/review					xxxxx										
3. Clinic management		xxxxx	xxxxx												
4. Training of 5 new health workers in Bailan				xxxxx											
5. Nutrition education								xxxxx	xxxxx						
6. Linkage with RHU										xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	
Election of the Village Health Care Committee Officials	xxxxx														
Completion and inauguration of the health clinic			xxxxx												
<b>Delivery of health services by health workers</b>															
1. In catchment areas	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	
2. In clinic		xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	
Immunization of preschoolers	xxxxx				xxxxx			xxxxx			xxxxx			xxxxx	
Emergency feeding project								xxxxx	xxxxx	xxxxx					
Malarial spray											xxxxx				
Film showing on family planning and preventive health											xxxxx				
Health clinic anniversary													xxxxx		
Establishment of income-generating project (IGP)													xxxxx	xxxxx	
Establishment of drug depot													xxxxx	xxxxx	

### The Barangay Health Worker

At the heart of a community based health-care program are the 37 individuals who volunteered to be trained to provide health care services to the community. While wider community support and organization are essential to the success and sustainability of a participatory health care program, ultimately the program is dependent on the community health workers and their effective and regular performance of their duties and responsibilities as health care providers. It would not be an overstatement to argue that without such willing and dedicated participants from the community, there can be no population-based health care program.

This subsection discusses the health care tasks, the supervision, support, and incentives derived by the health workers from the program. It also presents the performance of these volunteers in their catchment areas as well as in the health clinic, their linkage with the Rural Health Unit, and other health-related lowland agencies.

Health care tasks. The health workers were given general guidelines rather than specific regular assignments by the project nurse in performing their duties as health care providers to the community. In general, their primary tasks were curative in nature. They were instructed to visit the families in their catchment area on a regular basis every week and to inquire if anyone was ill and, if so, to provide the appropriate treatment. They also were told to treat persons who came to them for help. The health volunteers were instructed by the project nurse to use herbal remedies first in their treatment of patients rather than tablets or other medication since they may not always be readily available. In the event of illnesses for which they did not know what treatment to administer, in serious cases, or when the patient's condition did not improve after two or three days of treatment, the health workers were told to refer or accompany such patients to the project nurse or to inform her about them so that she could attend to them.

Besides curative care, the health providers also were assigned some promotive and preventive tasks by the project nurse. They were instructed to encourage the families in their coverage area to maintain personal cleanliness and to keep their homes and their immediate surroundings clean particularly with regard to the disposal of human and animal waste. They also were

encouraged to promote the use of contraceptives, which were made available by the Rural Health Unit through the project nurse, as a family planning method.

Other kinds of promotive tasks given to the health volunteers involved their informing and mobilizing villagers, particularly those in their catchment area, to participate in various project activities such as the immunization of young children, an emergency feeding project team for malnourished children, and training on nutrition education.

Supervision and support. The health volunteers were directly supervised in the field by the project nurse who was primarily responsible for overseeing their activities and performance as health providers in the community. The project nurse divided her time between the two villages, by staying in each village for about two weeks per month, so that she could directly supervise and train both sets of health workers. Supervision was also conducted through individual consultations particularly to those who live in the village centers or in nearby hamlets and through group meetings.

The health workers in each village met as a group with the project nurse in meetings held at the village health clinic during the implementation phase of the health program. The meetings provided support to the health workers in carrying out their tasks for these served as avenues for the health volunteers to share experiences and raise problems or questions that they had encountered during the performance of their tasks for the nurse to resolve or answer. The meetings were also occasions where accomplishments and project plans were discussed. For the entire implementation period, the Umabang health volunteers met with the project nurse more frequently than the Bailan health workers (22 vs. 13 times; see Table 5.2). The higher frequency of meetings in Umabang than in Bailan can be attributed to the relative ease of the project nurse in convening the Umabang health workers. Such a situation can be partly explained by a seemingly better information system among the health workers, and the closer distance of many health workers' homes to the village center.

Table 5.2  
Summary of Meetings Attended by Health Workers

	NUMBER OF MEETINGS/SITIO								
	Health Worker and Project Nurse Meeting			Health worker and project nurse meeting with other sectors					
	SITIOS			With Community			With Other Groups		
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total
<b>1986</b>									
January	-	3	3	1	1	2			
February	5	1	6	-	-	-			
March	2	1	3	-	-	-	With VHC officials (1)		1
April	3	2	5	-	-	-	With TB patients (1)	With TB patients (1)	2
May	1	-	1	-	-	-	With new set of HW (1)		1
June	2	1	3	-	-	-	With PTA & VHC (1)	With VHC officials (1)	2
July	3	1	4	-	-	-			0
August	1	-	1	-	-	-			0
September	-	1	1	2	2	4			0
October	1	-	1	-	-	-			0
November	-	2	2	-	-	-	With some officials (1)		1
December	-	-	0	-	-	-			0
<b>1987</b>									
January	1	-	1	-	2	2			0
February	1	-	1	1	-	1			0
March	2	1	3	1	2	3			0
<b>TOTAL</b>	<b>22</b>	<b>13</b>	<b>35</b>	<b>5</b>	<b>7</b>	<b>12</b>	<b>3</b>	<b>4</b>	<b>7</b>

Apart from the meetings with the project nurse, the health workers also had meetings with the entire village on matters pertaining to health and with the other sectors of the community, i.e., with tubercular patients, the village health care committee, the Parent-Teachers Association of the Appropriate Mangyan School./2

Aside from their participation in meetings, the health workers joined several training activities that were conducted by the project nurse. These training activities were designed to further develop the health care capabilities of the health workers. A total of 20 training sessions were held in Bailan and 22 in Umabang (see Tables 5.3 and 5.4). The topics covered in the training included family planning, clinic management, food preparation, nutrition education, determination of preschoolers' nutritional status, and retraining or review of the various topics in the PHC manual that were taken up during the first training. Except for the training on clinic management which was attended by only those health workers who volunteered to operate the health clinic, the other training activities were participated by most health workers. The time spent on training ranged from 30 minutes to five hours per session. The approach utilized in the training was informal and less writing was done as this was the foremost complaint in the initial training. The project nurse also encouraged more active participation on the part of the health workers. For example, a health worker was asked to share what she knew about diarrhea and its management or to demonstrate the preparation of a malarial smear.

Only the hilot or birth attendant's training was held outside the community and it was conducted by the midwives at the Rural Health Unit in Bulalacao Municipality. The training was attended by 11 health volunteers (five from Umabang and six from Bailan) for two days. Towards the

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Because several residents were identified as tubercular cases, the project nurse asked the health workers to identify and to bring these patients to the village clinic so that they could be briefed about the etiology, management, and prevention of the disease. The meetings with the village health care committees dealt with consultations about specific health-related activities while the PTA meeting was a clarification of expectations between the school and the health care program.



Table 5.3

Training Activities Participated by Umabang Health Workers  
From February 1986 to March 1987

Type of Training	When Conducted	Place	Number of Attendees	Duration	Topics	Trainer(s)
1. Family Planning Class	Feb. 7, 1986	Umabang Health Clinic	12 HWs	30 min.	Family Planning Methods	Project Nurse
2. Clinic Management Training	Feb. 7, 1986	Umabang Health Clinic	6 HWs	30 min.	Procurement of Blood Pressure and Temperature	Project Nurse
3. Clinic Management Training	Feb. 9, 1986	Umabang Health Clinic	8 HWs	30 min.	Thermometer Reading	Project Nurse
4. Clinic Management Training	March 26, 1986	Umabang Kiosk	12 HWs	2 hours	Thermometer Reading	Project Nurse
5. Hilot Training	April 29-30, 1986	Bulalacao Health Clinic	5 Umabang Trainees (with Bailan Trainees)	1 1/2 days	All Modules (Handbook for Hilot Training) prepared by the Ministry of Health	Two Rural Health Unit Midwives
6. Health Workers' Review Class	May 10, 1986	Sitio Umabang Clinic	8 HWs	2 hours	Causes and Symptoms of Diarrhea/Uses and preparation of Medicinal Plants	Project Nurse HWs 11 & 13
7. Training on Food Preparation for the Emergency Feeding	July 28, 1986	Sitio Umabang (kiosk) engarmada	14 HWs 3 mothers 9 pre-schoolers	4 hours	Emergency Feeding/ Cooking Demonstrations	Project Nurse
8. Training on Food Preparation for the Emergency Feeding	July 29, 1986	Sitio Umabang (Kiosk) engarmada	15 HWs 6 mothers	3 hours	Copying of Notes/ Cooking Demonstrations	Project Nurse
9. Clinic Management Training	Aug. 5, 1986	Sitio Umabang Clinic	8 HWs	3 hours	Procurement of Blood Pressure/ Medicines for different illnesses	Project Nurse
10. Nutrition Training	Sept. 8, 1986	Sitio Umabang PHM School	8 HWs 11 mothers	3 1/2 hours	Modules for the Nutrition Training	Project Nurse

Table 5.3 (Cont'd)

Type of Training	When Conducted	Place	Number of Attendees	Duration	Topics	Trainer(s)
11. Nutrition Training	Sept. 9, 1986	Sitio Umabang PHM School Building	10 HWS 14 mothers 5 fathers	3 hours	Proper Diet, Basic Food Groups, lessons on Anemia, Goiter and Diarrhea)	Project Nurse
12. Nutrition Training	Sept. 15, 1986	Sitio Umabang PHM School Building	7 HWS 3 mothers	2 hours		Project Nurse
13. Nutrition Training	Sept. 16, 1986	Sitio Umabang PHM School Building	12 HWS 9 mothers	4 hours	(Recipies for Corn Soya Milk)	Project Nurse
14. Nutrition Training	Oct. 14, 1986	Umabang Kapitan Inunga's house	11 HWS 4 mothers	4 hours	Modules for the Nutrition Training (Recipies for CSM)	Project Nurse
15. Nutrition Training	Oct. 17, 1986	Umabang Kapitan Inunga's house	10 HWS 4 mothers	3.5 hours		Project Nurse
16. Training on the Determination of Preschoolers' Nutritional Status for Clinic Watchers	Nov. 16, 1986	Umabang PHM School Building	2 Trainees	2 hours	Computation and Determination of Preschoolers' Degree of Malnutrition	Project Nurse
17. Retraining of health workers	Dec. 8, 1986	Umabang Health Clinic	8 HWS	4 hours	Different Ill- nesses' Symptoms, Causes, Treatment and Prevention (with emphasis on Medicinal Plants, their uses and preparation)	Project Nurse
18. Retraining of health workers	Dec. 9, 1986	Umabang Health	9 HWS	3 hours		Project Nurse
19. Retraining of health workers	March 20, 1986	Umabang Health Clinic	8 HWS	3 hours		Project Nurse
20. Retraining of health workers	March 26, 1987	Umabang Health Clinic	12 HWS	3.5 hours		Project Nurse

Table 5.4  
 Training Activities Participated by Bailan Health Volunteers  
 From March 1986 to March 1987

Type of Training	When Conducted	Place	Number of Attendees	Duration	Topics	Trainer(s)
1. Clinic Management Training	March 17, 1986	Sitio Bailan Old Clinic House	7 HWs	2 hours	Procurement of Blood Pressure and Temperature of Patients	Project Nurse
2. Second Set of Barangay Health Workers' Training	April 3-4, 1986	Sitio Bailan Old Clinic House	5 Trainees	4 days	All Modules (Hand-book for the Barangay Health Workers in Mangyan Communities)	Project Nurse
3. Hilot Training	April 29-30,	Bulalacao Health Center	6 Bailan Trainees (with Umabang Trainees)	1.5 days	All Modules (Hand-book for Hilot Training) prepared by the Ministry of Health	Two Rural Health Unit Midwives
4. Health workers' Review/class (first set)	May 19, 1986	Sitio Bailan Old Clinic House	6 HWs	2 hours	Diarrhea	Project Nurse
5. Training in Food Preparation for the Emergency Feeding	August 1, 1986	Sitio Bailan Old Clinic House	16 HWs 14 children 14 parents (mostly mothers)	5 hours	Mechanisms of Food Distribution for Emergency Feeding	Project Nurse
6. Training on Food Preparation for the Emergency Feeding	August 2, 1986	Sitio Bailan Old Clinic House	6 HWs 12 pre-schoolers 6 mothers	4 1/2 hours	Review of past lessons, Copying of Notes, Cooking Demonstrations	Project Nurse
7. Training on Food Preparation for the Emergency Feeding	August 3, 1986	Sitio Bailan Old Clinic House	15 HWs 20 pre-schoolers	5 hours	Review of Past lessons, Cooking Demonstration's	Project Nurse

Table 5.4 (Cont'd)

Type of Training	When Conducted	Place	Number of Attendees	Duration	Topics	Trainer(s)
8. Training of New Set of Clinic Watchers	Sept. 6, 1986	Sitio Bailan Old Clinic House	10 HWs	1 hour & 45 mins.	Blood Pressure Procurement Medicines for Certain Illness	Project Nurse
9. Nutrition Training	Sept. 17, 1986	Sitio Bailan Old Clinic House	12 HWs 13 Community people	1.5 hours	Modules for the Nutrition Training (Proper Diet, Basic Food Groups, lessons on Anemia, Goiter and Diarrhea)	Project Nurse
10. Nutrition Training	Oct. 10, 1986	Sitio Bailan	13 HWs 6 mothers 14 children	2.5 hours		Project Nurse
11. Nutrition Training	Oct. 11, 1986	Sitio Bailan Old Clinic House	14 HWs 10 mothers 15 pre-schoolers	3 hours		Project Nurse
12. Nutrition Training	Oct. 15, 1986	Sitio Bailan Old Clinic House	8 HWs 12 children 14 Community people	3 hours		Project Nurse
13. Nutrition Training	Oct. 16, 1986	Sitio Bailan Old Clinic House	11 HWs 11 Community people Some children	4 hours	(Recipes for Corn Soya Milk)	Project Nurse
14. Clinic Management Training/Weight-getting	Nov. 19, 1986	Sitio Bailan (kiosk) engar-mada	6 HWs few people watching	2 hours	Determination of Degree of Malnutrition/Procurement of Patients' Temperature and Blood Pressure	Project Nurse
15. HWs' Retraining	Dec. 5, 1986	Sitio Bailan Old Clinic House	9 HWs some children 3 non-DSB mothers	1.5 hours	Respiratory Tract Infection and Medicinal Plants	Project Nurse

Table 5.4 (Cont'd)

Type of Training	When Conducted	Place	Number of Attendees	Duration	Topics	Trainer(s)
16. HWs' Retraining	Dec. 6, 1986	Sitio Bailan Old Clinic House	14 HWs few children 3 non-DSB mothers	4 hours	Different illnesses'	Project Nurse
17. HWs' Retraining	Dec. 11, 1986	Sitio Bailan Old Clinic House	13 HWs	3.5 hours	Symptoms, Causes Treatment and Prevention (with emphasis on Medicinal Plants	Project Nurse
18. HWs' Retraining	Dec. 12, 1986	Sitio Bailan Old Clinic House	15 HWs	1 hour	their Uses, and preparation}	Project Nurse
19. HWs' Retraining	Jan. 22, 1986	Sitio Bailan Old Clinic House	14 HWs	2 hours		Project Nurse
20. HWs' Retraining	Feb. 4, 1986	Sitio Bailan Old Clinic House	8 HWs	1.5 hours		Project Nurse
21. HWs' Retraining	March 24, 1986	Sitio Bailan Old Clinic House	9 HWs	2 hours		Project Nurse
22. HWs' Retraining	March 25, 1986	Sitio Bailan Old Clinic House	11 HWs	1.5 hours		Project Nurse

end of the training, the health workers received five birth attendant's kits (two for Umabang and three for Bailan) from the RHU which were later presented to the community in one of the village meetings.

Incentives. The health workers received tangible as well as intangible incentives from their participation in the health care program. The tangible benefits were the first aid or medical kits, identification cards certifying that they were government Barangay Health Workers, food shares during the emergency feeding project and free medicine. The intangibles were the skills and knowledge derived from the training activities and the prestige brought about by the indigeneous title Doktor sa Barangay or village doctor.

A material incentive for villagers to become community health workers was the provision of a medical kit to each of the trainees following the training workshops. The kits, contained in an 8"x12" colored plastic handbag, included some basic first aid instruments and supplies such as a pair of scissors, small bottles of alcohol and merthiolate, cotton, gauze and adhesive bandages. The medical kits seemed to have been a source of prestige to the volunteers insofar as they indicated their status as community health providers. During the first few months after they had received them, the workers could be seen carrying their bags with them whenever they went to the village center, especially for large community meetings. Even in their houses, the bags were prominently displayed for others to see. However, after a few months the health providers began to leave their kits at home rather than to carry them all the time.

Another material benefit for the community volunteers was that during the first month of project implementation, their names were submitted to the Ministry (now a Department) of Health's provincial office in Calapan, Oriental Mindoro so that they could be included in the Barangay (village) Health Worker Program of the Ministry. They were given identification cards that certify their status as government Barangay Health Workers which entitle them and their families to free consultation, hospitalization and treatment in any government hospital or health center.

Yet another material incentive for the health volunteers was that they were given food shares that generally

were distributed to other community members during nutrition related project activities. For example, they received mongo beans, dried anchovies (dilis) and powdered milk that were primarily for the benefit of malnourished children during the emergency feeding program, and they also were given shares of corn soya milk which were for families with preschool children during the nutrition education activity.

Because of their closer contact with the health clinic and the project nurse, the health workers could readily avail of modern drugs that were given free to residents.

The health care knowledge and skills provided in the training workshops and throughout the project implementation phase also can be considered incentives insofar as some villagers stated that they decided to become health workers in order to be able to provide proper health care to their families and to others.

Their being community health volunteers appear to have a positive psychological effect on them. When the trainees were asked what they wanted to be called following the training workshops, they readily replied Doktor sa Barangay, or village doctor. Because they chose the term doctor rather than nurse, even though the great majority of them are women and obviously lack the same medical skills as a doctor, indicates the high social status they perceived themselves as occupying in the community.

Performance of the health workers in their catchment areas. The performance of the health workers in the two villages was monitored for the entire duration of the implementation phase of the health program.

In terms of curative services, it was noted that the total number of cases or illnesses treated by the health workers in both Umabang and Bailan was 943 and the number individuals who were served was 755. Bailan, the larger sitio, had more morbidity cases and individuals who received direct assistance from the health workers. The overall average number of cases treated by the health volunteers per month was 3 (see Table 5.5). The majority of the patients got well except for four individuals who died.

Table 5.5

Number of Cases, Individuals Treated by Health Volunteers and their Outcome  
From January 1986 to March 1987 in  
Sitios Umabang and Bailan

Year/Month	Number of Cases			Number of Individuals			Number of Health Volunteers who Provided Assistance			Outcome <sup>a</sup>	
	SITIOS			SITIOS			SITIOS			SITIOS	
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan
<b>1986</b>											
January	52	50	102	35	43	78	13	14	27	1 died; 1 did not get well	
February	30	100	130	26	77	103	11	15	26		
March	18	87	105	15	67	82	8	15	23	1 died	
April	20	45	65	19	45	64	10	13	23		
May	29	60	89	26	45	71	7	18	25		
June	49	47	96	39	42	81	12	16	28		
July	24	47	71	15	43	58	9	13	22		
August	10	34	44	10	28	38	4	11	15		
September	7	31	38	7	24	31	5	9	14		
October	5	25	30	5	24	29	5	7	12		
November	15	11	26	12	9	21	8	8	16		
December	35	21	56	17	16	33	12	11	23	1 died	
<b>1987</b>											
January	9	22	31	5	15	20	4	9	13	1 died	
February	10	17	27	9	11	20	8	9	17		
March	17	16	33	11	15	26	7	9	16		
<b>TOTAL</b>	<b>330</b>	<b>613</b>	<b>943</b>	<b>251</b>	<b>504</b>	<b>755</b>	<b>123</b>	<b>177</b>	<b>300</b>		

<sup>a</sup>Except for the number of patients with indicated outcomes, all eventually got well.



Of the total number of cases serviced by the health worker, a little over half were those from their own households, implying that the health volunteers largely benefitted from the training received from the health program.

It was observed that the majority (around 60% to 73% of the health volunteers were actively serving their areas of coverage in the first six months (i.e., from January to July 1986) of the program. In Umabang, the number of health workers who extended curative assistance in their catchment areas began to decline to less than half as early as the third month of the program (see Table 5.5). This can be partly explained by the fact that several clients tended to go directly to the health clinic for medical assistance because of the relative proximity of the health clinic to the outlying hamlets.

Except for the month of December 1986, less than half of the health workers were reportedly active in health care delivery in the succeeding months. Work in their kaingin or swidden farms, varying demands from their households (e.g., child care), low credibility in their catchment areas because of the inability of some health workers to cure their patients, and diminished interest in the health care program were the major reasons for the declining number of health volunteers who serviced their assigned areas.

Around 50% (19) of the health volunteers, however, have consistently extended health care services to their catchment areas. The records of the health volunteers for the entire implementation period of the program showed that there were eight health workers (two from Umabang and six from Bailan) who extended curative services ranging from 40 or more (up to 80) cases in one year.

Four health workers treated 30-39 cases, while seven serviced from 20-29 cases. Proportionately there appears to be no difference between the number of cases served by health workers assigned to service five or more households in their catchment areas than with those serving fewer households (see Table 5.6).

Eighteen or almost half of the health volunteers were found to be rather inactive because for the entire 15-month period, they treated only 19 or fewer number of cases (the lowest number of case served was one and this was by the health worker who dropped out early in the

Table 5.6  
 Number of Cases Treated by Health Workers  
 Serving Different Number of Households  
 January 1986 to March 1987

Number of Households Served by Health Workers	40 Cases and Above	30-39 Cases	20-29 Cases	19 and Below	Total Number of Households
4 households and below (31 HWs)	7	4	5	15	31
5 households and above (6 HWs)	1	-	2	3	6
<b>TOTAL</b>	<b>8</b>	<b>4</b>	<b>7</b>	<b>13</b>	<b>37</b>

program). There appears to be slightly more inactive health workers in Umabang than in Bailan.

The following map (see Figure 5.1) indicates the location of the most active (those who treated 40 or more cases), very active (30-39 cases), fairly active (20-29 cases), and inactive (19 and below cases) health volunteers. The health workers who lived within or near the village proper and those who reside close to the households in their catchment areas tended to extend more assistance to their clients than those health workers who lived away from their areas of coverage.



A review of the socioeconomic characteristics of the most active and inactive health workers showed that there are really no major differences between these groups because the level of education (including the number of health volunteers with no education), average age, the number of health workers with preschool children appear to be proportionately similar. It was observed that what distinguished the active from the inactive health workers was that the former had more kinsmen in their catchment areas who tended to live near their homes. It was also noted that the active health workers were also those who regularly participated in meetings, training and other activities of the health program.

Illnesses treated by the health workers. In terms of illnesses treated by the health workers, the most prevalent was a non-specific, symptomatic type, i.e., fever (27.9%), followed by skin diseases (23.0%) and, gastro-intestinal infection (17.7%). The prevalence of skin and gastro intestinal infectious diseases may be attributed to the poor sanitation practices of the residents as well as the infected and inadequate and infected source of water supply. These diseases appear to be more prevalent in Bailan than in Umabang (Table 5.7).

Although the number of illnesses appear to have declined towards the last three quarters of the implementation phase of the program, this trend could not be attributed to the improved health status of the populace but to the declining number of health workers who rendered curative assistance to the households in their coverage areas. A review of the number of health workers and the number of cases treated by these health providers showed that there is an association between the number of health workers and number of illnesses because on the first six months of operation, the figures for both variables were higher and when the former declined, so did the number of illnesses (see Table 5.5).

Because the health workers had previous knowledge about the uses of herbal plants and the health program itself encouraged them to prescribe these to the households in their coverage areas, the majority (61%) continued to utilize or advise the use of herbal medicine in managing the different types of illnesses. Close to one third prescribed or utilized modern drugs only (e.g., analgesic for fever and headache). Around 10 percent applied herbal medicine first in treating some cases and when this was not found effective, the patients were

Table 5.7

Types of Illness, Number of Cases  
Treated by Health Volunteers  
Sitios Umabang and Bailan

Year/Quarter	TYPES OF ILLNESS/SITIOS											
	Respiratory Tract Infection			Gastro-Intestinal Diseases			Viral			Skin Diseases		
	SITIOS			SITIOS			SITIOS			SITIOS		
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total
<b>1986</b>												
First Quarter	4	8	12	6	42	48	14	0	14	42	60	102
Second Quarter	2	6	8	21	30	51	7	1	8	34	39	73
Third Quarter	0	7	7	8	30	38	6	0	6	18	13	31
Fourth Quarter	25	2	27	3	13	16	6	2	8	3	4	7
<b>1987</b>												
First Quarter	18	6	24	4	10	14	3	0	3	0	4	4
<b>TOTAL</b>	49	29	78	42	125	167	36	3	39	97	120	217

Table 5.7 (Cont'd)

Year/Quarter	TYPE OF ILLNESS/SITIOS									Overall Total
	Fever			OTHER ILLNESS			Other			
	SITIOS			Headache			SITIOS			
	Unabang	Bailan	Total	Unabang	Bailan	Total	Unabang	Bailan	Total	
<b>1986</b>										
First quarter	25	91	116	6	19	25	3	17	20	337
Second quarter	17	51	68	4	13	17	13	12	25	250
Third quarter	6	23	29	2	22	24	1	17	18	153
Fourth quarter	10	19	29	8	11	19	0	6	6	112
<b>1987</b>										
First quarter	4	17	21	6	12	22	1	2	3	91
<b>TOTAL</b>	<b>62</b>	<b>201</b>	<b>263</b>	<b>26</b>	<b>81</b>	<b>107</b>	<b>18</b>	<b>54</b>	<b>72</b>	<b>943</b>

either given modern drugs or referred to the health clinics to procure modern drugs (Table 5.8).

The health workers' most commonly used herbal plants are alibon leaves, guava leaves, duhat bark, gumamela or hibiscus buds, ginger, and tamarind. In treating patients with herbal plants, it was observed that the health workers usually applied the proper procedures that they learned during the first training in preparing herbal medicine. For example, in managing boils, the documentor observed a health worker who treated a four-year child who was suffering from a large boil which emitted a little blood and pus.

Bapa Ikong prepared 10 small pieces of gumamela (hibiscus) buds and pounded these into a paste by using a wooden mortar and the blunt side of a bolo (long knife). He then placed the gumamela paste on the child's boil and advised the mother to repeat doing this until the pain and swelling of the boil subsides. He also said that in case the mother could not find gumamela buds, she could also use the blooming flowers.

The following procedures were also noted by the documentor when a health worker treated a family member who had diarrhea.

The one-year old daughter of Gimo, a health worker, had been suffering from stomachache since midnight. By early morning of the next day, he boiled some guava leaves and gave the concoction to his daughter but it was found to be ineffective. He observed that his daughter defecated twice with watery stools and concluded that she must be suffering from diarrhea. He took a handful of dried banana pieces which he had stored in a small bottle and pounded these into powder using a wooden pestle and mortar. Then he began to cook rice porridge and when this was about to be done, he added the banana powder and allowed this to boil for 10 seconds. He removed the kettle of porridge from the fire and put some porridge into a small plate made of coconut shell. He allowed the porridge to cool off and fed

Table 5.8

Illness Management, Number of Cases  
January 1986 to March 1987  
Sitios Umabang and Bailan

Year/ Quarter	ILLNESS MANAGEMENT														
	Number of Cases			Herbal Medicine Only			Herbal first then modern later, or referred to the clinic			Modern Medicine Only			Others		
	SITIOS			SITIOS			SITIOS			SITIOS			SITIOS		
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total
<b>1986</b>															
First quarter	100	237	337	55	119	174	14	35	49	31	64	95	0	19	19
Second quarter	98	152	250	63	73	136	3	19	22	32	58	90	0	2	2
Third quarter	41	112	153	25	77	102	5	11	16	11	20	31	0	4	4
Fourth quarter	55	57	112	16	46	62	5	1	6	33	10	43	1	0	1
<b>1987</b>															
First quarter	36	55	91	15	44	59	3	0	3	18	11	29	0	0	0
<b>TOTAL</b>	<b>330</b>	<b>613</b>	<b>943</b>	<b>174</b>	<b>359</b>	<b>533</b>	<b>30</b>	<b>66</b>	<b>96</b>	<b>125</b>	<b>163</b>	<b>288</b>	<b>1</b>	<b>25</b>	<b>26</b>



all of it to his daughter at around eight in the morning. After two and a half hours, he fed his child with the same porridge. And by four in the afternoon, he gave her another serving of the same food. By late afternoon, the health worker's daughter no longer had watery stools and her stomach pains subsided.

Participation in the Emergency Feeding Project and Preventive health services. Apart from managing illnesses in their respective catchment areas, the health volunteers were also engaged in a major curative activity, i.e., the emergency feeding project for malnourished children, which took place for around three months.

The varied tasks performed by the health workers in this activity were the following: (1) mobilization of households with malnourished children by encouraging them to report to the health clinic to attend the nutrition education and food preparation training activities, procure their weekly food supplies and have their malnourished children's weight monitored once a week for around two months by the health workers at the health clinic; (2) repacking and distribution of the donated supplementary food to families with malnourished children, at the health clinic; (3) donation of some indigenous food items (e.g., coconut, rice, cassava) which were needed during the cooking demonstration; (4) assistance in actual food preparation; and (5) weekly growth monitoring of malnourished children over a period of six weeks. It was observed that the emergency feeding project was participated by a majority of the health workers.

