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ALTERNATIVE TRAINING STRATEGIES FOR BARANGAY HEALTH WORKERS IN PRIMARY HEALTH CARE

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EXECUTIVE SUMMARY

This report documents the experiences of the U.P. College of Nursing Research Program in a two-year operations research project under the sponsorship of CHS-PRICOR. The study primarily aimed to develop solutions to problems in the design and delivery of training of BHWs in Primary health care service delivery. It was undertaken in cooperation with the agencies in charge of the study sites utilized, such as the MOH-Provincial Health Office in Bulacan, Quezon City Health Department, and St. Louis University College of Nursing Mobile Nursing Clinic in Baguio City.

The study's specific objectives were to: examine ongoing training programs for BHWs in PHC, focusing on factors involved in the selection, training and supervision of BHWs in the field, as well as problems and difficulties encountered in training; develop and field test alternative training strategies in BHW training; and finally, evaluate the outcomes of these alternative training strategies. Attainment of these objectives were sought utilizing three phases in the study.

PHASE I assessed the quality of training programs in three study sites in the Luzon region. Of these study sites, two were academically-initiated; one, represented by an urban depressed area in Bagong Silangan, Quezon City, and the other, a rural depressed area in Dalupirip, Itogon, Benguet province in the North. The third site was another rural area in Matimbo, Malolos, Bulacan in Central Luzon, under the jurisdiction of the MOH-Provincial Health Office. At the time the study was initiated, these three areas were considered models in primary health care service delivery.

The following indices were utilized in assessing the quality of training in these three areas, namely, training program design, trainor, trainee, and community. Data were gathered through examination of the training program manuals used in BHW training as well as formal interviews through the use of structured questionnaires of BHWs, Trainors and community respondents. Psychological instruments were administered too, to both BHWs and Trainors to obtain additional personality characteristics.

The following were the results of Phase I analysis:

1. Training Program Design: The training program manuals covered the essential contents that BHWs should learn. They were also trained to develop skills in taking blood pressure, temperature and stool examination. The duration of training was two weeks for the Bulacan and Benguet areas and eight weeks for the Quezon City site.

2. Trainor: The trainors for the Quezon City site were three faculty members from a University-based College of Nursing, while that in Bulacan, had the RHU staff composed of the Physician, Nurse and Midwife, with invited resource speakers on certain topics. In Benguet area, the training staff consisted of three staff nurses, one faculty member and a medical technologist. In general, the trainors in the three study sites belong to the young adult and early middle-aged group, females, and married. Their length of service in community health ranged from 3 to 15 years. Their personality characteristics as revealed by the personality inventories were those of mature, well-adjusted groups interested in the welfare of human beings. They also exhibited personality traits such as self-esteem, self-regard, self-acceptance, patience, ambition, creativity and sense of responsibility, which were generally of a high level. These positive qualities were further supported by the BHWs' satisfactory ratings of their trainors with regards to characteristics such as punctuality, knowledge of subject matter, clinical skills, interest in teaching and learning of others, ability to motivate and give constructive criticisms as well. These trainors characteristics, traits and attitudes were also perceived by both trainors and BHWs as facilitating Trainee learning.

3. BHW Trainee: The BHWs in the three study sites generally belong to the early middle-aged group, mostly females, married, self-employed and elementary graduates. Their mean length of stay in their respective barangays ranged from 10 to 32 years. Their personality characteristics presented a generally mature and congenial group with medium level of self-esteem, achievement orientation, and capacity for warm interpersonal relationship. They also yielded in the personality inventories, traits of high quality, specifically, on ambition, endurance, patience, fortitude, sense of responsibility and respect. Within this generally positive self-image however, were interpersed some feelings of inferiority, anxiety and deprivation. Nonetheless, the positive image of the BHWs, generally prevailed and buttressed by the favorable assessment of their performance by the trainors during different periods of their training and post training, specifically pertaining to services rendered.

The comparative analysis of both BHWs and Trainors pertaining to adequacy of training programs, specifically on content coverage, duration, teaching methods and practicum, yielded further the following results:

a. Both groups, in general,agreed on the adequacy of the content coverage of the training programs. They differed however in judging the practicum aspects with regards to adequacy as well as in ranking the topics taken in the order of importance.

b. Some problems encountered in training concerned training schedules, poor ventilation in training venues, boring lectures, use of English as medium of instruction and lack of teaching materials.

4. Community: The community indices, especially pertaining to awareness and utilization of BHW services were generally inadequate in two out of the three study sites. It was only in the Benguet region where there was a high percentage of responses on community awareness as well as utilization of BHW services.

Based on the pertinent findings of Phase I, it was concluded that while the training programs covered the essential contents needed by the BHWs and rated adequate as well by both trainors and BHWs, the negative findings on the community awareness and utilization of BHW services pointed to some deficiencies of the training programs. These deficiencies were related to inadequate supervision and monitoring of BHW performance after training, ambiguous perception by BHWs of their roles and functions, particularly the concept of household coverage in their catchment areas, wide content coverage which were more curative-oriented than preventive, and inadequate information dissemination or recruitment campaign in the community concerning the BHW training Program.

Against the foregoing backdrop, plans for implementing alternative training strategies were made with the trainors in the three study sites.

PHASE II of the project involved the planning and implementation of the alternative training strategies for BHWs in primary health care, using the same study sites. Thus, each study site became its own control, in this field testing phase.

The new training scheme had the following features:

1. Intensification of the recruitment process through conduction of an information campaign concerning the new training program. This was done through holding of community assemblies two weeks prior to actual training.

2. Course Syllabus focused on five main topics which were more preventive oriented, using the Five Impact Program of the MOH as standard training content.

3. Use of module as main teaching tool.

4. Standardization of duration of training to five (5) weeks, with one day devoted to didactics and four days to practicum per week. This schedule had to be varied however in each study site to suit the time availability and preference of the participants.

5. All didactic sessions were preceded by Group Dynamics experience as "warm-ups", aside from serving its purpose of relating the value of the group experience to the topics to be learned for the day and to the entire training program as well.

6. Monitoring of practicum activities through the use of worksheets that were submitted every week after each lesson.

7. Use of pre- and post-tests to assess level and acquisition of knowledge.

8. Emphasis on BHW Household assignment at a ratio of 1:20.

9. Monitoring of BHW activities and performance after training through regular monthly meetings and use of household record forms which document BHW activities for one whole year.

10. Construction of BHW Performance Rating Scale with equal participation from BHWs, Trainors and a Panel of Experts in Community Health.

11. Dissemination to BHWs of the results of the community survey conducted before and after the implementation of the alternative training program.

PHASE III of the study evaluated the results of the above alternative training schemes. Qualitative analysis utilized case study analysis of each study site to assess program effectiveness. Quantitative

analysis focused on data obtained through structured interviews of the BHWs, Trainors and Community respondents as was done in Phase I.

The results of Phase III were as follows:

1. Community Indices: Some positive findings were obtained on the variables concerning awareness of BHW existence, awareness of PHC, perceived functions of the BHWs and utilization of BHW services. In general, there was an increase in percentage of responses, especially in the two study sites of Bulacan and Quezon City, from the baseline period to post-training implementation, concerning awareness of BHW and PHC in the community. The opposite however, happened in Benguet region where there was a decrease in contrast to the high percentage of responses on these variables in the baseline period. This therefore proved to be a startling finding which may be attributed to the inactive status of some BHWs in this area. Another positive finding consistent in all three areas however, concerned the perceived functions of BHWs where the prevailing picture in the post-implementation period was more preventive-oriented rather than curative as found during the baseline priod. Further, an appreciable increase in utilization of BHW services, from baseline to post-implementation periods, though not very high, was also noted in Bulacan and Quezon City sites. The situation did not change very much however, in the Benguet site, where previously, there was already an 80% utilization rate of BHW services. Other encouraging findings showed increased inclination on the part of the community to share with the BHWs their health needs and problems, such as those related to environmental sanitation, malnutrition, illnesses, inadequate health facilities and lack of medicines. Likewise, a great majority of the respondents stated that the BHWs were accessible and available when needed. There was also an appreciable increase in their perception of the BHWs' capabilities to help them. Further, there was also a marked increase in percentage of responses, from baseline to post-implementation periods, affirming their belief that the BHWs should be given some remuneration or incentives for their services. Majority of the respondents opined too that this incentive should be more in the form of cash rather than in kind. They also cited some selection criteria that may be used for BHW trainees as follows: young adult, either male or female, single or married, and high school graduate. Among the personality traits that a BHW must possess as yielded by the community respondents were willingness to help the people, dedication to service, possession of knowledge and skills, good moral character and good interpersonal relationship.

2. BHW Trainee: The BHWs who finished the new training program generally belong to middle-aged group, married, self-employed and elementary graduates. The BHWs who finished the training course in Bulacan were all new recruits while those in Quezon City and Benguet were old BHWs, thus, the new training served more as a refresher course. All BHWs in Bulacan were females and out of 30 who completed training, only 22 were in active status during the post-implementation survey ten months after training. In Quezon City, 17 BHWs, one male and 16 females, were in active status out of 20 who underwent the re-training course, while in Benguet, only 16 out of 19 who took the re-training course were likewise in active status. The personality traits of these BHWs as revealed by the personality tests were industry, fortitude, ambition, self-assurance, dedication, and sense of responsibility. They also possessed medium level of self-esteem and as a whole, presented a profile of a mature and well-adjusted group.

More than 80% of these BHWs claimed that the new training program provided them with knowledge and skills which they were able to apply in their work. Further, a great majority replied, especially the very active ones, that what motivated them to continue providing services despite absence of monetary compensation was their desire to help the people and love of their neighbors.

Some problems they shared in connection with the training they underwent dealt with inadequate practicum. Other problems cited in the course of their practice as BHWs, were the presence of co-workers who seemed uninterested in their work, lack of medicines to give to clients who consult them, lack of blood pressure apparatus, inability to attend regularly the monthly monitoring meetings as well as submission of the monitoring sheets. Further, while they recognized the value of preventive services more than curative ones, it was still the latter that they were able to render more, citing lack of time to go out in the field to make home visits and promote health education services as reasons.

Regarding the training content, the BHWs also cited the following topics as needing more emphasis: namely, MCH, with actual demonstration and practice in home deliveries, community organization, TB case finding and follow-up, and assessment of malnutrition.

The BHWs also suggested the following selection criteria for those who will undergo BHW training programs, such as young adult, female, single, high school graduate and a resident of the community to be served. Further, some personality

traits cited that a good BHW must possess are willingness to serve the people, dedication, possession of knowledge and skills, good interpersonal relationship, good moral character, kindness, sense of responsibility, endurance and humility

3. Trainor: The trainor in the Bulacan site was the RHU Midwife, while in Quezon City and Benguet, the trainors were nurses. They were all females; two were single and two were married. The psychological tests revealed a generally mature, well-adjusted group, with high level of self-esteem, self-acceptance and self regard. They also obtained high scores in the personality tests, on traits of ambition, patience, creativity, inquisitiveness, sense of responsibility and respect.

In general, the trainors rated the new BHW Training program as adequate. They claimed the program provided the BHWs with basic knowledge and skills they needed in their work. They cited also the use of the modules as a very helpful and valuable teaching tool.

Some problems cited during training and post-training were BHW tardiness and absences especially during regular monthly meetings after the training period. The trainors also cited lack of audiovisual aids that can supplement the lecture discussion method used in didactic sessions, such as slides and film strips. Further, lack of incentives to BHWs was also related to the waning interest of BHWs in their work after formal training.

The trainors also identified some trainee characteristics which best facilitated learning, such as motivation, interest, commitment and inquisitiveness. Further, educational background of at least post-elementary was also cited as enabling the BHWs to understand the subject matters easily.

In turn, trainor characteristics identified by the BHWs as facilitating learning wereapproachability, patience, good sense of humor, good interpersonal relatinns, facility with language expression, interest in teaching, and ability to motivate learners. The trainor characteristics cited as hindering learning wereimpatience and lack of interest in teaching.

Summary, Conclusions and Recommendations

In general, the results of the field-testing of the alternativ BHW training strategies, using the trainor, trainee, and community variables as measures of program effectiveness were positive and favorable. The data on the Community index which showed a general increase in percentage of responses, though, not very high, specifically on aspects of community awareness of BHWs and PHC, as well as utilization of BHW services, can still be considered encouraging. This minimal increase can still be appreciated especially when viewed in the context of a ten-month period within which the program has been in implementation, and thus too short a time to fully evaluate its impact or effectiveness.

The following conclusions derived from this study are:

1. The alternative training strategies with its distinctive features of utilizing modules, actively involving BHWs in evaluating their performance, and disseminating to BHWs a community feedback reflecting their performance as BHWs, were generally adequate and provided the BHWs with basic knowledge and skills they needed in rendering health services to the community. The data on trainor, trainee and community indices buttress this conclusion.

2. The use of modules was an effective supplementary tool in BHW training program and served as handy reference for review purposes as well.

3. Periodic consultations with BHWs, and actively soliciting their cooperation in matters related to their performance, such as the construction of a BHW performance rating scale, number of household assignments, as well as dissemination of results of the community survey reflecting their own performances, served to re-kindle and sustain their continuing interest and motivation to perform their functions as BHWs.

4. Group Dynamics served not only as pre-didactic catalyzers but provided valuable insights as well, in relation to self growth and team building among the BHWs.

5. Granting of concrete incentives in any form, is necessary to sustain BHW interest and motivation in their work.

6. There is still a need to improve on the supervision and monitoring aspects of BHW training programs related specifically to sustaining their interest and motivation to continue functioning as BHWs.

7. There are distinctive personality traits and characteristics of BHWs associated with efficient performance.

8. There are distinctive trainor personality traits and characteristics that facilitate as well as hinder BHW learning.

9. BHW performance reflects the kind of training they underwent.

10. There is a need for the community to be more involved in the recruitment process.

The results of this study definitely raise important implications in BHW training programs, especially pertaining to the aspects of Content, Practicum, BHW tasks, and Supervision and Monitoring of BHW performance after training.

In the light of the above conclusions, the following suggestions and recommendations are made:

1. Make the community more aware of their participation in BHW training by selecting or nominating a representative from their community to undergo BHW Training.

2. Implement a set of criteria for BHW selection especially on personality traits and educational background, once the number of applicants to BHW training programs increase.

3. Evolve a more effective monitoring scheme in monitoring BHW performance, one that they would appreciate and to which they can devote time to attend and accomplish.

4. Continually involve the BHWs in evaluating their own performance. A peer evaluation is also suggested.

5. Continually involve the BHWs in actively participating in planning the content as well as skills to be taught by getting their opinions on these aspects of the training program.

6. Sustain the interest and motivation of the BHWs in their work through some kind of incentives (aside from the package of health benefits recently provided by the government) as well as through demonstration by trainors of interest in their work.

7. For the trainors, to continually seek ways of improving their training strategies in BHW training programs as well as in supervising BHWs after training.

8. Conduct another operations research study on various training mixes along the variables of content, trainor and selection criteria pertaining to trainees' age, sex, civil status and occupation. For instance, on trainee variable, it would be worthwhile to compare the effects of a training mix using housewives only vs. a heterogenous group, or an all-male or an all-female group; young adults vs. middle-aged groups; and those withprimary or elementary education vs. those with some high school education. For trainors, the use of a midwife, vs. a nurse, or a health educator, or even an experienced BHW, may also be tested. For training content, a competency-based curriculum may be compared against the ongoing standard BHW training programs. For training method, an on the job training which is more skills-oriented, may be compared with the standard teaching method of didactics followed by practicum. Include also cost-effective analysis in data analysis. Another operations research maybe proposed to focus more on the operational problem of supervision of BHWs especially after training.

9. For end users of this study, such as the administrators and PHC implementors, to continually extend the necessary administrative and logistical support to BHW training programs throughout the country, specifically the provision of more indigenous training program materials. Also, for the social scientists to explore deeper the concept of "voluntarism" in the local health delivery system against Filipino values and culture, as well as the concept of "incentives" for services, supposedly rendered on a voluntary basis. Are the two concepts complementary, or in conflict, in the Philippine setting?

10. For the funding agencies, to continually sponsor studies of this kind, until we come up with what could really be an effective BHW training program, especially in relation to crucial indices of community awareness and utilization of BHW services, in this country.

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hundred programs and projects currently operating, all aiming to deliver a package of health services to various areas of the Philippines. Cariño and Associates (1982) provide a detailed compendium for about thirty of these in a book concerning effects of five rural health delivery mechanisms.

On the part of the government, the Ministry of Health (MOH), in response to the pressing health needs and problems existing in rural communities, had identified and currently giving attention to five priority/impact health programs, namely, Maternal and Child Health (MCH) which embraces Family Planning (FP) and Nutrition; Control of Tuberculosis; Prevention and Control of Diarrheal diseases; Prevention and Control of Malaria; and Prevention and Control of Schistosomiasis.

2. Primary Health Care as an Intervention Strategy:

In 1978, during the International Conference on Primary Health Care at Alma-Ata, Soviet Union, primary health care, as an approach towards achieving "Health for All by the Year 2000" was adopted. In this conference, primary health care was defined as "... essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community

and country can afford...". Primary Health Care addresses the main health problems in the community, providing promotive, preventive, curative and rehabilitative services accordingly... it includes at least: education concerning prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation, maternal and child health care, including family planning; immunization against major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs". (Declaration of Alma-Ata, 1978). Thus, the philosophy of primary health care revolves around the development of maximum community and individual self-reliance through full community participation in the planning, organization and management of the health services. This envisages that the community will define its own health problems and needs, devise and carry out programs or activities to solve them in partnership with the government and the private sector (MOH, 1980). The MOH underscores this concept of community participation and the need to involve people in the communities in health-related activities. Thus, as a strategy to health development, the MOH launched its primary health care program nationwide in September, 1981. As of January, 1985 a total

of 38,005 barangays were initiated to PHC. Further, to facilitate community involvement and active participation, Barangay Primary Health Care Committees (BPHCC) were organized as part of the initiation to PHC. At present, there are 39,000 PHC committees in the country. Data gathered from field reports and technical working group assessment reports indicated that PHC implementation is moving toward its goal of providing health for all Filipinos. However, the status of its implementation varies from region to region and from province to province due to the presence of factors which may either boost or retard its progress. An investigation of areas where PHC has been successfully implemented revealed that the following factors were evident: adequate social preparation of the community, collaborating agencies and MOH personnel in PHC; strong intersectoral and intrasectoral collaboration; adequate training of midwives and BHWs, active community participation, strong leadership qualities, dynamism, and enthusiasm of the midwives involved in PHC; and close monitoring of projects and activities by PHC coordinators. (MOH, 1984). Likewise, the areas of concern which needed looking into because of some problems they present to the field implementors, were the following: inadequate social preparation of a substantial number of barangays on the concept and strategies of PHC, need to adequately train midwives and BHWs to enable them to perform both their health-related

and community-related jobs, lack of instructional materials, logistic support, and need to come up with incentives which will sustain the commitment and motivation of BHWs. At present, the MOH has 42,000 functional PHC barangays (Dr. Florendo, personal communication). Based on the set indicators for levels of PHC implementation , most of these barangays are already on the second level (organizational level). Further, having been organized, these barangays are expected to proceed with implementation and project maintenance levels (3rd and 4th levels of health development).

3. Barangay Health Workers in PHC:

One of the key components of Primary Health Care is the utilization of indigenous health resources and health manpower development. Within many national strategies among developing nations, the use of volunteer health workers among community members is seen as one of the major ways to implement primary health care. Community health workers are viewed as the key to attaining the acceptability, affordability, and accessibility of primary health care. (Schaefer and Reynolds, 1985, p. 7). This type of health worker who are called by a lot of names aside from the term "Community health worker", such as Barangay Health Worker (BHW), Barangay Health Technicians (BHT), Volunteer Community Health Worker (VCHW), Village Health Worker (VHW), Health Visitor (HV), or Barefoot Doctors (BDs) act as links to the

community in the provision of basic health services. What is common to these terms in most developing countries is that they refer to workers who are: 1) "indigenous to the settlement or the soc-al class of those to be served; 2) trained to function at the auxiliary level of health care; 3) based in rural, and in some cases urban communities; 4) trained to work closely with the communities they serve so as to involve communities in the process of improving their own health; 5) prepared to facilitate access to other health services for more complex and unusual diseases and ailments; and 6) charged with tasks such 6.1), as education concerning prevailing health problems and the methods of identifying, preventing and controlling them; 6.2), promotion of food supply and proper nutrition and adequate supply of safe water, and basic sanitation; 6.3), maternal and child care, including family planning; 6.4), immunization against major infectious diseases; 6.5), prevention and control of locally endemic diseases; 6.6), appropriate treatment of common diseases and injuries; 6.7), promotion of mental health; and 6.8), provision of essential drugs. In some national PHC strategies, this type of health worker also functions as part of a multisectoral or intersectoral scheme of rural socioeconomic agricultural and rural development agents, and water supply-sanitation workers.

The justification for the use of community health workers is based on the assumption that: 1) coverage with minimum services can be achieved relatively rapidly because many community health workers can be trained faster and less expensively than more highly trained health personnel and can be distributed more easily to underserved areas, especially if they are recruited from the settlements where they are to serve; 2) acceptability of services is enhanced when offered by persons who are known to clients or, at least, are "the same kind of people as we are"; 3) community health workers can encourage community participation in primary health care and facilitate the delivery of other related services to the population; and 4) community health workers, in contrast to specialists in various diseases and disciplines, can facilitate provision of integrated health care, can help link preventive and curative services, and can collaborate with agents and activities of other sectors. (Schaefer and Reynolds, 1985, p. 8). In this particular study, the term BHW (Barangay Health Worker) is used to refer to this type of health worker. One of the strategies utilized by the Ministry of Health (MOH), in implementing PHC throughout the country is to involve and utilize Barangay Health Workers (BHWs) to facilitate participation of the community. To date, the MOH whose goal is to achieve a ratio of one BHW to 20 households (1:20), has intensified efforts in the recruitment, training and employment of BHWs in

primary health care service. Likewise, a number of private voluntary organization in the different regions of the country, as well as University-based projects, utilized various schemes and mechanisms in which local health care projects could operate, mainly through the utilization of the BHWs, who function either on a voluntary basis or through some forms of remuneration. In providing basic PHC services such as immunization, oral rehydration therapy, environmental sanitation, nutrition, maternal and child health services, the recipients will be mainly infants and pre-schoolers who are vulnerable to respiratory, gastro-intestinal and communicable diseases in childhood, as well as pregnant women and lactating mothers, thereby stressing primary preventive services. Thus, it is envisioned that through effective utilization of BHWs in PHC, there will be reduced rates of mortality and morbidity, especially among infant and pre-school age groups; reduction in the prevalence of total third and second-degree malnutrition among pre-schoolers (0-6 years old) and school aged (7-14 years old); reduce prevalence of anemia among pregnant women, nursing mothers and affected children; reduce health disabilities and improve environmental sanitation. This positive picture is illustrated by certain regions under the MOH. MOH reports for the past three years claimed that all barangays with trained indigenous health workers were involved in lay reporting of events such as deaths, births, and illnesses

by symptoms. Further, foremost among services provided by this type of health worker was the wide use of oral re-hydration distributed to thousands of families in the regions. In brief, the reports emphasized noticeable and substantial improvement in the health of its constituency.

4. BHW Training: Review of Literature:

The preceding sections underscore the importance of the BHWs in the PHC delivery system. With the increased utilization and dependence on this trained indigenous health worker, the training of BHWs is considered the most vital component of PHC delivery. Moreover, the successes or failures of PHC can be associated with the kind of training provided.

Apropos, a review of related literature on training of community health workers is in order at this point. This will serve as background too for the operational problem in the succeeding section.

4.1 The Third World View:

In rural Ghana, Lamptey et al. (1980) reported on the criteria for selection of trainees used in training village health workers, such as being a volunteer, a resident of the village with no intention of moving, literate, between 20 and 50 years of age, and acceptable to the community. The use of training manual

was also emphasized. Similarly, F.S. Soong's article (1982) on the Aboriginal Health Workers in Australia enumerated certain training principles considered particularly relevant, including training procedure and content. On the whole, it emphasized the favorable results of eight years' experience in training and using aboriginal health workers. The approach demonstrated its efficacy in meeting primary health needs and reduced dependence on services provided by outside authorities and professionals, through the involvement of the people in their own care. The training program prepared the aboriginal health workers to function as primary health care workers in their own communities.

In Nicaragua, Heiby (1982) discussed some lessons learned from the training of traditional birth attendants ("parteras"). The training was given by a single team of nurses hired specifically for the training program. The five-day training course was task-oriented and focused on the appropriate use of the contents of the "parteras" health kit, and a small number of health education concepts. A major problem identified however, was the inability of the trained traditional birth attendants to introduce their new services to the community. It was reported that less than one half of the adult women knew of the program's

existence. This study also underscored the usefulness of identifying the characteristics of volunteers that are associated with superior-performance. For instance, the "parteras" performance in health service delivery, was closely related to her activity as a birth attendant before training.

With regards to training, Smith (1982) stressed the need to examine varying approaches to training in order to determine which was most appropriate for a particular setting. He even opined that perhaps a competency based educational training may be the most appropriate approach to training in PHC. On the aspects of supervision of community health workers, in a study done in Mexico and in Indonesia, Smith (1982) further discussed the supervision of community health workers by mid-level health workers, as well as numerous funding possibilities for the former. He cited the village support on a fee-for-service basis in Mexico, and district authority support in Indonesia. In his treatise on "Primary Health Care-Rhetoric or Reality" (WHF, 1982), Smith further attributed the collapse or failures of PHC demonstration projects in many development countries due to problems with supervision, management, support and training.

In Burma, U Than Sein and Mick Bennet (1982) presented a vivid picture of the training program including the selection of community health workers, training content and procedure. These researchers also cited problems and difficulties encountered in training. Further, they pointed out certain features of the training program which posed particular challenges, such as the following:

1) Heterogeneity of trainees in age and education, hence, the training program has either to adapt to this heterogeneity or utilize it. The authors disclosed that young, better educated trainees are seen as ideal, although, those trainors who were able to make the training practical and field oriented found that they could make use of the different skills and experiences offered by a heterogenous group. The use of peer teaching also provided extra experience to the faster learning trainees related to their educative role of CHWs.

2) Lack of reward system for trainees. The authors underscored the fact that the CHWs are expected to provide a service whilst continuing with their normal life in the village. While voluntary service was seen by some trainors and trainees as being unrealistic, U Than Sein and Bennet (1983), however, found that majority of CHWs still tried to carry out their duties conscientiously, hence, cannot be viewed as being motivated only by external rewards such as money or goods.

3) Short duration of training and lack of certification requirements.

4) Supervision difficulties of CHW: The authors claimed that the general situation regarding supervision and support which might be expected with this level of workers do not exist. The CHW (in contrast to a factory worker receiving close supervision) tends to have irregular supervision. Hence, a recommendation was made that the supervisors need to be sensitive to the difficulties encountered by CHWs, who have to satisfy both community and the Ministry of Health's expectations. Further, the trainors must also communicate sufficient enthusiasm so as to attain the objectives of the training and obtain as well the positive cooperation of the trainees. The authors also cited that experience indicates that this effort takes a non-authoritarian supportive training style which is often different from that experienced by the trainors in their student days. These problems pertaining to remuneration and supervision of BHWs were also underscored by Lamptey et al. in their report on "Training of Village Health Workers in Rural Ghana" (WHF, 1980). These authors stressed that the Village Health Workers will need special support and understanding during the first few difficult months following training. If motivation and training are not reinforced during this period, they will become discouraged and abandon the work. In a number of projects studied, drop-outs during training and years after training, have been encountered as problems. The authors also suggested that other health personnel in the district be made aware of the value of the VHW to the district health's effort. With regards to remunerations, while many VHWs seemed not concerned with this, and are content to enjoy the prestige of serving as "village doctor", the programme's long term success will be better ensured by making certain that any remuneration is actually given. The authors stressed this point in connection with promised financial support from the village for the VHWs but forgotten in the end. Still on the concept of remuneration, Dr. Khandker (1982), reporting on the Bangladesh experience, claimed that the concept of "voluntary" workers waned gradually and was replaced by the paid workers.

3.2 The Philippine Situation:

Regarding BHW training, Caragay (1982) presented some promising and educational results of the training provided some traditional healers to improve their skills. In a University-based community health care project, known as the UP-CCHP, an action-research project was launched on the training of "herbolarios" (traditional healers) in Cuenca, a town in the province of Batangas, 100 kms. south of Manila, where 27 "herbolarios" underwent a three-month course in modern primary health care in the years 1978-1979. Caragay also reported some problems encountered in the "herbolarios" after training, such as absences from the monthly post-training meetings, profit-making, failure to refer patients, being boastful about their new status, and prescribing other than over-the-counter medicines. He ended his report by raising pertinent implications on the criteria for selection of trainees: "not just on interest and willingness, equally important are their attitudes, values, aspirations, commitments and acceptability to the villagers. If these characteristics had been considered in their selection, problems could have been minimized". (Caragay, WHF, 1982, p. 163).

Additional local data was contributed by Alfiler (1981) who studied six community based projects in health and family planning. A section of her report compared the training program and procedure provided the Barangay or Community health workers specifically pertaining to the duration of training, and found to vary from utilizing week-ends versus weekdays, and total training days which ranged from 3 weeks to 3 months or 9 months, with the longest duration being 1 year and 3 months. On the other hand, content coverage on basic health services, nutrition, environmental sanitation, first aid intervention, were similar for the six communities studied. However, a slight variation on teaching methodologies were noted, with some, focusing on experiential rather than didactics. On the whole, the training programs comprised both didactics and practicum.