Although most of the health care services of the volunteers were curative, they also provided some preventive services by mobilizing households to submit their young children for immunization by encouraging the families to practice family planning, to construct their own toilets and to practice environmental sanitation.

It was noted that among the foregoing activities, the health workers were more successful in their campaign for immunization because the records showed that over two-thirds or 118 young children in the community received at least one vaccine during the implementation phase (Table 5.9). Although most of the mothers were willing to allow their children to receive the full dosage of the

Table 5.9

Distribution of Preschoolers who were immunized,  
January 1986 to March 1987

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Total number of preschoolers	118
Number of children who received the following vaccines	
BCG	69
DPT1	47
DPT2	8
OPV1	64
OPV2	26
OPV3	4

---

basic vaccines, this was not obtained because of the irregular schedule of the vaccines' availability from the RHU.

Very few women (only 12) in the community practiced family planning and the most frequently utilized contraceptive was the pill, the method which the health workers were encouraged to promote.

The health workers were not also successful in their campaign for toilet construction because many households continued to use the bush for defecation. Further, the health workers themselves did not serve as models for their community since only a handful had toilets. Although each health worker was given one set of the plastic water-sealed toilets donated by the Department of Health so that he or she could construct her own toilet to serve as the model in his/her respective catchment area, very few maintained this facility throughout the implementation phase of the health program. In August 1986 almost half of the health volunteers had toilets and most of these were the water sealed type; towards the final quarter of the implementation phase, only seven had

functioning toilets and four of these were water-sealed plastic bowls. The health workers explained that the DOH plastic toilets were not practical or convenient because it required the user to pour a small can of water after every use. Because water is not readily available to the health workers' households, several of them shifted to the antipolo type of toilet and eventually reverted back to using the bushes.

Clinic management. The management of the health clinic was not undertaken by all the health workers because only 20 health workers (10 in Umabang and 10 in Bailan) volunteered to undergo training in clinic management and participated in the operations of the health clinic.

The clinic management training covered the procurement of blood pressure and temperature, prescription of over-the-counter drugs, recording of client's names and treatment of applicable medication. The foregoing were the major tasks required of the health workers aside from opening and closing the health clinic.

Two health volunteers were usually assigned to operate the clinic in one day. This strategy was adopted by the health volunteers and project nurse because one health worker usually assumed the tasks of diagnosing and prescribing treatment to the patient while the other health worker did the recording. Illiterate health providers were often paired off with the literate ones because the latter assumed the tasks of recording and dispensation of drugs.

In Umabang, six health workers started their clinic management training in February 1986 and continued until March for a total number of two and a half hours. In March, six more trainees were added but only 10 eventually participated in the management of the health clinic.

The health workers only began to manage the health clinic in May 1986. From May until July, the Umabang health clinic was open thrice a week, i.e., Monday, Wednesday, and Friday, from nine in the morning until four in the afternoon. From August to December 1986, the health clinic was opened five times a week, from Monday to Friday, at nine in the morning until four in the afternoon. During the last quarter, however, the health volunteers discontinued manning the health clinic

everyday. Only when there were patients who needed medication or assistance from the health clinic, or when there were meetings and trainings or when the project nurse was in the community, was the health clinic opened by a health worker who lived in the village proper. The work in the swidden farms and household demands were the most-often cited reasons by the health workers for discontinuing the daily operations of this health facility.

In Bailan, seven health workers had their first clinic management training for around two hours in March 1986. A week after, the health volunteers began to operate the health clinic in pairs from nine in the morning to four in the afternoon but this was undertaken for only one week. Work in the swidden farm and distance of the health clinic from the homes of the health volunteers were among the difficulties cited by the health workers for not continuing the health clinic operations. The health clinic after this period would only open when the project nurse or documentor was in the staff house.

It was not until after six months or in September 1986 when another health clinic management training was conducted by the project nurse to 10 health volunteers (four were old trainees while six were new) for around two hours. After the training, the health volunteers began to operate the health clinic everyday for a total period of two weeks. After this initial enthusiasm, the health workers' interest began to diminish and clinic operations were discontinued; major reasons mentioned for the stoppage were similar to those that were given in March. The health clinic then would only open whenever the project nurse or documentor was in the village or whenever a health volunteer from the village proper who kept the key would open it to administer modern drugs to needy villagers.

The majority of the illnesses that were treated in the health clinic were gastro-intestinal infection (19.8%), headache (18.9%) viral infection (15.7%) and fever (15.2%, see Table 5.10). Since Bailan had a higher population, its total number of cases was obviously higher than those in Umabang. However, not all of these cases were administered solely by the health volunteers but also by the project nurse since the latter extended assistance during those times when no health volunteers operated the health clinic.

Table 5.10

Types of Illness, Number of Cases Assisted  
by the Health Clinics from  
February 1986 to March 1987 at  
Sitios Umabang and Bailan

Year/Quarter	TYPES OF ILLNESS/SITIOS											
	Respiratory Tract Infection			Gastro Intestinal Diseases			Viral Disease			Skin Diseases		
	SITIOS			SITIOS			SITIOS			SITIOS		
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total
<b>1986</b>												
First quarter	4	8	12	3	29	32	2	1	3	0	8	8
Second quarter	4	2	6	0	20	20	15	21	36	9	15	24
Third quarter	15	2	17	22	20	42	16	20	36	3	6	9
Fourth quarter	14	28	42	10	14	24	15	21	36	4	12	16
<b>1987</b>												
First quarter	15	21	36	10	28	38	5	8	13	4	7	11
<b>TOTAL PERCENTAGE</b>	52	61	(113)	45	111	(156)	53	71	(124)	20	48	(68)

Table 5.10 (Cont'd)

Year/Quarter	TYPES OF ILLNESS/SITIOS									Overall Total
	Fever			Headache			OTHER ILLNESSES			
	SITIOS			SITIOS			Others			
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	
<b>1986</b>										
First quarter	6	29	35	0	9	9	6	8	14	113
Second quarter	0	8	8	5	12	17	4	10	14	125
Third quarter	14	14	28	19	15	34	17	14	31	187
Fourth quarter	15	11	26	13	44	57	11	7	18	219
<b>1987</b>										
First quarter	7	16	23	4	28	32	19	20	39	192
<b>TOTAL</b>	<b>42</b>	<b>78</b>	<b>(120)</b>	<b>41</b>	<b>108</b>	<b>(149)</b>	<b>57</b>	<b>59</b>	<b>(116)</b>	<b>836</b>

It is worthwhile to point out that the number of cases which received health care services from the health clinic continued to increase until the fourth quarter of the clinics' operations. It seems that as the number of health workers servicing their coverage areas declined, the trend in the health clinic reversed. This may be explained by the observation that more health workers tended to refer clients to the health clinic whenever they were unable to attend to them personally and by the fact that many residents seem to prefer to seek assistance from the health clinic for free modern drugs which are perceived as easier to administer and are thought to be more effective. Most of the assistance given to clients in the health clinic was the provision of over-the-counter drugs, particularly analgesic for headache and fever.

A slight decline in the number of cases serviced during the last quarter may be attributed to the inadequate supply of medicine and the irregular operations of the health clinics in the village.

Linkage with the Rural Health Unit and Other Lowland Health-Related Agencies. Towards the fourth quarter of the health program, four outstanding health volunteers (two from each village) were chosen by the project nurse to train in referral procedures and to link up or coordinate with the RHU for the health needs of the community. These health workers were brought by the project nurse to the town proper and were introduced to the RHU personnel and some representatives from the Department of Health Region IV Office. They were also introduced to the social worker of the Department of Social Welfare in town because this office also provides referral services to needy clients.

Whenever a member of the tribal community had to be brought to the lowlands for health care services, the foregoing health volunteers were tapped to accompany the project nurse so they could observe how the referral system operates and understand the procedures of other health institutions particularly hospitals.

Towards the final quarter of the health program, the health volunteers appeared to be more confident in linking up with the RHU on their own, e.g., they would pick up the vaccines for the immunization of the children or bring malarial smears or tubercular sputum for laboratory examination.

Other health-related services. The health volunteers also participated in other activities that promoted or facilitated the community-based health care program. In particular, these activities were (1) the construction of the health clinic; (2) the construction of the fence around the health clinic; (3) identification and planting of herbal plants and preparation of a manual on the uses and preparation of herbal medicines; (4) preparations for the opening of the health clinic and its first year anniversary celebration; (5) the operations of the income-generating project; and (6) the Botika sa Barangay or drug depot.

Although the construction of the health clinics was the main responsibility of the residents of the two villages, it was observed that the health volunteers and their families assumed a much more active role in providing the necessary materials and manpower to facilitate the completion of these health facilities. They also played a major role in constructing the wooden fence around the health clinics so that the herbal plants that they planted would not be damaged or eaten by stray animals. Apart from attending to the physical infrastructure of the health clinics, the health volunteers also played an active role in its launching or formal opening. Not only did they assist in mobilizing the households in their coverage areas to participate in the celebration, they also solicited and contributed food and labor and other logistics necessary for the successful inauguration of the health clinic. The health volunteers also had a celebration to commemorate the first year of operations of the health clinic. Similar tasks as those performed during the formal opening of the health clinics were undertaken by the health workers.

Because the promotion of the use of herbal medicine was one of the major concerns of the health program, the active involvement of the health workers was solicited by the project team in the identification of herbal plants in the area. Although herbal plants are the medication that uplanders are generally utilizing prior to the entry of the health program, it was noted that the health workers were only familiar with around 10 herbal plants at the start of the health program and their knowledge of these plants' usage was limited to few types of illnesses only. Towards the final quarter of the implementation phase, 41 more herbal plants were found to be existing in the community.

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The health workers also collaborated with the project nurse and documentors in drafting a manual of the different kinds of herbal plants and their uses in the Hanunuo Mangyan language. They also included a detailed description of how these herbal plants would be prepared for medication.

The other activity that gained considerable enthusiasm from many health volunteers is the income-generating project. Towards the end of the fourth quarter, the health clinic had accumulated small amounts of money from the donations made by the residents for health services and medicine procured from the health clinics. With the approval of the village health care committees and the community, the health volunteers decided to utilize the donations to purchase beads and thread from the lowlands and to commission some skilled members from the community to make intricately designed trinkets (for which the Hanunuo are noted) and ramit, a handwoven navy blue and white skirt which are often worn by the Hanunuo Mangyan women. These products were sold within and even outside the community and the profits were divided between the worker and the health program. Earnings derived by the health program were used for two purposes--to purchase more materials for the IGP and to set up a health fund for the emergency needs of the participating households of the community, i.e., when some member households would need money for medication and hospitalization in the lowlands, they could borrow around P200 and repay this program. Aside from the health volunteers there were several women and young children who were participating in this income-generating project.

The Botika sa Barangay or drug depot which was launched by the community towards the last quarter, was supported by the health volunteers. Upon the approval of the health care committees and villagers, the health workers agreed that the drug depot should be managed by only one health volunteer who lived in the center of the village because she/he would be more accessible to the community. The policies and management procedure of the drug depot, however, were formulated by the village health care committee and the community. There was no problem in Umabang as to who among the health workers would manage the drug depot. In Bailan, however, the health volunteers who lived in the village center were reluctant to accept the responsibility of operating this project. A community meeting had to be convened regarding this difficulty and the villagers chose the health worker who would manage the drug depot.

### The Village Health Care (VHC) Committees

The two health care committees that were organized in the two zones or sitios at the start of the program implementation were intended to serve as mechanisms through which the larger community could voice its wishes and concerns about the health program. Each VHC committee had 13 officials or a total of 26 officials. Ten officials were also health workers. The VHCs had 19 male and 7 female members; 18 were married, 2 were widowed, while 6 were single. Nine VHC members were related to some health workers. Most (14) of the VHC members had some elementary education and the average number of schooling years was three.

The sitio kapitan or zone headman served as the committee chairperson and was the only appointive position in the committee; the others were elected by the community. The VHC had three subcommittees: Tagapagawa (meaning doer or performer), Kakayahan (meaning ability to learn) and Tagapagsanay (meaning trainer). Each subcommittee had one chairperson and three members. The village headman served as the overall chairman of these committees. The Tagapagawa was in charge of implementing a project while Kakayahan took care of mobilizing the community for meetings and to pick up drugs and other health-related materials (e.g., sacks of powdered milk) from the foothills. The tagapagsanay took charge of mobilizing the community and health workers to participate in the training activities of the health program.

Because of the overlapping membership of some health workers in the health care committees, most of the officials were largely aware of the health program activities. In Bailan, it was observed that some health care committee officials who resided at the center of village often attended the meetings of the health workers. They were also always present during community meetings and in such gatherings the VHC officials particularly the chairman and the health workers-officials were often in the forefront by attempting to explain to the community the health program plans (e.g., emergency feeding; drug depot) that were presented by the project nurse or by giving suggestions to further improve the implementation of a project.

The VHC officials were often consulted by the project nurse and health workers in most of their activities. For example, when the emergency feeding project was planned,

the VHC officials were asked to react to the proposed activities that were designed by the project nurse and the health workers before the said project was launched. They were also asked what roles they would play in facilitating this project. In this particular activity, what perhaps appeared to be the more visible contribution of the VHC members and officials was the mobilization of the residents to haul several sacks of donated powdered and corn soya milk as well as medicines from the foothills. Even the VHC members themselves were personally involved in the foregoing tasks.

Another activity was the celebration of the first year anniversary of the health clinic. Prior to this activity, the VHC members were asked to comment on the planned program of activities for the one-day celebration. They were also asked to help mobilize the residents contribute some food and other resources for this undertaking.

Perhaps the activity where most VHC officials and members were actively involved in was the income-generating project (IGP) of the health workers. When the project nurse consulted the Umabang health care committee about the possibility of utilizing the funds for an income-generating project during the fourth quarter of the implementation phase, the officials readily approved the idea. They then agreed that the initial funds be utilized to buy beads and thread from the lowlands so that they could commission other health workers and interested residents to make bracelets, trinkets, and ramit or hand-woven skirts. They also agreed that the products of these workers would be collected and marketed by the committee within and outside the community and the earnings would be divided between the VHC and the bead or skirt maker. A ramit usually costs P100 and 30 percent of the sales would go to the weaver the remaining 70 percent would go to IGP. Bracelets and other trinkets could be sold at P7 to P15 and 30 percent of this amount would be paid to the worker while the larger percentage would go to IGP. The VHC and the health workers agreed that the earnings derived from the IGP would be initially utilized to procure more materials for the project, and when they have accumulated enough profit, they would use part of this for community health financing. Towards March 1987, the VHC in Umabang had already accumulated a total amount of around P1,000. The VHC officials set aside approximately one third of this money for health financing and utilized the rest to procure IGP materials. The health financing scheme would

be limited to the families or community members who were involved in the IGP, i.e., the VHC, the health workers, and bead and skirt-makers. These families could borrow money from the committee for emergency purposes, i.e., when a family member must be hospitalized or treated in the lowlands. As of March 1987 around one-third of the community were involved in the IGPs and the VHCs planned to involve other members so they could avail of the benefits as well as the possible loan assistance from DSW. The VHC assigned a secretary-treasurer to keep the records and funds and to coordinate the marketing of the trinkets and skirts. To countercheck the records of the secretary-treasurer, the village headman or the VHC chairman plus three other VHC officials regularly audited the former and kept their own copies of the transactions between the workers and secretary-treasurer.

The Bailan VHC health workers and villagers emulated the IGP procedure of Umabang towards the last quarter of the health program.

In March 1987, the social worker from the Department of Social Welfare of the municipality of Bulalacao met with the VHC officials and expressed her interest to assist the IGPs of both communities by extending loan assistance of around P6,000 from their Self-Employment Assistance Program to each participating village. Negotiations between the DSW project officers and the VHCs continued after the implementation phase of the health program. The VHCs in consultation with their respective communities were inclined to borrow from the DSW.

### The Community

Another major component in the community-based health program are the residents who patronized their health workers and contributed their resources to the projects of the health programs. Without the sustained interest and cooperation of the community residents, the health program would not have been launched.

The major contributions of the community residents were noted in the following areas: (1) construction of the health clinic; (2) participation in inauguration and first year anniversary celebration of the health clinics; (3) attendance in community meetings; (4) participation in health-related activities such as emergency feeding, immunization, nutrition education training and income-

generating project; and (5) provision of quarterly household data on vital demographic processes (i.e., fertility, mortality, and morbidity).

The health clinic. The most concrete manifestation of the community's contribution to the health program was the construction of a health clinic in each of the two sitios or zones in the village. As agreed upon during the planning meeting of the health program, the clinics would be built with the community residents providing the material and manpower resources for their construction. It took around four months for the residents in Umabang and Bailan to complete their health clinics. It was observed that after the planning meeting the construction of the health clinics was rather slow. But after the January 1987 community meeting, construction work was facilitated. The relatives of the health workers contributed more manpower and material resources in the final completion of these facilities.

The Umabang health clinic is located in a 200 square meter lot on the right side of the main gate of the compound of the PHM school. It is surrounded with a fence made of wooden posts and bamboo splits. Its front gate faces the basketball court. Within the clinic compound is a herbal garden planted with different kinds of medicinal plants. The health clinic is about 2.5 meters wide and about 5.5 meters long. Its roof is made of cogon grass while its walls are made of tree barks. Its door is around 2.5 meters wide and it is made of bamboo splits. The clinic has three one-foot sized windows. Two thirds of the clinic has no flooring except for the small room which occupies about one third of the area which has bamboo splits flooring. This small room is separated by a wall made of tree barks and it is utilized as an examination room and as a place to store the medicine. It has a two-meter long bamboo bed a small bamboo medicine cabinet and a small mirror.

The furniture found on the major part of the clinic or the area with no flooring are a long bamboo bench, a rectangular table with small wooden benches around it. The clinic also had some on health and nutrition posters on its walls and a wall clock on one of wooden posts. The following instruments are found in the clinic: a stethoscope, a blood pressure apparatus, a pair of scissors, two thermometers, syringes, needles, two weighing scales, lancets, glass slides for malarial smear, and two birth attendants' kits.

The Bailan health clinic, on the other hand, occupies a 400 square meter lot in the center of the village. It is surrounded by a wooden and bamboo fence and it has two gates--one fronting the clinic's main door and another facing the village's kiosk and old clinic. Within the clinic compound are a long wooden bench situated near the main gate, a long bamboo table with benches around it and a garden with different kinds of herbal plants.

Unlike the Umabang health clinic, the Bailan clinic also serves as the staff house for the project team. In fact, only about one-third of the 6 meter long and 4.5 meter-wide structure was the health clinic while the rest served as the staff house. The staff house is separated from the clinic through a bamboo and wooden wall and a small door. It has a small kitchen, a receiving room with a rattan hammock and long bamboo bench, and mezzanine which served as the sleeping quarters for the staff.

Inside the health clinic are the following: a small wooden table, two small benches, two wooden built-in cabinets as storage for medicine and instruments, a small bamboo bed which is separated from the main clinic by a colored plastic curtain, a battery-operated wall clock, a small mirror, and some posters on family planning and nutrition. The instruments of the Bailan clinic are similar to those of Umabang except that the former has three birth attendants kits.

To maintain both clinics, some health volunteers agreed to operate them on specific days. They also agreed to undergo special training on clinic management. The community residents, on the other hand, agreed that in order to replenish the supplies particularly over-the-counter types of drugs, cash donations will be given by those who would utilize the clinic's services. They understood that the donations would be utilized to procure medicine, particularly those that were not available at the Rural Health Unit.

During the launching of the health clinic, most of the households in the community participated in the one-day celebration. They donated food items such as rice, corn, rootcrops and vegetables; some residents also lent their cooking utensils for this occasion. In Umabang and in Bailan, food was prepared in the staff house and in some homes of the health workers living in the center of village. Before serving lunch, the residents had a

thanksgiving ceremony, with the village headman leading the invocation and thanking the project team and the other residents for the efforts exerted in constructing the health clinic. In Umabang, lunch was served in the yard of the health clinic while in Bailan, food was served in the village kiosk which was about 50 yards away from health clinic. After the celebration, the residents cleaned up the place.

One year after the launching of the health clinic, another community celebration was held in each village. The celebration was called Araw ng Kalusugan (meaning health day) and the activities were a photo exhibit showing various health-related aspects of community life, a basketball game, parlor game, singing contest, and the community thanksgiving. The residents donated and prepared the food for lunch and cleaned up the place after the celebration the way they did in the launching of the health clinic.

Community meetings. For the entire implementation phase of the health program, 12 community meetings were conducted in the area (five in Umabang and seven in Bailan). Seven of these meetings were convened by the project nurse while the others were joint meetings with the project staff of the Fundasyon Hanunuo Mangyan School (see Tables 5.11 and 5.12).

The first community meeting in each village was held in January 1986. In Umabang, the meeting was held on January 22 and it was attended by 45 adults and 16 health workers; in Bailan, the meeting was conducted on January 29 and around 85 adults and 15 health workers attended. It was observed that the majority of the participants were males or the household heads. The meeting lasted from three to four hours and it was chaired by the project nurse. The agenda covered the following items: (1) The health program in the community; (2) duties of the health worker; (3) immunization, family planning, and use of herbal medicine; (4) completion of the health clinic's construction; (5) election of the officials and members of the health care committee; (6) the "Botika sa Barangay" or drug depot; and (7) the launching or inauguration of the health clinic. It was noted that the residents in the two villages were rather enthusiastic to implement the health program that was presented to them by the project nurse. They pledged to expedite the completion of the health clinic construction and to participate in this facility's inauguration in February. It was observed that during the

Table 5.11  
Summary of Community Meetings  
(Sitio Umabang)

Date	Duration	Attendees (Number and Composition)	Major Topics Discussed
January 22, 1986	4 hours	16 health workers; 45 adults	<ol style="list-style-type: none"> <li>1. The health workers' duties and responsibilities</li> <li>2. Health clinic activities</li> <li>3. Election of Village Health Committee officials</li> <li>4. Health program as a whole</li> </ol>
September 2, 1986 <sup>a</sup>	4 hours (1 hour and 30 minutes - health program topics)	12 health workers; 5 Village Health Committee officials; 44 community people	<ol style="list-style-type: none"> <li>1. Emergency Feeding</li> <li>2. Nutrition Training</li> <li>3. Issues and Problems</li> <li>4. Income Generating Project</li> </ol>
September 20, 1986*	5 hours (20 minutes - health program topics)	65 community people; 8 health workers	1. Income Generating Project
February 7, 1987*	3 hours (1 hour and 30 minutes - health program topics)	13 health workers; 14 sitio men/ women	<ol style="list-style-type: none"> <li>1. Income Generating Project Activities</li> <li>2. Botika sa Barangay</li> <li>3. <u>Kalusugan Day</u> celebration preparation and and activities</li> </ol>
March 21, 1987*	2 hours and 30 minutes (20 minutes - health program topics)	Health project staff; PHMS staff; PESAM agriculturist; 42 men/women (7 health workers)	1. Income Generating Project Activities

<sup>a</sup>Joint meeting with the Pundasyon Hanunuo Mangyan School.



Table 5.12

Summary of Community Meetings  
(Sitio Bailan)

Date	Duration	Attendees (Number and Composition)	Major Topics Discussed
January 29, 1986	3 hours	70 adults; 15 health workers	<ol style="list-style-type: none"> <li>1. Health workers' duties, responsibilities and problems encountered</li> <li>2. Health clinic activities; immunization of preschoolers</li> <li>3. Election of Village Health Committee officials</li> <li>4. Introduction of <u>Botika sa Barangay</u></li> </ol>
September 6, 1986	1 hour and 15 minutes	13 health workers; 9 children; 3 Village Health Committee officials; 3 PHM Board Members; 2 sitio officials; some men and women	<ol style="list-style-type: none"> <li>1. Health workers' activities and community participation</li> <li>2. Health clinic; supply of medicines</li> </ol>
September 13, 1986	2 hours	15 health workers; 27 children; 3 PHM Board members; 8 sitio officials; 6 VHC officials; about 43 men/women	<ol style="list-style-type: none"> <li>1. Emergency Feeding Activities</li> <li>2. Nutrition classes</li> <li>3. Problems on cooperation</li> <li>4. Presentation of Hilots and Hilot kits</li> <li>5. Hauling of things needed at the Bailan clinic from the foothills</li> <li>6. Other problems regarding the health program's activities and plans</li> </ol>
January 16, 1986 <sup>a</sup>	4 hours (50 minutes - health program topics)	40 men/women (4 health workers)	<ol style="list-style-type: none"> <li>1. Income Generating Project</li> <li>2. <u>Botika sa Barangay</u> (drug depot)</li> <li>3. <u>Araw ng Kalusugan</u> (health day celebration)</li> </ol>
January 24, 1986	1 hour and 15 minutes	50 men/women (12 health workers), 20 children, 2 PHMS teachers	<ol style="list-style-type: none"> <li>1. Preparation for the <u>Araw ng Kalusugan</u> (health day celebration)</li> <li>2. Other activities and plans</li> </ol>
March 22, 1986	1 hour and 40 minutes	33 men/women (12 health workers)	<ol style="list-style-type: none"> <li>1. <u>Botika sa Barangay</u> (drug depot)</li> <li>2. Linkage and coordination</li> <li>3. Retraining schedules</li> </ol>
March 29, 1986	1 hour and 15 minutes	26 men/women (10 health workers)	<ol style="list-style-type: none"> <li>1. Presentation of the results of the meeting with the DSW officer in Bulalacao</li> </ol>

<sup>a</sup>Joint meeting with the Pundasyon Hanunuo Mangyan School.

election of the health care committee officials, particularly in Bailan, the residents were hesitant to volunteer or to accept nominations to become committee officials because they did not want to be blamed for anything should the health program fail in their village. Apart from the sitio or zone headman who was appointed by the project nurse as the overall chairperson of the committee in each sitio, the other 12 officials were elected by the residents.

The Botika sa Barangay or drug depot concept was broached by the project nurse as early as this phase of the health program and the community appeared to be favorable to the idea. It took several months, however, for this project to be launched by the community.

The initial meeting as well as the subsequent ones, often started late, about one to hours after the designated time. The distance of the homes of the far-flung hamlets to the village proper and the cultural concept of time may be some of the contributing factors for the delayed start of community meetings. It was noted that most of the participants in the meeting were males and several children were often present. In most meetings, the project nurse usually presented the health program and project to the villagers and most of those who reacted to the presentation or who joined the discussions were the older male village officials. It was observed that if there was a favorable response to a project among the village leaders, the other community residents would tend to approve this endeavor. Or if volunteers were needed for certain tasks, the villagers were often hesitant to offer their services unless the officials and other leaders encourage them to participate.

The next community meeting was convened in September 1986, eight months after the first meeting. No meeting was held between February to August because the project team relied on the health workers as well as the health care committee officials to link up the program to the community residents. The project nurse observed that the number of health workers serving in their respective areas have declined and the community's interest in participating in the PHC program appeared to diminish in the succeeding months so she requested or called for a community meeting to discuss these observations. Other health-related activities such as the health clinic, and emergency feeding project were also raised in this meeting. In Umabang, the meeting was convened on September 2, while in Bailan the meeting took place on

September 6. There were 44 residents who attended the Umabang meeting plus 12 health workers and five Village Health Care Committee officials. In Bailan, around 21 residents came (14 health workers, 3 health care Committee officials, 2 school officials, 2 village officials). The Umabang meeting lasted for about four hours while the Bailan meeting took around one hour and 15 minutes.

During the Umabang meeting, the residents expressed their interest to the project nurse in continuing the program and discussed that the declining number of health workers servicing their respective areas maybe attributed to the demands in their swidden farms and other activities of the program, e.g., emergency feeding. They also discussed the different topics presented to them by the project nurse, viz., emergency feeding, clinic donations, used clothing donated by outsiders, the health clinic, medicine, and referrals to hospitals and RHU. The project nurse clarified to the residents that only families with malnourished children were included in the emergency feeding project and there would be a nutrition training for the families in the community. The residents agreed that the training that would be divided into two sessions and this was scheduled on the following dates: September 8-9, and September 15-16, 1986.

The Umabang community also witnessed the counting of the clinic cash donation from January to August 1986 and the amount reached a total of P45.95. The residents approved the recommendation of the project nurse, the health care committee officials and health workers that this money should be used to buy beads to make bracelets for the community's income-generating project. She further informed the body that the VHC Chairman would be the head of this project. She also asked for three volunteers from the villagers to serve as witnesses to the IGP transactions of the VHC Chairman and three male villagers offered to do the task.

The project nurse also informed the residents that the project received some used clothing from Manila and these were distributed to the health workers in the community. The project nurse likewise informed the residents that the health clinic would be open everyday from eight o'clock in the morning to five o'clock in the afternoon, five days a week, from Monday to Friday. She also told them that several sacks of corn soya milk would be donated to the community and requested the help of the

residents in hauling these from the foothills.

The Bailan September meeting, on the other hand, focused mainly on the performance of the health workers and community participation, emergency feeding, the health clinic and prescription of modern drugs. In the discussion about the health workers and the community's involvement, it appeared that the participants were blaming the health workers for their inability to continue serving their coverage areas. They informed the project nurse that they still wanted to continue the program and even suggested that there was a need to determine from the residents and health workers what their difficulties or problems were in health care service delivery. The health workers who were present cited work in the farm and at home as the constraining factors in regularly serving their catchment areas. They also recommended that some people who lived in far flung hamlets to build their houses at the village proper so that they could be easily reached by the health workers. Because only a few people were present in this meeting the group decided to convene another meeting on September 13 to discuss the issue of cooperation and unity with the majority of the residents.