A more detailed report especially on performance of trained Barangay health workers, referred to as BHT (Barangay Health Technician) was reported in a doctoral dissertation of Maayo (1983). The study focused on the importance of citizen participation in health care delivery through a study of two communities in Nueva Ecija, identified as model training areas in health service delivery. Maayo (1983) reported the favorable reaction of the community towards the BHT, as well as utilization

of the latter in seeking health services, thereby portraying a very positive picture of training for this type of health worker. On the aspect of remuneration, Cariño et al. (1982) reported that there exists a great variation in incentives provided the community health workers. While many do purely voluntary work, like the participants in resident workers' training programs, mothers' classes, "hilot" training programs, and youth volunteers groups, others are provided with small allowances or honoraria. The latter are specifically offered in most government programs, such as the Barangay Nutrition Scholar of the Nutrition Council of the Philippines which provide sixty pesos (around $3.00) while a few others are being funded from income-generating projects undertaken by community organizations such as the ICA project and the Barangay Health Aides Project. The latter is the financing scheme adopted in the BHT program in Barangay Cabucbucan, Rizal, Nueva Ecija, which yielded positive results as found by Maayo (1983) in her study. Maayo (1983) also recommended that if funds are available, and when circumstances make it necessary, the government could pay the entire salaries of community workers. Apropos, noteworthy to mention that in the Bicol region, the BHAs (Barangay Health Aides) trained under the US-AID sponsored Bicol Integrated Health, Nutrition and Population Project,

received a monthly stipend for their services (G. Cook, Personal Communication). Specifically, the project report stated: "The BHA will be a full time worker of the local government, and paid a proposed monthly stipend of ₱306.75 ($30.67) through the municipal treasurer" (US-AID, Bicol Integrated Health, Nutrition and Population, 1979)

An intervention study on Primary Health Care which employed Training of Community Health Volunteers was conducted by the St. Louis College of Nursing-Mobile Nursing Clinic (SLU-MNC) based in Baguio City, from 1983 to 1984, under a study grant from International Development and Research Centre (IDRC) of Canada. The study utilized three depressed study sites in the mountainous region of Benguet. The unique features of the six-week BHW training program were inclusion of Human Relations Training for the trainees prior to exposing them to formal didactic sessions, training in use of "Decision Trees", and practicum which included learning how to do simple laboratory tests. Each formal session was immediately followed by a practicum on the topics/systems to be learned. To measure knowledge acquisition, pre-tests and post-tests on all topics covered were also administered. The trainors comprised three nurses and one medical technologist. Currently, after almost two years of program implementation, the IDRC,

is funding anew an impact evaluation study, by the same institution, of this intervention strategy in primary health care. It is appropriate to mention that the St. Louis College of Nursing is also involved in ongoing training and performance monitoring of nurses employed by the TUCP (Trade Union Congress of the Philippines), the umbrella organization of several major labor unions in the Philippines, for primary health care service delivery in the different regions of the country. These nurses in turn, train BHWs in their respective field of assignment, for primary health care services.

Another major research, "The Impact of Panay Unified Service for Health (PUSH) project of Economic and Social Import Analysis/Women in Development (ESIA/WID) (cited by Maayo, 1983) sought to provide unified health services to 600 depressed barangays through the training of 600 barangay health workers who were to be supervised by the Rural Health Units in the area. These Barangay health workers served as extender of RHU health services. These health workers though differed from volunteer workers in other programs, in that the Barangay Health Worker of the PUSH project is paid by the local government (Maayo, 1983. The BHW encourages participation in need/problem identification, priority setting and plan formulation to improve community life. One of the major conclusions of the study was that the key variables in the success

of the PUSH project initiated activities are the BHWs' mobilizing efforts and relationship with people in the community, community support, inter-agency coordination and timely delivery of project inputs and outputs. The study pointed out likewise, that a competent, resourceful, dedicated and likeable BHW who has influential relatives and friends both within and outside the community has greater chances of eliciting support for projects and effecting changes in the barangay (Maayo, p. 44).

The Philippine Nurses Association (PNA) undertook also a project in Primary Health Care. In a report "The PNA's Primary Health Care Project-Two Years After", Quesada, the project Director, described and assessed the PNA Project in Parang, Marikina, after two years of implementation. As a community-based health oriented program, it was inspired by a belief that a professional organization could undertake a program with a meaningful impact in people and the community. Among the activities around which the program revolved were training and follow-up supervisionof Barangay Health Workers including their organization and mobilization. The project was implemented stressing its philosophy of self-reliance, thus the proponents made use of the strategy of transferring some of their technology as nurses to enable the community to develop their skills and

confidence in attending to primary health care needs. (cited by Maayo, 1983). The study concluded that two years after the project, the PNA could phase out from the area to enable the local people to plan, implement and evaluate whatever projects they would consider to be their priority concerns. Further, it expressed the hope that all the association's chapters in the country, would attempt to undertake a similar project thus making the organization an important partner in the development of underserved and depressed communities.

As a fitting conclusion to this section, it is pertinent to state the MOH's own training program for BHWs. The MOH is providing both basic and continuing education for BHWs as first level workers in the provision of updated basic health services particularly on the five (5) impact/ priority programs of the Ministry, namely, MCH, Nutrition, Family Planning, Control of Tuberculosis, Diarrhea and Endemic Diseases, including household teaching. (MOH Guidelines for Implementation of Priority Health Programs in PHC, 1984). It also has produced a number of training pamphlets for BHW training programs. The latest material produced by the Ministry's PHC Training Department is the Training Module on the Five Impact Programs for the Training of Barangay Health Workers. This material is valuable in assisting the BHWs acquire basic knowledge and develop skills and attitudes, especially on the impact programs of the

Ministry. Appropos to mention likewise, that during the presidential campaign, in late December, 1985, concrete incentive in the form of free consultation, hospitalization, medicines, and other health benefits and privileges was granted to BHWs. To date, certificates attesting to these benefits bearing the signature of the former president of the Philippines (please see Appendix L , p. 334) are being distributed to BHWs in active service throughout the country. Significantly, this move proved to be an attractive incentive, mobilizing many people from the community at present to volunteer and undergo BHW training for primary health care services.

Summarizing, the studies and events reviewed both foreign and local, presented various aspects and issues related to BHW, training, namely, selection of trainees, content, methods, duration of training, trainors, supervision, and BHW incentives.

II

STUDY PURPOSE: OPERATIONAL PROBLEM

The preceding chapter has emphasized the importance of training of community health workers as a key component of primary health care service delivery. There are a number of operational issues that the countries, like the Philippines, implementing PHC programs need to resolve to ensure the effective development of their BHW training programs. Some of these issues deal with BHW task specification, selection criteria, training strategies, supervision, and trainors. It is for this reason that operations research can make an important contribution to the solution of problems that have hindered the development or implementation of effective strategies for using barangay health workers in primary health care.

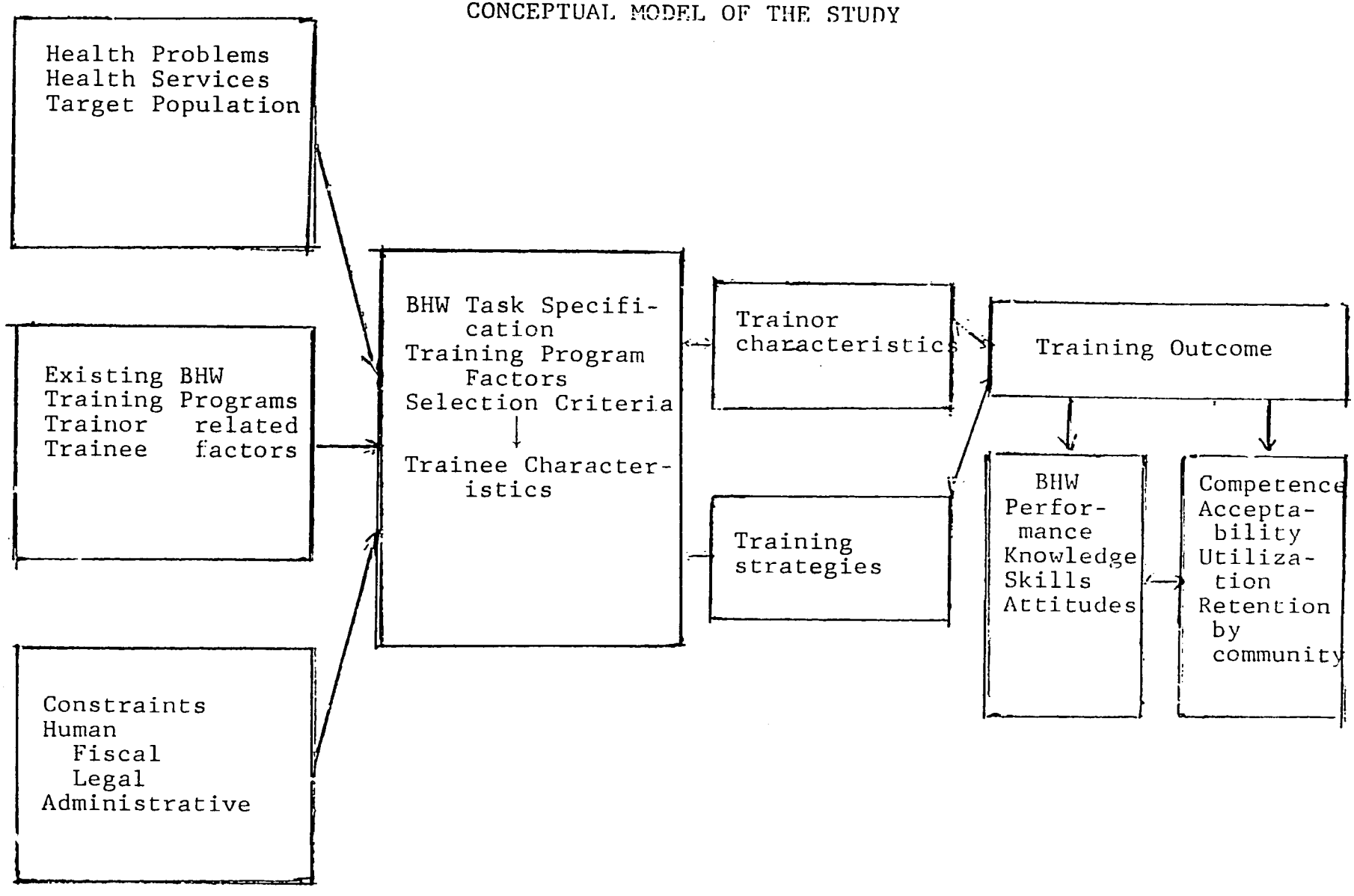
In December, 1983, the Primary Health Care Operations Research (PRICOR) awarded a research grant to the U.P. College of Nursing Research Program, to conduct a two-year operations research on the area of Training of Community Health Workers in Primary Health Care.

Against the foregoing backdrop then, this operations research attempted to develop solutions to anticipated problems in the design and delivery of training of BHWs in primary health care.

The following conceptual model guided the conduct of this study.

FIGURE I

CONCEPTUAL MODEL OF THE STUDY



As illustrated in the model, Boxes 1, 2 and 3 correspond to Problem Analysis; boxes 4, 5 and 6 to Solution Development; and boxes 7, 8 and 9 to solution validation, the main steps in Operations research. This model illustrates the interaction among the variables as they affect BHW Training program, as well as the outcome of such training. The latter in terms of the BHWs performance, as well as acceptance and utilization by the community is especially considered the crucial index of what maybe considered an effective BHW Training Program.

Henceforth, the objectives formulated were to:

1. examine ongoing training programs for BHWs in selected three study sites,
2. identify the complex interplay of factors involved in the selection, training and supervision which contributed to the level of functioning of BHWs in the field, including trainor and trainee related factors which facilitated or hindered BHW learning as well as problems and difficulties encountered in providing BHW training programs,
3. develop and implement alternative strategies in BHW training based on results of problem analysis, and
4. evaluate effects of alternative training strategies for BHW training.

This study comprised three phases. Phase I focused on the attainment of objectives 1 and 2. Utilizing four indices, namely, training program, trainor-related factors, trainee-related factors, and community household responses, answers to the following questions were sought:

1. Training Programs:
   - 1.1 What did the BHW training program consist of?
   - 1.2 How were BHW trainees recruited and selected?
2. Trainors:
   - 2.1 What were the qualifications of trainors?
   - 2.2 What approaches were utilized in BHW training?
   - 2.3 What problems were encountered during training?
   - 2.4 What were the trainor's assessment of BHW training and performance in PHC?
   - 2.5 What trainor qualities, attitudes, and traits facilitated or hindered BHW learning and performance?
3. Trainees:
   - 3.1 What were the qualifications of trainees?
   - 3.2 What problems were encountered by the trainees in their training and practice in PHC?
   - 3.3 What were the trainees' assessment of their training and performance in PHC service?
   - 3.4 What trainee qualities, attitudes, and traits facilitated/hindered their learning and performance in PHC?

4. Community/Service Recipients:

   4.1 Was the community aware of the BHW existence as providers of basic health services?

   4.2 What types of BHW services were utilized most?

   4.3 Was the community satisfied with BHWs' performance as providers of basic health services?

In Phase II of the project, solutions to problems analyzed in BHW training were developed and field-tested, the effects of which were assessed in Phase III. Hence, attainment of objectives 3 and 4 of the study were sought through answers to the following questions:

1. What were the outcomes of the alternative training strategies on BHW performance in Primary Health Care as perceived by both trainees and trainor as well as by the community in terms of their awareness and utilization of BHW services?
2. Has there been a change in performance of BHWs trained with alternative training strategies compared to their previous training?

III

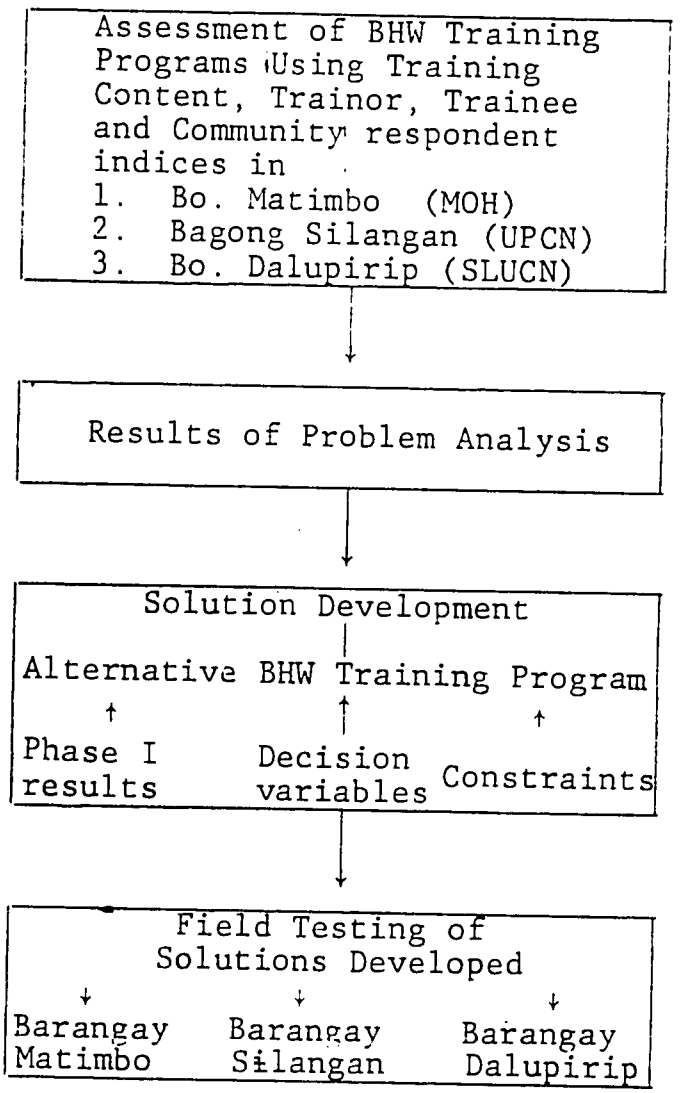
METHODOLOGY

A. Problem Analysis and Solution Development

The steps taken in Problem Analysis and Solution Development in this operations research project are further schematically illustrated in Figure 2 below:

FIGURE 2

PROBLEM ANALYSIS AND SOLUTION DEVELOPMENT



Problem Analysis involved the following activities:

1. Examination of BHW training program manuals focusing on content and duration of training, training methods, and recruitment and selection procedure. A form for this purpose was developed. (See Appendix A, p. 200).
2. Data on trainor-related factors and trainee-related factors such as socio-demographic characteristics and personal assessment of BHW training programs were obtained through the use of structured interview questionnaires (See Appendices B & C, pp. 201-214). In addition, personality traits and attitudes of both trainors and trainees were assessed through the use of psychological personality instruments consisting of two structured paper and pencil personality inventories and a devised projective test.
3. Data on Community indices were obtained through the use of a survey structured questionnaire (See Appendix D, pp. 215-221).

Description of Data-gathering Instruments:

1. Questionnaire Design:

The draft of the questionnaire for the three types of respondents which have been previously submitted to PRICOR following approval of the proposal was subjected to further modification and refinement during the month of December, 1983 for pre-testing in January 1984 after two meetings with the consultant of the project.

The questionnaires were translated into the vernacular, with the help of the hired research assistants, and pre-tested for the first time in an urban PHC-site in Caloocan City. Metro Manila, during the second week of January, 1984. The subjects comprised two trainors, 6 BHWs, and 7 household respondents. The results of pre-testing were discussed with the consultant, and some questions were either rephrased, modified, deleted from, or added to the first pre-testing draft. A decision to subject the revised third draft to second pre-testing was arrived at after further review of the questionnaires for BHWs and household respondents. Thus, on the first week of February, 1984, additional 11 BHWs and 18 community household respondents constituted the subjects for the second pre-testing. Based on the results of the second pre-test, the final set of questionnaires for BHWs, trainors and household

respondents evolved after minor revisions on the third draft. The questionnaires, constructed in the form of interview manual to aid the research assistants in interviewing, were finalized and prepared for actual data collection on the second week of February, 1984.

The Psychological instruments (administered only to BHWs and Trainors) comprised two self-administered structured personality inventories, the PUP ("Panukat ng Ugali at Pagkatao"), a locally developed structured personality inventory, which taps 26 traits/characteristics, and the GSE (Global Self-Esteem Scale). For purposes of this study, only 8 traits were tapped however, in the PUP. The other personality inventory, the GSE consisting of ten items, tapped the individual's feelings of self worth. The projective test consisted of a devised ten-item sentence completion test (SCT). Both the SCT and GSE have both English and Tagalog items on one sheet, and the respondents had the option to answer the version they preferred. For the "PUP" however, the Tagalog version was the one administered to both trainors and trainees. An additional personality inventory was also administered to the trainors in its English original version. This was the Personality Orientation Inventory (POI), the development of which was guided by Maslow's Self-Actualization theory. This

inventory has 2 major and 12 minor sub-scales, measuring several personality traits some of which are self-actualizing value, self-regard, self-acceptance, time orientation, view of man and others.

2. Training of Research Assistant (R.A.'s)/Data Collectors:

The four Research Assistants were College Graduates. The one appointed as Senior R.A. was a graduate in Community Development, at the College of Social Work and Community Development at the University of the Philippines and presently a Masteral degree candidate with previous experiences in field research. The other three (two of which were hired later during the first week of February) were all graduates of Bachelors' degree in Nursing, also from the University of the Philippines. The two field data-collectors hired on a contractual basis only for the study site in Mt. Province were also nursing graduates and have just been involved in field research on a similar project prior to their employment in the project. These personnel were all given training in data-collection. They were all involved in the construction of the revised questionnaires especially in the preparation of the translated versions (in Ilocano or Tagalog) in order to familiarize them with the instrument inasmuch as they were the ones

to administer them. They were also involved in the pre-testing and modification/refinement of the final sets for actual data-collection. Further, a series of role plays among data collectors guided by the two co-principal investigators was held, before and after each pre-testing session. The problems which arose during the role playing sessions and experiences during pre-testing sessions served as bases for modifying the statement of some questions. For instance, some questions were divided into a series of more specific questions. Likewise, rating scales were reduced to dichotomous choices instead of the Likert type. Notations were also added in the interview manual as further guide in the process of questioning. Finally, to instill a sense of commitment to the project by the personnel, initial meetings prior to training harped on the importance of each member in the research team and cordial working relationship was also maintained. Regular staff meetings were conducted weekly or monthly to discuss problems as well as to maintain a cordial working relationship.

3. Description of Study Sites

The study sites consisted of three communities considered recipients of Primary Health Care Services. Two sites were academically initiated and directed, one in an urban depressed area in Quezon City, Metro Manila under the aegis of the University of the Philippines College of Nursing, and the other, a rural setting in Benguet Province, a mountainous region in Northern Luzon under the direction of St. Louis University College of Nursing. The third site was an MOH-directed area in Bulacan province in Central Luzon. Thus, representative geographical samples from both government and non-governmental agencies were obtained, two from the former, representing the Ministry of Health and State University Health Service, and one from the latter. The MOH-directed barangay projects in the province of Bulacan, at the time of its choice as a study site, have steadfastly gained recognition as primary health care model areas. The University of the Philippines College of Nursing project in Bagong Silangan, while considered a government institution, is also identified more as an academic institution aside from the fact that this site represents an urban depressed community, in contrast to the rural community in Bulacan province. On the other hand, the St. Louis Mobile Nursing Clinic (SLU-MNC) project, while also considered an academic institution,

represents the private and religious sector, St. Louis University being under the administration of the Belgian fathers, a prominent religious order. The SLU-MNC renders health services to the "Ibaloi"-"Kangkanaen" cultural minority groups in the Northern Benguet.

These three study sites are further described below:

3.1 The St. Louis University Mobile Nursing Clinic (SLU-MNC)

The mobile nursing clinic is an extension of the Out-Patient Department of the St. Louis University Hospital of the Sacred Heart providing primary health care services to depressed, deprived and far flung areas of the Province of Benguet. The main thrust of the clinic is to reduce the incidence of illness through health promotion, maintenance and disease prevention programs, in an effort to alleviate the critical health situation in these areas, especially preventable diseases (MNC Annual Report, 1982). The clinic is manned by a full time professional nurse who at the same time is the Project director, assisted by two full time staff nurses, a medical technologist, and Senior students of the College of Nursing on practicum, and a driver.

The clinic is equipped with a modern van to service the clinic's transport requirements. It also

contains basic supplies and equipment like thermometers, weighing scale, BP apparatus, stethoscope, syringes, a minor surgical set, a pocket diagnostic set, obstetric bags, disinfectants and laboratory facilities such as microscope, slides, reagents, etc. It also has an ample supply of primary medicines which are mostly over the counter drugs. It also has two tents used for outdoor clinics.

Operationally, the team visits rural areas four times a week, covering preventive, promotive and curative aspects. For the past four years, the clinic has serviced selected barangays of the 13 municipalities of Benguet Province. The total number of barangays served was 63 or 45.9% of the total 137 barangays of Benguet . Each Barangay has an approximate population of 1,000. The areas served were chosen based on the suggestion of the Provincial Health Officer and the following criteria: a) must be a depressed area and a population of not less than one thousand; b) not serviced centrally by any health agency; c) must be centrally located so that other barangays may also be reached and that service may be eventually expanded; d) the people especially the barrio leaders must be enthusiastic about this project; and e) area should be accessible to transportation.

Initially, the clinic's activities centered on curative health care services, as this was the determined need. Towards the latter half of 1980 however, MNC efforts focused on scouting for potential community leaders who can be trained as volunteer community health workers (VCHWs). More specifically, formal training of VCHWs was initiated in January 1983 in selected service sites.

The selected study site for this project was barangay Dalupirip in the municipality of Itogon. There are presently nine barangays of Itogon of which Dalupirip is identified to be the second largest barangay and most depressed, hence, chosen to be the starting point for MNC services and VCHW training. Dalupirip, has a total area of 12,715 hectares and a total population of 1,599, and is divided into thirty sitios. The main crop of these sitios is rice. The other source of income is gold panning which is not stable as a source of income.

Since 1980, the MNC staff has been serving Barangay Dalupirip, Itogon and has covered nine sitios. Of these, only two are reachable by a vehicle, while the rest are reachable by foot trail and horseback ride. A Seminar Workshop on Primary Health Care was held in October, 1982, followed by formal training of VCHWs in January, 1983, which lasted till April, 1983. Of the 23 who registered as trainees, only 15 completed the program and continue to function as VCHWs at present.

Data gathering in this site commenced on the first week of March, 1984.

3.2 Bagong Silangan Nursing Clinic Project (BSNCP)

Barangay Bagon Silangan is located in Quezon City, a part of Metropolitan Manila and one of the leading cities in the country where most government offices are located. The main campus of the University of the Philippines is situated in this City.

Quezon City Health Department suggested that Barangay Bagong Silangan be the site for the nursing clinic project of the U.P. College of Nursing which started in 1978. The basic criterion for the selection was the absence of health services within the community. The term nursing clinic means a hub for the development of the community toward self-direction, self-reliance and self-support in health. It served as the core fromwhich activities supportive of the goals of primary health care shall emanate.

The Bagong Silangan Nursing Clinic Project (BSNCP) initiated in 1978, was a five year community based project with two goals: It aimed to develop the capabilities of the community such that its members will be able to establish basic mechanisms to direct, support and maintain health and health related activities and services. It also aimed to provide relevant and meaningful learning

experiences for the student, both at the graduate and undergraduate levels.

The main strategies utilized to attain the objectives were training of community health workers, development of indigenous resources i.e., herbal medicine, community organization, leadership training, multisectoral linkages, and development of work groups in addition to provision of direct curative and preventive services. A total of twenty one (21) health volunteers were trained in two batches. The first batch composed of eleven members were trained from April 2 to May 27, 1979; however, only nine finished the course. The second batch composed of twelve members were trained from June 13 to October 5, 1979. Today, these trained volunteers form the core of health care workers in the community.

The management of the project by the U.P. College of Nursing (UPCN) ended in November, 1983 however. The Quezon City Health Department took over and has adopted the model developed in Barangay Bagong Silangan in implementing primary health care in other parts of Quezon City. Data gathering in this site commenced on the second week of March, 1984.

3.3 Barangay Matimbo - Serviced by Rural Health Unit (RHU) IV in Malolos, Bulacan.

The province of Bulacan was recently gaining reputation as an MOH-PHC demonstration area in Region 3, Central Luzon, along with the province of Nueva Ecija. Bulacan is bounded by Valenzuela and Rizal in the National Capital Region and Pampanga and Nueva Ecija in Central Luzon, and consists of 24 Municipalities. The Municipality of Malolos is the Capital of Bulacan province. This is where the Provincial Health Office under the MOH is located. The town proper is grossly urbanized and industrialized. Among the town's health facilities are the provincial hospital, four private hospitals, four Rural Health Units (RHUs), and ten Barangay Health Stations (BHS). Each Rural Health Unit services different groups of barangays, some of which are situated in the town proper, with large majority situated in predominantly rural districts, especially those serviced by the Barangay Health Stations.

All four RHUs started incorporating the Primary Health Care Concept in their services including training of BHWs in late 1982. Specifically, RHU IV which has jurisdiction over Matimbo started PHC activities in May, 1982. Its staff include a physician, a nurse, and a midwife. From a committee organization as a starting point, it gradually expanded to include training of BHWs in May, 1983, establishment of "Botika sa Barangay", and

"Hilot" training. It serves the health needs of nine barangays. Of these, Barangay Matimbo, under RHU IV, was chosen as the study site mainly on the basis of the date of training of its first batch of BHWs in this area. They completed their training in May, 1983 compared to the other three units which had a much later date of BHW Training implementation.

Data collection in this site commenced in February 16, 1984.

4. Sampling Frame

All trainors and trained BHWs (active and inactive) in the three study sites were included in the study. For the community respondents, the household was made the frame of reference in determining the population sample. A purposive sampling, comprising 50% of the total population of the barangay was used. The sampling scheme called for interviewing every other house in each study site.

The respondents to the survey were preferably mothers or whoever was considered representing the households. The total sample size for each category of respondents is presented in Table 1 below.

TABLE 1

SAMPLE SIZE FOR THE THREE STUDY SITES

Respondent Category	Matimbo, Bulacan	Dalupirip, Benguet	B. Silangan, Quezon City	Total
Trainors	3	5	3	11
BHWs	12	15	21	48
Community households	308	103	315	726

B. Results of Problem Analysis:

This section presents the data on problem analysis on BHW training programs utilizing the four indices previously mentioned, namely, examination of training program manuals utilized in BHW training and results of interviews of BHW trainors and BHWs themselves as well as community household respondents.

The three study sites were compared along each indicator.

1. Training Program Manuals:

The following table summarizes the results of content analysis on this variable using the tool developed for this purpose.

TABLE 2

COMPARATIVE CHARACTERISTICS OF TRAINING PROGRAMS IN THE THREE STUDY SITES

Training Program	Bo. Matimbo Bulacan	Bo. Dalupirip Benguet	B. Silangan Quezon City
Date of Implementation	May, 1983	Jan.-July, 1983	April-May, 1982
Project Site	Malolos, Bulacan	Itogon, Benguet	Quezon City
Duration of Training	2 weeks	15 days	8 weeks
Number of Recruits	19 volunteers	23 volunteers	20 volunteers
Number of Drop-outs During Training	None	8 drop-outs	None
Number of Drop-outs After Months/Years	5 drop-outs	2 drop-outs	4 drop-outs
Number of Retained/ Functioning BHWs	14 BHWs	13 BHWs	16 BHWs

a. As seen in the above table, Bagong Silangan had the longest duration of training of the three study sites and had two years of implementation prior to this research. The training in Bo. Dalupirip was given on a staggered basis from January to July, 1983, for a total of 15 days, while the one in Bo. Matimbo, Bulacan was offered on a continuous basis, like Bagong Silangan, but for only two weeks.

b. Regarding criteria for selection of trainees, Bagong Silagan formulated a criteria for selection, as stated in its Training Manual, especially pertaining to age, civil status, residency, literacy, and some desirable personality characteristics, while the other two study sites did not specify such in their training manuals. However, it was understood that residency in the communities served, and literacy were assumed criteria for selection of volunteers in these study sites.

c. The manner of training, in the three sites consisted of both didactics and practicum. The one in Dalupirip, had 12 days devoted to didactics and three days to practicum such as doing community survey and spot mapping, health assessment and management of common ailments in the community. The one in Matimbo had both didactics and practicum too, with the latter consisting mainly of blood pressure and TPR taking, community record taking as well as administering first aid. The hours for practicum were not reflected in the Training Manual of Bagong Silangan. However, through interview of trainors, it was learned that the trainees' practicum, consisted mainly of administering

first aid, training in family planning and MCH services. Further, didactic sessions emphasized participatory group discussions, instead of mere lectures.

d. With regards to content coverage, Bagong Silangan had the most extensive coverage, consisting of 25 unit topics, compared to the 17 unit topics of Matimbo and 7 main Unit topics in Dalupirip (Please see Appendix E, Table 1 p. 41)

e. With regards to Course Syllabi, Bagong Silangan and Dalupirip both had objectives formulated for training. The latter also had indicators for evaluating progress of participants on main topics covered.

f. The main teaching tools utilized in all three areas, consisted of audio-visual aids in the form of film, slides and chart presentations, while demonstration and return demonstrations were the main techniques utilized in practicum.