The emergency feeding project, particularly the problems that arose in its implementation, were presented by the project nurse. The issue that few mothers were picking up the food shares of their malnourished children and having their children regularly weighed was raised. The concerned residents reasoned that the stormy weather and strong rains were the deterring factors that prevented the mothers from collecting the food shares and taking their children to the village proper but as soon as the weather improved, they promised to undertake the foregoing tasks. The other problem that the project nurse raised in relation to the emergency feeding project was the hauling of the sacks of powdered milk from the foothills to the village. The residents deliberated for about five minutes on how these food items would be procured before two men and a health care committee officials volunteered to pick up these materials themselves. A health worker also volunteered her husband to help the three foregoing volunteers.

The issue of medicine dispensation from the health clinic was also brought up by the project nurse. Some residents complained that they had difficulty in procuring the drugs because the health clinic was always closed and no health worker was often available to manage the health

clinic when the project nurse was not in the community. Although around seven health workers had received some training on clinic management, no one from among this batch regularly operated the clinic because of the misconception that each volunteer would work in the health clinic for one full week instead of only one day, thus taking them away from their swidden farms and families. Noting the need to operate the health clinic everyday, 10 health workers volunteered to undergo another clinic management training and to work in pairs, each pair manning this health facility at least once a week, from Monday to Friday. On weekends, when some medicine were needed by the residents, the health workers who were based in the village proper were asked to open the clinic and dispense some drugs.

The September 13 meeting in Bailan was attended by 60 adults, 15 health workers, and 27 children and it was held in the old clinic house. The 60 adults included the PHM school board chairman from Umabang village, eight village officials, and six health care committee officials. The meeting was supposed to start at 9:30 in the morning but it was not until 10:45 in the morning when the meeting actually began. The project nurse presided over the meeting and a similar agenda as in the September 6 meeting was presented. The meeting lasted for about two hours.

The meeting started with the project nurse bringing up her observation that many people were not cooperating in the health program's activities despite the fact that the program had been operating for almost a year. She then asked the Umabang PHM schoolboard chairman to share his experiences in his village about the program. The PHM representative frankly informed the body that the problem of inadequate cooperation was also experienced in his sitio and he then enjoined the Bailan residents to extend their cooperation to whatever project the community intended to undertake because this would be beneficial to the majority.

Then they listened to the activities presented to them by the project nurse regarding the emergency feeding project and nutrition training. The project nurse re-explained the system followed by the health workers and families with malnourished children regarding the emergency feeding activity and then scheduled the nutrition training with the health workers and mothers. When she raised the issue about the use of the warehouse of a mining firm in the lowlands for the initial storage

of the corn soya milk which would be donated by Catholic Charities, the community officials expressed their reservations because this mining firm was known to have a land problem with the community. The Umabang PHM representative appeased them and suggested that they should go in groups to haul the sacks of corn soya milk from the warehouse.

In this meeting, the health workers who took the RHU hilot or birth attendants' training in April were presented to community and the kits that were donated by the RHU to the community.

After discussing health-related activities, the community resumed discussions on the issue of cooperation for about one hour. The leaders raised their observations that the community, including the health workers and residents were not yet united in performing some tasks that would redound to the welfare of the community. They emphasized to the body the need for cooperation from the majority in order for them to succeed in their health as well as the other projects.

During the last quarter, i.e., January to March 1977, Umabang had a monthly meeting while Bailan, had two community meetings in January and two more in March.

The meeting on January 17 in Umabang was a joint endeavor with the PHM school staff and the health project team and it was held at the schoolhouse and it was presided by a member of the school project staff. It lasted for three and half hours. It was attended by 45 residents. Most of the topics that were covered pertained to school matters and the health aspect was included towards the later portion when the project nurse was asked to present the activities of the health program. The project nurse, noting that the residents were already tired, simply informed the body that the health workers and health care committee officials were planning to hold a health day in February a one day activity they termed as Araw ng Kalusugan (health day) to celebrate the health clinic's first year anniversary. She requested that this topic be discussed in another meeting.

The February 7 Umabang meeting was attended by 13 health workers and only 14 villagers including the sitio head and the PHM chairman. The agenda covered the income-generating project, the drug depot, and the activities for the kalusugan or health day celebration. After going over

the earnings and expenses of the IGP with the project nurse, the participants decided that they would continue this endeavor for it was beneficial to them. They would also produce other products such as the hand-woven ramit or skirt. The project nurse also presented to the residents the mechanisms in operating the drug depot which she, the health workers and the VHC officials developed. She stated that a health worker who was based in the village proper should manage the drug depot. The drugs would be sold at her house and these medicines should be those that were not readily available at the health clinic and RHU, e.g., antibiotics. The first set of drugs amounting to around P300 would be initially donated by the project because the DOH no longer had a Botika sa Barangay program. Credit would not be allowed in the procurement of medicine because the earnings would be used to replenish the depot's supply. The VHC officials, particularly the chairman, would oversee the performance of the health worker who would take charge of the drug depot and records would be kept for the community to examine or review. The mechanisms in the operations of the drug depot appeared acceptable to the participants of the meeting.

When the plans for the health day celebration were discussed, the PHM schoolteachers joined the meeting. This portion of the meeting was presided over by a health worker. It was agreed that the health day celebration would be on February 14 and the activities would include a short program, basketball game, parlor games, singing contest, lunch, and photo exhibit. The families would also contribute five cups of rice or corn and vegetables while the project staff would donate salt and dried anchovies. They would also divide their tasks in preparing the food but many did not want to bring firewood or fetch water. It was decided that each family would bring firewood and that water for cooking and washing would be fetched by several families.

On March 21, another joint meeting with the PHM school staff was held in Umabang. It was held at the school building and 42 residents attended. It began at 10:50 in the morning and lasted at around three in the afternoon. Almost 20 minutes was utilized by the health program and the topic focused on the village IGP. A health worker presented a progress report of IGP to the group. She informed the body that this project was progressing and they were also producing ramit aside from bracelets made from beads and those who would like to

become IGP members were welcome to join the group. She claimed that a member was entitled to borrow from the IGP as much as P200 for the hospitalization expenses of any member of his family. She also informed the group that some health workers and VHC officials from Umabang and Bailan would go to Bulalacao on March 27 to meet with the DSW social worker for briefing about the possibility of borrowing additional capital for their IGP venture. The group appeared to be enthusiastic about the progress of the IGP.

In Bailan, a community meeting was held on January 16 in collaboration with the PHM school project staff. Around 40 adults came and the meeting was presided by one of the PHM teachers. Most of the topics covered were on school matters. When the health project was asked to present a status report, the project nurse presented the IGP, drug depot, and health-day celebration plans.

The project nurse informed the people that the amount donated by the villagers to the clinic was over P45 and she asked them how this amount would be utilized. She then informed them about the IGP in Umabang and asked them if they wanted the same activity. They agreed to carry out the same project. The project nurse said the head of this venture should also be the sitio headman because he also headed the Health Care Committee. Then she asked for three villagers to volunteer as witnesses to the IGP transactions and to help the VHC chairman in managing the project but no one wanted to assume the tasks. Only after a careful presentation of the roles of the witness by the presiding teacher and the project nurse did the residents decide to elect three male villagers as the IGP's witnesses. When the issue of how debts would be paid by members who would borrow from the IGP was raised, the group decided to postpone the discussion to a later date.

The mechanisms for the drug depot were presented by the project nurse and these were approved by the community. However, no one was assigned to handle the drug depot yet. It was agreed that the plans for the health day celebration would be discussed in another meeting.

On January 24, 50 residents, 12 health workers, and two schoolteachers joined the Bailan community meeting. In this meeting, the project nurse asked the health care committee chairman to serve as the presiding officer. Without giving a background about the plans made by the health workers and health care committee, the chairman



informed the residents that they were supposed to donate rice and vegetables for the health day celebration. Because this direct assignment of donation confused the body, the project nurse intervened by giving a background of what was planned by the health staff and VHC. The project documentors also assisted the chairman on how he could present the topics systematically so that the villagers could understand the discussion. When the flow of discussion was more organized, the sitio headman and the residents agreed on the following: (1) the health day celebration would be held on January 31; (2) they would contribute rice or corn and vegetables; (3) there would be parlor games and basketball competition which would be managed by the health care committee officials, health workers and project staff; (4) the project staff would donate salt and dried anchovies; and (5) the deadline for submission of contributions would be on January 29.

The next Bailan community meeting was held on March 22 and only 33 residents came, including 12 health workers. It was held in the afternoon and it lasted for around two hours. The first topic had to do with who among the health workers would manage the Botika sa Barangay or drug depot because no one from among the health workers would volunteer to do the task. The officials and other villagers were able to persuade a health worker who lived in the village proper to handle this project. The project nurse turned over the drugs for the Botika to the health worker right after her acceptance of the responsibility from the community. The project nurse informed the body that one of the health workers who was critically ill was confined at the Calapan Provincial Hospital and the DSW, DOH, and Red Cross assisted in the hospitalization expenses of this health worker. She added that linking up with lowland agencies was one of the training activities that the health program was conducting and that two health workers were being trained to link up with these agencies.

The group was informed by the project nurse that two health workers and the health care committee chairman would join the Umabang representatives to Bulalacao on March 27 to meet with the DSW social worker regarding a possible loan for additional capital for their IGP.

On March 29, another community meeting was convened for around one hour and fifteen minutes and 26 residents came including 12 health workers. The Bailan representatives who joined the Umabang team to meet with the DSW

social worker reported the results of their meeting. They were informed about the DSW mechanisms which would enable them to borrow additional capital for their IGP. Encouraged by the support extended by the Bulalacao social worker, the group agreed that they would pursue their plans of borrowing capital funds for their project.

Participation in health-related activities. Aside from utilizing the services of the health workers and the health clinic, the residents in the community participated in other health related activities particularly in the immunization of young children, emergency feeding, and nutrition education training, and the income-generating project.

Although the immunization of young children was an unfamiliar preventive health practice, most households with preschoolers did not resist the campaign of the health workers to bring their children to the health clinic for immunization. The orientation given by the health workers and nurse about the benefits derived from vaccines plus the proper care given to a newly immunized child might have motivated the mothers to submit their young children for immunization. Of the 170 preschool children in the community, 118 (69.4%) received at least one type of vaccine. Only around four children were able to receive the full dosage of the basic vaccines (1 BCG, 2 DPT, and 3 OPV). Although many mothers would have wanted their young children to receive the full complementation of the vaccines, this was not realized because of the irregular schedule of the vaccines' arrival at the BHO. Many mothers, particularly those from the distant hamlets, were not readily informed about the arrival of the vaccines. Some children were also reported to be ill at the time the inoculation was available.

The other major undertaking that was supported by the community particularly by those households with malnourished children was the emergency feeding project. After the health workers and health care committee officials informed the parents about the need for their families to participate in the feeding project and the accompanying training activities, many households responded by attending the training on food preparation, nutrition and by picking up the weekly supplementary food consisting of mungo beans, powdered dried archovies and milk for the family for a period of around two months. However, only few parents took their children to the health clinic for the weekly weight measurement. Of the 86 children (out of

163 who were weighed in May 1986) who were identified as second (32.5%) and third (20.2%) degree malnourished, only 36 (41.8%) had their growth monitored for six weeks (August to September 15, 1986) while three children dropped out after the second week. Distance from the village center, inclement weather, and illness were among the reasons cited by the parents for their non-compliance to the weight monitoring activity. Of the 12 (out of 21 malnourished children) preschoolers in Umabang whose weight were measured, only two showed some weight gain (range, .6 to 1.5 lbs.); the rest did not show any improvement or even lost some weight, ranging from -.2 lbs. to - 1.2 lbs. In Bailan, on the other hand, 23 of the 24 preschoolers who were weighed for six weeks showed some slight improvement ranging from .3 to 3.9 lbs. The highest weight gain were from among the third degree malnourished children (ranging from .7 to 3.9 lbs.).

Although the emergency feeding project did show some slight improvement in the weight of most children whose weights were monitored, the overall weight of 146 children whose weights were measured five months later (i.e., in February 1987) indicated that the proportion of malnourished children in the community had shown no marked improvement (65% in May 1986 and 66% in February 1987). In Umabang, the number of third degree malnourished children had in fact considerably increased from 5.4% to 32.5%. In Bailan, the third degree malnourished children slightly decreased but the number of second degree malnourished children went up from 32.7% in May 1986 to 41.5 in February 1987 (see Table 5.13).

While no marked change was noted in the weight of the children, there appeared to be some qualitative change in the way some households in the community prepare their food for the family. This observation may be partly attributed to their exposure to the food preparation and nutrition education training. For example, prior to the nutrition training, it was observed that households used to boil a cupful of kadios or pigeon peas in a cauldron full of water, and when this was cooked, the children were usually fed with only the soup while the cooked peas were given to the adults. After the nutrition training, the beans were cooked with less water and both the cooked beans and soup were given to the children.

The income-generating project (IGP) which the community supported was not directly concerned with health service delivery but its origins and goals were mainly

Table 5.13  
 Nutritional Status of Preschool Children  
 (0-6 years old) in May 1986 and February 1987

Nutritional Status	May 1986						February 1987					
	Umabang		Bailan		Total		Umabang		Bailan		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Normal	8	14.3	13	12.1	21	12.9	5	12.5	6	5.7	11	7.5
0												
1	27	48.2	29	27.1	56	34.4	13	32.5	30	28.3	43	29.5
0												
2	18	32.1	35	32.7	53	32.5	9	22.5	44	41.5	53	36.3
0												
3	3	5.4	30	28.0	33	20.2	13	32.5	26	24.5	39	26.7
TOTAL (number)	56	100.0	107	100.0	163	100.0	40	100.0	106	100.0	146	100.0

health-related because the money which started this project was donated by the residents for the maintenance of the health clinic and the earnings would partly be utilized for community health financing.

About one-third of the residents in the two villages have contributed to the project's development by providing the needed manpower and skills to produce the trinkets and hand-woven skirts. The interest and actual involvement of a growing number of residents in the IGP indicates the prospects for a viable health financing scheme in the two villages. With possible support from the DSW, it would seem that this health-related activity has brighter prospects for providing support not only to the health but other related aspects of community life as well, e.g., educational needs of the children.

Monitoring of health and other demographic aspects of the households. The household heads manifested their cooperation to the health program by willingly allowing themselves to be interviewed by the documentors regarding the health and demographic changes in their families at least once a quarter.

From the quarterly data collected from all the households in Umabang and Bailan, the following morbidity patterns surfaced. The types of illnesses which were identified from the first quarter of 1986 to the first quarter of 1987 covered a total of 2,816 cases involving 2,413 individuals (see Table 5.14). The overall total cases of illnesses increased from 539 cases (19.1%) in the first quarter to 723 (25.7%) in the third quarter which declined to 483 cases (17.2%) in the last quarter of the operational phase of the program. The decline in the number of illnesses maybe attributed to the improved health status of the households and perhaps to the ability of many households to prevent the occurrence of some illnesses such as gastro-intestinal diseases through improved sanitation and illness management measures.

Table 5.15 shows that the three most prevalent reported illnesses were fever (802 cases or 28.5%), followed by gastro-intestinal diseases (633 cases or 22.5%) and by headache (411 cases or 14.6%). Skin diseases ranked fourth, followed by respiratory and viral ailment.

Table 5.14

Number of Cases and Individuals with Illness  
in Sitios Umabang and Bailan  
From First Quarter 1986  
to First Quarter 1987

Year/quarter	Number of Cases with Illness			Number of Sick Individuals		
	Umabang	Bailan	Total	Umabang	Bailan	Total
<b>1986</b>						
First quarter	93	447	540	81	310	391
Second quarter	170	391	561	146	299	445
Third quarter	167	556	723	140	394	534
Fourth quarter	172	337	509	130	266	396
<b>1987</b>						
First quarter	98	385	483	77	300	377
<b>TOTAL</b>	<b>700</b>	<b>2115</b>	<b>2816</b>	<b>574</b>	<b>1569</b>	<b>2143</b>

Table 5.15

Types of Illnesses in Sitios Umabang and Bailan Households  
From First Quarter 1986 to First Quarter 1987

Year/Quarter	TYPES OF ILLNESSES IN SITIOS								
	Respiratory Diseases			Gastro intestinal Diseases			Viral Diseases		
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total
<u>1986</u>									
First quarter	6	21	27	15	95	110	20	6	26
Second quarter	18	9	27	57	89	146	12	9	21
Third quarter	20	27	47	56	152	208	13	13	26
Fourth quarter	40	49	89	24	57	81	27	22	49
<u>1987</u>									
First quarter	21	54	75	23	65	88	11	8	19
TOTAL	105	160	265	175	458	633	83	58	141

Table 5.15 (Cont'd)

Year/Quarter	OTHER ILLNESSES												Overall Total
	Skin Diseases			Fever			Headache			Others			
	SITIOS			SITIOS			SITIOS			SITIOS			
	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	Umabang	Bailan	Total	
<b>1986</b>													
First quarter	-	62	62	42	197	239	6	32	38	4	34	38	539
Second quarter	3	35	38	24	187	211	38	30	68	18	32	50	561
Third quarter	6	71	77	27	143	170	30	81	111	15	69	84	723
Fourth quarter	7	49	56	35	60	95	27	62	89	12	38	50	509
<b>1987</b>													
First quarter	6	42	48	12	75	87	14	91	105	11	50	61	483
<b>TOTAL</b>	<b>22</b>	<b>259</b>	<b>281</b>	<b>140</b>	<b>662</b>	<b>802</b>	<b>115</b>	<b>296</b>	<b>411</b>	<b>60</b>	<b>233</b>	<b>283</b>	<b>2816</b>



Figure 5.2 indicates that among the four major illnesses (respiratory, gastro-intestinal, viral and skin diseases) reached their peak during the third quarter, i.e., during the rainy months of July, August, and September. Respiratory infectious diseases and viral illnesses, on the other hand, were at their highest during the fourth quarter or the cold months of October to December. The four types of illnesses declined during the last quarter of the program, a possible indication of an improved health status among the households in the area.

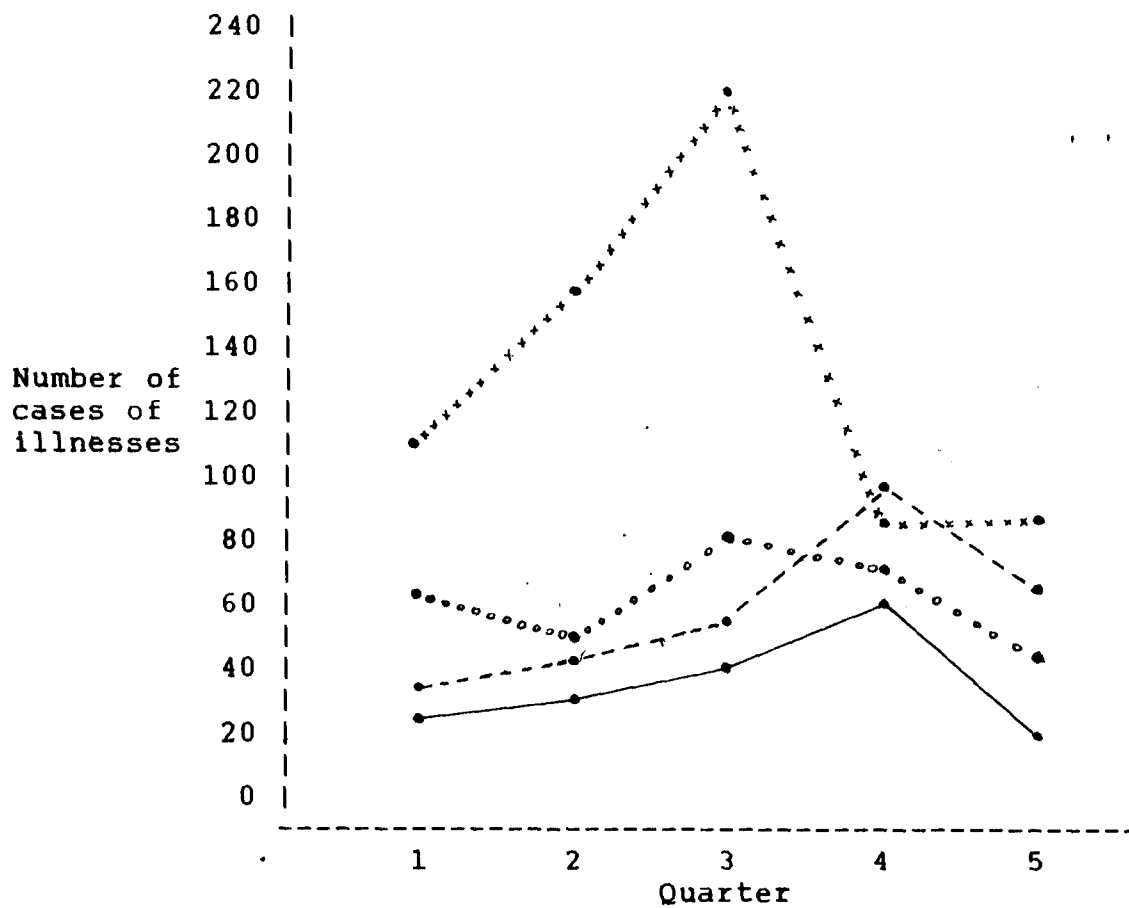
Aside from fever and headache, it appears that the most prevalent illness in both Umabang and Bailan were gastro-intestinal infectious diseases yet. The second most prevalent illness in the two villages differed. In Umabang, respiratory diseases ranked next to gastro-intestinal illnesses and in Bailan, skin diseases placed second in the list. The prevalence of skin diseases in Bailan may be attributed to the poor personal hygiene among the residents due mainly to certain cultural habits; it may also be related to the inadequate and unsanitary water supply in the sitio. It is interesting to point out that although Umabang had fewer households than Bailan, the number of viral cases turned out to be higher in the former than in Bailan.

Of the 2,816 morbidity cases, 1,283 (45.6%) were experienced by the preschool children in the past 15 months. The topmost reported illness was fever (453 cases 35.4%) followed by gastro-intestinal problems 383 (29.9%) (mostly diarrhea), then by respiratory diseases 14 (11.5%) while skin diseases 130 (10.1%) (see Tabke 5.16). Compared to the 1985 baseline data there seems to be more young children who suffered from gastro-intestinal illnesses during this period, but the number of cases who had respiratory diseases declined. The number of preschoolers who had malaria dropped considerably from 13.4% in the baseline data to around one percent. The high rate of baseline data to around one percent. The high rate of malaria cases in the baseline data may be attributed to the inability of the households then to recognize the symptoms of the disease whereas after exposure to the health program, there was perhaps a more adequate knowledge of this disease.

Over half the morbidity cases applied home remedy, particularly the use herbal medicine, and most of patients got well. A little over 17 percent sought assistance from the health clinic while a slightly lower

Figure 5.2

Number of Illnesses From First Quarter 1986  
to First Quarter 1987



## Legend:

- " Respiratory diseases
- xxxxx " Gastro-intestinal diseases
- " Viral diseases
- ooooo " Skin diseases

Table 5.16

Illnesses of Preschoolers (0-6 years old)  
From January 1986 to March 1987

Illness	Overall Number of Cases	Number of Preschoolers		
		Cases	%	Individuals
Respiratory	265	148	11.5	127
Gastro-Intestinal	633	383	29.9	273
Viral	141	63	4.9	63
Skin Diseases	281	130	10.1	130
Fever	802	453	35.3	314
Headache	411	63	4.9	52
Others	283	43	3.4	41
TOTAL	2816	1283	100.0	937

figure (16.2%) utilized modern drugs only which were either administered by the health workers or given by the clinic or bought from the drug depot. Compared to the baseline data which exhibited a high usage of traditional healers, the number of cases that sought this group's assistance went down considerably to less than two percent (Table 5.17).

Examining the fertility and mortality trends of the community from January 1986 to March 1987, the data show that the fertility rate was more than double the mortality rate in the area (see Table 5.18). Of the 21 deaths, nine were infants and the causes of their death were preventable in nature--two died of diarrhea, two had umbilical cord infection, two had fever, one had asthma, one had a nutrition-related deficiency (beri-beri) and one had a congenital defect. The number of young children (4 years and below) who died in the previous year (based on the 1986 baseline data) was lower by one child.

Table 5.17

Illness Management (Households) Number of Cases  
 January 1986 to March 1987  
 January 1986 to March 1987  
 Sitios Umabang and Bailan

ILLNESS MANAGEMENT							
Year/Quarter	Number of cases	Home remedy (utilized herbal medicine)	Home remedy first then utilized modern drugs)	Used modern drugs only (from clinic and other sources)	Sought assistance from health clinic (modern medicine)	Sought assistance of traditional healers	Others <sup>a</sup>
<b>1986</b>							
First quarter	540	314	22	67	112	9	16
Second quarter	561	402	21	61	63	3	11
Third Quarter	732	456	15	134	90	8	20
Fourth Quarter	509	178	34	131	104	17	45
<b>1987</b>							
First Quarter	483	204	61	63	125	10	20
<b>Total Number</b>	2816	1554	153	456	494	47	112
<b>%</b>	55.2	5.4	16.2	17.5	1.7	4.0	

<sup>a</sup>19 cases were referred to RHU, PHO or doctor in San Jose.

Table 5.18

Number of Births and Deaths in Sitios Umabang and Bailan  
From First Quarter 1986 to First Quarter 1987

Year/Quarter	Birth			Death		
	Umabang	Bailan	Total <sup>a</sup>	Umabang	Bailan	Total <sup>b</sup>
<u>1986</u>						
First quarter	1	2	3	1	5	6
Second quarter	2	7	9	-	-	-
Third quarter	6	9	15	1	3	4
Fourth quarter	4	8	12	5	4	9
<u>1987</u>						
First quarter	3	6	9	1	1	2

<sup>a</sup> 24 males 24 females.

<sup>b</sup> Ten were adults, 9 were infants while two were children with ages 7 and 15 years old. The majority died of illness while 3 adults committed suicide. The infants died of the following: diarrhea (2), umbilical cord infection (2), fever (2), beri-beri (1), asthma (1), and congenital defect (1).

### The Rural Health Unit

Although the Rural Health Unit was unable to actively participate in the health program in the upland communities due to its limited number of personnel, it provided support to the program by extending training services, curative as well as preventive services, referrals, drugs and other forms of assistance to the project team and the community.

After the initial training of the health workers in the two upland villages by the RHU midwives in December 1986, the RHU extended another training for birth attendants in their health station for 11 male and female Mangyan health workers for almost two days in April 1987. The trainers were also the RHU midwives and they utilized lectures and demonstration methods. Free meals were also provided to the Mangyan trainees during the training. As mentioned earlier, five birth attendants' kits were given by the RHU to the Mangyan participants for their use in the uplands.

Throughout the implementation phase, the RHU also gave some over-the-counter drugs to the upland villages such as aspirin and analgesic. Because of the limited and irregular supply of medicine and the wide catchment area of the RHU, the amount and type of medicine received by the two upland villages were also affected particularly for tuberculosis and malaria.

Aside from medicine, the RHU was able to provide BCG, DPT, and OPV vaccines for the Hanunuo preschoolers. Because of personnel limitations, no one from among the staff could go to the upland villages to immunize the children; instead this task was undertaken by the project nurse. The vaccines were picked up by the project nurse or the health workers from the RHU and were placed in a small styrofoam box with ice.

The 40 water-sealed plastic toilets that were donated by the Regional Office of the Department of Health were coursed through the RHU. The RHU's sanitary inspector instructed the project team about the construction of this type of toilet during the first quarter of the health program.

Having known about the high degree of malnutrition among young children in the two upland villages, the RHU set aside 20 sacks of powdered milk for the emergency

feeding project for these areas. Because malaria is endemic in Mindoro, particularly in the uplands, a malarial spray team composed of five Department of Health staff, were sent to the villages for around two days. Four staff members sprayed anti-malarial chemicals to every house in the area and one member took malarial blood smear of the upland residents. The people in the community recalled that the last time a malarial spray team serviced their area was around 10 years ago.

Although the tribal community could only be reached by climbing steep and mountainous terrain for at least four hours, the RHU and the Department of Health brought their heavy equipment to Umabang to show a film on family planning and preventive health practices. It was the first experience for the upland residents to see a film within their community.

Although the RHU staff were unable to visit Umabang and Bailan during the implementation phase of the health program, its facilities and other services were available to the project team and the Hanunuo Mangyan health workers from the community. For example, when tubercular sputum and malarial smear slides were sent by the upland community to the RHU for analysis, the RHU staff would forward these to their laboratory in the next municipality or in the provincial capital. The RHU midwives also assisted the project nurse and health workers in securing referral documents from the municipal mayor and the social workers of the Department of Social Welfare when the former brought patients that needed hospitalization. Around five referrals had been provided by the RHU during the implementation phase of the program.

The RHU staff also cooperated with the project nurse in the training of the health workers who would serve as the link or conduit between the upland community and the RHU. During the visit of the health workers to the RHU during their training, the midwives provided them with a general orientation about the set up of the health unit and its services and referral system.

### The Project Team

The presence and active intervention of the project team in the area has no doubt facilitated the implementation of the community-based health program in the sitios of Umabang and Bailan. The project team is composed of a nurse and two field documentors. The team also received direct support from a medical consultant who conducted periodic visits and extended medical services to the villages. He also provided directions to the strategies utilized by the project nurse in training the health workers.

The project nurse. The central figure in the community-based health program in the upland villages was the project nurse for she participated in practically every phase of this project, starting from the collection of baseline information, dissemination of findings, initial training of the health workers up to the implementation phase of the health program. Relatively tall for a Filipino, the project nurse was around 5'7" tall and was in her late twenties. Prior to her assignment in the two villages, the project nurse received formal training in primary health care procedures from the Ministry (now Department) of Health.

The project nurse was primarily responsible for the supervision and development of the upland health workers medical skills in the field and at the health clinics. After the initial health training in December 1985, she took charge of practically all the training activities in the highlands (refer to Tables 5.4 and 5.5 for the list of training activities participated by the health workers and other sectors of the community).

Aware of the difficulties encountered by the health workers during the first training workshop, the project nurse saw to it that the subsequent training activities would be undertaken with more participation on the part of the trainees by conducting more discussions and demonstrations. For example, during the review or retraining, the project nurse often asked health volunteers what they knew about a particular health topic such as tuberculosis and malaria and to describe how this illness should be managed. If a demonstration was needed in the discussion such as the preparation of a tubercular sputum, a health worker would be asked to show how this would be carried out.



Another concrete example was the nutrition education training. Aside from describing nutritious food groups and discussing which food items were available or could be grown in the community, food preparation was also demonstrated by the project nurse to the mothers of malnourished children with the assistance of the health workers. Simple but nutritious recipes which took into consideration the cooking practices (which was mostly boiling and broiling) of the Hanunuo Mangyan and the food groups that were available in the area (e.g., kadios, pigeon peas, mungo beans, and other vegetables) were utilized by the project nurse in this particular activity.

To determine whether the health workers imbibed the health care lessons taught to them in various training activities, the project nurse conducted a less formal evaluation of the health workers' skills in October 1986. She assessed the curative and preventive abilities of the health providers based on her personal knowledge of and experience with them from supervising their activities in the field rather than through a formal proficiency demonstration. In terms of curative skills, the nurse reported that 87.5% (14 of 16) of the Umabang volunteers knew how to provide treatment for common illnesses such as diarrhea, malaria, fever, cough and headache, while in Bailan around 48% (10 of 21) of the health workers could treat such illnesses. The treatment that the volunteers knew how to administer were herbal remedies such as various preparations of roots and leaves. With regards to preventive skills, the nurse maintained that 56% (12 out of 21) of the Umabang workers were knowledgeable in the prevention of diarrhea and parasitism while 43% (9 out of 21) of the Bailan volunteers knew how to prevent those illnesses. The issue that can be raised with this evaluation concerns the actual provision and effectiveness of the health care services.

The project nurse stated that in order for the health providers, particularly those in Bailan, to improve their health care skills they need to be better able to identify the signs and symptoms of various illnesses, to disseminate information properly to the people and to develop greater interest and willingness in their work. The nurse also estimated that 94% (15 to 16) of the volunteers in Umabang and 43% (9 of 21) of those in Bailan were adequately performing their tasks. The project nurse attributed the poor performance of the Bailan workers to their inadequate knowledge of the topics covered during the training workshops, the distance from their residences

to their areas of coverage, and their lack of interest in fulfilling their duties as community health providers.

Apart from training, the project nurse was primarily responsible for convening the meetings among the health workers and other sectors of the community (see Table 5.3 for the list of meetings). During meetings with the health workers she often initiated the discussion to encourage the health workers to voice their problems in the field and to discuss program plans and projects. The health workers often relied on her for suggestions or for assistance in helping them decide what activities to undertake and to prepare initial project plans and activities. For example, when the health workers and the health care committee officials met to discuss about the health clinic fund from donations given by the residents who used this facility, they asked the project nurse how this money could be utilized productively. She then suggested that this fund could be used to start an income-generating project which was enthusiastically approved by them. Aware of the participatory concerns of the health program, the project nurse tried to see to it that the decisions made during such meetings were made by the majority of the health workers or with the health care committee officials and were not solely her own or by a small group of health volunteers.

In community meetings, the project nurse often served as the chairperson and she also usually presented to the villagers the health program activities and project plans which she earlier discussed with the health care committee officials, and health workers. After her presentation, she would solicit the reaction or comments of the residents as to whether the plans or projects were feasible. In the first three quarters of the operations phase of the project, it was observed that the project nurse did most of the presentation about the health plans and projects to the community. Towards the final quarter, some of the officials of the village health care committees, particularly the health workers who were also VHC officials, participated in the presentation. For example, after the initial exposure of the four health workers who were chosen to link up with the RHU, the project nurse presented them to the community and they were asked to share or discuss their experiences in the training.

Aside from developing the skills of the health workers, the project nurse also extended curative services in the field and at the clinics, particularly at the

initial stage of the health program's implementation phase when the health workers were just starting to try out what they learned from the program and during cases of emergency. She also provided the linkage between the Rural Health Unit and the community by periodically visiting the former and informing the midwives about the activities in the uplands. Together with the documentors and some Mangyan health workers, she picked up drugs, vaccines, powdered milk and other medical supplies from the RHU. Because of manpower constraints on the part of the RHU, the project nurse immunized the Hanunuo Mangyan preschool children. She also introduced to the RHU the selected Mangyan health workers whom she trained to serve as the liaison between the RHU and the community. Further, she accompanied Mangyan patients to hospitals in nearby municipalities and the provincial capital and secured the referral documents from the RHU, Department of Social Welfare and the Municipal Mayor. She also referred the village health care committee officials to the social worker of the Department of Social Welfare in Bulalacao for possible assistance for the latter's income-generating project.

The medical consultant. The other member of the team was the medical consultant who conducted four field visits to the upland area during the operational phase of the health program. The medical doctor during each visit extended medical services to the residents and provided direction to the strategies utilized by the nurse in developing the skills of the health volunteers.

The duration of the medical consultant's field visits lasted from 7-15 days.

About the same period as the project nurse's evaluation, the medical consultant conducted a preliminary evaluation of the basic health care skills of the health volunteers.

The health volunteers were evaluated in three primary skills areas, i.e., communication, diagnosis and prescription. The first area included clinical history taking by interview and recording of the information obtained from the patient. The second area covered: (a) physical examination, including temperature and blood pressure taking and reading, and abdominal examination of a pregnant woman, and (b) identification of common diseases. The last area included: (a) health counseling,

(b) dispensing and giving instructions on drug dosages, and (c) prescribing the use of herbal medicines.

The health workers were evaluated by direct observation by the medical consultant as they demonstrated their proficiency in the above skills on villagers who went to the health clinics for consultation. In Umabang, 13 of the 16 health providers (81.3%) were assessed, while only four of the 20 workers in Bailan (20.0%) were evaluated. Together the volunteers who underwent evaluation comprised 46 percent of the total number of community workers. The low turn-out in Bailan was attributed to the bad weather conditions at that time and to the villagers' observance of the pamaguhan, a first rice harvest ritual of thanksgiving. The Umabang volunteers demonstrated their abilities on 26 persons who went to their health clinic, and those in Bailan on 12 patients at the clinic there. The four most coming illnesses presented by those 38 villagers included pulmonary tuberculosis (9 cases), anemia (8 cases), upper respiratory infection (5 cases) and malaria (4 cases).

In terms of communication skills, all of the health providers were able to interview their patients properly in order to elicit the necessary information from them. As of recording patient data, all 13 of the Umabang workers could write the obtained information, seven in Pilipino and the other six in the Hanunuo syllabic script. Similarly, all four of the Bailan volunteers could record the patient information, two in Pilipino and two in Hanunuo script. The high literacy rate in Pilipino or Hanunuo is to be expected since literacy was a condition for acceptance into the training workshops.

With regards to diagnostic skills, particularly in the physical examination, the results on the whole were poor. Only two of the 13 Umabang health workers could demonstrate properly how to take the patient's temperature. Only two of the health providers in Umabang could take blood pressure correctly, and the project nurse reported at the time of the evaluation that only five Umabang workers had acquired that ability. Similarly, only one of the volunteers evaluated in Bailan could demonstrate proper blood pressure taking, and the project nurse indicated that she was the only Bailan health worker who could do so. As for the abdominal examination of a pregnant women, only the worker who had been trained as a hilot or traditional birth attendant through the health care project, had the opportunity to perform this

capability which he did correctly. The other aspect of diagnostic skills pertained to the identification of common illnesses which all of the community volunteers could do. However, that skill may have been an ability that they had acquired through previous experience with or exposure to those illnesses rather than necessarily a capability developed through their training as health providers.

In terms of prescriptive skills, all the health workers could offer simple counseling on the prevention of common diseases and could properly prescribe the drugs available at the village health clinics along with the correct instruction on dosages. As for herbal medicines, all of the Umabang volunteers were able to give the correct advice to their patients on the use of herbal remedies for their illnesses. Again, that knowledge may not necessarily have been acquired through the training provided in the project since the baseline survey conducted in the first phase of the project indicated that the villagers had some knowledge of the use of herbal plants.

Based on the above results, the medical consultant concluded that in general, the health workers who were evaluated had adequate communication skills necessary to conduct effective interviews with their patients. They also had some degree of diagnostic skills such as being able to identify common illnesses by their signs and symptoms and some prescriptive skills such as being able to treat common illnesses. However, the consultant maintained that the health providers needed retraining in the areas of temperature, blood pressure and weight taking and reading. He also recommended that the previously trained hilot undergo retraining in performing prenatal examinations and in the care of pregnant, post-partum and lactating mothers. Furthermore, the consultant pointed out that the skills evaluation did not assess the actual delivery of services by the health volunteers, particularly in terms of the extent of their service coverage, the frequency of delivery of services, and the effectiveness of the treatment provided.

The field documentors. The project had two young female documentors who had academic degrees in the social sciences (anthropology and political science, respectively) who lived in the community for the entire duration of the implementation phase of the project. These documentors were tasked with interviewing the health workers

Table 5.19  
 Summary of the Health Care Skills Evaluation  
 of the Health Volunteers by the  
 Medical Consultant  
 As of October 1986

	Percentage with Adequate Skills
Number Assesed = 17 health workers	
A. Communication	
1. Clinical History Taking and Interview	100.0
B. Diagnosis	
1. Physical Examination	
a. Temperature taking	11.8
b. Procurement of blood pressure	17.6
2. Abdominal Examination of pregnant women	5.9
3. Identification of common illnesses	100.0
C. Prescription	
1. Prescription of drugs	100.0
2. Herbal medicines	100.0

every two weeks during the program's operations phase regarding the patients they had treated in the field and in the clinic in the previous period. They also interviewed all the households every quarter to find out the health status of the household members. Further, they documented all health-related activities that took place during the implementation phase of the health program.

Through the foregoing activities, the documentors provided indirect means of supervising the health workers. The information that they collected from these efforts provided the project nurse and the Manila project leaders with a basis for determining the performance of the health workers as well as the problems that may have arisen between the health workers and the families in their catchment areas. Also because the assistants lived in the villages throughout the project operational phase, they were kept informed of the health volunteers performance through informal interaction and conversation with community members.

Furthermore, at times the research assistants provided health care instruction to the health workers when the latter sought their assistance, particularly when the project nurse was in the other village. They also encouraged the less than active volunteers to continue with their duties and to participate in project activities.

The household quarterly monitoring provided the documentors with the opportunity to observe the health practices of the households and to further clarify the health program to various sectors of the community.

Aside from the abovementioned contributions of the documentors, they also provided assistance to the health workers and the project nurse by facilitating the preparation of the Hanunuo Mangyan manual of herbal medicine. They also participated in community activities such as the opening and inauguration of the health clinic (e.g., the preparation of the photo exhibit and during other agricultural rituals or rites of the Hanunuo Mangyan.

Table 5.20

## Participation of Different Sectors in the Health Program Activities/Projects

Major Health Program Activities	PARTICIPATION				
	Community				
	People	Barangay Health Worker	Village Health Committee	Rural Health Unit	Project Team
<u>Meeting</u>					
Community Meetings	x	x	x		x
Barangay Health Workers' Meeting		x			x
Village Health Committee Meeting		x	x		x
<u>Training</u>					
Barangay Health Workers' Training		x		x	x
Barangay Health Workers' Retraining/ Review Sessions		x			x
Hilot Training		x		x	x
Clinic Management Training		x			x
<u>Activities in the Clinic</u>					
Completion and Inauguration of Sitio Clinics (including one year anniversary celebration)	x	x	x		x
Bamboo Fence Construction around the clinic	x	x	x		x
Herbal gardening around the clinic		x			x
<u>Delivery of Health Services</u>					
Delivery of curative health services in the catchment areas and in the clinics	x	x			x
<u>Other Health-Related Activities</u>					
Emergency feeding project	x	x	x		x
Drug depot (Botika sa Barangay)	x	x	x		x
Income-generating project	x	x	x		x
Provision of over-the-counter drugs; referral to hospitals		x		x	x
Immunization; provision of vaccines	x	x	x	x	x
Toilet Construction	x	x	x	x	x
Mobile Film Showing on Family Planning and preventive Health Care	x	x	x	x	x
Anti-malarial spraying and Procurement of blood smear	x				x



### Summary

The implementation of the health program covered a total period of 15 months, from January 1986 to March 1987. The major accomplishments of the health program were: (1) the transfer of primary health care skills to a group of tribal male and female health volunteers, (2) the provision of health care services by the health volunteers to the catchment areas, (3) the establishment of village health clinics, (4) the formation of village health care committees, (5) immunization of preschoolers, (6) the establishment of village drug depots, (7) the training of a select group of health volunteers for linkage and coordination with the Rural Health Unit, and (8) the establishment of an income-generating project that might sustain some health needs of the community.

The health workers and the project team were involved in all the projects and activities that pertained to the health program. The community, on the other hand, participated in community-wide meetings, the construction and fencing of the health clinics, the inauguration and celebration of the first year anniversary of the health clinics, income-generating project and in projects that benefitted the children in their households i.e., immunization and emergency feeding. The officials of the village health care committee provided the conduit between the health program and the community by assisting the health workers and project team in their activities and in facilitating the dissemination of information regarding health projects to the community. The Rural Health Unit assisted the program by providing training to health workers, medicine, referrals and other preventive health care services to the community (i.e., anti-malarial spray, plastic toilet bowls, family planning campaign).

The major problem encountered during the implementation phase of the health program was the diminished participation of the health workers and the dwindling interest of the community in sustaining the health program.

The reason cited for the decline in the participation of the health workers were their work in their kaingin or swidden farms, household demands, low credibility in their areas of coverage, and loss of interest in the health program. Lack of unity and cooperation among the community residents were mentioned as the obstacles in maintaining their health program.

## Chapter Six

### ASSESSMENT OF THE HEALTH PROGRAM

This chapter presents the findings from the assessment of the different sectors involved in the community-based health program, namely: the community, the health workers, the project medical team, the village health care committees, and the Rural Health Unit. The first section describes changes in the baseline households in terms of morbidity and mortality experience, health beliefs and practices, perceptions and utilization of the village health workers as well as their participation in the health program.

The second section presents the findings of the clinical assessment conducted by the project medical consultant and medical technologist of the baseline households. It also covers the assessment of the nutritional status of the preschoolers who were weighed in the baseline study. The third section, on the other hand, describes the results of the assessment of the external medical consultant regarding the clinical skills of the health workers. The fourth section presents the results of the project nurse's assessment of the health workers' participation in the health program while the fifth section touches on the village health workers' assessment of their involvement in the program.

The sixth section discusses the perceptions of the officials of the village health care committees regarding their participation in the program. Finally, the last section presents the perceptions of the Rural Health Unit personnel of their involvement in the community-based health program.

#### Community Evaluation

The community evaluation covered 145 households which represents a total number of 737 persons. There were slightly more males (52.2%) in these households. As expected, a large percentage of the population (28.9%) did not know their ages. Nearly a fifth (19.3%) of the people were less than 5 years of age and more than a third (34.5%) were less than 15 years old. The majority did not acquire any education at all (see Table 6.1). As expected, most of the household heads were swidden farmers

and 78.6% claimed to own the land where they built their house.

Table 6.1  
Percentage Distribution of the Respondents  
by Selected Characteristics, 1987

	No.	%
<b>Sex</b>		
Male	377	51.2
Female	360	48.8
TOTAL	737	100.0
<b>Age (Years)</b>		
0 - 4	142	19.3
5 - 9	112	15.2
10 - 14	67	9.1
15 - 19	58	7.8
Not Known	213	28.9
TOTAL	737	100.0
<b>Education Completed (For those 6 years of age and over)</b>		
None	384	64.6
Primary (1 - 4)	144	24.2
Intermediate (5 - 6)	52	8.8
High School	6	1.0
Others (Bible School Parateacher)	2	.4
Unspecified	6	1.0
TOTAL	594	100.0

The majority of the households (98%) own livestock (chicken, pig, carabaos), vegetable and fruit gardens (99.3%). Income is generated through wage labor and farm production.

### Environmental Sanitation Facilities

For comparative purposes, the results of the baseline survey will be presented with the findings of the evaluation of the study in order to assess changes over the more than one year period of program implementation. As shown in Table 6.2, there has been an improvement in the environmental sanitation facilities in the community. A reduction in the percentage of the households using the bush for defecation and a concomitant increase in the use of pit privy and water-sealed toilets were noted. In 1985, none of the households had a water-sealed toilet. By 1987, 6.2% reported such usage. However, in terms of improvement of water supply, the effect was minimal. Open springs and streams were predominantly used due to their accessibility and familiarity. Waste disposal, likewise, improved with an increase in the number of households burying (from 4.2 to 11.7%) and burning (from 27.1 to 44.1%) their garbage. Dumping of waste was reduced from 68.6 to 44.2%.

### Reproductive History and Childhood Mortality

A reduction in pregnancy wastage as well as childhood deaths was noted. There were 86 pregnancies that occurred in the intervening period (1985-87). However, the small number of households preclude statistical comparisons of averages. There were 152 children reported dead below 5 years of age over the past several years. This represents 23.4% of the total livebirths - a major reduction from the 46.2% reported in 1985. It is not ascertained whether this outcome is a recall lapse or a real decline. The average number of children ever born remained constant at 5.0. Of the total deaths, 22.2% were due to respiratory illness, a similar percentage to measles, and 16.7% to diarrhea which indicates that there has been a change in the pattern of the cause of death. This could be borne out from the household monitoring of illnesses and deaths in the previous chapter. The fertility and mortality impact measurement would be precluded by limited time. There was also a reduction in the percentage wanting to have more children - from 43.1% in 1985 to 37.2% in 1987.

Table 6.2  
 Percentage Distribution of Households by  
 Selected Environmental Facilities

	1985		1987	
	No.	%	No.	%
<u>Toilet Facilities</u>				
Bush	112	94.9	121	83.4
Pit privy	6	5.1	13	9.0
Water sealed			9	6.2
Wrap and throw			2	1.4
TOTAL	118	100.0	145	100.0
<u>Source of Water Supply</u>				
Improved spring/well	29	24.6	21	14.5
Open spring, stream, river	89	75.4	115	79.3
Combination of 1 and 2			9	6.2
TOTAL	118	100.0	145	100.0
<u>Water Disposal</u>				
Burying	5	4.2	17	11.7
Burning	32	27.1	64	44.1
Dumping	81	68.6	64	44.2
TOTAL	118	100.0	145	100.0

However, the number of additional children desired remained constant at 3.0 and the main reason given was the need for more farm hands. There was marked improvement on the number of households who did not have any sex preference for their children - from 66.1% in 1985 to 82% in 1987. There was also a considerable reduction of households that perceived a high childhood mortality in the community (from 86.4 to 66.9%).

Table 6.3  
Percentage Distribution of Respondents by  
Selected Responses, 1985, 1987

	1985	1987
Percentage wanting additional children	43.1	37.2
Average additional children desired	3.0	3.0
Percentage with no sex preference	66.1	82.0
Percentage perceiving a high childhood mortality in the community	86.4	66.9

#### Health Beliefs and Practices

Health beliefs and practices during antenatal period and during childbirth were sought from the mothers during the evaluation phase to determine any change in the belief and practices of the mothers before and after the entry of the program.

Prenatal Care. Pregnancy is detected through the cessation of menstruation, fatigue, nausea, sleepiness, preferences for certain foods, vomiting, and breast hardening. Only 12.3% (16) were given advice on prenatal care. The advice came from the husband, the health center, and the mother-in-law. Admonitions were made to lessen the workload, eat a balanced diet, and avoid exposure to the sun. Only three women reported taking herbs for their health and for safe delivery in the form of boiled roots of the mango tree, malunggay leaves, banana pasbacon, alibon, and banana sap. Fourteen women stated the avoidance of certain food items during

pregnancy. These are birds, bitter foods, rootcrops, coconut heart, fish, pig's intestines, and cassava. The contra-indication stems from the feeling that normal delivery will be precluded. The foods preferred by the women are sour-tasting fruits, meat, vegetables and eggs mainly because of their palatability. Prenatal practices include daily bathing, vegetable intake and rest to ensure having a healthy baby and safe delivery. During the baseline survey, natal care was unknown to the Mangyans. However, based on the 1987 survey, 13 women went to either the village clinic or the Bulalacao Health Center for antenatal check up. Of these, women, only three went regularly during their antenatal period. The project nurse provided the pregnant women with vitamins, food supplements in the form of milk, dried fish, mongo, cornmilk and imported health education skills.

Delivery. There was a slight decline in 1987 of the number of women who gave birth at home (from 92% to 82%). It was reported that one woman delivered at the health center and another at the hospital. Five deliveries were attended by the nurse, midwife and health worker. The signs of imminent delivery were manifested by painful abdomen, hips, back, uterine movement and bleeding. As soon as these symptoms were detected, the expectant mothers would stay in the house and would tie the abdomen with a piece of cloth. The women delivered their baby either by lying down or by kneeling and by holding on to a rope tied on the ceiling. The stomach was massaged intermittently either by the wife herself, the husband, or the traditional birth attendant. More septic practices were observed after the implementation of the health program such as the cutting of the umbilical cord with scissors and the use of merthiolate and alcohol as disinfectants. However, a majority of the women still cut the umbilical cord with cogon grass (59.2%). The umbilical cord was cut as soon as the baby came out. The common complaints during delivery included bleeding and abdominal pain, which were relieved by massaging hot leaves (pasbacon) poultice, hot water compress, and heat applied in the painful area. The usual food given to most women after birth is rice. To some, chicken with malunggay leaves was added. Daily bath, rest, vegetable intake and body steaming were done. While most of the women did not seek advice during postnatal care, four reported consulting the doctor and the health worker. In other instances, the husband and other relatives were consulted.

Table 6.4

Relevant Information Concerning  
Childbirth, 1985, 1987

	1985	1987
Percentage with antenatal care	-	10.4
Percentage of home deliveries	92.3	82.0
Attendant at delivery is husband	64.6	61.6
Percentage with delivery problems	47.8	36.0
Percentage cutting the umbilical cord with cogon grass	79.2	59.2

Lactation and Supplementation

Almost all of the women breastfed their infants. Around one-fifth breastfed within an hour after delivery. Advice was given regarding lactation by the health personnel concerning proper diet when breastfeeding, nipple cleaning, and milk extraction. Fifty women (40%) reported having breastfeeding problems due to painful and swollen breasts. Twelve women (9.6%) gave milk supplements in the form of condensed, evaporated and soya milk. Food supplementation was given at an average of five months in the form of rice porridge, bananas, sweet potato, rootcrops, and vegetables. This was, on the average, one month earlier than the baseline survey results.

Dietary Practices During Specific Illnesses

As shown in Table 6.5, rice porridge is the most common food item that is given to young children whenever they have diarrhea, fever, cold, and skin problems. This is followed by bananas and breastmilk. Except for rice porridge which is not an ordinary food item among Mangyans, there seems to be no special food prescription in illness.



Table 6.5

Common Food Items Prescribed During  
Specific Illnesses

Illness	Food Items
1. Diarrhea	Rice porridge, bananas, breastmilk only
2. Fever	Rice porridge, mashed bananas breastmilk, rice
3. Cough/colds	Rice porridge, banana, breastmilk, rice
4. Skin disease	Porridge, banana

#### Etiology and Management of Specific Illnesses

To determine changes in the perception of the causes and management of specific illnesses, the households heads were asked about the etiology and treatment of common illness, viz., diarrhea, cough/colds, malaria, fever and tuberculosis.

Diarrhea. Compared to the 1985 survey which showed that 77.1% did not know the etiology of diarrhea, the percentage in 1987 with no such knowledge was reduced to 34.7%. Around one-third of the respondents attributed the cause of this illness to contaminated food and water. The others related the occurrence of the illness to overeating, hot weather, and teething. Herbs are largely used for diarrheal treatment such as ingestion of boiled duhat leaves, guava leaves, bark of trees, boiled bananas in porridge, pasbacon bark, maningkal, hagonoy leaves. Only five respondents claimed to have gone to the health clinic or the Rural Health Unit for modern medicines.

Cough/colds. In 1985, about one-third (30.5%) of the respondents did not know the etiology of respiratory illnesses. In 1987, this was slightly reduced to 28.9%. The cited causes were exposure to heat and cold (rains), the draft, and bathing when tired. Nearly one-fifth of the respondents felt that the condition is self limiting. Others take herbal medicine such as calamansi, boiled

alibon, pieces of banalo, sapinit, sour gourd, bark of malabuhay tree, tamarind leaves, sambong, boiled ginger, guava leaves, and sponge bath. Two claimed to have gone to the health workers for consultation.

Malaria. More than one-tenth (12.4%) of the respondents reported that malaria is caused by mosquito bites. More than a third attributed it to the exposure to the sun and rains and the others thought that it occurred as a result of fatigue. Medicines from the clinic were ingested according to 15.2% of the respondents. The remainder resorted to herbal medicines such as bark of dita (boiled and ingested), bitter bark, bangkal leaves, boiled ginger, anonas bark, pasbakon, and banana leaves. Other herbal plants such as hagonoy and alibon leaves were utilized to treat this illness by pressing them on the forehead. Knowledge of the etiology of malaria improved over 1985 where more than half (52%) of the respondents reported weather as the main cause of the illness. A marked reduction in the percentage of those who did not know about the disease was noted - from 51.7% in 1985 to 11.7% in 1987.

Fever. A majority of the women attributed fever to the weather (51%). Others reported fatigue, bathing at night, intake of dirty food and teething as possible causes of this ailment. More than a third (37.3%) did not know its causation. Less than a tenth (6.2%) mentioned taking pills or consulting the health worker whenever they or a member of their family feel feverish. The others retained their traditional home remedies such as alibon, dita, bangkal, cashew, young banana, sambong, anonang, and pasbakon either boiled, or pressed on the forehead.

Tuberculosis. PTB was attributed to fatigue by 42% of the respondents. The rest reported intake of dirty foods, genetic linkage, exposure to hot weather and sprain. Nearly half (45.5%) did not know how it is caused, a considerable reduction from the 64% of the households in 1985 who did not know the etiology of the disease.

The perceptions of symptoms of the foregoing illnesses remained largely the same between the baseline and evaluation surveys.

Table 6.6  
Disease Etiology, 1985, 1987

Illness	1985	1987
Diarrhea	77.1	34.7
Cough/Colds	30.5	28.9
Malaria	51.7	11.7
Tuberculosis	64.0	45.5

Table 6.7  
Symptoms Perceived by the Respondents  
Corresponding to Specific Illnesses

Illness	Manifestation
Diarrhea	Stomachache, frequency of bowel movement, loose watery stools, weakness
Cough/colds	Difficulty of breathing, runny nose, painful throat and nose, pain in head and chest, itchy throat, headache
Malaria	Fever, chills, weak body, reddish face
Fever	Hot body, weakness, painful head and shoulders, yellowish eyes
Tuberculosis	Spitting or vomiting of blood, coughing, loss of weight, painful chest, back pain

### Family Planning

Thirteen women (9.6%) reported using a family planning method as contrasted to only seven women (5.9%) in 1985. The methods used were pills (8.1%) and tubal ligation (1.5%). The ligations were administered at Roxas Hospital in a nearby municipality while pills were procured from health clinic, the Bulalacao Health Center, Botika sa Bayan, as well as the hospital. A majority of the women felt that two to three years would be an ideal interbirth interval. Eleven women mentioned that fertility control could be done through acceptance of family planning methods while nine indicated the use of medicinal plants particularly roots and barks of trees. Nine women also thought that the fetus can be expelled through the intake of boiled roots and bark of bitter trees. Aspirin and other tablets were mentioned by two women as abortifacents.

### Health Seeking Behavior

The household heads were queried about how they prevent and manage specific illnesses and about the health resources they utilized during the implementation phase of the project.

### Prevention and Management of Specific Illnesses

The household heads were asked how they could best avoid or prevent specific common illnesses. They were also queried about their knowledge in treating such diseases.

Nearly half (46.8%) of the respondents did not know how to prevent diarrhea. For those who posited an answer, the preventive measures seemed scientific. Management likewise remained traditional such as the use of herbal medicines. With regard to skin disorders, close to two-thirds (63.4%) did not know how to prevent the illness. However, for those who gave an answer, bathing and cleanliness were often mentioned. The responses for the prevention and treatment of coughs and colds were rather inadequate.