2. Trainors:

The trainors for Bagong Silangan consisted of three Nursing* faculty members from the U.P. College of Nursing, while the one in Matimbo had the staff of

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*One of the trainors has left for the U.S. prior to this research, hence, was not interviewed.

the Rural Health Unit composed of a doctor, nurse and midwife, with invited resource speakers on certain topics. In Dalupirip, the training staff consisted of four staff nurses, one of whom was a faculty member of St. Louis College of Nursing and a Medical Technologist.

In general, the trainees in the three study sites belong to the young adult and early middle-aged group, mostly females and married. Their length of service in community health ranged from 3 to 15 years. Their mean monthly family income was slightly above ₱3,000.00

In addition, the personality characteristics of these trainors as revealed by the Personality Inventories, presented a generally mature, independent, and achieving group interested in the welfare of human beings. The GSE Scale yielded a high level of self-esteem for the trainors in Dalupirip and Bagong Silangan areas, and medium level for the Matimbo site. (Please see Appendix E, Table 2 p.227) The Personality Orientation Inventory (POI) yielded desirable personality characteristics such as time competence, self-regard, self-acceptance, self-actualizing value, capacity for warm interpersonal relationships, and constructive view of man, which were within norms and even above the norms on certain traits. (Please see Appendix E, Table 3, 228)

p. 228). Further, as revealed by the PUP, a locally developed personality inventory, the trainors yielded traits of high quality in ambition, patience, fortitude, being respectful, creativity, being helpful, inquisitiveness, and sense of responsibility. (Please see Appendix E, Table 4, p. 229). The projective instrument also yielded needs and traits reflecting capacity for warm interpersonal relationships, sense of achievement, nurturing qualities, as well as anxiety, and some amount of deprivation.

These positive qualities were supported by the BHWs' satisfactory ratings of their trainors with regards to characteristics such as punctuality, knowledge of subject matter, clinical skills, interest in teaching and learning of others, ability to motivate, ability to give constructive criticisms, and others. Further, these trainor characteristics, traits and attitudes were also perceived by both trainors and trainees as facilitating trainee learning.

3. BHWs:

The BHW Profile in the three study sites is presented in the following table.

TABLE 3

BHW PROFILE

Socio-Demographic Characteristics	Matimbo (n = 14)	Dalupirip (n = 13)	B. Silangan (n = 16)
Mean age	39.57	37.38	42.31
Modal sex	Female	Male	Female
Modal civil status	Married	Married	Married
Mean number of children	4	3	4
Modal occupation	Self-employed	Farmer	Self-employed
Mean monthly family income	₱1,578.57	₱ 355.54	₱ 731.25
Mean years of schooling	7.79	8.08	12.875
Educational attainment	Elementary	HS undergraduate	HS undergraduate
Modal religion	Catholic	Catholic	Catholic
Mean length of stay in barangay (years)	30	32.15	10.69
Modal spouse's occupation	Farmer/ self-employed	Farmer	Blue collar

In addition to the above socio-demographic characteristics the BHWs' personality characteristics as yielded by the personality inventories, presented a generally mature and congenial group exhibiting medium level of self-esteem, (please see Appendix E, Table 5, p. 230), achievement orientation, and capacity for warm, interpersonal relationship. The "PUP" yielded traits of a high level especially on ambition, patience, fortitude being respectful, being helpful, inquisitiveness and sense of responsibility. (Please see Appendix E, Table 6, p. 230). Within this generally positive image

however, were interpersed feelings of abasement/ inferiority, anxiety, and some amount of deprivation, as yielded by the SCT.

Nonetheless, the positive image of the BHWs, generally prevailed and further buttressed by the favorable assessment of their performance during different periods of their training by the trainors, specifically pertaining to services rendered. (Please see Appendix E, Table 7, p. 231). However, the general trend of performance, in relation to some services performed such as Family Planning, Nutrition and others, was downward, with peak performance level during and immediately after training, and gradually declining six months after and a year after. This trend was reversed nonetheless, with regards to services such as Maternal-Child Health and Immunization, which showed further improvement in performance after training, both immediately and after six months and a year of training.

This was a finding deemed crucial to planning of monitoring schemes for Phase II of the Project.

Some criteria for selecting a BHW trainee were also given by the trainors, BHWs and community respondents. Generally, these are as follows: young adult, either male or female, either married or single, and

should at least be a high school graduate. In addition, they also cited some personality characteristics that a BHW trainee must possess, such as the following: interested in undergoing training and rendering service to the community, patient, industrious, helpful, hard-working, dedicated, knowledgeable in health care, and possessing good interpersonal relations.

4. Assessment of BHW Training Programs from BHWs and Trainors' Viewpoints:

The comparative analysis of both BHWs and Trainors pertaining to assessment of adequacy of training programs, specifically, on content coverage, duration, teaching method utilized, and practicum (Please see Appendix E, Tables 8a - 8c,. pp. 232-234) are summarized as follows:

4.1 Both trainors and BHWs from the three study sites generally agreed on the adequacy of content coverage of the training program, practicum as well as effectiveness of teaching methods utilized.

4.2 With regards to ranking of courses/topics according to importance, the responses in both groups in the three study sites differed. For instance, in Bulacan, the first five topics ranked in importance from the trainor's viewpoints were Orientation to Roles and Functions

of PHC workers, Nutrition, Population Education and Family Planning, First Aid and Herbal Medicines, while the first five topics for the BHWs were Population Education and Family Planning, First Aid, Maternal and Child Care, Environmental Sanitation and Medical and Surgical Emergencies. Interestingly, however, the topic on First Aid was on the first five important topics for both groups. (Please see Appendix E, Tables 9a-9c, pp. 235-237)

In Lagong Silangan, the first five topics ranked according to importance by the trainors were Orientation, Nutrition, Common Childhood Diseases, First Aid and Transmission of Diseases, while the first five for the Trainees were Nutrition, Maternal and Child Health, Immunization, First Aid and Home Nursing Care. For these two groups, Nutrition and First Aid were topics included in their first five topics considered important. (Please see Appendix E, Table 9b, p. 236).

In Dalupirip there seems to be a close and more consistent agreement among trainors and BHWs with regards to the first five topics ranked according to importance. Specifically,

the topic on Environmental Sanitation ranked number one for the trainors, which, along with the topic on Health Assessment skills ranked first, among the BHWs. Ranked number two by the trainors was the topic on Philippine Health Situation, which obtained a rank of three from the BHWs. Fourth for both groups was Community Organization, while the fifth for the trainors but sixth for the BHWs was Community Survey and Spot Mapping. (Please see Appendix E, Table 9c, p. 237).

In general, both trainors and BHWs in the three study sites showed similar or close rankings in at least six to eight topics of the 14-16 topics included in their respective training syllabi.

In sum, favorable responses from the BHWs pertaining to the adequacy of the training programs they underwent in terms of knowledge and skills gained were elicited. A 100% affirmative response was yielded by the BHWs in Bagong Silangan, and 77% and 86% from the Dalupirip and Matimbo groups respectively. (Please see Appendix E, Table 10, p. 238). The reason given for the affirmative responses was that the training provided them not only with knowledge, but enabled them to help

others by applying what they have learned. For the negative response, the reason given was related to the short duration of training.

5. Problems in BHW Training:

Some problems encountered in training by both Trainors and Trainees, are further presented in Appendix E, Tables 11a-11c, pp. 239-245) along with their recommendations.

Some of these problems concerned training schedules which the trainees generally regarded as conflicting or interfering with their household chores; training sites where there was poor ventilation, lack of information campaign concerning BHW training, boring lectures, use of English as medium of instruction and in teaching materials, inadequate practicum, and others. In turn, most of the trainors' problems concerned inadequate practicum and lack of training materials and equipment.

Again, these findings were considered in Phase II planning and implementation.

6. Assessment of BHW Training Using Community Indices:

Table 7 below presents the socio-demographic profile of the community respondents in the three study sites:

TABLE 7

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF COMMUNITY RESPONDENTS

Characteristics	Bulacan (n = 308)	Benguet (n = 103)	B. Silangan (n = 315)
Mean age	40	42	40
Modal sex	Female	Female	Female
Modal civil status	Married	Married	Married
Mean number of children	4.08	4.7	4.3
Modal occupation	Housewife	Farmer/ Gold Panner	Housewife
Modal spouse's occupation	Blue collar	Farmer/ Gold Panner	Blue collar
Modal religion	Catholic	Catholic	Catholic
Mean length of stay in Barangay	33, years	37.8 years	9 years
Modal income	≤₱1,000.00	≤₱1,000.00	≤₱1,000.00

The effectiveness of the BHW training program was further assessed using community indicators of awareness of BHWs as well as utilization of their service. Table 8 below presents the responses of the community respondents regarding awareness of BHW existence in the community.

TABLE 5

COMMUNITY AWARENESS OF BHW EXISTENCE

Awareness of BHW	Matimbo		Dalupirip		B. Silangan	
	f	%	f	%	f	%
Yes	32	10.4	102	99.0	149	47.3
No	276	89.6	1	1.0	166	52.70
Total	308	100.0	103	100.0	315	100.00

As seen in the above table, it was only in Dalupirip where there is 99% awareness of BHW existence compared to 47.3 in Bagong Silangan and a lowly 10.4% in Matimbo. This negative finding in the latter two areas was startling, considering the fact that the Bagong Silangan program has been operational for the past two years, while the one in Matimbo represents an MOH service area in Primary Health Care. Concomitantly, this low awareness is reflected further in the low utilization rates of BHW services which were 5.5% and 31.7% in Matimbo and Bagong Silangan respectively, in contrast to 81.6% in Dalupirip. This utilization took the form of consultation with BHWs as illustrated in Table 9 below.

TABLE 6

UTILIZATION OF BHW SERVICES THROUGH CONSULTATION

Consult BHW	Matimbo		Dalupirip		B. Silangan	
	f	%	f	%	f	%
Yes	17	5.5	83	81.6	100	31.7
No	291	94.5	20	18.4	215	68.3
Total	308	100.0	103	100.0	315	100.0

These negative findings are further reflected in the attitude of the community towards various health workers, where the prevailing sentiment, especially, when given the preference as to whom to consult for

various health concerns, leaned more towards the medical and paramedical personnel and seldom the BHWs alone (Please see Appendix E, Table 12, pp. 246-249

Summarizing the pertinent findings of Phase I, it was concluded that while the training programs covered the essential content needed by BHWs and rated adequate as well by both BHW trainees and trainors, the negative findings on community awareness and utilization of BHW services pointed to some deficiencies of the training programs. These deficiences especially pertained to information dissemination concerning BHW training and monitoring of their performance after training as well. The positive assessments from both trainors and trainees of the training programs, were not reflected in the BHWs performance judging from the data elicited from the community respondents. Further, the BHWs themselves yielded information indicating ambiguous perceptions of their main or specific tasks and functions in Primary Health Care. This implied a striking need to make BHWs more aware of their roles and functions in primary health care.

C. Solution Development

Due to the aforementioned negative findings on the community index, as against the positive findings embodied in the training program, trainor and trainee indices, it proved difficult to map out alternative training mixes, as

originally proposed in this study which can be tested in other study sites. Initially, the plan was to evolve alternative training mixes that will consider the positive aspects and strengths of the different training programs in these three study sites. After consultation with the research project consultants and MOH personnel involved in the project, it was decided to utilize again these three study sites for field testing of the formulated alternative training programs, taking into consideration the deficiencies noted. This decision was further prompted by the desire to improve BHW training programs in these areas. Apropos, the research design eventually took the form of a before and after design.

Steps in Solution Development:

The alternative training strategies for each study site were planned with the respective trainors of each area. A series of meetings was held, especially with the personnel involved in the MOH represented study site. It was also coincidental that it was during this time (Phase II implementation) that the MOH embarked on a nationwide retraining schedule for all its BHWs. Thus, the MOH personnel involved proved to be very cooperative in planning and implementing the devised alternative training programs, along with the others involved in the other two study sites.

To illustrate, during these meetings, the following deficiencies noted in the previous training of the BHWs were approached with an open mind and not from a defensive stance:

1. Ambiguous perception of the BHWs of their roles and functions, especially their household coverage,
2. Previous training focused more on didactics rather than skill development,
3. Previous training content had wide coverage of topics and more curative oriented than preventive,
4. Inadequate supervision and close monitoring of BHW performance after training,
5. Inadequate information campaign in the community concerning BHW training programs.