### Health Resources

Among the health resources in the community, the health clinic was the most utilized (82.8%) followed by the health workers (49%) and the traditional healers (18.9%). The average frequency of visit to the health clinic is four and the main reason is to obtain free medicines for fever, malaria, diarrhea, and headache. Very seldom was the health clinic used for check up or consultation.

On the other hand, the average frequency of visit by the health workers to the households was seven. The two traditional healers were visited by the households at an average of five times per year. The reason for the visits were mainly for consultation for the treatment of stomachache, fever, diarrhea, scabies, worms, coughs and colds.

Other health resources mentioned were a number of traditional healers, relatives, missionaries, and the San Jose Hospital in Occidental Mindoro. The perception of their utilization is mainly for curative health care.

### Decision of Health Consultation

Prior to seeking medical attention, attempts were made by the households to treat the illness by using herbal medicines first and when the illness persists the health worker or the traditional healer is consulted. In worse cases, the third recourse is the clinic, followed by the Rural Health Unit and the hospital in certain cases. Direct consultations are made in the clinic, in some instances.

### Immunization

Thirty-three (22.8%) women brought their children for immunization during the implementation period of the project. Of these 18 (54.5%) did not know that the injections were for their young children were for the prevention of measles (8) DPT, BCG, Polio (5), TB (1) and malaria (1). Most of the women (81.8%) claimed that their children received only a single dose of the injection.

### Health Education Program

More than half (57.2%) of the respondents claimed to have attended a health education program. They mentioned that the contents of the program were the preparation of food, immunization, use of herbal drugs, cleanliness to prevent disease, proper nutrition, and illness management.

### Awareness of the Health Worker

Nearly all of the respondents (97.2%) knew about the health workers. The function of the health worker as perceived by the community included illness management, education and prescription of herbal medicine, advice on environmental sanitation, referrals, medicine depot and nutrition education. The average frequency of visit made by the health workers to the households was seven times. Four households reported having been visited by the health worker for at least twice a month. The reasons given for the visit were to check on their health problems, to treat specific illnesses, teach household members on illness management and health education. With time progression, the visits were reduced to about three times for the same purposes. The services availed of were curative in scope, i.e., the treatment of stomachache, headache, cough, diarrhea, fever, scabies, wound, malaria, colds and TB. The preventive services were cleanliness of surroundings, utensils, clothes, bathing, toilet construction, immunization referral, and illness prevention. Over three-fourths 78.6% of the respondents mentioned that their households have availed of the services of the health workers. The majority of the users (92.1%) were satisfied with the services for the following reasons: the household members got well; they were able to avoid illnesses; they fostered a harmonious relationship within the community; and they were taught how to keep sanitary surroundings. The few (7) who expressed dissatisfaction over the services rendered by the health workers claimed the patients attended by the health workers were not cured; they were not visited by the health worker when they got sick; and that the preparation of herbal medicine was already known by them.

Table 6.8  
Prevention and Management of Specific Illnesses

Illness	Prevention	Management
Cough/ colds	Avoidance of extreme exposure to sunlight, avoidance of specific foods (sugarcane, young coconut), walking and playing, fatigue, cleanliness in the house	Self limiting, boiled leaves, rubbing of leaves all over the body, wear necklaces made of herbs, place ginger into throat, modern medicines
Diarrhea	Avoidance of meat fats, cleanliness in handling, boiling of water before drinking, washing of hands before eating, washing glass and plates, avoidance of throwing of human waste	Drinking of boiled guava leaves, bark of mango tree, bananas, <u>barayong</u> bark, poultice of heated leaves, modern medicines
Skin disorders	Daily bathing, avoidance of grassy places, avoidance of contact with infected persons, avoidance of use of dirty water	Daily bathing, juices of herbal medicine, use of soap, boiled medicinal plants

Table 6.9  
Health Resources, Frequency of  
Visit, and Purpose

Type	Average frequency of visit of respondents' households per year	Percentage utilizing	Reason
Health workers	7	49.0	Ask for medicine for fever, headache, wounds, herbs, cough, colds
Bapa Wayak (traditional healer)	3	11.0	Etiology of illness, massage, prayers
Bapa Luhay (traditional healer)	3	2.8	Etiology; seek herbal drugs, massage for fractures
Laki Wayhigan (traditional healer)	2	4.1	Cure for stomachache, headache, eye problems through prayers
Clinic	4	32.8	Medicines for specific illnesses, nutritional supplement, immunization



Among those who did not avail of the services of the health workers (25.5%), the reasons given were: the health workers never visited them; their kaingin farm was so far that they are not aware of the health workers' presence; the health workers have other tasks; and they were utilizing the services of the traditional healers. Over one half (51.6%) of those who did not avail of the health workers' services intended to utilize them in the future.

Recommendations and suggestions were elicited to improve the performance of the health workers. The community members suggested that the health workers should conduct regular visits to the households, refer patients to Roxas Hospital and Bulalacao Health Center in case of serious illnesses, impart their skills to their catchment households, teach environmental sanitation, dispense medicines, and dress wounds.

#### Community Participation in the Health Program

Around one half (51%) of the respondents participated in some of the projects and activities of the health program. The participation was mainly in the form of assistance in building and fencing the health clinic, attendance in community meetings, procurement of supplies from the foothills, assistance in food preparation for the cooking demonstration during the emergency feeding project, and attendance in lectures on the uses of medicinal plants. Among those who did not participate, the reasons given were lack of time due to work in the kaingin, distance from the barrio, lack of information, household tasks, and religious activities. All those who mentioned participation in any health project were satisfied with their involvement due to the sense of cooperation imbued, health improvement, unity, and the prospects of preventing and managing illnesses.

#### Decision Making in Health Care Project

The respondents were asked how decisions were made in the conduct of the health project by the community, the health workers, the project nurse. From the community's perspective involvement in decision making regarding health programs takes the form of convening meetings to discuss projects with the other residents, the health workers and the project nurse. For the health workers,

the meetings served as the forum for decision making. Meetings were considered important because when the community members are involved in planning and decision making, there would be more cooperation in any undertaking. However, the residents felt that whatever decisions that were made should be transmitted to the community as soon as possible.

### Prospects for Community Participation

Over one-half (55.5%) of the community residents felt that they can be of help to the health program through assistance in carrying medical supplies from the foothills, attendance of meetings, helping in building and fencing the clinic as well as participation in the income-generating project. However, over two-fifths (44.5%) did not know how they can be of help to the community.

More than one-half of the respondents (56.5%) felt that community participation is important in any community endeavor. They underscored the importance of cooperation in ensuring the management of illnesses and the health of the community. The problems in eliciting community participation are attributed to lack of time due mainly to work in the kaingin, lack of unity among the residents, people's indifference, distance from project site, lack of knowledge about the health program and projects, ignorance and illiteracy, and lack of rapport with the health worker.

There is a great deal of cynicism concerning the ability of the community to sustain the program once the project team pulls out. Only more than one tenth (17.0%) of the respondents felt that the health workers are in a position to treat the patients and improve the health of the population. The majority expressed their doubts by citing the passiveness of the recipients, the perceived incompetence of the health workers, the disunity of the community, the demands of the kaingin, and the inadequate supply of medicine in the health clinics.

### Sustainability of the Project

More than one half of the respondents felt that the health workers could sustain the health tasks that were charged to them by the community. The perceived areas of competence of the health workers were in the treatment of

illnesses (20%) through the use of medicinal plants (25.4%) and in their ability to discuss about environmental sanitation. Nearly one half though, could not specify the competent areas of the health workers. The weak areas include the treatment of tuberculosis, prescription of modern drugs, injection, wound dressing and management of the swollen parts of the body. Some suggestions to improve the health workers' services are for them to conduct more regular visits to the households, additional training to improve their level of competency, particularly in the prescription, of medicine, and accessibility to the users. The lukewarm attitude of the community to the health workers is evinced in only 17.3% wanting to participate in a community health program. The interest of those who wanted to participate was mainly focused on disease management such as medicine prescription, treatment of wounds, skin diseases, malaria, and injection. Despite this, the majority, (92.4%) still felt that the health workers should continue their services for illness management, prevention of specific diseases, medicine prescription and clean surroundings. Nearly a fourth of the residents (24.1%) thought that the community can sustain the health program due to the skills of the health workers in preventive, curative, and referral health care services. All that is needed is cooperation from the people.

#### Clinical Assessment of the Community's Health Status

Clinical re-examinations were conducted by the project medical consultant and the medical technologist among 211 members from the 78 baseline households to assess the changes in morbidity of the community after the implementation phase of the health program. Physical examination, fecalysis and malarial smear were done.

The weight of the preschool children who were measured in the baseline survey was likewise conducted by the project nurse in May 1987 to determine any change in the nutritional status of young children.

As shown in Table 6.11, there was a significant reduction in the prevalence of specific illnesses from 1985 to 1987 among the male and female subjects. However, there were significant increases in the occurrence of parasitism and dental caries.

Comparing the health conditions of the male and female subjects, it appears that the males in the community appeared to have marked improvement during this period, particularly in the following illnesses: upper respiratory tract infection, skin diseases, anemia, and malaria. The females exhibited significant improvement in other nutritional disorders, goiter, and PTB.

The positive changes in the prevalence of diseases could be attributed to medical treatment, supplementary feeding, health and nutrition education. On the other hand, the negative changes brought about by an increase in the prevalence of parasitism and dental caries might be attributed to poor environmental sanitation and health practices and less emphasis on dental health education, respectively.

Table 6.10

Highlights of the Assessment of the  
Health Program from the  
Community's Perspective

Health Indicator	1985 (118)	1987 (145)
<u>Percentage</u>		
With water sealed toilets		
Using the bush for defecation	94.9	83.4
Using improved spring/well	24.6	20.7
Burying and burning the garbage	31.3	55.8
Of children dead in relation to births	46.2	23.4
Wanting additional children	43.1	37.2
Perceiving a high childhood mortality in the community	86.4	66.9
Who delivered at home	92.3	82.0
Cutting the cord with <u>cogon</u> grass	79.2	59.2
With antenatal care	—	10.4
With delivery complications	47.8	36.0
Mean age at supplementation (months)	6	5

Table 6.10 (Cont'd)

Health Indicator	1985 (118)	1987 (145)
<u>Percentage with no knowledge of the etiology of:</u>		
Diarrhea	77.1	33.3
Malaria	51.7	11.7
TB	63.6	45.5
<u>Percentage</u>		
Using a family planning method	5.9	19.6
Using traditional healers	92.0	18.0
Utilizing the health workers		49.0
Attending the clinic		32.8
Of women bringing their children for immunization		22.8
Attending a health education program		57.2
Awareness of the health workers		97.2
Average frequency visit by health worker		4
<u>Percentage</u>		
Claiming participation in a health program		51.0
Perceiving that they can participate in a program		55.5
Feeling the importance of community participation		56.5
Feeling the adequacy of health workers as service providers		17.0
Percentage wanting to participate in a community health training program		17.3
Feeling that the community can sustain the program		24.1

Table 6.11

Prevalence of Specific Illnesses by  
Sex and By Year (Percentage  
of the Population)

Illness Category	Males		Females	
	1985	1987	1985	1987
Upper respiratory tract infection	70.4	45.8	29.0	23.0
Skin diseases	59.3	22.0	31.3	23.7
Parasitism	43.2	67.8	39.6	73.0
Anemia	40.7	11.9	50.7	25.0
Other nutritional disorders	38.3	6.8	64.5	26.3
Caries	18.5	27.1	20.3	29.6
Malaria	17.3	1.7	9.7	0.7
Goiter	3.7	0	35.0	17.1
PTB	2.5	0	11.5	3.9
Gastroenteritis	2.5	1.7	2.3	1.3

The results of the weight measurement of the preschoolers indicate that there was no marked difference in the nutritional status of the young children before and after the implementation of the health program (see Table 6.12).

Table 6.12

Nutritional Status of Preschool Children  
(0-6 Years Old) in 1985 and 1987

Nutritional Status	1985 (n=110)	1987 (n=82)
Normal	11.8	10.2
1	36.4	38.7
2	38.2	42.0
3	13.6	9.1

<sup>a</sup> Twenty eight children were not measured because they were overaged.

Evaluation of the Clinical Skills of the  
Village Health Workers

The clinical skills of 30 (79%) out of 37 trained health workers were assessed by an external medical evaluator by utilizing interview and observation techniques. The skills of the health workers were assessed in the following areas: communication, diagnostic prescription and preventive measures. The health workers were also evaluated in that knowledge of the uses and preparation of herbal medicine.

Communication Skills

The majority of the health workers could (63%) adequately take the clinical history of their patients and make the necessary referrals for them. However, over two-fifths (43%) could not adequately record clinical data while one-fifth were found to be deficient in this skill (See Table 6.13)

Table 6.13

Assessment of Clinical Skills of Health  
Workers by an External  
Medical Evaluator

Skill	Assessment	
	Adequate	Inadequate/deficient
Communication	a. Clinical History taking and referral skills	b. Reporting of clinical data
Diagnostic	a. Pulse taking and weight taking	d. Temperature taking and blood pressure taking
	b. Can identify signs and symptoms of malaria, PTB, skin disorders, and parasitism, malnutrition, anemia, upper respiratory tract infection, diarrhea	e. Can not adequately identify the signs and symptoms of scabies, fungal infection, allergy, urinary tract infection
	c. Can adequately prepare malarial smear	
Prescriptive	a. Can mention medical treatment for the illnesses mentioned in 2.b	c. Deficient knowledge of treatment for illnesses in 2.e and in the treatment of Vitamin A deficiency and endemic goiter
	b. Know how to prepare ORESOL and treatment for diarrhea	



Table 6.13 (Cont'd)

Skill	Assessment	
	Adequate	Inadequate/deficient
Preventive	a. Can extend health counseling services, in the prevention and control of illnesses mentioned in 2.b	b. Deficient in knowledge about OPV, DPT, and BCG vaccines
Herbal Medicine	a. Adequate knowledge of the uses of herbal medicine	

### Diagnostic Skills

Pulse taking and weight taking were adequately demonstrated by the health workers (53% in Umabang and 76% in Bailan). Temperature and blood pressure taking/reading are higher psychomotor skills, so only 16% of the Umabang and 10% of the Bailan health workers could do these adequately.

The majority of the health workers (56-100%) could adequately identify the signs and symptoms of malaria, tuberculosis, skin disorders (wounds, ulcers, boils/abscess) and parasitism in their increasing order. However, many of them (53-73%) were deficient in identifying the signs and symptoms of scabies, fungal infection and allergy. The signs and symptoms of malnutrition (PEM), anemia, upper respiratory tract infection and diarrhea could be adequately recognized by a majority of the health workers (76%). Only over one-third (36%) of them could adequately recognize the manifestations of urinary tract infection. Abdominal examination of a pregnant mother could not be demonstrated by any of the 11 trained traditional birth attendants (hilot) because of the lack of willing subjects. Twenty-six health workers were requested to prepare malarial smears and around three fourths (76%) of them were able to do this adequately.

### Prescriptive Skills

Upon interview of the DSBs, 43% to 76% of them could mention the medical treatment for malaria, skin disorders (wounds, ulcers, boils) and parasitism in their increasing order, while 63% to 80% had deficient knowledge of the treatment for scabies, fungal infection and allergy. Treatment for malnutrition (PEM), anemia, urinary tract infection and diarrhea in their increasing order were adequately known by 56% to 73% of the health workers. However, the majority (90%-100%) had inadequate/deficient knowledge of the treatment of Vitamin A deficiency and endemic goiter. The preparation of oral rehydration therapy for the treatment of diarrhea ((Oresol) was adequately known by a majority of the health workers (73%).

### Preventive Skills

Knowledge of preventives measures was deficient because the majority of the health workers (60-73%) did not know the uses of OPV, DPT and BCG vaccines, in their increasing order. Health counseling skills were generally adequate among the majority of health workers along the line of prevention and control of malnutrition (PEM), anemia, skin disorders (wounds, ulcers, boils/abscess), diarrhea, upper respiratory infection and parasitism in their increasing order.

### Use of Herbal Medicine

The majority of the health workers (60-100%) had adequate knowledge of the uses and preparation of herbal medicines as antihelminthics, treatment for skin ulcers, antidiarrheals, antitussives, antiseptics, antipyretics and antiinflammatory for boils/abscess.

### Project Nurse's Evaluation of the Health Workers' Participation in the Program

Because the project nurse had a direct hand in the supervision of the health workers, she was asked to come up with her own assessment of this group's participation in the entire program. The level of adequacy of health service delivery was divided into five categories: attendance in meetings, participation in training

Table 6.14

Project Nurse's Evaluation of Adequacy  
of the Health Workers' Participation  
in the PHC Program

	Adequate Number (n=37)	%
<u>A. Attendance in Meetings</u>		
1. Regular health workers' meetings with the project nurse	18	48.65
2. Health workers' meetings with the Village Health Care Committee and the community	16	43.24
<u>B. Participation in Training Activity</u>		
1. Clinic management	11	29.73
2. Review session	5	13.52
3. Retraining	7	18.92
4. Nutrition education	12	32.43
<u>C. Delivery of Health Services</u>		
1. In the health clinic	3	8.11
2. In catchment area	7	18.92
<u>D. Other Health Related Activities</u>		
1. Participation in income-generating project	21	56.75
2. Linkage with RHU and other lowland agencies	1	2.70
3. Inauguration of health clinic	8	21.62
4. First anniversary celebration of the health clinic	19	51.35
<u>E. Leadership Qualities</u>		
	2	5.40
<u>F. Over-all Performance as DSB</u>		
	6	16.21

activities, delivery of health services, other health-related activities, and leadership qualities.

Based on the evaluation, over one half of the health workers were found to be adequately involved in income-generating activities (57%) and during the first year anniversary celebration of the health clinic (51.4%). Almost one-half (49%) were observed to be regularly present in meetings. Participation during meetings, however, was minimal (8.1%), and this could probably be attributed to the basic shyness and reticence of the Mangyans. The leadership qualities are also wanting for only two health workers demonstrated adequate leadership qualities. Less than one-fifth (18.9%) were observed to be adequately delivering health services to the community and only 3 (8.1%) were found to be satisfactory in their performance at the health clinic. The level of participation in training activities was relatively low 29.7% for clinic management, 32.4% for nutrition, 18.9% for retraining and 13.5% for review sessions.

As a whole, only 6 of the 37 health workers were assessed to have adequately participated in the various activities of the health program.

#### Village Health Workers' Assessment

A total of 34 health workers--28 females and six males were interviewed during the evaluation phase of the project. The major topics covered in the interview are: the health workers' participation in the health program, training and retraining activities, health service delivery, participation in meetings, linkage with Rural Health Unit, and future involvement in the health program.

#### Motivation in Joining the Health Program

Over one half (20 out of 36 or 58.8%) of the health workers volunteered to gain some skills in treating the sick. Over one-third had personal as well as altruistic reasons, i.e., to be able to help their own families as well as other sick Mangyan.

Most of the health workers (14 out of 36 or 41.2%) claimed that the decision to become volunteers was solely their own. The project nurse was cited by seven health

workers as the person who influenced them to become health workers. The rest mentioned other community residents, the village headman and their spouses.

When asked what their functions or duties were as health volunteers, the main answers given by the majority of the respondents dealt with the extension of curative services, visitation of households in their catchment area, and teaching of older household members about illness management.

Twenty-one health volunteers (61.8%) appeared to be still actively involved with the health program during the evaluation phase. Nine claimed that they were no longer participating in the program at the time of the evaluation. Among the reasons they cited were the distance of the health workers' house to the households in their catchment area, work in the kaingin farm, recent childbirth, no sick client, disapproval of the spouse, and complete loss of interest in the project.

#### Participation in the Planning and Implementation Phases of the Program

There were 20 (58.8%) health volunteers who participated in the planning phase of the health program. Nine recalled attending the planning meeting of the community and participating in the selection of the health volunteers while four cited active participation in the community deliberation about the health program.

Of the 14 respondents (41.2%) who claimed non-involvement in the planning phase, only five recalled that they joined the project when it had already started; the rest had no explanation or answer.

The majority of the respondents stated that they participated in the implementation phase of the project by attending the meetings with other health workers and the project nurse. Ten recalled that in such meetings, the project nurse informed them about the immunization schedule of young children. They responded to the project nurses' announcement by either personally or through intermediaries informing the households with preschoolers in their catchment areas about the scheduled vaccination. Eight stated attendance in meetings but did not participate in the decision-making process while six recalled active involvement in decision-making as to what activi-

ties would be undertaken by the health program. Four health workers specifically pointed out that they had a hand in the discussion of the sale of the bracelets and handwoven skirts for the income-generating project.

#### Initial Training and Retraining Activities

The majority (25 out of 37 or 73.5%) of the health volunteers claimed that they participated in the initial training and retraining sessions of the health program. Eighteen (52.9%) saw no difference in these two training activities because in both sessions, they were taught the uses and preparation of herbal medicine and the medium of instruction was in Tagalog. Only five health workers thought that there was a difference between the two training workshops because during the first training, the types of illnesses and their corresponding management were not thoroughly discussed or explained; there was also a lot of writing or note-taking.

Ten health volunteers recalled that the use of visual aids was the most effective teaching method that was utilized by the trainers. Six respondents cited the content of the training program, particularly the emphasis on the uses of herbs for certain types of illnesses and simple curative techniques for common illnesses, as the most effective approach adopted by the training program.

The least effective methods as recalled by only nine health volunteers involved writing down of so many items in their notebooks, difficulty in comprehending Tagalog which was the medium of instruction (preference was for the Hanunuo Mangyan language) and the unpleasant remarks made by one trainer when the trainees would commit mistakes or give the wrong answer.

Six health volunteers (17.6%) thought that all the methods adopted by the trainer or the project nurse in the retraining were effective; four cited that the trainer was more pleasant, that visual aids were still utilized and they appreciated the approach in teaching the uses of herbal plants and their preparation for medication because these were written in the Hanunuo Mangyan script. The emphasis on the uses of herbs for the treatment of common illnesses was to four health volunteers most useful while the thorough discussion of the treatment of diarrhea, cough, PTB, and malaria was the most effective to three other health volunteers.

The majority found no ineffective approach in the retraining session.

The health volunteers were asked to give an assessment of their level of understanding of the following topics that were covered during the first training and retraining sessions: (1) primary health care; (2) maternal care; (3) child care; (4) family planning; (5) nutrition; (6) lung infection/tuberculosis; (7) diarrhea; (8) parasitism/intestinal worms; (9) malaria; (10) skin diseases; (11) simple curative treatment; and (12) herbal medicine.

In the first or initial training in December 1985, the majority of the health volunteers had difficulty in comprehending six of the 12 foregoing topics, particularly primary health care, nutrition, tuberculosis, skin diseases, malaria, and maternal care. Close to half (15 of 36 or 44.1%) fully understood the lessons on diarrhea while a similar number fairly grasped the topics of simple curative treatment and herbal medicine.

In the retraining, which took place one year after the initial training, the level of understanding significantly improved for the health workers expressed full comprehension of the topics on child care, family planning, diarrhea, parasites/intestinal worms, and herbal medicine. One-half also claimed full understanding of the etiology and treatment of tuberculosis/lung infection, and skin diseases. The majority fairly understood primary health care and maternal care while two-fifths comprehended nutrition and the causes and treatment of malaria. The exposure to the different illnesses and their management during the year as well as the more informal atmosphere during the retraining sessions could be some of the factors that contribute to the much improved understanding of the various topics covered in the workshop.

The health volunteers thought that all the topics covered in the first training and retraining workshops were essential to their tasks as health providers in the community. They, however, recommended that training regarding the prescription of modern drugs, immunization, and the procedures of referring or bringing a patient to the lowland health facilities should be added to both training activities. Although each trainee was provided with a training manual on primary health care, eight expressed the need for a book that could serve as a permanent reference in treating the sick.

As to the method of teaching, the majority articulated that the medium of instruction that should be utilized should be the Hanunuo Mangyan language for easier and faster comprehension of the various topics that were covered. As to the length of the training, ten health workers suggested that the duration of the training should be two weeks, at three to four hours of classroom and practical activities per day. Seven thought that the training should be around one month.

#### Field Exposure to Health Care Delivery

More than half of the health volunteers expressed difficulties when they first started as health providers in their respective catchment areas. They cited difficulty in recalling the lessons that were taught to them and this handicap was more salient among those who could not read or write. A few health workers felt that the households assigned to them did not trust them for some were not cured with the herbs that they prescribed, and preferred to use modern drugs like tablets or pills than herbal medicine.

Eleven (32.4%) health volunteers coped with their initial difficulties by reviewing what they had written in their notebooks, or by consulting other health volunteers and the project nurse. Seven health workers (20.6%) simply kept their difficulties to themselves and avoided visiting the households in their catchment areas because of their inability to answer the questions of their clients. Three volunteers said that they just sent the sick from their catchment areas to the clinic for modern drugs.

More than one-half of the health volunteers reported having experienced some difficulties in extending both curative and preventive health care services during the year. In curative health care services, nine did not know how to treat patients who vomitted blood or who had acute tuberculosis while eight had difficulty in dealing with severe cases of stomachache, diarrhea, intestinal worms, headache, fever, and upper respiratory tract infection. For preventive health care services, the problem expressed by the health volunteer was the inability of the households in their catchment areas to apply the things that the health workers taught them particularly cleanliness and proper prevention of illnesses.



Most of the health volunteers coped with the difficult cases by referring their patients to the health clinic to procure modern drugs or tablets and to see the project nurse. Others sought assistance from the knowledgeable health volunteers in their village.

The top five illnesses that health workers claimed they could treat are headache (27), fever, diarrhea, stomachache and scabies. On the other hand, they stated that they were unable to treat tuberculosis, swelling of the different parts of the body, vomiting, severe cough, and malaria.

In the past year, the most common health problems or illnesses brought to the health workers for treatment were fever, headache, diarrhea, scabies, cough, colds, wounds, and malaria.

Only 13 health volunteers (38.2%) articulated that their experience in curing or treating client households who were ill had contributed to their effectivity as health workers in the community.

Sixteen health volunteers (47.1%) had expressed some difficulties in participating in the health care program at the time of the evaluation. The major reasons cited were conflicting obligations at home and at work in their kaingin or swidden farm and poor relationship with the households in the catchment areas which often resulted in non-compliance what with was imparted by the health workers. Three illiterate health workers, felt handicapped in their health care tasks because of their inability to read and write.

Of the 16 (47.1%) who mentioned current difficulties in health care delivery, only five (31.3%) attempted to give some solutions - three thought of getting more training by studying certain types of illnesses while the two illiterate health workers would ask the assistance of their literate son or daughter to read and write some materials for them. Four health workers (25.1%) chose to withdraw from their difficulties by stopping to visit the households in their catchment areas or by simply keeping their problems to themselves.

### Perceived Changes in the Health Practices in the Catchment Areas

A majority of the health volunteers (56.3%) perceived that some changes had taken place in the health practices among the families in their catchment areas. The health workers noted that the households assigned to them have learned to start cleaning their houses and surroundings while other families have started to bathe regularly or to clean their bodies. Only two health workers specifically cited that the households that were assigned to them have already constructed and utilized toilets.

### Assessment of the Health Workers' Relationship with Others

The health workers were asked about their level of satisfaction regarding their relationship with the project nurse, other health workers, and the families within their catchment areas.

The majority (67.6%) of the health volunteers appear to be satisfied with their relationship with the project nurse. Close to one half (47.1%) perceived the project nurse as a good teacher for she taught them about health and illness management and she had been helpful to them in carrying out their duties as health providers. Eight health volunteers, however, are fairly satisfied with the project nurse for they felt embarrassed or shy to ask the latter on topics that were already taught to them or to seek for her assistance in their problems.

The relationship with other health volunteers appear to be also satisfactory to the majority of the respondents. Most of the satisfied health workers perceived their co-workers to be quite kind and helpful in solving some problems that they had encountered; a few enjoy the company of the health workers whenever they get together for meetings.

### Satisfaction of the Health Workers with Client Households

The level of satisfaction of the health workers with their client households appeared to be more varied--14 expressed satisfaction with the families that they were serving while 12 (35.3%) health volunteers expressed dis-

satisfaction; only 10 (29.4%) were fairly satisfied.

The major reasons cited by those who expressed satisfaction with the households that were assigned to them cited the cooperative spirit and enthusiasm of the families in learning the various health care technique that the health workers tried to impart. The reasons for dissatisfaction, on the other hand, include low credibility of health workers among their client families, little cooperation extended to them by the families assigned to them and non-compliance of many households with the advice given by the health volunteers. The inability of the health volunteers to visit the client households or the difficulty of finding the health worker at home due to their work in the farm were the other reasons for the perceived dissatisfaction of their relations with the families in their catchment areas. The reasons extended by those who were fairly satisfied with their households are similar to the reasons given by those who are dissatisfied with their client households. However, not all the families assigned to them did not follow what they attempted to teach them particularly in the areas of cleanliness, uses, and preparation of herbal medicine.

### Meetings

The health volunteers were asked to recall the number of times during the past year when they had meetings with the project nurse, with their co-health workers, and with the families from their catchment areas.

Around one-fifth of the workers claimed that they could not recall the number of times they met with the project nurse. The weighted average number of times they met was close to six. The major reasons for the meetings with the project nurse were to discuss the immunization schedule of the preschool children, training activities, curative services, use of herbal medicine, the opening of the health clinic, growth monitoring of young children, coordination among the health workers, and discussion about the use of modern medicine.

The majority claimed that they had never met with the other health workers in their village by themselves nor were there meetings between them and the families in their catchment area.

### Decision-making Pattern Regarding Health-related Activities

The respondents were asked whether they knew how decisions were arrived at by the health officials, the people in the community, and the volunteers on health related matters.

Over half of the respondents did not know how the officials of the village health care committees reached a decision on issues related to health; only around one fourth claimed that meetings were held before any decision was made. Most of the health volunteers, on the other hand, perceived that the people held community meetings and the decision of the majority was carried out when certain health matters were raised for their deliberation.

The health volunteers' decision-making mechanism was coursed through meetings among themselves and with the project nurse. They expressed that meetings were their avenues to discuss their needs so that everyone would know and understand their concerns as a group. Decisions were made by the majority on whatever issue was raised. They articulated that group decision was necessary so that no one will be blamed of whatever outcome which may come out from it. Around one-fifth of the health workers, however, articulated that in such meetings, the project nurse's decision on certain health matters was often accepted or carried out because they perceived the project nurse as a leader who was familiar with the health program.

The majority believed that the participation of the people in the community is essential for the health volunteers to perform their duties and tasks. They claimed that without the people's involvement, nothing will be accomplished, there will be no one to apply the health skills that were acquired by them.

### Management of the Health Clinic

Over two-fifths claimed participation in the operation of the village health clinics. Prior to manning their village health clinics, the same number (46 %) of health volunteers stated that they received training on clinic management, particularly in procuring the patient's blood pressure, temperature, pulse rate and administration of selected over-the-counter drugs such as analgesic and aspirin. One-third claimed that they reported to the

health clinic at least once a week. Three health workers claimed that they seldom manned the clinic.

The major responsibilities perceived by the health workers who operated the clinics include opening and manning the village clinic, prescription of modern drugs, and preparation of malarial smear whenever necessary.

One-fifth (20.6%) of the health workers stated that they encountered some problems in operating the village health clinics. The difficulties were insufficient quantity of medicine, uncertainty or inadequate knowledge of what drugs to prescribe to patients, and the absence of the person who held the key to the medicine cabinet. The last reason had occurred a few (around five) times and this had inconvenience the assigned health worker and the patients.

The clinic watchers solved their problems by discussing them with the project nurse and during meetings. During these consultations the causes of their difficulties were determined and solutions were made to resolve them.

#### Perceived Utilization of the Health Clinic

Around one-third of the health workers opined that only few people were utilizing the village health clinic because the clinic often ran out of medicine or the medicine needed by the patient is often unavailable.

Only less than one fifth of the health volunteers perceived that many community residents utilized the services of the clinics and the most often mentioned response was that the clinic was a major source of drugs particularly tablets which appear to be more preferred by the clients.

#### Linkage with the Rural Health Unit

After the first training that was conducted by the RHU nurse and midwife in their community, most of the health workers no longer had personal contact with them. Only over one-fourth or ten health workers claimed meeting the two trainers after the initial contact. Two claimed that they saw the RHU nurse when they brought a

Mangyan resident who was sick, four went to see the midwife to ask for medicine while the same number recalled seeing the midwife during the training for birth attendants.

Around one-fourth claimed that they had patients from their catchment areas whom they immediately referred to the Rural health Unit for treatment because of some difficulty in treating them at the health clinic.

The few health volunteers who had direct dealings with the RHU found the personnel quite accommodating and helpful.

Almost one-half of the health volunteers thought that they were in a position to accompany or bring a patient for assistance to the RHU because some of them already received referral training from the project nurse. The majority also thought that they could approach the RHU for medicine and other supplies and for training requirements on health-related topics for their community.

#### Overall Satisfaction on the Health Care Program

The majority of the health volunteers expressed satisfaction in their participation in the project. Having assisted many people and having acquired many health skills are the two most common reasons for the satisfaction.

#### Prospects for Future Involvement of Health Volunteers

More than one-half (56%) of the health volunteers categorically stated that they planned to continue serving the community as health workers even if the DLSU project team would no longer be around. Around one-fifth (7) claimed that they would like to help their community because they perceived that health workers are of great service to the area. A few (4), however, expressed the desire to serve for personal gains, i.e., to continue receiving free medicine. Only two articulated that they want to utilize their knowledge in treating the sick; the same number articulated their intention of maintaining and improving the health clinic.

One-fifth (7) of those who stated that they no longer intend to continue serving as health workers after the project team pulls out from the community expressed incapability or lack of confidence in treating their patients on their own, i.e., they might teach their clients the wrong thing or prescribe the wrong medicine.

Over one-half (55.9%) of the health volunteers also believed that even though the DLSU team would not be in the community anymore the people would still continue utilizing the services of the health volunteers. Around one-fifth (8) thought that the health volunteers are of great help to the community, for they know how to treat the sick, they work hard to be of service to the community and they are accessible to the residents.

Over one-third (38.2%) of the health volunteers opined that their co-workers would continue manning the health clinic while around two-fifths (40%) gave a negative answer; one fifth, however did not know the answer. Four of those who gave a positive answer reasoned that the continued operation of the clinic meant a regular source of medicine or a permanent place for medical treatment, i.e., when herbal medicine are no longer effective, the health clinic can be a place to turn to for modern drugs. Three opined that the health workers will continue manning the clinic so as not to put money, medicine, and efforts invested in the health program to waste; only two thought that the health clinic would continue to be operated because some of their co-workers had training in managing this facility.

Five of those who perceived that their co-health workers would no longer continue to man the health clinic claimed that nobody wanted to manage the clinic for the following reasons: the medicines were always locked up in the cabinet which implied that they were not readily available to clients; clients only utilize the clinic whenever they need modern drugs; and health volunteers are busy in their kaingin farm. Four stated that only one person actually operated their health clinic so it was not necessary for the others to operate it.

Suggestions of how to mobilize other residents for health care delivery were elicited from the health workers. Around one-half of the health volunteers gave their opinion about how other people who are not involved in health care delivery could be mobilized. Among the suggestions given were : (a) Teach or advise other

Table 6.15

**Highlights of the Assessment of the Barangay  
Health Volunteers**

N = 34	
Percentage Females	82.4
Motivation to gain skills in the treatment of illnesses (%)	58.8
Percentage who joined on their own volition	41.2
Major functions perceived	Curative care
Percentage still active	61.8
Percentage participating in the planning phase of the program	58.8
Percentage participatory in training and retraining	73.5
Most effective content of training program	Uses of herbs and management of ill- nesses
Problems in training	Use of Tagalog as the medium and writing down a lot of items
Lessons understood	Diarrhea, curative care and herbal medicine
Areas with difficulty in learning	Primary health care nutrition, TB, skin diseases, malaria, maternal care
Percentage with difficulties in preventive and curative care	50% (PTB, severe cases of diarrhea, parasitism and upper respiratory tract infection)
Illnesses which respondents could manage	Headache, fever, diar- rhea, stomachache, scabies



Table 6.15 (Cont'd)

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N = 34	
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Illnesses which respondents could not manage	TB, swelling of body parts, vomiting, malaria
Percentage with difficulties in participating in the health care program	47.1
Reasons	Work obligations at home and the <u>kaingin</u> , negative attitude of households in catchment areas and inability to read and write
Percentage perceiving changes in the health practices in the catchment areas	56.3
Percentage satisfied with their relationship with the project nurse	67.7
Percentage dissatisfied with client households	35.3
Average number of meetings with the project nurse	6
Percentage participating in the clinic operations	46.8
Percentage who have linked with the RHU	29.4
Percentage intending to serve the community at the end of the project operations	56.0
Percentage feeling that people would still utilize the health volunteers	56.0
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residents about cleanliness and prevention of illness; (b) treat them when they are ill; (c) invite them in some project activities or persuade them about the benefits derived in extending health care services to the community.

### Assessment of the Village Health Care Committees

Twenty one out of 26 officials of the village health care committees were interviewed during the assessment phase. They were asked to describe their duties or functions as committee officials, members, why they became involved in the committee and how they participated in the program. They were also asked to assess how their committee was able to assist the health program, their perceived problems regarding the tasks of the committee and what the committee could contribute to improve the health condition of the people in the community.

### Perceived Functions or Duties of the Village Health Care Committee (VHCC)

Over two-fifths (42.9%) of the VHCC officials articulated that they did not know or could not recall their functions or duties in the committee. Six explained that their function was to coordinate or contact the people who would assist in hauling or picking up the medical or food supplies from the foothills to their upland communities. Two members claimed that they personally helped the health program by getting the supplies themselves from the lowland. Four respondents, however, claimed that they were officials of the entire committee and were in charge of undertaking health-related projects.

### Reasons for Joining the Village Health Care Committee and Mode of Participation in the Health Project

The majority of the members claimed that they joined the committee because they were elected or chosen by the people in their community.

One-third of the respondents stated that they participated in the health program by attending meetings while close to two-fifths helped in some tasks in the program either by contacting other residents to attend community meetings, carrying medical supplies from the lowland, or picking up the materials themselves and bringing them to the upland area.

One-half of the members perceived that they had actually helped the health program by picking up the supplies from the lowland themselves. Only two cited attendance in meetings as their contribution to the program.

#### Perceived Problems of the Village Health Committee Members

The majority (71.4%) claimed that their committee had problems in fulfilling their tasks. The most often cited problem was the refusal or inability of other residents and even sitio officials to help the committee pick up the health supplies from the lowlands.

Over one-half (57.1%) offered some suggestions as to how the village committee could help improve the health status of the people in the area. Eight (38.1%) of these respondents suggested teaching the people about the importance of unity, health, cleanliness and disease prevention. Only four (19.0%) suggested helping the health volunteers by informing them about the people who are sick in the community. Two respondents (9.5%), however, were pessimistic about any improvement in the health program because they perceived the people in the community to be quite stubborn.

#### Assessment of the Health Program by the Rural Health Unit Staff

Four staff members of the Rural Health Unit in the municipality of Bulalacao were interviewed to elicit their assessment of the health project. They were constituted by three midwives and one sanitary inspector. The age range of the midwives was from 30 to 48 and the rural sanitary inspector was 50 years old. The rural health midwife who is the officer in charge has been in public health service for 29 years while the two others have been in service for three and five years, respectively. The the sanitary

inspector has been with the health program for 19 years. Most of their work experiences were in Mindoro. The average monthly salary of the midwives was P1,000 while the sanitary inspector had a lower rate of P813. The major tasks of the midwives include clinic work, prenatal care, responding to emergency calls and referrals, monthly immunization, prenatal care, operation timbang, attendance in monthly Barangay Health Workers' meeting, monitoring of under the six years old children, and conduct of the hilot or birth attendants' training. The sanitary inspector takes care of the surroundings, toilets, factories, eateries, the health education seminars, and vital registration.

The clinic is equipped with hospital beds, medicine cabinets, examining table, vaccine chests, delivery tables, weighing scales, a microscope, and sterilizers. The catchment of the RHU includes 15 barangays with a population of 20,000. Two barangays are populated by Mangyans (Binli and Cabugao) and the rest by non-Mangyans. The major outreach programs included Primary Health Care (Five Impact Program), Expanded Program in Immunization, Family Planning, Nutrition, Hilot/BHW Training, Operation Timbang, Botika sa Barangay, Nutrition and Food Assistance Program.

#### Knowledge and Awareness of Participation in the Research Project

The midwife who served as the officer-in-charge of the Rural Health Unit was approached by the project staff to inform her of the project and to coordinate with the unit on specific activities such as immunization and referral. The second midwife has visited the project area three times - for the dissemination seminar, the training and supervision of the health workers. The third midwife was present at the RHU when initial linkage was made by the project staff. The sanitary inspector was invited to the project site a few times and has visited the area for the environmental sanitation campaigns, malarial spray, and toilet installation.

#### RHU's Involvement in the Project

Within the primary health care framework, the Rural Health Unit (through the midwife) was involved in the training of traditional birth attendants among the Hanunuo Mangyan health workers in a two day five in seminar in

1986. Earlier in December 1985, the midwife participated as trainor in a two-week training program for the health workers on the delivery of primary health care services.

The RHU's involvement in the project was in the form of monthly immunisation through vaccine distribution to the project nurse, training on preventive health care such as environmental sanitation, food handling, immunisation, proper use of toilet, deworming, sending the malarial spray team from the provincial health unit, toilet construction where 40 toilet bowls were sent to Bailan and Umabang and water inspection for preventive services. For curative services, referrals from the project were attended by the staff. Lectures were given on herbal and modern medicine. Delivery assistance was given to patients. The treatment of patients who were referred to the RHU was carried out by the team. For promotive services, lectures were delivered on family planning methods, promotion of breastfeeding and immunisation. Likewise family planning methods (pills and condoms) were provided as well as free milk during the emergency feeding project. Medicines were also donated to the project site.

#### Perception of the Training Program

In terms of content, the staff perceived that the training was adequate although it was felt that more audiovisual materials could elicit the interest of the trainees. Considering that this was the first time that they were exposed to the rudiments of training a Mangyan health Worker, more time should have been given to them to digest the contents of the materials. They added that refresher courses should have been provided to them.

The staff seemed to be pleased with the health development of the community, particularly the increase in the immunization level, malarial spray that reduced the incidence of malaria and the construction of toilets. A decline in illness incidence was also perceived. There was likewise a reduction in malnutrition due to food and milk supplementation as well as training in food preparation. Skin infection prevalence was also noted to have declined due to proper hygiene and sanitation. It was suggested that monitoring of health status and inputs should be undertaken by the Mangyan health workers and these should be sent to the RHUs. Reinforcement on environmental sanitation should also be undertaken.

A referral system has been set up such that the Mangyan health workers will refer difficult cases to the RHU who in turn, will refer them to the hospital in Roxas or Calapan if necessary. The perceived problem was financial in terms of the transportation fare or purchase of medicines. The RHU staff felt that more emphasis on preventive health care should be given to the Mangyan health workers' training. They perceived that the problems in promotive health care were due to the lack of interest on the part of the Mangyans, their traditional beliefs and practices, and side effects of family planning pills and immunization. They added that efforts need to be directed toward dispelling traditional beliefs and practices. The need to place more emphasis on preventive and promotive care, (such as operation timbang, meaning weight measurement) immunization, environmental sanitation, recruitment of family planning acceptors and curative care in the form of drug dispensing, referrals and illness reporting) was stressed by the RHU staff. The perceived problems raised by the staff regarding the health service delivery of the Mangyan health workers were financial, inadequate medicine, lack of incentives and supervision by medical staff and the distance of the houses in the catchment areas. The proposed solutions focused mainly on the provision of incentives particularly clothes and money, supervision, and medical supplies.

#### Linkage between the RHU and Hanunuo Mangyan Village Health Workers

The RHU personnel claimed that the linkage between the RHU and the health workers was actually initiated during the first training in the upland community. Since then, the RHU has been receiving referrals from the project nurse. They had also provided the health program with medicine and powdered milk.

The perceived major difficulty of the RHU staff is the health unit's distance from the area which makes it inaccessible to the community. They saw a need to strengthen the present linkage between the RHU and the Mangyan health workers because of this difficulty.

Since the DOH intends to train more health workers from their municipality by 1988 they expected that the present cadre could be further reinforced. However, the RHU staff expects more community participation in health services delivery. It is felt that training the Mangyan

health workers would foster less dependence on the RHU. The sustainability of the project hinges on appropriate monitoring and supervision and on incentives that would be extended to the health workers.

### Summary

After the implementation phase of the project, an evaluation of the health program with the use of the following approaches - the household survey, personal interviews with health workers, personnel of the Rural Health Unit, and the officials of the village health care committees, clinical assessment of households, and skills assessment of the health workers.

The findings showed slight improvement in environmental sanitation facilities, reductions in child mortality, miniscule improvement in delivery practices and increased knowledge of the etiology of illnesses. Management of diseases continued to be largely traditional and many households utilize the health clinic and health workers for curative purposes.

It was noted that the prevalence of illnesses particularly upper respiratory tract infection, skin diseases, anemia, malaria, and PTB was reduced. However a high prevalence rate of parasitism was observed. The young childrens nutritional status had not shown any marked improvement before and after the assessment.

Most of the health workers joined the health program to gain skills to treat illnesses. The health services they often delivered were curative. The majority claimed participation in the planning of the health program and were actively providing services at the time of the assessment. In the initial training on primary health care, the health workers found the lessons on herbal medicine and the management of illnesses most useful. Their main difficulties in the initial training were in the use of Tagalog as the medium of instruction and in writing down of notes. The health workers appeared to have easier comprehension of the lessons in the retraining largely because of their exposure to the delivery of health care services during the year.

The health workers felt that they could manage some illnesses, viz, headache, fever, diarrhea, stomachache, and scabies but they claimed to have difficulty in

treating PTB, swollen parts of the body, malaria, and vomiting. Clinic management was not regularly performed and direct linkage with the RHU was practically absent. The main problems faced by the health volunteers in their work demands at home and in their swidden farms, illiteracy, and uncooperative households in their catchment areas. They were generally satisfied with their involvement in the health program and most were willing to continue serving the community even after the project team would leave the area.

The officials of the village health care committees did not have a clearcut delineation of their functions and they thought that their major task was to carry health supplies from the lowlands.

The staff of the Rural Health Unit, on the other hand, perceived the project positively and underscored their participation from the training to program monitoring.

The majority of the health workers were assessed to be adequately skilled in some aspects of communication (clinical history and referral skills), diagnostic (i.e., pulse taking, weight taking, identification of the symptoms of malaria, PTB, skin disorders, parasitism, diarrhea, upper respiratory tract infection, and preparation of malarial smear), and prescriptive skills (i.e., they can cite treatment of the foregoing illnesses, can prepare ORESOL). They can also extend health counselling in the prevention and control of illnesses and has adequate knowledge of herbal medicine. They were, however, deficient in some areas such as reporting of clinical data, temperature taking and blood pressure taking, identifying symptoms and treatment of scabies, fungal infection, allergy, urinary tract infection and knowledge of immunization. Based on her practical experience with them, the project nurse assessed a lower degree of adequacy of service delivery and leadership qualities among the health workers.



## Chapter Seven

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The late 1970's witnessed a transformation in the orientation and substance of health programs from a purely curative approach where the concern was for etiology and the problems were isolated to a coherent whole, both sectoral and intersectoral, that emphasizes the preventive and promotive aspects of disease prevention and control. The new philosophy is geared on the premise that people with health needs but scarce financial resources can get proper care if they are sufficiently mobilized and trained with appropriate support at the intermediate level as well as the more specialized referral services. Each culture has certain fundamental structural features and activities where health exists as a body of more or less systematically articulated beliefs and values concerning illness, its prevention and its cure. This ideological and value system supports their traditional institutions, health provider and recipients relationships, roles and behaviours, as well as activities that taken together constitute a special segment of the social system. With this recognition, the De La Salle University Research Center, with funds provided by IDRC, embarked on a health operations research aimed at demonstrating the feasibility and effectiveness of a culturally appropriate health program that involves the community in the provision of preventive, promotive, and curative services in a Hanunuo Mangyan community in the uplands of Oriental Mindoro province. One Hanunuo Mangyan community, Barangay Binli, Bulalacao in Oriental Mindoro was chosen elected for the study. The project was divided into three phases: (1) an initial phase of baseline information procurement to determine the existing health situation, the health resources available, the health seeking behavior, and beliefs concerning illness; (2) a second phase of program formulation and implementation; and (3) a third phase of program assessment or evaluation.

The baseline data collection was undertaken on the health service providers and the community. Four traditional healers were identified and their perceptions of disease management and etiology were elicited. It appeared that these perceptions and management remained conventional than scientific. The clinical examination of household members revealed the existence of a number of health problems which were mainly infectious and communi-

cable - upper respiratory infection, skin diseases, parasitism, malaria and nutritional anemia. Environmental facilities were wanting with most of the households using the bush for defecation and open springs and streams for their water supply. Waste disposal was mainly done by open dumping of the garbage. In a society plagued by high infant and childhood mortality, it becomes logical to note a high pregnancy level - an average of seven out of which an average of five children were born alive. The high degree of pregnancy wastage may be attributed to heavy labor in the swidden farms and a marked level of malnutrition. Nearly half of the children died in the first five years of life of which more than half occurred in infancy - from measles, upper respiratory tract infections, and to a slight extent diarrhea. The frequency of tropical cyclones characterized by high velocity easterly winds account for the coolness of the mountain and sudden temperature changes partly explains the occurrence of respiratory tract infections which are aggravated by the scarcity of clothing, blankets and sheets. It is therefore not surprising that an average of eight children was desired for assistance in the farm and care in old age. Prenatal care was virtually unknown to the Mangyans and the delivery was done at home with the husband or other relatives attending. Delivery was hardly done under aseptic conditions and the umbilical cord was mostly cut using the cogon grass. Complications in delivery were noted in the form of uncontrolled bleeding. Lactation was universal and solid supplementation was given to the child at an average age of six months. Most of the residents did not know the etiology of the common illnesses, particularly diarrhea, measles, coughs and colds, malaria, and TB. For those who posited a response, the causation was largely erroneous. Herbal medicine was utilized in the treatment of illnesses. They claimed that they were not visited by any health personnel in the previous year.

The information obtained from these data sources served as the basis for the development of a culturally-relevant training program in primary health care. The sustainability of the program was perceived in terms of the ability of the Rural Health Unit in the municipality of Bulalacao to absorb the village health workers at the end of the project period. Therefore, it was decided that a culture based training program be developed within the context of the primary health care framework devised by the Ministry. Representations were made with the Ministry (now Department) of Health's national, regional, and provincial offices. A committee was formed to devise the

manual composed of a representative of the Ministry of Health, the medical consultant, a public health consultant, and the project nurse. The contents of the manual were selected from among those deemed relevant from information derived from the community and from the primary health care manual used by the Department of Health. The contents were subsequently transformed visually to sketches of Mangyan daily life. The manual was drafted and reviewed by the committee. Meanwhile, the project nurse was sent by the Department of Health for training in the primary health care program. As soon as the manual was finalized, the rural health midwife and project nurse were trained in the new manual for their role as trainers in the community. Simultaneously, the results of the survey were transformed into charts for visual presentation. Community assemblies were held to elicit the community's response to the health problems and proposed solutions. The communities also initially selected 32 village workers who called themselves Doktor sa Barangay on the basis of their perceived capability and interest in the health program. Each subject area was discussed with the trainees by the nurses and midwife through lectures, demonstration, hands-on instruction, and practicum. The health workers were then fielded and the project nurse had the clinic as the health station for consultation in addition to her field visits. Catchment households were assigned to the health workers - an average of three households per health worker. The health workers duties and responsibilities as well as clinical activities were discussed in the community assemblies. The health workers were to serve as health educators, health service providers, record keepers, and links between the community and the RHU personnel. With time progression, the number of health workers went up to 37 as more health workers joined the April training program. The project nurse manned the clinic, was involved in nutrition monitoring and program, gave immunization, and provided additional training to health workers among her other activities. The health program revolved around clinic consultations, curative care, immunization and household monitoring of activities as well as in the collection of vital information (morbidity, mortality and births). To augment the lack of food reserves, an emergency feeding program was undertaken for those malnourished in the third degree. The sanitary inspector of the Rural Health Unit made occasional visits to check on the environmental sanitation facilities, while a team from the Provincial Health Office provided malarial spraying.

After fifteen months of project implementation, an assessment of the health program was undertaken using a number of instruments: the household survey, the clinical assessment of households, the interview of the health workers, the interview of the Rural Health Unit staff, the survey of the Health Care Committee members, and the skills assessment of the health workers. The results revealed slight improvement in environmental sanitation facilities (toilet, water supply, and garbage disposal), reductions in childhood mortality, miniscule improvement in delivery practices and increased knowledge of the etiology of illnesses while the management remained largely traditional, a large proportion using the health clinic and health workers do so for curative care. Reductions in the prevalence of illnesses e.g., upper respiratory tract infection, skin diseases, anemia, malaria, and PTB were noted. However, a high rate of parasitism was noted.

Most of the health workers joined the health program to gain skills to treat illnesses. They often delivered curative health services to the community. The majority claimed participation in the planning of the health program and they were actively providing services at the time of the assessment. In the initial training on primary health care, the health volunteers found the lessons on herbal medicine and the management of illnesses most useful. Their main difficulties in the initial training were in the use of Tagalog as the medium of instruction and in taking down of notes. The health workers appeared to have easier comprehension of the lessons in the retraining largely because of their exposure to the delivery of health care services during the year.

The health workers felt that they could manage some illnesses with confidence, viz., headache, fever, diarrhea, stomachache and scabies but they claimed to have difficulty in treating PTB, swollen parts of the body, malaria and vomiting. Clinic management was not regularly performed and direct linkage with the RHU was practically absent. The main problems encountered by the health workers in performing their tasks were work demands at home and in their swidden farms, illiteracy and uncooperative households in their catchment areas. They were generally satisfied with their involvement in the health program and most were willing to continue serving the community even after the project team would have left the village.

The officials of the village health care committee did not have a clearcut delineation of their functions and they thought that their major task was to carry health supplies from the lowlands. The staff of the Rural Health Unit, on the other hand, viewed the project positively and underscored their involvement from the training to program monitoring.

The majority of the health workers were assessed to be adequately skilled in some aspects of communication (clinical history and referrals), diagnostic (pulse taking, weight taking, identification of the symptoms of malaria, PTB, skin disorders, parasitism, diarrhea, upper respiratory tract infection and preparation of malarial smear and prescriptive skills (can cite treatment of the foregoing illnesses, can prepare ORESOL). They can also extend health counselling in the prevention and control of illnesses and has adequate knowledge of herbal medicine. They were, however, deficient in some aspects such as reporting of clinical data, temperature and blood pressure taking, identification of symptoms and treatment of scabies, fungal infection, allergy, urinary tract infection and knowledge of immunization. The project nurse assessed that the health workers have a lower degree of adequacy and leadership qualities.

### Issues

As the project ends, two important issues need to be addressed in a definitive manner: community participation and project sustainability.

### Community Participation

This has been considered the central aspect of any primary health care project since it has been felt that harnessing people's energies results in more accomplishments, that an intrinsic value is imparted to the participants which is the avoidance of feeling of alienation and powerlessness, the increase in cooperative interaction that will lead to a more united community; and the catalytic force for further development efforts as it creates a sense of responsibility for expressed felt needs making use of indigenous knowledge. It has been posited that community involvement in an efficient program is contingent upon a number of factors: (1) the community sees itself as a group of people who have a sense of

belonging to the same entity, who have a common perception of collective needs and priorities, and who are able to assume collective responsibility for community decisions; (2) the community possesses a legitimate, internal administrative structure as an informal means of social control over its members; and (3) the members partially identify their own interests with the interests of others. The program conceived of community participation by evoking the felt needs and demands of the households, feeding back the information through a community assembly, recruitment and training of community health workers for service delivery, and the creation of village health committees for frequent informal dialogues to monitor the program implementation and institute changes. A number of factors seemed to have precluded the objectives: (1) the basic reticence, passivity, and shyness of the Mangyans which accounted for the attitude of non-involvement. Community meetings were attended by a few people who assumed a reticent stance in most health deliberations; (2) the economic base of kaingin farming (swidden agriculture) fosters family individuality since the farms are far flung. Cooperative farming activities are undertaken within the family system. Therefore, interfamily cooperation in a new endeavor becomes a nuance; (3) farm work and household tasks take a lot of time of the residents such that the undertaking of additional activities becomes an added burden to the family; (4) the health system is a collection of cognitive, affective, and behavioral environments such that health beliefs and practices exist within the cultural milieu. Therefore, any deviation from this completely homogenous entity is viewed with skepticism. As evinced by the household members perceptions, the health workers could not provide anything that is not already known to them; (5) community participation as envisioned in this project involves the training and fielding of volunteer health workers. The workers were not sufficiently motivated to undertake the tasks for a number of reasons: the distance of the constituent households, the lack of faith of the households in their capability, and the initial difficulty in training due to the language barriers and the method of instruction. A certain degree of literacy might be required to achieve the training goals; and (6) the village health committees were constituted to assist DSBs in their respective tasks, hold dialogue sessions for the progressive monitoring of the project, and assist the project team in the implementation of the program. The organization of these committees was accompanied by the reluctance of the proposed members, the lack of interest

in sustained activities, and failure to convene meetings. As the members indicated, their visible participation to the project was the carrying of supplies from the foothills to the uplands.

### Project Sustainability

To ensure the project sustainability requires the consideration of several dimensions - the community, the health workers, the rural health unit, and the program *per se*.

The Community Dimension. Short term changes were noted in health status, preventive activities, and knowledge of specific illnesses in the community. However, many households were not aware of the overall functions of the health workers. Their attention was focused only on curative care that the health workers could provide. They viewed their participation in terms of single shot activities: building the clinic, fencing the clinic, installation of toilets, attendance in meetings. However, cynicism was raised over sustained participation due to the distance from the barangay center, the kaingin activities, lack of information, and household tasks. They claimed that the health workers hardly visited them and were not in their place for consultation. Some even questioned the competence of the health workers. The lack of cooperation has been underscored by the members. And this was manifested by the fact that only 17% of the households expressed interest in participating in health activities.