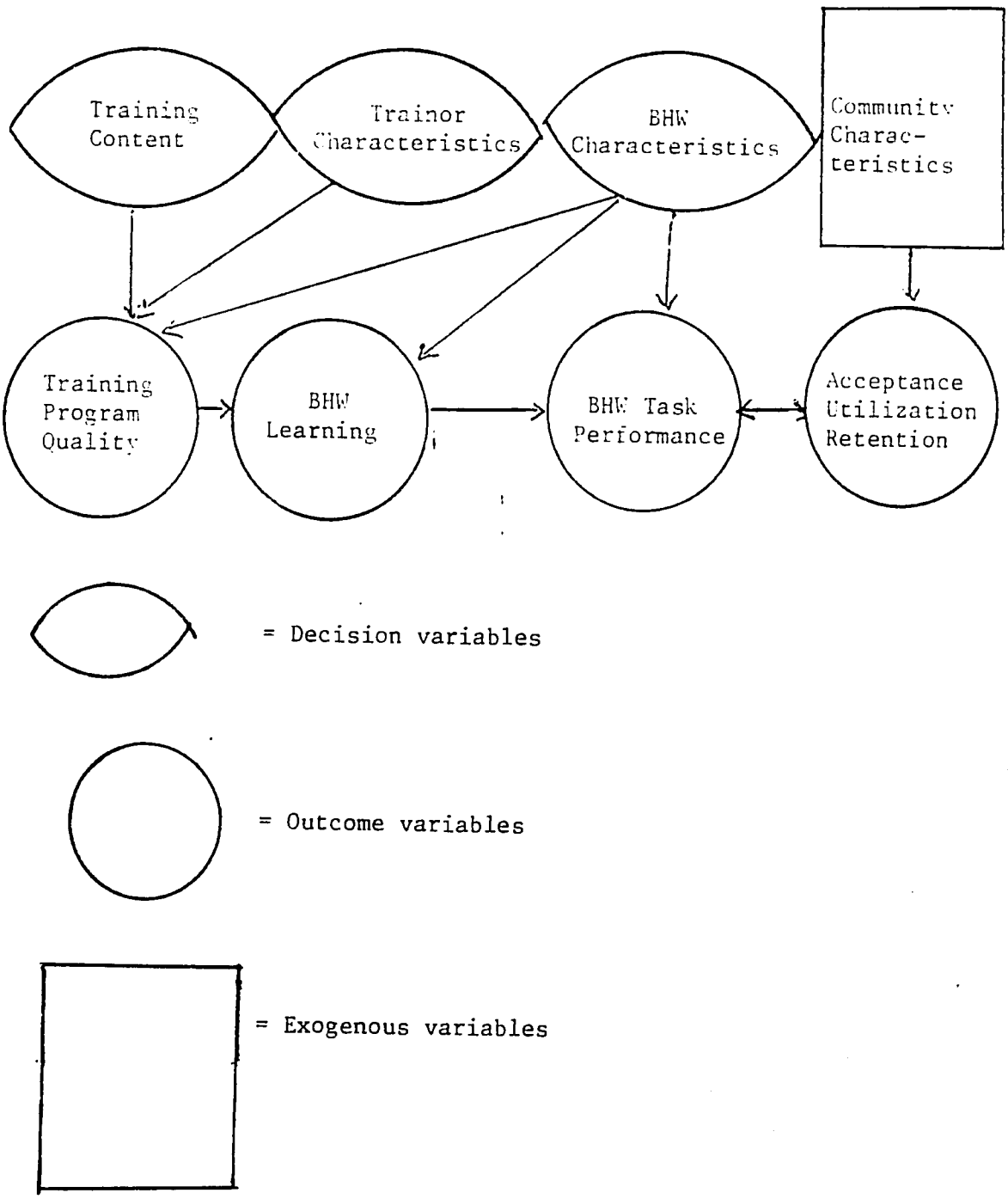
The final training programs were jointly prepared by the UPCN-PRICOR research team and the respective trainors of each study site. Of particular significance was the active participation from the MOH staff, from the national level represented by its PHC Training Consultant, down to the regional and provincial levels, represented by the regional medical director and regional nurse supervisor, and provincial health director and RHU medical and nursing

personnel respectively.

The following conceptual model which guided the process of solution development is presented in Figure 3 below. The linkage among the different variables and factors involved in devising alternative strategies in BHW training, can thus be appreciated.

FIGURE 3

CONCEPTUAL MODEL



This process of solution development is further illustrated in Table 7 Specifically, this entailed the processes of problem analysis, the identification of decision variables, constraints and alternative actions as demanded by an operations research approach.

TABLE 7

SOLUTION DEVELOPMENT

Problem Analysis	Solution Development		
Identified "Deficiencies" in Previous Training	Decision Variables	Constraints	Alternative Actions
1. BHWs seemed unclear about their roles and functions, especially pertaining to household coverage	1. Training Content (Didactics and Practicum)	MOH embarked on a re-training scheme for BHWs and devised a standard training syllabus focused on 5 main topics with emphasis on preventive aspects;	1. Adopt MOH Training Content as standard, to be modified accordingly, based on findings of Phase I, as well as to suit the needs in the three study sites.
	2. Trainor	5 weeks in duration; 1 day didactics and 4 days practicum	
2. Previous training content had wide coverage of topics and more curative than preventive oriented; focused more on didactics rather than skill development	3. Training Method	MOH-designated trainor is the midwife (Midwives under MOH were given intensive one week training course)	2. Designate midwife as main trainor
3. Inadequate supervision and close monitoring of BHW performance and services	4. Length/Schedule	Subject to time availability of participants	3. Adopt 5 weeks duration but to be modified according to the trainees' availability
	5. Training site		
	6. Cost		
4. Inadequate information/ recruitment campaign in the community concerning BHW training programs	7. Follow-up/Evaluation of Training	Limited to volunteers (Selection Criteria based on Phase I findings pertaining to age and educational attainment could not be implemented for lack of volunteers who could meet such criteria)	4. Intensify recruitment/ information campaign concerning the training program
	8. Selection		

To paraphrase, after identifying the Decision Variables, Constraints as well as the Alternative Course of Action, the following final course of action with their Corresponding Rationale, was adopted, in reference to the various aspects of the BHW Training program:

A. Content:

1. Adopt the five main topics prescribed by MOH in the course syllabus with emphasis on preventive aspects. This was the approach adopted in relation tothe identified deficiency of the previous training program whichhad wide coverage of topics and more curative-oriented than preventive. This decision was arrived at with the MOH Training Consultant and trainors in each study site.

B. Duration of Training:

1. Adopt five (5) weeks' duration of training, i.e. one day didactics and 4 days practicum. This decision was arrived at, especially in the light of some identified negative aspects of the previous training program concerning training schedules. For instance, it was noted that the BHW trainees had difficulty attending the practicum after straight 6-8 weeks of didactics. The MOH training personnel agreed that this training

schedule is feasible and might prove beneficial and therefore, should be tried.

This new schedule was modified however, in the three study sites, to suit the time availability of the participants. In other words, the trainees still had the final say on the schedule of training sessions but guided by the idea of 5 main topics to be covered with its corresponding practicum activities. Hence, in Bo. Matimbo, the training sessions agreed upon was also for 5 weeks, with two half-day afternoon sessions devoted to didactics and the rest of the week to practicum in their own time. BHWs in Bo. Dalupirip, opted for one whole day session followed by four days practicum, while in Bagong Silangan, the participants requested to have straight five days didactics, followed by four weeks of practicum.

C. Trainor:

1. In Bo. Matimbo, the designated trainor was the midwife, following the MOH directive on this aspect of BHW training program. However, with regards to certain topics the RHU doctor and nurse assisted the midwife during lecture sessions.

2. In Bagong Silangan, the trainor was the nurse, in conformance with Q.C. health department policy.
3. In Bo. Dalupirip, the trainors were the nursing faculty and staff of the mobile nursing clinic of the St. Louis University College of Nursing, assisted by senior nursing students, since these were the people involved in the primary health care extension service of the university.

D. Training Method:

1. All didactic sessions were preceded by group dynamics experience (which were absent in previous training) as "warm-ups", aside from serving its purpose of relating the value of the group experience to the topics to be learned for the day, and to the entire training program as well. For instance, group experiences on communication impressed on the participants the importance of open communication among themselves and with the trainors as well, not only during training but also after training. (Please see Appendix F, pp. 249-251)
2. Use of audio-visual aids in didactics, such as charts on topics on Family Planning, Immunization, actual demonstration of Oresol preparation, and others.

3. Focus on use of modules as main supplementary teaching aid. This became the basis for challenging exams/quizzes for topics that may have been missed by the participants in formal classroom sessions. (Please see Appendix G, p. 306)
4. Practicum activities were monitored through the use of worksheets that were submitted every week after each lesson. (Please see Appendix H, pp. 307-322)
5. Close monitoring of BHW activities and performance especially after training, through monthly meetings and use of the monthly monitoring sheet which documents BHW activities for one whole year. (Please see Appendix I, pp. 323-325)
6. Each BHW was given specific household coverage (20 households) through the use of spot maps. They were required to submit the household survey form for each family in their catchment areas.
7. Use of pre- and post-tests to assess effectiveness of training with regards to knowledge acquisition. (Please see Appendix J, pp. 326-337)
8. Process documentation of the training sessions.
9. Involving BHWs in evaluating their own performance through active participation in constructing the BHW Performance Rating Scale. (Please see Appendix K, p. 338)
10. Giving feedback to BHWs concerning results of the community survey before and after the implementation of the new training program and getting their reactions on these as well, especially in relation to their practice.

E. Training Site:

In Bo. Matimbo, both trainors and trainees agreed to hold the training sessions in the school adjacent to the health center; in Bagong Silangan, in the health center; while in Dalupirip, in the residence of the Bo. Captain since this was the most accessible site to all concerned.

F. Selection Criteria:

An information campaign concerning the new training program was launched through holding of community assemblies two weeks prior to actual training in Bo. Matimbo, Bulacan. For old BHWs, an invitation was issued to attend the new training program in the other two study sites.

In brief, the preceding features of the alternative BHW training program were envisioned to facilitate the attainment of the following goals with their corresponding rationale in this solution development phase:

1. To define and implement a strategy for training BHWs to perform their expected tasks in the three study sites of Bo. Matimbo, Bagong Silangan and Bo. Dalupirip, by the end of December, 1984.

   1.1 Participants in the alternative training program should attain a minimum pass level of 70% in the post-test for each major topic in the course syllabus.

Rationale: This minimum pass level was 5% below than the regular minimum passing grade prescribed in educational institutions, and agreed upon by the researchers and trainors in the three study sites.

1.2 Participants should be able to accomplish the worksheets to meet the practicum requirement.

Rationale: Based on assessment of previous training, there was no assessment of skills done during the training other than through cursory observation and perception of the trainors. The worksheets were devised upon the recommendation of the BHW Training consultants and accepted by the Trainors.

1.3 Participants should have specific household coverage.

Rationale: Based on the findings of Phase I, the BHWs had no concept of household coverage, hence this requirement.

2. To have an average of 50% of the families using BHW services after six months from the beginning of the alternative training program in the three study sites. These include maternal and child health services including family planning, nutrition, immunization, environmental sanitation, prevention and control of communicable diseases, oral rehydration and case finding.

   Rationale: This figure was decided upon based on the findings of Phase I, especially in Bo. Dalupirip, where more than this level was attained, while the other two study sites had less than this.

3. To attain a 2:1 ratio of time spent by BHWs for preventive versus curative services by November, 1985.

   Rationale: This ratio was also based on the findings of Phase I. The BHWs' primary activities were focused on the curative aspects of health care more than the preventive. With the alternative training program being more preventive-oriented, the activities of the BHWs should, expectedly, be more geared towards preventive than curative services. Further, the ratio of 2:1 was agreed upon by both consultants and trainors as minimum expectation.

D. Solution Validation: Field Testing of the Alternative BHW Training Program

To reiterate, in order to validate the solutions formulated to the problems identified in BHW training, field testing of the alternative training strategies developed was done using the same three study site. Each study site served then, as its own control group.

The characteristics of the alternative BHW training program field-tested in the three study sites are further summarized in the following table:

Data Collection Methods:

Data obtained in evaluating the outcome of the alternative training strategies implemented were analyzed qualitatively and quantitatively. Qualitative analysis was done through process documentation of all aspects involved in the training program, from the planning stage up to its implementation, follow-up and monitoring of activities within a ten-month period after the formal training course. Using the case study approach, descriptive narrative accounts of the alternative training programs implemented in each study site, the reactions of BHWs to the training program, as well as their behavior/performance within a ten-month period after training are presented in the succeeding section. Further, their reactions to the formulation of an evaluation scheme to appraise their own performance after training, as well as to the dissemination of community survey results are also described.

Quantitatively, data obtained using structured interviews of trainors, BHWs and community respondents ten-months after the implementation of the training program were compared with baseline data obtained prior to the program implementation, using simple descriptive frequency and percentage analyses.

In brief, the outcome or effectiveness of the solutions developed and implemented was evaluated along the following indicators:

1. Knowledge Gained and Retained, through comparison of test results obtained in the immediate post-training period and ten-months after the training period.
2. Adequacy of the new training program, using data obtained from trainors and BHWs through the use of the same structured interview questionnaires used in Phase I of the study,
3. Actual Performance of BHWs using:
   - 3.1 Community indices especially pertaining to Awareness and Utilization of BHW Services through the use of the same structured interview questionnaire used in Phase I of the study,
   - 3.2 Use of Performance Rating Scale which was devised and finalized through active participation of trainors, BHWs, and a panel of Experts in Community Health.

The procedure in which this rating instrument was developed and finalized is described in detail in the following section.

Development of a Tool for Rating the Performance of BHWs in Primary Health Care:

The UPCN-PRICOR research team, in attempting to quantitatively evaluate the performance of the BHWs in PHC thought of devising a BHW performance rating scale. As a starting point, they listed the tasks and functions that the BHWs are expected to perform in PHC. These tasks were also derived from the content of the training program. This form consists of two parts: Part I, consisting of 5 main items, with subitems on Items 3 and 4, focuses on the major tasks of the BHWs in PHC. Part II focuses on the health-related tasks of the BHWs dealing with monitoring requirements, such as attendance in monthly meetings and submission of reports.

A total of 10 points is assigned to Part I, to be distributed among the items. Part II was based on actual numbers that the respondents thought most appropriate.

In soliciting the cooperation and participation of the panel of experts and trainors, the devised form (Please see Appendix K., P. 333) was distributed individually, with specific instructions on what to do with them. A period of two weeks was given to finish the task before retrieval. The panel of experts was composed of seven members represented by the following: two nurse specialists from the PHC committee of MOH, one faculty member in Community

Health Nursing from the U.P. College of Nursing, two faculty members from the U.P. Institute of Public Health, and two doctors from the U.P. College of Medicine Community-based Health Program in Bay, Laguna. The trainors in the three study sites, numbering eight, were also added to this panel.

The procedure of assigning the final weights for each item was done in the following manner:

Step I: getting the average of the sums of the responses of the combined groups of experts and trainors,

Step II: getting the average of the sums of the responses of the BHWs in the three study sites,

Step III: giving a weight of 50% each to the resulting average for both groups,

Step IV: adding the average for each item from both groups, with the resulting new average reflecting the final weight assigned to each item.

The following table illustrates how the combined group of experts and trainors and the BHW groups in the three study sites assigned weights to the items in the scale.

TABLE 9

WEIGHTS ASSIGNED BY EXPERT-TRAINOR AND BHW GROUPS TO ITEMS IN THE BHW RATING SCALE

Categories	Equivalent Points Given by Expert-Trainors (n = 151)	BHWs* (n = 57)
I. Tasks		
1. Household Survey	1.15	1.16.
2. Case Finding	1.64	1.47
3. Giving Health Instructions	3.03	3.34
3.1 Environmental Sanitation	.57	.77
3.2 Proper Nutrition	.59	.66
3.3 Maternal Child Care	.78	.62
3.4 Importance of Immunization	.53	.54
3.5 Control of Communicable Diseases	.56	.75
4. Management of Common Medical Conditions	2.28	2.50
4.1 Assessing Health Status	.63	.71
4.2 Advising treatments/herbal medicines	.60	.70
4.3 Referrals	.51	.50
4.4 Follow-ups	.54	.59
5. Community Mobilization	1.9	1.6
Subtotal	10 Points	10 Points
II. Responsibilities		
1. No. of Meetings in Ten Months	9.65	9.43
2. No. of Priority families to be submitted using Monitoring Form (FMMS or notebook)	9.02	10.12
3. No. of Families/Patients to be actually serviced	17.5	16.08

*Details of how each group of BHWs in the three study sites assigned weights to the items in the scale are discussed in the individual case studies of Results Section, Part I.