The health workers. The initial selection of the volunteer health workers was undertaken by the community. They were subjected to training with the use of a culturally-appropriate primary health care manual. The workers experienced difficulties absorbing all the concepts presented. Soon after their training the workers were fielded in their respective catchment areas. Inadequate social preparation was given to the health workers regarding their roles and functions in the community. The workers' constituent households were also not properly oriented about their role and the tasks of the health workers in the health program. Therefore, the expectations set were different. The workers were mainly approached for illness management while environmental sanitation, health education and referral services were undertaken to a slight degree. The workers claimed that

these are weak areas in their knowledge which could have been assuaged by constant interaction with the other health workers and the project nurse. Involvement in other activities (kaingin, household) precluded their effective participation in the program and evoked negative feelings on the part of the households. This has been aggravated by the lack of logistics support from the community.

The Rural Health Unit. The staff of the Rural Health Unit expressed interest in the project and felt their involvement from the first stage of training to implementation mainly through the distribution of supplies (medicines, milk supplements, family planning methods, and vaccines). Referrals are likewise made to the health center. The staff expressed regret that they were not able to participate actively in the program due to physical distance and work load. The sustainability of the project hinges largely on an effective linkage between the Rural Health Unit who will assume responsibility for the supervision and monitoring of the project and the health workers who will deliver the services. During the implementation phase of the health program the gap was bridged by the project nurse who acted as the link in the expression of needs. The nurse's role should slowly be assumed by a responsible and committed group of health workers who can make representation with the Rural Health Unit for the community.

The Health Program. The program was formulated with the primary health care philosophy in mind that has the following facets: accessibility of services to everyone, relevant and effective services which meet the health needs of the people and which are socially and culturally acceptable to them, functional integration with the higher technical levels of the health system, improved efficiency and allocation of resources for the greatest benefit, and community participation in the planning, management and evaluation of services at all levels. When the training program was conceived, little attention was given to the capability of the potential health workers such that they had to understand the different instructional modules in Tagalog a language that is not so familiar with them. Little social preparation was given to orient the communities of their tasks and functions. Besides, they gravitated toward easier roles of illness advice through herbal prescriptions. Other tasks diverted their activities which increased the cynicism on the part of the recipients. However, certain services were provided that induced



changes in the health seeking behaviour and status of the population.

### Recommendations for the Program's Sustainability and Replicability

With the recognition of the merits and limitations of the study a number of suggestions will be made to ensure the replicability and sustainability of the health program. A conceptual framework has been devised to examine the components of this program.

The framework can be conceptualized in terms of two sub-systems: the program component which involves both the community and the Rural Health Unit providing the resources from which the health services are produced and the community component - the people that utilize and provide the health services. The linkage between them is the crucial aspect of this study. Issues that need to be clarified are the community structure, functions, degree of responsibility, authority, structural channels, mode of interaction, participatory management and integration.

The following elements are vital for a truly participatory and sustainable health project :

1. The participatory facet needs to take into consideration the source of initiative, incentives, structural channels, scope, and duration of the program. Unless the community is sufficiently convinced of the merits of their participation and informed of the nature of their involvement, commitment could hardly be obtained.

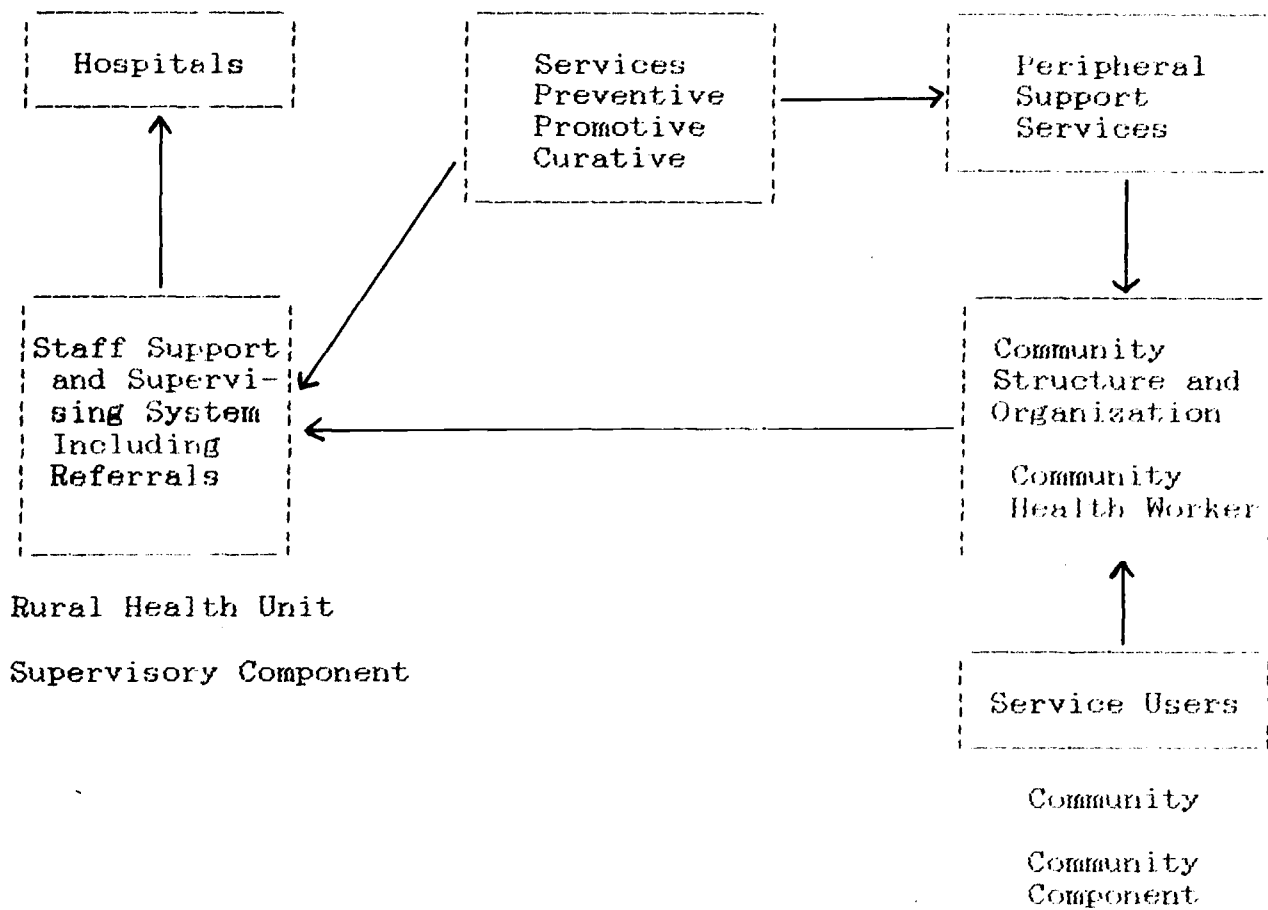
2. The health program is likely to succeed when the interventions are technically uncomplicated, clearly defined, short term and have no more than one objective. The successful execution of project interventions is more likely when tasks required are simple and familiar.

3. As the social and cultural milieu of the communities is to be recognized, the health care should operate so that the program could be geared to this reality.

4. The training program should consider the capability of the health workers such that adequate skills are imparted within a reasonable time frame.

Figure 7.1

Conceptual Framework for the Analysis of the Participatory Strategy in Health Care



5. Attempts should be made to involve other community members in the planning and implementation of the programs. An appropriate local organization can act as a channel through which the people can participate in the development of the health program. A community organizer can help mobilize the people for specific services.

6. Organizational skills are required to call meetings, keep records, and arrive at decisions. There is a need for the community leaders and health workers to bring the health issues to the members. The support processes should be strengthened to unify the people.

7. The Rural Health Unit should be actively involved with the health workers on all aspects of the health care delivery - monitoring, modification, and evaluation. Continuous dialogues should be held between the rural health unit and the workers to identify problems, prioritize solutions, and mobilize resources.

8. The community should be able to draw or demand the services of those who control the resources especially the government.

9. The health worker should be able to relate the health program with the realities of the local social organizations and how the interests, impulses, and resources of the community can be linked to the program. In conclusion, it can be stated that the determination of the fit between culture and health care remains an objective for future work. The importance of determining the individual and societal response to primary health care is underscored. The commonly held beliefs and values about illness cannot be ignored. Likewise, the disease distribution in populations can not be neglected. What is needed is a sense of scope and purpose for the primary health care system to evolve a meaningful program to achieve the goal enunciated at the Alma Ata conference of health for all by the year 2000.

## DISCUSSION

Primary health care has been viewed as a combined basic health service and community development program envisaging health as a spearhead to improving the quality of life through a wide ranging variety of activities both health and health related. It seeks to extend health care

even to impoverished people in inaccessible communities. It is based on three essential processes: community participation, voluntary village health work, and appropriate technology for its implementation. Part of the failure to achieve community participation in traditional societies lies in trying to impose an alien bureaucratic notion of participation rather than seeking to achieve it through the traditional structure of the village. Community participation per se does not automatically ensure that adequate health care and services will result. The services required to satisfy the community's wants do not necessarily, if at all, ensure adequate attention being paid to the fundamental steps required to eliminate ill health. Most communities are well aware of the benefits of modern medical care and clamor for them, but they are as yet hardly aware of the benefits of preventive and promotive care. The village health work in primary care mostly consists of rendering small curative services - dispensing of medicines, undertaking monitoring activities, and to a certain extent providing health care information to the community. The creation of village health committees sometimes does not work because existing internal structures were not taken into considerations.

#### Voluntary Village Health Worker

The use of volunteer village health workers is considered an essential feature of primary health care. Their selection, training, motivation, and supervisions are crucial to success as is the system of incentives and rewards. Motivation, the desire to provide voluntary service for its own sake, is obviously critical as is a demonstrated interest in health, and is probably better appreciated by the community than by outsiders from knowledge of the individual. Priority should be given to traditional health practitioners and members of their families since village occupations tend to be familial and villages tend to turn to their own traditional healers for advice and counselling as a first resort. Whatever tasks and functions are allotted, how they are actually carried out by the village health workers will depend on many factors such as their calibre and sustainability for the job both of which their own people will know. Yet it is often in the area of recruitment and selection that community participation is ignored for several reasons: (1) the community cannot express its views or act upon them if there are no proper channels through which to do so; (2) women, who traditionally play the main role in the

promotion and taking of responsibility for family health may have little voice in village affairs; (3) poverty itself discourages cooperation because the prior commitment is to family rather than the community; and (4) suspicion is often aroused among the villagers by those who attempt to organize them. These difficulties are surmountable. While commitment to service to the community is essential, also needed is the intelligence to undergo the required training program and the recognition to keep within the acquired limits of competence.

### Tasks and Functions

The list of tasks and functions drawn up for community health workers in the primary health care program have been based on the eight essential components outlined in the Alma Ata declaration. They are often expected to take responsibility for a wide range of functions - home visits, environmental sanitation, provisions of a safe water supply, first aid for injuries, treatment of simple and common ailments, health education, nutrition surveillance, maternal and child health, family planning referral, and record keeping. A list of this kind can daunt many a professional health worker. It may be absurd to expect village health workers to shoulder it considering their level of general education, the type and duration of their training, and the health needs of the community. A closely related misconception is that villagers can be taught to change their ways. Certainly in the health field, the demonstration approach does not lead to improved ways to illustrate while western drugs produce the desired effects there is no effective way to demonstrate the benefits of immunization.

### Training

Many community health workers have been taught in the "talk and chalk" methods of learning. Others lack the intelligence to adapt what they learn for use in the field such as health education. The opportunities for encouraging self knowledge and self care are lost and the people's understanding of health continues to be based on their knowledge of illness. The manuals and learning aids are frequently irrelevant to the specific problems and the sociocultural circumstances of the communities. The clarion cry "translate and adapt" has not been taken at the local level. The essential inconsistency in the

preparation of the community health worker lies in the magnitude of the results expected and the meager resources and efforts invested. Too much is expected from little input. Initial preparation is scanty with too little attention to the community aspects and too much to the technical. As community health work is usually additional daily commitments, the preparation for it needs to be organized for the convenience of the worker so that the routine of a busy life is as little disturbed as possible. Continuing education is crucial. Inspection is often substituted for education, criticism for consultation and irritation for understanding. Village tribal life is corporate living and each age group has a role to play. In traditional societies, the elderly still have status and respect. Their potential contribution surely arises from their traditional role as experienced counsellors and decision makers. This could be harnessed for health development. The elderly can play a role in counselling, motivating, and marshalling voluntary community efforts. The training of the traditional health practitioners is also crucial in determining the acceptability and effectiveness of any proposals for change in health.

#### Incentives and Rewards

Community health assignments are regarded as temporary and stepping stones to promotion resulting in little prestige of the village health workers. It has been pointed out that the payment of village health workers creates a number of problems from recruitment and even changes the behaviour of the workers. Volunteerism, however, will indicate that they will be able to work only part time for primary health care because they have to continue in their original occupations to support their families. The scope of work must be limited. In the provision of incentives, there is a need to mobilize the latent capital of human resources. Sporadic efforts can often be achieved for specific individual projects. Even a series of such projects can be sustained with falling enthusiasm. For the continuity of effort in which public health progress so much depends, an informed community will patently be more productive. Voluntary cooperation through education and persuasion is a slow process where poverty is paramount, the concept that offers the best solution and promise of sustained activity is the incentive scheme for the voluntary worker - i.e., the provision of a nominal payment or payment in kind but not to the extent that the worker will

abandon his customary village occupation. The reward system should be traditionally based.

#### Supervision and Support

To ensure the smooth operations of primary health care, the health system is required to provide technical, supervisory, referral and logistic support. These factors together with a communication system that is efficient are indispensable. Reliable back-up and continuing education are essential for their credibility in the community as members of the health care team. Supervision, if it is to be constructive, must be regular, frequent, informative, patient and given willingly, without appropriate and adequate preparation followed by supportive supervision from informed professionals, community health work is bound to fail.

#### Community Response

The large sections of the underserved populations have been led to expect adequate and competent coverage through the community health worker activities. Failure to meet these expectations will destroy the image and credibility of the primary health care approach. The ambiguous social status of the health worker emanates from the perception of the villagers that the use of the village health worker is a top-down solution since their internal organization is questioned and the solution is imposed upon them. Because of their tasks of dispensing medicines, the workers feel powerful and have high expectations. After a short time, the frustrations appear - he is not recognized by the community which expects more of his services. The sociological complexities of the primary health care program need to be understood. People should have been given more encouragement at the initial stage of the program to verbalize their problems and be assured that the program can seek appropriate assistance for the health-related problems. However, the project lifetime precludes such activities since specific periods are allotted for each phase and the pace of the community was not well taken. It can be possible that there is a divergence of the concept of health and disease between the project team and the villagers. The project takes a broad view with many factors contributing to the total wellbeing of the individuals while the villagers' concept of good health may have been the absence of individual

illness. There are often too many opinions on the health priorities in the minds of the villagers and these may diverge from the more uniform and established views of the health professionals. Consensus is possible through prolonged initial dialogues in which the community members are urged to help identify health problems, set objectives, and decide on strategies.

#### Linkage with the Health System

Health professionals view the use of the village health worker as a bottom-up approach. A community needs to have a representative to provide low cost basic health services to the villagers for assuming the social responsibilities that the community has assigned to him. Village health workers are now considered as the extension of the rural health centers. This new auxiliary becomes part of the administrative structure of the existing network of health services and is advised to refer patients beyond his capacity within the traditional referral system. The midwife from the health center becomes the worker's immediate supervisor. In return, the midwife is expected to supervise the workers, provide them with supplies and materials, and hold regular refresher sessions. One of the reasons for the focus on the village health worker is the belief that people can help themselves. The idea of self reliance becomes an important principle. The utilization of volunteer health workers if carried out according to correct principles can serve as "opening wedge" projects leading to other development activities. Health may not be considered a top community priority. However, health activities involving the maximum number of people can enhance the people's capacity to organize and manage their own community affairs. Without this capability of the people, no real sustained development can take place.

Besides, fifteen months may have been insufficient for significant changes in attitude and alterations of behaviours to have occurred in these communities. However, some seeds may have been sown. Subsequent studies may reveal that they have come into fruition.



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GUIDE QUESTIONS/ITEMS  
RURAL HEALTH UNIT STAFF

A. Background Information

1. Name
2. Position at RHU
3. Sex
4. Age (during last birthday)
5. Address
6. Birthplace
7. Number of years at RHU; present position
8. Work history -- position, location, years of service
9. General job description

B. RHU Information

10. Facilities of the RHU
11. Number of personnel; salary scale
12. Catchment area (number of barangays; proportion of Mangyan to non-Mangyan communities)
13. Clinic hours
14. Outreach program and projects to include frequency of visit to Mangyan communities, particularly DLSU research site

C. Knowledge/Awareness and Participation in DLSU-PHC Project

15. Check how R learned about DLSU-PHC project; whether R has been to research area/site
16. Determine R and RHU's involvement/inputs in the PHC project particularly in:
  - a. Training (include type, methods, duration of training)
  - b. Preventive health care (e.g., immunization)
  - c. Curative health services (e.g., cases brought to RHU for emergency/crisis intervention)
  - d. Promotive services (e.g., family planning campaign)
17. Determine R's assessment of the inputs extended to the PHC project
  - a. Training - preparation, content of training, training materials, participation and performance of the Hanunuo Mangyan BHW/DSB; problems encountered and how these were resolved; participation of DLSU project team; what should be an adequate (training program for DSBs.
  - b. Preventive health care - feedback regarding immunization, malarial spray, and other inputs; what should be an adequate preventive health care by MOH standards.
  - c. Curative health services - check assessment of procedures in bringing patients for crisis intervention, referral system, difficulties encountered; what should be an adequate curative health services for Mangyans by MOH standards.
  - d. Promotive health services - strengths and weaknesses/difficulties; adequate promotive health services by MOH standards.

18. Perception of the adequacy of DSBs health services; perceived problems in health care delivery by DSBs and proposed solutions for the program.
19. Linkage between RHU and the Mangyan BHW/DSB community -- check system of linkage, referral system, assessment of linkage (strengths and weaknesses).

D. Prospects

20. Willingness of RHU to link up with the Mangyan communities - nature of linkage, expected MOH input, community counterpart.
21. Perceival advantages of having trained Mangyan BHWs/DSBs.
22. Determine how the RHU help sustain the BHWs/DSBs in Umabang.

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Sitio \_\_\_\_\_  
DSB No. \_\_\_\_\_

## II. INTERVIEW SCHEDULE

Barangay Health Workers/Doktor sa Barangay (DSBO)

### A. Background information

1. Name of BHW/DSB \_\_\_\_\_
2. Sex            1 Male            2 Female
3. Age (during last birthday) \_\_\_\_\_
4. Highest grade completed \_\_\_\_\_
5. Duration of residence in current community \_\_\_\_\_  
\_\_\_\_\_

(IF DSB LIVED ELSEWHERE PRIOR TO CURRENT RESIDENCE,  
ASK FOR SPECIFIC PLACES, DURATION) \_\_\_\_\_  
\_\_\_\_\_

6. Catchment area/households being served \_\_\_\_\_  
\_\_\_\_\_

### B. Participation in BHW/DSB project

7. Why did you volunteer to become a DSB?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
8. Who encouraged you to volunteer as DSB?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
9. What are your responsibilities as DSB?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. What are your current activities as DSB?

10.1. As a DSB, how did you participate in the health care project?

a. Planning \_\_\_\_\_

b. Implementation (providing labor, informing people of project activities)

c. Decision-making \_\_\_\_\_

d. Sharing in benefits (immunization, health education, medicines) \_\_\_\_\_

C. Training

11. Have you participated or are you participating in the retraining sessions that are being conducted at the health clinic?

1 Yes                      2 No

11.1. (IF YES) What is the difference between the initial training and retraining sessions? \_\_\_\_\_

11.2. What are the most effective and least effective methods utilized during the initial training and retraining sessions?

	<u>Most effective</u>	<u>Least effective</u>
a. Initial training	----- -----	----- -----
b. Retraining	----- -----	----- -----

12. During the initial or first training, which topics did you understand without difficulty, with some difficulty, and with great difficulty? READ OUT EACH TOPIC.

12.1. In the retraining, which among the following topics did you understand without difficulty, with some difficulty, and with great difficulty?

Topic	Initial Training			Retraining		
	(3) With- out diffi- culty	(2) With diffi- culty	(1) With great diffi- culty	(3) With- out diffi- culty	(2) With diffi- culty	(1) With great diffi- culty
1. Primary Health Care						
2. Maternal Health Care						
3. Child Care						
4. Family Planning						
5. Nutrition						



Topic	Initial Training			Retraining		
	(3) With- out diffi- culty	(2) With diffi- culty	(1) With great diffi- culty	(3) With- out diffi- culty	(2) With diffi- culty	(1) With great diffi- culty
6. Respira- tory tract infection/ TB						
7. Diarrhea						
8. Parasites						
9. Malaria						
10. Skin Diseases						
11. Curative treatment						
12. Herbal medicine						
13. Use of modern drugs						

13. Among the topics covered in the DSB training and re-training which are the most useful, somewhat useful, and less useful in your tasks as DBS?

Topic	Initial Training			Retraining		
	(1) Less useful	(2) Some- what useful	(3) Very useful	(3) Less useful	(2) Some- what useful	(1) Very useful
1. Primary Health Care						
2. Maternal Health Care						
3. Child Care						
4. Family Planning						
5. Nutrition						
6. Respiratory Tract Infection TB						
7. Diarrhea						
8. Parasites						
9. Malaria						
10. Skin Diseases						
11. Curative treatment						
12. Use of herbal medicine						

Topic	Initial Training			Retraining		
	(1) Less useful	(2) Some- what useful	(3) Very useful	(3) Less useful	(2) Some- what useful	(1) Very useful
13. Use of modern drugs						

13.1. What are your recommendations to improve the overall training of the DSBs?

a. Content \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

b. Method of training \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

c. Duration/length of time \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

D. Implementation

14. What were your initial difficulties when you first became a DSB? How did the households in your catchment area receive you? PROBE.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

15. How were you able to overcome such initial difficulties?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

16. Have you had any experience or difficulty in undertaking your task in both curative and preventive health care?

1 Yes                      2 No

(IF YES), What are these?

Curative health care	Preventive Health care

17. Please give me five illnesses or health problems that you were able to treat and unable to treat in the past year?

Able to treat	Unable to treat

17.1. What were the other problems encountered in the past year?

18. In case of difficulty in illness management, whom do you approach for assistance?

19. What were the common health problems presented by the households in your catchment area in the past year?

20. In the past year, what do you think were some of your rewarding experiences as a DSB?

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21. What are your current problems/difficulties as DSB. PROBE.

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22. How can these difficulties/problems be minimized or solved?

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23. Are there some changes in some health practices among the households that you serve in the sitio?

1 Yes            2 No

(IF YES , What are these changes? PROBE.

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 -----

24. Can you say that your relationship with the following are satisfactory, somewhat satisfactory or not satisfactory and why?

	(1) Satis- factory	(2) Some- what Satis- factory	(3) Not Satis- factory	Remarks
1. Nurse-consultant				
2. Other DSBs from your sitio				

	(1) Satis- factory	(2) Some- what Satis- factory	(3) Not Satis- factory	Remarks
3. HHs in your catch- ment area				

25. In the past year, how often did you meet the following.

	No. of times	Purpose
1. Nurse- consultant		
2. Other DSBs from your sitio		
3. HHs in your catchment area		

E. Health Clinic

26. Have you participated in the management of your sitio's health clinic?

1 Yes

2 No

27. (IF YES), What training did you receive prior to your participation in the management of the health clinic?

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28. What were your responsibilities in the health clinic?

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29. How often did you report to the clinic?

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-----  
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30. What were the problems of the health clinic?

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-----  
-----

31. How were these problems resolved?

-----  
-----  
-----

32. Do you think that few, a fair number, or more community members used the clinic in the past year?

- 1 Few
- 2 A fair number/just right
- 3 Many

Why? -----  
-----  
-----

F. Linkage with RHU

33. How often did you meet with the RHU personnel after the initial training (in the past year)?

Personnel	Frequency	Purpose
Nurse		
Midwife		
Secretary inspector		
Others		

34. Have you referred patients directly to the RHU?

1 Yes                      2 No

(IF YES), For what purpose? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(IF NO), Why not? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

35. Did you have problems in dealing with the RHU personnel?

1 Yes                      2 No

Why? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

36. Do you think that the DSBs would be in a position to deal with the RHU on the following.

a. Referral            1 Yes    2 No    Reason \_\_\_\_\_

b. Procurement  
of supplies    1 Yes    2 No    Reason \_\_\_\_\_

c. Assistance  
in training    1 Yes    2 No    Reason \_\_\_\_\_



d. Others (SPECIFY) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

G. Prospects for community participation

37. Are you satisfied with the nature of your participation in the project?

1 Yes                      2 No

38. How were decisions made in the health care project?

- a. health committee
- b. by the community
- c. by the DSBs
- d. by the nurse
- e. by the nurse with the DSBs

39. Should decisions have been made the way?  
Why/Why not?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

40. Is community participation important in order for you to be able to do your duties as a DSB?  
Why/Why not?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

H. Sustainability of the project

41. Do you intend to continue as DSB even though the DLSU project team will no longer be based in your community?

1 Yes                      2 No

Why? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

42. How will the community/sitio sustain the following? PROBE. INQUIRE ABOUT THE INCOME-GENERATING PROJECT WHICH UTILIZED THE CLINIC DONATIONS.

a. DSB \_\_\_\_\_

b. Health Clinic \_\_\_\_\_

43. How about the Botika sa Barangay? Do you think the community members will support this?

1 Yes

2 No

Why? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

44. How will the other community members be involved in the delivery of health care services?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### NOTES

Name of interviewer \_\_\_\_\_

Date of interview \_\_\_\_\_

Time interview: Started \_\_\_\_\_  
Finished \_\_\_\_\_

Place of interview \_\_\_\_\_

Other persons present during interview \_\_\_\_\_

Other comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**QUESTIONS FOR VILLAGE HEALTH CARE COMMITTEE OFFICIALS**

1. What is your position in the BPHCC?

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2. Why did you join the BPHCC?

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3. As a member of the BPHCC, how did you participate in the health care project?

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4. How did the BPHCC contribute to the health care project?

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5. Did the BPHCC have any problems in doing its tasks? What were these problems?

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-----  
-----

6. What can the BPHCC do to contribute to the health care of the community?

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**MGA TANONG PARA OPISYALES NG BPHCC**

1. Ano ang inyong katungkulan sa BPHCC?

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-----

2. Bakit kayo sumali sa BPHCC?

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-----  
-----

3. Bilang kasapi ng BPHCC, paano kayo nakilahok sa proyekto ng kalusugan?

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-----  
-----

4. Paano nakatulong ang BPHCC sa proyekto ng kalusugan?

-----  
-----  
-----

5. Ang BPHCC ba ay nagkaroon ng mga suliranin ukol sa pagpapatupad ng kanilang mga tungkulin? Anu-ano ang mga ito?

-----  
-----  
-----

6. Ano ang magagawa ng BPHCC para sa kalusugan ng kumunidad?

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-----  
-----

LABORATORY EXAMINATION FORM

Name of subject: \_\_\_\_\_ Specimen collected: \_\_\_\_\_

Age/Sex : \_\_\_\_\_ Date of collection: \_\_\_\_\_

Address : \_\_\_\_\_ Date examined: \_\_\_\_\_

Date reported: \_\_\_\_\_

Report:

EXAMINATION	RESULTS

\_\_\_\_\_  
Examiner

## MANGYAN TERMS FOR VARIOUS ILLNESSES\*

In the following list, the English and Pilipino terms for a particular illness are given first and are followed by the Mangyan term in the following format: English term/Pilipino term - Mangyan term. Symptoms of the illnesses according to Mangyans also are noted.

1. Asthma/Hika - Hapo.
  - attack of difficult breathing
  - hissing sound while breathing
  - sometimes with fever and cough
2. Urine Retention/Hindi Makaihi - Baos
  - painful "puson"
  - difficulty in urinating
  - painful urination
3. Diarrhea with nausea/Pagtatae't pagsusuka - Kurso
  - stomachache
  - diarrhea and vomiting at the same time
  - feeling
4. Measles/Tigdas - Tipdas
  - fever and headache
  - feeling cold but not shivering
  - appearance of skin rashes
5. Diarrhea/Pagtatae - Pag-ipot-ipot
  - stomachache
  - loose bowel
  - warm stomach
  - feeling weak

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Source: Alicia Manlangit, Field Notes, September 1985.

6. Cough with cold/ubo't sipon - Pagcapho'/Pagbulduhon
  - coughing
  - phlegm (throat)
  - sneezing
  - sometimes with fever
  - headache and aching chest
7. Fever and Flu - Trangkaso
  - high fever
  - headache
  - painful joints
8. Malaria - Malarya
  - fever and headache
  - feeling cold and shivering
  - no painful joints
  - sometimes accompanied with vomitting
9. TB - TB
  - weak and thin body
  - coughing
  - spitting blood/vomitting blood
10. Intestinal Parasites/Bulate - Kayang
  - big stomach
  - thin body
  - constant occurrence of fever (especially among children)
  - constant stomach ache
  - defecating worms
11. Open wound/Sugat - Bangbang
  - painful sometimes itchy (affected area)
  - sometimes with fever
12. Abscesses or boils/Pigsa - Kayapos
  - swollen part in the skin
  - reddish color
  - hot and painful (affected area)
  - sometimes with blood and pus

13. Goiter - Bakron
  - swelling in the throat
  - thin body and weight loss
  - difficulty in swallowing
14. Bungang Araw - Burak-init
  - tiny rash on face, chest and back
  - reddish and itchy rashes
  - skin feels burning hot especially with perspiration
15. Fungal infection/buni-Buni
  - white spots on skin
  - sometimes itchy
16. Burns/Napaso- Napalian
  - reddish and burning hot when newly-burnt
  - results in wound
17. Pilay - Nabarian
  - aching in affected part
  - sometimes with fever
18. Swelling/Namaga - Baga (namaga)
  - reddish skin
  - swollen skin
  - painful (affected area)
19. Diarrhea with blood - Mag-ipot dugo
  - stomachache
  - loose bowels, with blood
20. Sore eyes - Tagu-mata
  - reddish eye
  - painful and itchy eyes



## MANGYAN MEDICINAL PLANTS

Some of the medicinal plants used in basic home remedies by Mangyans are given below. Mangyans are not very particular about the exact amount to be taken and the time to take medicinal plants. According to one of the paramedics in sitio Bailan, "in taking medicinal plants, there is no danger of being overdosed."