Subsequently, this rating scale was used in quantifying the performance of the BHWs. The final rating was computed guided by the percentage allotment for each portion of the scale, as agreed upon by the BHWs during their respective meetings on this matter. Thus, for the BHWs in Bagong Silangan, the allotment of percentage to Parts I and II of the scale, was 40-60, that is, 40% for Part I and 60% for Part II. In Dalupirip, the distribution of percentage was 60% and 40% for Parts I and II respectively, while in Matimbo, an equal percentage of 50, for both parts was unanimously agreed upon by the BHWs in this area.

Henceforth, using this scale, each BHW obtained a score for their performance within a ten-month period. Data for scoring were obtained through the monitoring sheets or notebooks submitted by the BHWs, field notes of the research assistants who made visits to their homes, and actual number of attendance in meetings.

The results concerning the BHW performance, using this scale as a measuring tool, is reported in the following Results Section, Part II.

This method of involving the BHWs in devising a performance rating scale to be used in evaluating them may be considered innovative. It also underscores the concept of partnership in the PHC approach.

IV

RESULTS

(Solution Validation Outcome)

This section comprises two parts. Part I presents qualitative data, using the case study approach, concerning the BHW training program tested in each study site. Each case study presents brief narrative accounts covering the following aspects:

1. Community Profile
2. Recruitment and Selection of BHW Trainees
3. BHW Training Course
4. Training Site
5. Training Strategies
6. BHW Trainee Profile
7. BHW Trainor Profile
8. Supervision and Monitoring of BHW Performance After Training
9. Reactions/Behavior of Trainees During the Training Program
10. BHW Performance After Training
11. BHW Reactions/Participation in Finalizing the BHW Performance Rating Scale
12. BHW Reactions/Behavior During Research Dissemination Meeting

Part II presents quantitative data, especially on community indices concerning the outcome of the field testing of the alternative BHW training programs.

Part I. Case Studies:

A. Barangay Matimbo

1. Community Profile*

Matimbo is one of the barangays of Malolos, Bulacan. Travel to this place is fairly easy because of its accessibility and cemented road. There are also plenty of buses and jeepneys plying this route regularly. The trip from Matimbo to Manila by public transportation takes about one and one half hours.

Matimbo is composed of three "sitios" (sites), namely, Kapatan, Gitna and Baog. These three "sitios" comprise 794 households, for a total population of 2,541. Each household has an average size of 5-6 members, with males (1,273 or 50%), slightly outnumbering the females (1,268 or 49.9%). Forty-five percent of the population is from 15-44 years of age, while the age group of 0-14 years, or age of dependency, represents 39.3% of the population. Of the total 1,268 population of women, 564 or 44.48% belong to childbearing age.

Serving the educational needs of the children and youth in Matimbo, are the main elementary and secondary schools located in this area. College students go to nearby Colleges and Universities.

Majority or 93.42% of the people in Matimbo are Roman Catholics. The rest belong to 'Iglesia ni Cristo', Protestant, and other religious sects.

Matimbo has a total labor force of 1,479. Of these 76.6% are employed, 23.8% unemployed, and 5-6%, with unknown employment status. Around 36% are employed in cottage industries involved in making bags, belts and mats, while another 36% are employed in offices as clerks. The remainder of the working population are self-employed and engaged in farming, fishing, bag-raising, vending, dress-making, and other. Further, family income

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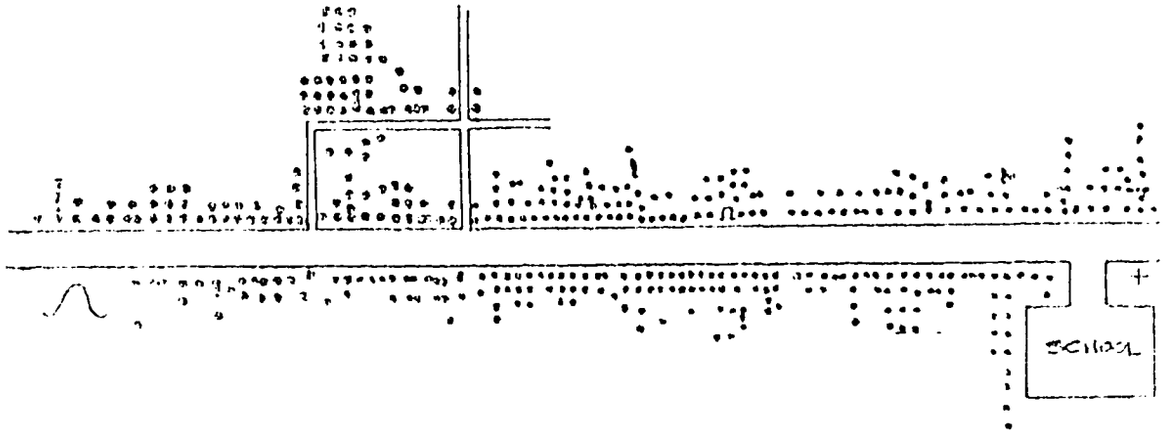
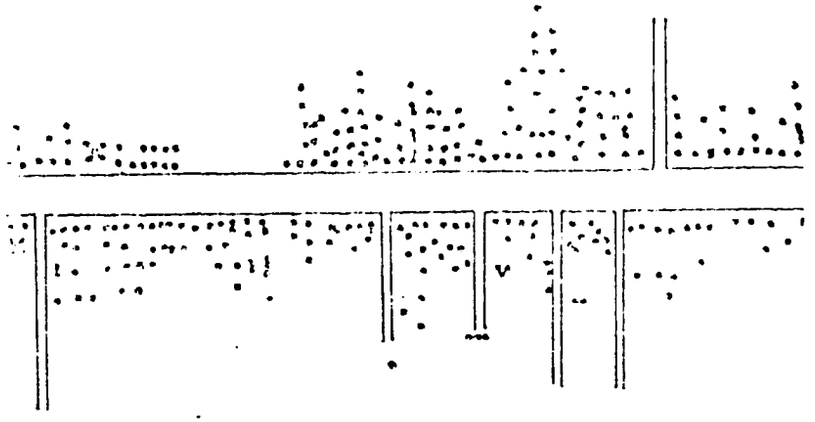
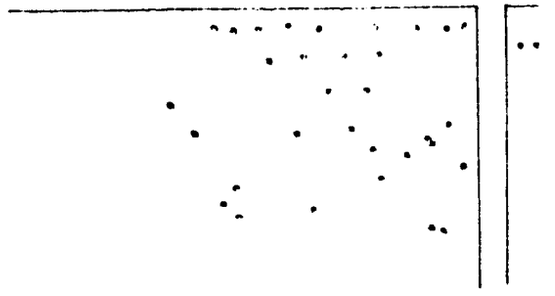
*Data on this aspect came from the household surveys conducted by the BHWs in their respective catchment areas.

SPOT MAP OF
MATIMBO, BULACAN







is augmented through raising of pigs and chickens in their back yards, as well as vegetable gardening.

Regarding environmental features, the main source of water, both for drinking, laundry and other household needs, is the central public water system. Around 35% of the population have their own faucets, while 14% avail of the artesian well.

Around 53% have water sealed toilets, while the others have open or closed pit privy types. Around 4% use the public toilets.

Open burning is commonly practiced by around 69% as the means of garbage disposal, while around 16% dump their garbage openly.

Health services are provided by the Rural Health Unit staff composed of the Physician, nurse and midwife. The Barangay Health Workers (BHWs) are also consulted, who, in turn, refer to the health center, cases that they are unable to manage.

2. Recruitment and Selection of BHW Trainees

An information campaign concerning the new BHW training program was launched through holding of community assemblies two weeks prior to actual formal training. The old BHWs, were also invited to attend the training program which could serve as a refresher course. This recruitment period started on the second week of September, 1984, with the help of the Barangay Captains. Specifically, a meeting was held by the "KADAMA", a socio-civic organization, presided by the midwife of the health center, an active leader of this organization, to announce the forthcoming BHW training program. The recruits came from all three "puroks (areas) of the barangay. A total of 24 trainees were recruited during this meeting. In another meeting held at the school yard adjacent to the health center, presided by the RHU physician, 23 trainees were also recruited from those who attended. Some BHWs also attended this meeting and shared their experiences with the group.

The selection criteria which guided the BHW team in recruiting new trainees for this new BHW training program was the simple guideline formulated by the MOH, such as follows: 1) must be volunteers, 2) literate, and 3) residents of the community to be served.

Consequently, the prospective trainees were informed of the schedule and duration of the new training program. A total of 30 new trainees volunteered to undergo training. The old BHWs declined to attend the new training program.

3. BHW Training Course

The basic BHW training course consisted of both didactic sessions and practicum on the following five main topics:

1) Primary Health Care
2) Maternal Health Care and Family Planning
3) Infant Health Care
4) Tuberculosis
5) Diarrhea

Each topic was covered on a weekly basis for a duration of five weeks starting on October 2, 1984 to November 16, 1984. The participants agreed to hold the didactic sessions on two consecutive afternoons, instead of one whole day, followed by three days of practicum on each topic per week.

The trainor as designated by the MOH was the RHU midwife assigned in the area. However, the RHU doctor and nurse assisted her by acting as resource persons, during didactic sessions. They also helped in the practicum portion of the training. All members of the RHU team as well as the UPCN-PRICOR research team were in attendance throughout the training period.

Each trainee was provided with materials needed in their training contained in a large plastic envelope, such as modules on the five main topics, and other related hand-outs, notebook, pencil and ballpen. Simple snacks were also provided in every session.

4. Training Site

All didactic sessions were held inside a classroom in the elementary school adjacent to the health center. The practicum took place in the center and in the community itself.

5. Training Strategies

Each topic was offered using lecture-discussion as the main teaching technique. Modules also served as the main supplementary tool, which proved to be very helpful especially for those who missed some lectures.

Further, all didactic sessions were preceded by group dynamics (GD) experience. This served to unfreeze the BHWs which enabled them to relax and feel more at ease during the formal sessions. The insights gained during the group experience were also related to the topics to be learned for the day as well as to the entire training program.

An evaluation tool, in the form of a post-test, based on the five main topics covered, was given at the end of the training period.

The practicum activities were monitored through the use of worksheets that were submitted every week after each lesson. Likewise, the use of a Family Monthly Monitoring Sheet constituted the more formal form of monitoring or evaluation after training.

A closing program with appropriate rites, such as distribution of certificates attesting to the trainees' completion of the BHW Training Program capped the training period.

6. BHW Trainee Profile

The final batch of BHW trainees who underwent training was composed of thirty females. Initially two males were recruited, but dropped out after attending the first two sessions. Table 14 presents the socio-demographic characteristics of these BHWs.

TABLE

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF BHW TRAINEES

Characteristics	Mean
Age	36-43
Sex	Female
Civil Status	Married
Religion	Roman Catholic
Occupation	Housewife
Educational Attainment	Elementary graduate
Monthly Family Income	< ₱1,000.00
Length of Stay in Barangay	29.69 years

As shown in the above table, the mean age of the BHW trainees is 36.3. Majority are married, elementary graduates and housewives, with a few earning a living by vending, sewing and hair dressing. Two BHWs are "Hilots" (traditional with attendants), while two are midwives.

The psychological inventories yielded results indicating a generally mature, well-adjusted group. The Global Self Esteem Scale (GSE) yielded a medium level of self-esteem. This indicates general feelings of well-being self-acceptance and recognition of self-worth. Likewise, the local personality inventory ("PUP") revealed desirable personality traits which were within Filipino norms such as ambition, fortitude, creativity, inquisitiveness, and sense of responsibility and respect. Further, the following traits revealed scores above norms such as patience and being helpful.

In sum, the BHW trainees represented a generally mature, interested, motivated, and well-adjusted group, eager to learn new knowledge and skills in preparation for their future roles within the health service delivery system.

7. BHW Trainors

The main trainor in this area was the RHU midwife. She was assisted however, during the formal training and post-training periods by the RHU physician and nurse.

The RHU midwife, aged thirty years, has a mean length of seven years' service in community health. She has just finished a crash BHW trainor course one month prior to this training period.

In general, this trainor demonstrated her potentialities for a good BHW trainor, such as interest in the learner, willingness to learn and creativity. The psychological protocols yielded a mature, well adjusted personality. She also obtained high scores on the traits of ambition, patience, inquisitiveness, self-acceptance, self-regard and sense of respect. Occasionally though she displayed a tendency to underestimate herself, especially in the presence of her superiors. More importantly however, this particular trainor was able to maintain a cordial, harmonious relationship with the BHWs in this area.

8. Supervision/Monitoring of BHW Performance After Training

The performance of the BHWs was monitored through the holding of monthly meetings, held every fourth Thursday of the month in the afternoon, at the health center.

The more formal form of monitoring their performance after the training period was done through asking them to accomplish and submit the Family Monthly Monitoring Sheet (FMMS), preferably, during the monthly meetings. This was later given up in favor of the notebooks or whichever was preferred by the BHWs, to keep a record of the services they have rendered in their respective catchment areas.

9. Reactions of Trainees During the Training Program

The following are short narrative accounts of each session, focusing on the trainees reactions/behavior during the training period, especially pertaining to the formal didactic sessions.

First Session: Topic: Orientation to the Training Program

October 2, 1984 2:00 - 5:00 P.M.

A total of 37 trainees, composed of two males and 35 females attended this first session.

The midwife presided over this session and gave an overview of the training program with emphasis on its purpose in relation to primary health care. Before the start of the formal lecture on the topic for the day, the first half of the session was devoted to getting acquainted with each other. Each person, including the trainors and the research staff introduced themselves to the group by saying something about themselves. Initially, the prevailing atmosphere was of uneasiness, discomfort and shyness on the part of the trainees. After the introduction of each member however, this atmosphere became more permissive to friendly relations. As a further warm-up, the trainees were subjected to "unfreezing" activities, such as the longest line, which is a team building exercise. The goal in this exercise is to demonstrate effects of competition on team efforts. All trainees were asked to go out to the school yard, as this exercise needed a wide space, They were divided into two groups and asked to form the longest line, utilizing their own selves and whatever they had with them. A time limit of ten minutes was given for each group to form the longest line, after which the facilitator measured the line formed by the two groups; subsequently, the group who formed the longer line was adjudged the winner.

This activity really loosened up the participants. They saw how each one cooperated and contributed whatever they had with them such as belts, hankies, shoes, slippers, in addition to their physical bodies to comply with the task asked of them.

This proved to be an enjoyable activity which was processed, thereafter, through questions tapping their feelings of winning and losing as well. The winners were asked what made them win, and the losers likewise were asked what made them lost. Insights gained from this activity were gathered from the group.

Another "team building" activity asked the participants to form themselves into three groups, and to construct something on the floor, using a bag of stones within a time limit of ten minutes. One group was able to construct a house, while the other two groups were unable to construct anything. This activity was processed again with emphasis on insights/lessons derived from the activity.

The final unfreezing activity was "break out". In this activity, the members stood in a circle, with joined hands. One member was asked to stand in the middle of the circle. Her task was to get out of the circle, while the group constituting the circle, would not allow her to do so. As in the other activities, this exercise led to a number of insights learned.

All exercises impressed on each participant the value of individual members in a group, especially for specific tasks or endeavors. The trainor related these insights to the goal and expectations of the participants regarding the BHW training program. They were able to grasp the message that cooperation and unity among members were necessary in achieving the goals of the training program.