1. Bayabas - Guava
  - a. for stomach ache
    - boil a handful of leaves in one to two glasses of water and drink
  - b. for stomach ache and diarrhea
    - mix some pieces of bark with duhat bark; heat over fire or under the heat of the sun; when dry, pound and mix with water and drink.
2. Lumboy- Duhat/Java Plum
  - a. for stomach ache
    - boil a few pieces of bark and drink
  - b. for diarrhea
    - eat as much ripe fruit as needed
  - c. for stomach ache and diarrhea
    - mix some pieces of bark with guava bark; heat and when dry, pound and mix with water and drink.
    - boil a small piece of bark in one glass of water and drink.
3. Bunga - Betel nut Palm
  - a. for cough/colds
    - chew a few pieces with ikmo leaves; apply on the throat (externally).
  - b. for TB
    - pound a few pieces, boil and drink.

4. Dita
  - a. for malaria
    - boil some pieces of bark and take as tea
5. Gumamela
  - a. for boils (pigsá)
    - pound some pieces of flowers into a paste and place on the affected area.
6. Alusiman
  - a. for swollen skin (namamaga)
    - soften a handful of leaves and stem, wrap with banana leaves and heat; sprinkle a little salt and place on the swollen area.
7. Kugon - Cogon grass
  - a. for urine retention
    - boil some pieces of roots and drink
8. Banaba
  - a. for fever
    - heat young leaves and place on the forehead
  - b. for headache
    - same as for fever
    - boil a few pieces of bark and drink
9. Bawang - Garlic
  - a. for toothache
    - peel a piece and put on tooth
  - b. for fever
    - burn some pieces and pound, add to water and drink
10. Andaramay
  - a. for fever
    - boil some pieces of bark and drink
  - b. for chest pain due to coughing
    - soften some pieces of leaves and put on the chest

- c. for headache
    - pound some pieces of bark and place on the forehead
  - d. for backache
    - soften some pieces of bark and place on the aching part
11. Tawa-tawa
- a. for red eyes/sore eyes
    - press out sap and apply in the eyes
12. Panyat
- a. for sore/red eyes
    - press out and apply in the eyes
13. Alibon - Sambong
- a. for headache
    - soften some pieces of leaves and put on the forehead
  - b. for colds
    - boil some leaves and after cooling, bathe the patient with them
  - c. for stomach ache
    - boil some leaves and drink
  - d. for cough and cold
    - eat some pieces of young leaves
    - boil some pieces of leaves and take as tea
14. Barayong
- a. for stomachache
    - boil some leaves and drink
  - b. for deworming
    - eat some soft, uncooked seeds
15. Sambariba - Kataka - taka
- a. for fever
    - pound some leaves and rub on the forehead and the whole body

- soften some leaves, add sili leaves and ginger and rub on the forehead and body

16. Bankal

- a. for fever
  - put heated young leaves on the forehead
- b. for malaria
  - boil some pieces of bark and drink

17. Tanglad

- a. for painful joints
  - boil some pieces of leaves and stems and bathe the patient

18. Kasla

- a. for pilay
  - soften and heat pieces of bark and put on the affected area

19. Mangga - Mango

- a. for stomach ache and diarrhea
  - boil some pieces of bark mixed with barayong bark and drink
- b. for diarrhea
  - boil some leaves or bark and drink

20. Hagonoy

- a. for stomach ache and diarrhea
  - put heated leaves on the stomach
- b. for hilab - tiyan
  - pound some pieces of leaves, add some drops of kerosene and put on the stomach

21. Anapla

- a. for stomach ache
  - boil some pieces of bark, mix with sili bark and put on the stomach
  - soften some bark and put on the stomach

- b. for swelling (namamaga)
  - pound some pieces of bark, wrap with banana leaves, heat over fire and put on the affected area
- c. as forest leeches repellant
  - crush some pieces of bark and rub on the skin to produce bubbles

22. Malago

- a. for diarrhea
  - boil some pieces of bark and drink
  - soften young leaves and put on the forehead

23. Li-a -Ginger/Luya

- a. for swelling
  - pound some pieces, soak in coconut oil and rub/put on the affected area
- b. for stomach ache
  - boil some pieces and take as tea
  - boil some pieces, soak in coconut oil or kerosene and rub on the stomach
- c. for muscle pains
  - pound some leaves or tuber, drop some kerosene and rub on the aching part of the body
- d. for sipon - colds
  - eat a few pieces (raw)
- e. for aching throat due to coughing
  - pound a few pieces and rub on the throat

24. Pasbakon

- a. for malaria
  - boil some bark and drink
- b. for mothers who have given birth and have namuong dugo in the stomach
  - put heated leaves on the stomach

25. Tan-awan
- a. for swelling
    - soften pieces of leaves and put on the swollen area
26. Alum
- a. for high fever
    - to make the patient perspire, boil some bark and let him drink it
27. Luusan
- a. for diarrhea
    - boil some bark and drink
28. Sahing
- a. for asthma
    - accumulate some sap and let the patient inhale the smoke from the lighted sap
29. Kasoy - Cashew
- a. for headache
    - soften young leaves and put on the forehead
    - boil some bark and drink
30. Apaya - Papaya
- a. for high fever
    - pound some pieces of bark and rub on the forehead and whole body
  - b. for deworming
    - eat ripe fruit including seeds
31. Kalamunding - Calamansi
- a. for cough
    - squeeze juice, let stand overnight and drink the next morning (with or without sugar)

32. Mais - Corn

- a. for urine retention (difficulty in urinating )
  - burn hair of young corn, put in tap water and drink

33. Sampalok - Tamarind

- a. for cough
  - boil some bark, let stand overnight and drink the next morning
- b. for cold
  - boil young leaves and drink

34. Cayo - cayo - Cassava/ Kamoteng kahoy

- a. for headache with dizziness
  - soften some leaves and put on the forehead

35. Niyog - Coconut

- a. for diarrhea
  - burn some pieces of hush, pound into powder, and water and drink
- b. for stomach ache
  - eat very young (soft) coconut

36. Okra

- a. for diarrhea
  - boil some roots and drink

37. Katuray

- a. for diarrhea with blood
  - boil some roots and drink

38. Atis

- a. for stomach ache
  - boil some roots and bark and drink
  - soften some young leaves and put on the stomach

39. Anahaw

- a. for aching veins (at naninigas na ugat )
  - mix a few pieces of leaves, sahing sap and cotton, burn the mixture in a coconut shell, and inhale the smoke
  - this process is called tuob
- b. for relapse (binat)
  - also tuob

The following information on home remedies used by Mangyan families for various common illnesses was obtained through informal interviews and participant-observation.

1. For swelling of part of the skin
  - Tan-awan leaves are softened and placed on the affected area. This should be repeated as many times as needed or until the swelling and pain subside.
2. For fever
  - Young banana leaves are softened and put on the forehead.
  - The patient is made to drink much cold water.
  - The patient should avoid eating cassava because, according to Mangyans, it is warm or hot to the human body.
3. For headache
  - The forehead, neck, shoulders and back are massaged.
  - A small portion of hair rubbed (paglut-on ti buhok)
  - Young kasoy leaves are crushed, softened and put on the forehead.
  - Bankal leaves are softened and put on the forehead.
  - For adults, a child is made to sit on their head to assuage the pain.
4. For cleaning open wounds
  - Young guava leaves are boiled, and the wound is washed with the mixture.



5. For stomachache

- Young leaves of alibon are softened and put on the stomach.
- Scrapped papaya bark is rubbed on the stomach.

6. For diarrhea

- Softened young banana leaves are put on the stomach.
- Some pieces of boiled duhat leaves are drunk.
- Boiled guava leaves are taken as tea.
- Ripe pakol fruit (wild banana with many seeds) is eaten.

7. For asthma

- Chewed lubigan root is rubbed on the stomach and throat.
- Lubigan stem is cut into pieces and made into a necklace; this is worn by children so that when they breathe, they will inhale its aroma, thus helping in loosening phlegm.

8. For colds

- Chewed betel nut with lime is placed on the forehead accompanied with slight massage.
- Alibon leaves are boiled and, after cooling, the mixture is used to bathe children.
- Lubigan root is boiled and drunk.

9. For relapse (after giving birth)

- Anahaw leaves (few pieces) are mixed with sahing sap and cotton; the mixture is burned in a coconut shell, and the patient is made to inhale the smoke (this process is called tu-ob.)

## CLINICAL ASSESSMENT FORM

**IDENTIFICATION:**

Code Number

Name of subject: _____	Family	Subject
Date of Birth: _____	_ _	_ _
For preschoolers:	Male	Female
Father's name: _____	_	_
Mother's name: _____	Age: ___ years(s) ___ month (s)	
Address: _____		
_____		

**I. General Appearance:**

- |                |                       |   |
|----------------|-----------------------|---|
| 1. Healthy ___ | 2.1. Apathetic        | _ |
|                | 2. Irritable          | _ |
|                | 3. Cachexia           | _ |
|                | 4. Pale               | _ |
|                | 5. Mental Retardation | _ |
|                | 6. Opisthotonus       | _ |
|                | 3.1. Cyanotic         | _ |
|                | 2. Dyspneic           | _ |
|                | 3. Icteric            | _ |

**II. Hair:**

- |               |                      |   |
|---------------|----------------------|---|
| 1. Normal ___ | 2.1. Dry/thin/sparse | _ |
|               | 2. Lustreless        | _ |
|               | 3. Dyspigmentation   | _ |

4. Easily plucked

5. Flag sign

III. Face/Head:

1. Normal

2.1. Diffuse depigmentation

2. Naso-labial dyssebacia

3. Moon face

4. Crabbitabes

5. Persistently open anterior fontanel

6. Frontal/parietal bossing

7. Head drop

3.1. Malar and supra-orbital pigmentation

IV. Eyes:

1. Normal

2.1. Pale conjunctivae

2. Bitot's spot

3. Conjunctival xerosis

4. Corneal xerosis

5. Keratomalacia

6. Angular palpebritis

3.1. Nebula/leucoma

2. Blindness

- 3. Icterus
  - 4. Infection   
Specify
- 

V. Nose:

- 1. Normal
  - 2.1. Epistaxis
  - 3.1. Rhinitis
  - 2. Others   
Specify
- 

VI. Ears:

- 1. Normal
  - 2.1. Otitis externa
  - 2. Otitis interna
  - 3. Others   
Specify
- 

VII. Mouth

- 1. Normal
- 2.1. Angular stomatitis
- 2. Angular scars
- 3. Cheilosis
- 4. Magenta tongue
- 5. Scarlet tongue
- 6. Atrophic papillae
- 7. Bleeding gums
- 8. Gingivitis
- 9. Pale lips

- 3.1. Tonsillitis
- 2. Pharyngitis
- 3. Others   
Specify \_\_\_\_\_

VIII. Teeth

- 1. Normal
- 2. Mottled enamel
- 3. Caries

Number of Deciduous Teeth: (For preschoolers)

V	IV	III	II	I	I	II	III	IV	V
-----									
V	IV	III	II	I	I	III	III	IV	V

IX. Glands:

- 1. Normal
- 2.1. Thyroid Enlargement
- 2. Parotid enlargement
- 3.1. Gynecomastia
- 2. Lymph node enlargement

X. Skin:

- 1. Normal
- 2.1. Xerosis
- 2. Follicular hyperkeratosis
- 3. Petecchea
- 4. Pellagrous
- 5. Flaky-paint dermatosis

- 6. Scrotal/vulval dermatosis
  - 7. Pallor
  - 3.1. Scabies
  - 2. Pyoderma
  - 3. Ulcers
  - 4. Fungal
  - 5. Exccema
  - 6. Others Specify
- 

XI. Nails:

- 1. Normal;
  - 2. Koilonychia
  - 3.1. Winged Scapula
  - 2. Others Specify
- 

XII. Thorax:

- 1. Normal;
- 2.1. Rosary
- 2. Pigeon breast/ funnel chest
- 3. Epiphseal enlargement (painless)

XIII. Cardiovascular:

- 1. Normal;
- 2.1. Cardiac enlargement
- 2. Tachucardia
- 3.1. Murmur

XIV. Respiratory Tract:

- |           |  |       |  |               |  |       |  |
|-----------|--|-------|--|---------------|--|-------|--|
| 1. Normal |  | _____ |  | 2.1. Wheezing |  | _____ |  |
|           |  |       |  | 2. Rhonchi    |  | _____ |  |
|           |  |       |  | 3. Hemoptysis |  | _____ |  |
|           |  |       |  | 3.1. Others   |  | _____ |  |
|           |  |       |  | Specify       |  | _____ |  |
- 

XV. Abdomen:

- |           |  |       |  |                   |  |       |  |
|-----------|--|-------|--|-------------------|--|-------|--|
| 1. Normal |  | _____ |  | 2.1. Hepatomegaly |  | _____ |  |
|           |  |       |  | 2. Pot belly      |  | _____ |  |
|           |  |       |  | 3. Ascitis        |  | _____ |  |
|           |  |       |  | 3.1. Splenomegaly |  | _____ |  |
|           |  |       |  | 2. Others         |  | _____ |  |
|           |  |       |  | Specify           |  | _____ |  |
- 

XVI. Extremities:

- |           |  |       |  |   |  |       |  |
|-----------|--|-------|--|---|--|-------|--|
| 1. Normal |  | _____ |  | 2.1. Oedema                               |  | _____ |  |
|           |  |       |  | 2. Muscle wasting                         |  | _____ |  |
|           |  |       |  | 3. Diminished<br>subcutaneous<br>fat      |  | _____ |  |
|           |  |       |  | 4. Knock-knees                            |  | _____ |  |
|           |  |       |  | 5. Bow legs                               |  | _____ |  |
|           |  |       |  | 6. Ephyphysel<br>enlargement<br>(painful) |  | _____ |  |
|           |  |       |  | 7. Areflexia                              |  | _____ |  |
|           |  |       |  | 8. Hyporeflexia                           |  | _____ |  |

- 9. Purposeless movements
- 10. Sensory loss
- 11. Calf tenderness
- 3.1. Clubbing
- 2. Others   
Specify \_\_\_\_\_

Clinical diagnosis: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
ORLANDO C. MARINAS, M.D.



SKILLS EVALUATION OF HEALTH WORKERS BY  
EXTERNAL EVALUATOR (MEDICAL DOCTOR)

Name of HW \_\_\_\_\_ Evaluator \_\_\_\_\_

Age \_\_\_\_\_ Sex \_\_\_\_\_ Date \_\_\_\_\_

Catchment Area \_\_\_\_\_

	<u>Adequate</u>	<u>Inadequate</u>	<u>Deficient</u>
<b>A. <u>Communication Skills:</u></b>			
1. Clinical history taking	_ _	_ _	_ _
2. Recording of clinical data	_ _	_ _	_ _
3. Referral of cases	_ _	_ _	_ _
<b>B. <u>Diagnostic Skills:</u></b>			
1. Pulse taking	_ _	_ _	_ _
2. Temperature taking and reading	_ _	_ _	_ _
3. BP taking and reading	_ _	_ _	_ _
4. Weight taking	_ _	_ _	_ _
5. Ability to identify signs and symptoms of:	_ _	_ _	_ _
a. Tuberculosis	_ _	_ _	_ _
b. Malaria	_ _	_ _	_ _
c. Parasitism	_ _	_ _	_ _
d. Skin disorders			

	<u>Adequate</u>	<u>Inadequate</u>	<u>Deficient</u>
d. 1. wounds (types)			
d. 2. ulcers			
d. 3. boils/ abscess			
d. 4. scabies			
d. 5. fungal infection			
d. 6. allergy			
d. 7. others (Specify)			
-----			
e. Malnutrition (PEM)			
f. Anemia			
g. Vitamin A deficiency			
h. Endemic goiter			
i. Upper res- piratory infection			
j. Diarrhea			
k. Urinary			
l. Other infections (Specify)			
-----			
m. abnormali- ties during pregnancy			

	<u>Adequate</u>	<u>Inadequate</u>	<u>Deficient</u>
6. Abdominal examination of pregnant mothers (applicable for trained traditional birth attendants only)			
a. fetal presentation/position			
b. approximate age of gestation			
7. Preparation of malarial smear			

C. Prescriptive Skills:

1. Therapeutic (treatment of):			
a. Tuberculosis			
b. Malaria			
c. Parasitism			
d. Skin disorders:			
d.1. wounds			
d.2. ulcers			
d.3. boils/abscess			
d.4. scabies			
d.5. fungal infection			
d.6. allergy			

Adequate      Inadequate      Deficient

	d.7. others	_ _	_ _	_ _
	(Specify)			
-----				
e.	Malnutrition	_ _	_ _	_ _
	(PEM)			
f.	Anemia	_ _	_ _	_ _
g.	Vitamin A	_ _	_ _	_ _
	deficiency			
h.	Endemic	_ _	_ _	_ _
	goiter			
i.	Upper respi-	_ _	_ _	_ _
	ratory			
	infection			
j.	Diarrhea	_ _	_ _	_ _
k.	Urinary	_ _	_ _	_ _
	infection			
l.	other	_ _	_ _	_ _
	infections			
	(Specify)			
-----				

2. Preventive:

	a. Immunization for:			
a.1.	BCG	_ _	_ _	_ _
a.2.	DPT	_ _	_ _	_ _
a.3.	Polio	_ _	_ _	_ _
a.4.	Others	_ _	_ _	_ _
	(Specify)			
-----				

	<u>Adequate</u>	<u>Inadequate</u>	<u>Deficient</u>
b. Health counseling in the prevention and control of:			
a. Tuberculosis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Malaria	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Parasitism	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Skin disorders:			
d.1. wounds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.2. ulcers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.3. boils/ abscess	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.4. scabies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.5. fungal infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.6. allergy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d.7. others (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-----			
e. Malnutrition (PEM)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Anemia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. Vitamin A deficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. Endemic goiter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i. Upper respi- ratory infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j. Diarrhea (including use of Oresol)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>Adequate</u>	<u>Inadequate</u>	<u>Deficient</u>
k. Urinary infection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
l. Other infections (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-----			
3. Use of herbal medicines as:			
a. antihelminthics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. anti-diarrheals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. antimalarial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. antipyretics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. antitussives (for cough)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. anti-inflammatory for:			
boils/abscess	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. antiseptics (wounds)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. skin ulcers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**PROJECT NURSE'S EVALUATION OF HEALTH WORKERS'  
PARTICIPATION IN PHC PROGRAM**

Name of DSB \_\_\_\_\_ Age \_\_\_\_\_

Date of Assessment \_\_\_\_\_ Sex \_\_\_\_\_

Adequate      Inadequate      Deficient  
 \_\_\_\_\_(3)\_\_\_\_\_      \_\_\_\_\_(2)\_\_\_\_\_      \_\_\_\_\_(1)\_\_\_\_\_

**A. Attendance in Meetings**

- |  |     |     |     |
|--|-----|-----|-----|
| 1. Regular DSB meetings                  | _ _ | _ _ | _ _ |
| 2. DSB meetings with BPHCC and community | _ _ | _ _ | _ _ |
| 3. Participation during meetings         | _ _ | _ _ | _ _ |

**B. Participation in Training Activities**

- |                        |     |     |     |
|------------------------|-----|-----|-----|
| 1. Clinical management | _ _ | _ _ | _ _ |
| 2. Review sessions     | _ _ | _ _ | _ _ |
| 3. Retraining          | _ _ | _ _ | _ _ |
| 4. Nutrition education | _ _ | _ _ | _ _ |

**C. Delivery of Health Services**

- |                         |     |     |     |
|-------------------------|-----|-----|-----|
| 1. In the health clinic | _ _ | _ _ | _ _ |
| 2. In catchment area    | _ _ | _ _ | _ _ |

	Adequate <u>(3)</u>	Inadequate <u>(2)</u>	Deficient <u>(1)</u>
D. <u>Other Health Related Activities</u>			
1. Participation in income-gene- rating project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Linkage with RHU and other lowland agencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Inauguraiton of health clinic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Araw ng Kalusugan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. <u>Leadership Qualities (ability to mobilize catchment area)</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. <u>Over-all Performance as DSB</u>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





II. Income Generating Activities

1. In the past year, what activities did you undertake to generate cash income?

Activities	Amount of Income
1. Wage Labor	
2. Farm Production	
3. Others (specify)	
TOTAL	

2. Do you own the land where your house is situated?

Yes \_\_\_\_\_ No \_\_\_\_\_

3. Ownership of Livestock? (Specify) \_\_\_\_\_

4. Ownership fo Vegetable Garden? (Specify) \_\_\_\_\_

III. Environmental Sanitation Facilities

1. Toilet Facilities

Flush \_\_\_\_\_

Water Sealed \_\_\_\_\_

Pit Privy \_\_\_\_\_

Others (Specify) \_\_\_\_\_

2. Sources of Drinking Water Supply

Artesian Well \_\_\_\_\_

Dug Well \_\_\_\_\_

Springs, Streams, Rivers \_\_\_\_\_

Others (Specify) \_\_\_\_\_

3. Source of Water Supply for Washing and Bathing

Artesian Well \_\_\_\_\_

Dug Well \_\_\_\_\_

Springs, Steams, Rivers \_\_\_\_\_

Others (Specify) \_\_\_\_\_

4. Waste/Garbage Disposal Facilities

Burying \_\_\_\_\_

Burning \_\_\_\_\_

Pit \_\_\_\_\_

Others (Specify) \_\_\_\_\_



1. I can see that you have \_\_\_\_\_ children with  
\_\_\_\_\_ males and \_\_\_\_\_ females.

How may children do you want? \_\_\_\_\_

(If the number wanted exceeds the actual number had):

Why would you like to have more? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

2. Do you prefer more boys or girls,

\_\_\_\_\_ more boys. Why? \_\_\_\_\_

\_\_\_\_\_ more girls. Why? \_\_\_\_\_

3. Do you perceive that there are more children dying in  
infancy and childhood in this community?

\_\_\_\_\_ Yes      No \_\_\_\_\_

### Health Reliefs and Practices

#### A. Pregnancy

1. How did you determine that you were pregnant?

\_\_\_\_\_  
\_\_\_\_\_

2. Did anyone provide advice or care during your  
pregnancy?

\_\_\_\_\_

Type of Advice/Care Given

Type of Advice/Care Given	
_____	_____
_____	_____

3. Did you take herbs or concoctions for your health  
or ease in delivery?

Types of Herbs	Purpose	Source
_____	_____	_____
_____	_____	_____

4. Was there any specific foods that you avoided or took during your pregnancy?

Food Avoided	Reasons	Food Taken	Reasons

5. Are there specific practices that you followed during pregnancy?

Practices	Implications

6. Did you go to any particular health resource to ensure a safe delivery and a healthy infant? Specify

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**B. Delivery**

1. How did you know that you were going labor?

\_\_\_\_\_

\_\_\_\_\_

2. What did you do next?

\_\_\_\_\_

\_\_\_\_\_

3. Where did you deliver your last child?

\_\_\_\_\_

\_\_\_\_\_ Home

\_\_\_\_\_ Others (Specify) \_\_\_\_\_

4. Who attended in your delivery?

\_\_\_\_\_ MD/Nurse

\_\_\_\_\_ Traditional Midwife

\_\_\_\_\_ Relative (Specify) \_\_\_\_\_

\_\_\_\_\_ Others (Specify) \_\_\_\_\_

4. Was there any specific foods that you avoided or took during your pregnancy?

Food Avoided	Reasons	Food Taken	Reasons

5. Are there specific practices that you followed during pregnancy?

Practices	Implications

6. Did you go to any particular health resource to ensure a safe delivery and a healthy infant? Specify

B. Delivery

1. How did you know that you were going labor?

2. What did you do next?

3. Where did you deliver your last child?

\_\_\_\_\_ Home

\_\_\_\_\_ Others (Specify) \_\_\_\_\_

4. Who attended in your delivery?

\_\_\_\_\_ MD/Nurse

\_\_\_\_\_ Traditional Midwife

\_\_\_\_\_ Relative (Specify) \_\_\_\_\_

\_\_\_\_\_ Others (Specify) \_\_\_\_\_

5. Describe the mode of delivery undertaken by the attendant.

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a. How was the umbilical cord cut? How soon was it undertaken?

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6. Did you have any problems in your delivery (e.g., labor pains, uncontrollable bleeding?)

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7. Did you have any specific diet after delivery?

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-----  
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8. What practices did you follow after delivery? Who supervised these?

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C. Post Natal Care

1. After delivery, how often did you breastfeed your child? \_\_\_\_\_/day.

2. How long did you breastfeed your child? \_\_\_\_\_ months.

3. Did you receive any advice on breastfeeding?

Yes \_\_\_\_\_ No \_\_\_\_\_

Source	Type of Advice
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-----	-----
-----	-----
-----	-----



4. Did you have any problems concerning your breast milk?

\_\_\_\_\_ Yes (Specify) \_\_\_\_\_  
\_\_\_\_\_ No \_\_\_\_\_

5. Did you give other types of milk? \_\_\_\_\_  
\_\_\_\_\_ brand

Where processed? \_\_\_\_\_

6. At what age did you introduce solid foods?

\_\_\_\_\_  
\_\_\_\_\_

Type of solid foods given: \_\_\_\_\_  
\_\_\_\_\_

7. What food(s) do you give your children during illness?

Illness	Foods Given
Diarrhea	
Fever	
Cough/Colds	
Skin Diseases	
Others	

D. Perception of Health and Illnesses

1. How are the following specific illnesses caused?

Illness	Cause how Contracted	Symptoms	Perceived Management
Gastro enteritis (Diarrhea)			
Coughs/colds			
Malaria			
Fever			
TB			
Others			

E. Family Planning

1. What is the ideal interval between births?

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2. Are there practices in the community aimed at preventing conceptions?

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3. Are you using any family planning method now?

Method \_\_\_\_\_ Source \_\_\_\_\_

HEALTH SEEKING BEHAVIOR

1. Are there ways by which you can prevent specific illnesses?

Respiratory	
Gastro-intestinal (diarrhea)	
Parasitism	
Viral (Mumps, Measles)	
Skin Diseases	
Others	

2. Once the following illnesses occur, what do you do?

	Management
Respiratory	
Gastro-intestinal	
Parasitism	
Viral	
Skin Diseases	

3. What are the health resources available in your community? How often did you utilize them in the past year and for what purpose?

	Frequency of visit	Purpose
DSB		
Bapa Wayak		
Bapa Luhay		
Health Center		
Others		

4. How do you decide on which person to go to?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. Have you taken your last child for immunization? How often did you take your child in the past year? For what purpose?

Type of Imunization	
Doses	
Purpose	

6. Have you attended any health education program?

No \_\_\_\_\_ Yes \_\_\_\_\_

If yes: Content of the program \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

7. Are you aware of the DSB in your area?

Yes \_\_\_\_\_ No \_\_\_\_\_

If yes: What are their tasks?

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8. How often did they visit you in the past year?

	Purpose
Initially	
Later	

9. Have you used any of their services?

Yes \_\_\_\_\_ No \_\_\_\_\_ Why not? \_\_\_\_\_

Do you intend to use their services in the future?

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For those who have used the DSB's services:

Purpose	Satisfaction	Reason

10. How do you think would the DSBs be of service to improve the health of the community in the future?

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11. What are the tasks that you would want the DSB to undertake in health care in the future?

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COMMUNITY PARTICIPATION

1. Did you participate in the health care project? If yes, how? If no, why not?

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2. Are you satisfied with the nature of your participation in the project? Why/Why not?

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3. How were decisions made in the health care project?

- a. by the community
- b. by the DSBs
- c. by the nurse
- d. by the nurse with the DSBs

4. Should decisions have been made that way? Why/Why not?

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5. Did you have any problems with your DSB's services to you? What were these problems?

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6. How did the community contribute to the health care project?

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7. Is community participation important for the success of the health care project?

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8. What are the problems in obtaining the participation of the community?

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9. Can the community continue providing health care services when the project ends?

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**SUSTAINABILITY OF THE PROJECT**

1. Do you think that the DSB's can provide the health services that you need?

Areas where DSBs are:

Competent	Incompetent
-----	-----
-----	-----
-----	-----

2. Would you be willing to participate in a training program to provide health services in the community (as a DSB)?

Yes \_\_\_\_\_ No \_\_\_\_\_

In which specific area would you like to focus?

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-----  
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3. Do you intend to continue the use of the DSB's in the future?

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4. Do you think that your community can sustain the present health program?

Yes \_\_\_\_\_ No \_\_\_\_\_ Why not? \_\_\_\_\_

Specify How?

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