Further, during this first meeting, the participants finalized their schedule of two half-days of didactic sessions every Thursday and Friday Afternoons, 2:00-5:00 p.m., followed by practicum the rest of the week in their own free time. The participants were unanimous in choosing this schedule, claiming this was most feasible, since this is the time when they will be free from their household responsibilities and other concerns related to earning a living.

Second Session: Topic: Primary Health Care

October 4, 1984 2:00 - 5:00 P.M.

In this second meeting, only 28 trainees attended. The module helped the participants in appreciating the concept of primary health care. Generally, the group actively participated through asking questions about the topic, especially on how to conduct a household survey. Many expressed apprehension over the possible reactions of the community to their visits. The trainor reassured them that they will be properly introduced to their household assignments. Hence, it was agreed to hold another community assembly for the purpose of introducing the BHW trainees to the residents in their areas of assignment. The elementary school teachers assisted by asking their pupils to copy the announcement written in the blackboard inviting their parents to attend this meetings. Thus, on October 8, 1984, at 3:00 p.m., a community meeting was held at the school yard, where the community residents in attendance, were informed about the ongoing BHW training. They were also notified that these trainees will visit them to conduct household surveys.

Third Session: Topic: Maternal and Child Health

October 11, 1984 2:00 - 5:00 P.M.

Thirty trainees were present in this session. As a starter, a "GD" exercise on Communication was conducted. The goal was to test the accuracy of communication passed from one person to the other, as well as identifying blocks in the communication process.

The trainees grasped the message of this exercise. They then shared their own views about the importance of listening in the communication exchanges to be able to understand the message. They also related it to the ongoing training session, such as realizing the importance of open communication among themselves and with the trainors as well, not only during training but also after training.

The topic of Maternal and Child Health proved to be an interesting topic for the trainees. Lots of questions were asked, to which satisfactory answers were given by the trainors along with the resource persons, namely, the doctor and the nurse. Two trainees also shared their experience with their own pregnancies. On the topic of pre-natal check-up, some trainees had some difficulty in learning how to compute for E.D.C. (Expected Date of Confinement) of a pregnant woman. Thus, the trainor cited more examples and exercises on how to get the LMP (last menstrual period) and compute for the E.D.C.

The session ended with the trainees seemingly satisfied with learning new things.

Different methods of Family Planning were demonstrated to the interested participants. During the discussion of tubal ligation, lots of questions were raised, mostly medical issues. Some of the questions were answered by the doctors present, the RHU physician and a guest consultant who is an OB-Gyne specialist.

After the discussion-lecture, there was an open forum about FP, wherein the trainees asked various questions related to menstruation, dysmenorrhea and B.T.L.

Before the session ended, the trainors stressed to the participants their role as motivators of Family Planning, in addition to rendering Pre-natal and Post-natal care services. The BHWs expressed verbally that they enjoyed this particular session in their training program.

Fourth Session: Topic: Child Care

October 18, 1984 2:00 - 5:00 P.M.

There were 26 trainees present in this session. The session was conducted by asking one trainee to read the particular topic for the day on the hand-out. This was followed by the trainor's more detailed explanation of said topics, duly emphasizing the duty of BHWs in giving health teachings and follow-up. Clarification were given on the use of the Maternal Health Care Record Sheet. This was again another topic to which the trainees reacted with animated interest. They also shared their experiences in child care.

Fifth Session: Topic: Medicinal Plants

October 19, 1984 2:00 - 5:00 P.M.

Twenty trainees were present. Presentation and actual demonstrations of herbal medicines were done. The trainees demonstrated their familiarity with most herbal plants especially Lagundi (used for cough and fever) because it is commonly found in their backyard.

Sixth Session: Topic: Tuberculosis

October 29, 1984 2:00 - 5:00 P.M.

There was a decrease in attendance in this particular session. Only 18 trainees were present.

As an introduction, the trainor stated that anybody could get sick of TB regardless of age, sex, etc. The importance of good care to prevent TB was emphasized. Due to lack of visual aids, she asked the trainees to just imagine the picture of a person sick with TB. One trainee volunteered to describe the characteristics of a tuberculous person. During the discussion of the topic of sputum collection, the trainees generally expressed reluctance in doing such a procedure. Fear of being contaminated with the TB germ was discernible in their facial expressions. The trainees could not conceal their own reactions and feelings about TB, since it is still considered one of the socially stigmatized diseases in this country.

Some trainees verbalized that they already found TB cases in their respective catchment areas. A question was also raised on how they will tackle case-finding of TB cases. They also expressed apprehensions about interviewing the families about TB mainly because of the stigma attached to it.

Seventh Session: Topic: Diarrhea

November 5, 1984 2:00 - 5:00 P.M.

Twenty two trainees attended this session. An RHU physician gave the lecture on this topic, mostly in English, using a lot of medical and technical terminologies. One BHW trainee who was very outspoken, complained that she had difficulty understanding what the lecturer was talking about, hence the doctor made an effort to explain the topic in Tagalog. The group was asked also to read further their module on this topic. With regards to management, the leader of the BHW class cited most of the herbal plants used for diarrhea. In addition, the trainor emphasized the use of home-made electrolytes. The group expressed verbally their appreciation of this particular session.

Post Training-Test Sessions:

Tests on the first three topics and the last two topics were given on October 3, and November 7, 1984, respectively. It took an average of 10 minutes for each trainee to answer the 10-item objective test (mostly True or False or Fill-in the blanks) for each topic in the training course. A total of 50 items thus composed the post-test administered to the BHWs.

The psychological inventories were also administered on November 5, 1984. The G.S.E. (Global Self-Esteem Scale) took an average of 15 minutes to answer, while the PUP (Panukat ng Ugali at Pagkatao") took an hour to answer.

Practicum:

In addition to the practicum activities related to the topics discussed in formal classroom sessions, a skills laboratory session was held on October 30, 1984, with 21 trainees present. Learning how to take blood pressure was the goal of the session. Initially, the trainees had some difficulty recognizing and distinguishing the systolic sound. However, some, like the midwives in the group were already skilled in this procedure. Everybody had the chance to practice BP taking. This was one session, which the trainees thoroughly enjoyed and expressed much enthusiasm in attending.

Closing Program

The graduation of the BHWs, who completed the training program was held on November 16, 1984 at the Elementary School Compound, adjacent to the health center. The concrete stage was decorated with the help of the pupils of the elementary school.

Out of 30 trainees who completed the training, 29 attended. The absentee was sick at that time. The provincial health office was represented by the assistant Provincial Health Officer, and Provincial Nurse Supervisor, The Barrio Captain represented the Community. In complete force was the RHU and the UPCN-PRICOR research teams. The school principal and teachers assisted in this affair by offering their place as the site for this occasion and preparing the refreshments as well. On the whole, this was a memorable occasion which saw the active participation of thedifferent sectors of the community represented by health, school, and the community itself. The rest of the audience was comprised by the friends and relatives of the BHWs in whose honor this program was held. The BHWs were attired in white T-shirts with the PHC Logo on the upper left chest and a "BHW" print at the back, over a blue skirt, which made up as their BHW uniform.

The program started at 4:00 p.m., with a BHW as the Master of Ceremonies. The Pambansang Awit was led by another BHW. The Opening Remarks was delivered by a representative from the Provincial PHC Committee. This was followed by a poem "Isang Parangal sa Nagkakaisang Barangay" (Praise to a United Barangay) especially composed for the occasion by another BHW which was well applauded by the audience. The introduction of the guest speaker was done by the RHU Physician. The guest speaker who was supposed to be the Provincial Health Officer was represented by the Assistant Provincial Health Officer, who delivered a brief but inspiring message on how the BHWs can play a key role in confronting the country's major health problems such as communicable diseases. This message was followed by a rendition of a song by another BHW. The distribution of certificates and BHW kits by the RHU Physician, assisted by the one of the UPCN-PRICOR Research Co-investigators, followed. Each BHW went up to the stage to receive her diploma and kit which contained over-the-counter-drugs, forceps, and surgical scissors. The Assistant Provincial Health Officer pledged to complete this kit with a donation of thermometers. Another musical number in the form of a duet was rendered by two BHWs, which proved to be equally entertaining. Another highlight of the program was the presentation of special awards to three BHWs for their achievements during the training period. Awards were given for punctuality, perfect attendance, and outstanding performance during training. The awards were in the form of cash, and distributed by the other co-investigator from the UPCN-PRICOR research team. In her inspirational message, this co-investigator also announced her wish that more awards could be given within the coming year based on the performance of the new BHWs, after their training. After this, a dance number by other BHWs followed. Then, three BP apparatus sets were distributed to the three BHW purok leaders, by the RHU Physician assisted by the RHU midwife. The Blood Pressure apparatus was to be rotated among the BHWs in the three "puroks" (sites) of Matimbo. The midwife announced that the amount used to purchase the BP sets came from the funds raised by the Health Center.

A group singing on "Building a Community" rendered by all BHWs followed, after which, the president of the BHWs delivered the Closing Remarks. She delivered a prepared message in behalf of the BHWs who completed their training, and conveyed their pledge to do their duties as BHWs within the limits of their capabilities.

The program was capped by socialization and refreshment served at the Home Economics building in the school compound.

10. BHW Performance/Behavior During the Ten-Month Period After Training

Monitoring of BHW performance and activities after training was done through holding of monthly meetings with all BHWs, in the health center and field visits by the research assistants to the different "puroks". In addition, during the first few months after training, it was agreed to hold small group meetings of BHWs in each purok, thereby, requiring the BHWs to attend a total of two meetings monthly. However, the small group meeting was later scrapped after poor attendance of the BHWs in each purok.

The monthly meetings provided the research team and the RHU team with the general picture of the BHWs and their problems while the small group meetings and field visits helped identify the specific problems they encountered as well as their possible causes. The monthly meeting was scheduled every third Thursday of the month, while the small group meeting was scheduled every Wednesday on the first week of the month in the three "puroks". The more formal form of monitoring or evaluation of the BHW performance was done through the submission of the FMMS by the BHWs as previously mentioned. This sheet covers activities and services rendered to families by the BHWs through home visits, with emphasis on preventive services such as MCH, health education and environmental sanitation.

The following paragraphs present brief narrative accounts of the monthly meetings held with the BHWs within one year after training.

1. January 28, 1985

In this first monthly meeting, only twelve BHWs out of 30 were present. An equal number of four BHWs from each "Purok" of the three "puroks" of Kapatan, Baog and Gitna, came. This meeting was presided by the RHU nurse with the assistance of the research assistants of the UPCM-PRICOR research team. The use of the monitoring sheets was explained. Examples on how to fill up the sheets were illustrated in the blackboard.

During the meeting, eight BHWs submitted 92 household survey forms. They also shared same problems they encountered in their initial practice such as lack of medicines, lack of time to do home visits and inability to accomplish the monitoring sheets due to their household responsibilities. Some BHWs also shared their experiences with the community. The BHW awardee for outstanding performance during the training period reported that some community members teased them and addressed them as "little doctors" when they go out in the field. To ease their load in paper work, the trainors and the research team asked them to prioritize the 20 families under their care, i.e., to start with five priority families then gradually increase them as the months go by until the target number of 20 families is attained. The criteria set for prioritization were presence of children in the family, aged 0-6 years; pregnant women; and those afflicted with tuberculosis and diarrheal diseases.

The RHU nurse also reviewed with them the clinic schedule. She also devised and suggested the use of a referral form that the BHWs can use in referring patients to the health center.

One of the BHWs in Baog reported that there were many families with no toilets. The RHU nurse informed the group that the Rural Sanitary Inspector will provide toilet bowls for free if the families will have ready sets. The BHWs were delighted to hear this information which they pledged to share with their respective constituents.

The RHU midwives and the research assistants offered also their assistance to the BHWs in making their initial home visits to the community.

2. February 28, 1985

As in the first meeting, only twelve BHWs were present, two from Kapatan, and five each from Gitna and Baog respectively. The PRICOR Senior Scientist came with the research team to this meeting and was able to meet the BHWs present as well as the RHU team. The current program and schedule of immunization for the community was discussed by the RHU nurse to which the BHWs reacted enthusiastically by agreeing to intensify the information campaign for this service in their catchment areas

The subject of filling up the monitoring sheet was discussed anew. Examples were again illustrated in the blackboard as to its proper accomplishment. The PRICOR Senior Scientist asked the BHWs regarding their real feelings about this paper work. The group in general, expressed some ambivalence pertaining to this task. They expressed lack of time in filling them up, yet they recognized its value in their work, as well as in monitoring the problems and progress of the families assigned to them. On the positive side, about 20% of the BHWs have started to write entries in the FMMS form, especially those who have started making home visits of families. The RHU and research teams, while emphasizing the importance of filling up the forms, conveyed the message, nevertheless, that this was not a compulsory task, and that alternative method of recording could also be adopted, such as the use of notebooks. Thus, the BHWs were given the option as to the means by which they could record the services they render to their respective constituents.

Some BHWs reported that they have not started making home visits due to household responsibilities, while others expressed that they would rather wait for the patients to go to them. The trainors explained anew that preventive services are more important than curative ones.

The reasons for drop-outs and absenteeism were also explored. Some reasons given by the BHWs regarding this problem included household chores such as caring for young children, illness of family member/BHWs themselves, and transfer of residence of some BHWs.

The RHU and research team tried to maintain the BHWs' interest and motivation in their tasks by commending them for their attendance in the monthly meetings, and their sense of voluntarism as well.

3. March 28, 1985

Only six BHWs attended this meeting, four from Gitna and two from Kapatan. The community's acceptance of the BHWs was discussed. The group consensus was "they were already accepted" and they were able to encourage a lot of mothers to bring their children to the Center for immunization.

The BHWs were asked on the number of home visits they have made for case finding and health education purposes. Two BHWs admitted that they still were not able to go home visiting, while the others claimed to have no problems observed in their catchment areas. One BHW also said that she was able to accompany a pregnant mother for referral to the health center.

The use of monitoring sheets was again discussed. All agreed to continue using it except one who preferred the notebook. Some BHWs claimed that the forms helped them, especially in recalling the problems of the family while the rest admitted that it was an additional work on their part.

The RHU staff and BHWs agreed to launch a fund-raising campaign for the establishment of a "Botika sa Barangay". A committee was created to plan this project.

4. April 25, 1985

Ten BHWs were present, four from Kapatan, five from Baog and one from Gitna.

The proposed project on "Botika sa Barangay" was discussed. Everybody agreed to cooperate in this project. The RHU nurse suggested that while the "Botika sa Barangay" is operating, its earnings will be used to pay the amount initially contributed by each BHW until the time comes that all the contributions are paid, in which case the Botika will then

be owned by the BHW/community. Everybody agreed to hold a community meeting to inform the community about the need to establish a "Botika sa Barangay".

As to the monitoring sheets, some BHWs still expressed ambivalence on what to use for recording the services they have rendered to their families, the FMMS or the notebook. They were reassured that they can use either one. One BHW also raised her concern about the promised free toilet bowl by the sanitary inspector. The group expressed disappointment over the information relayed that this project was shelved and likewise were vocal in expressing their views that they were ashamed to go back to their catchment areas since they have already told them about the free toilet bowls. The RHU team promised to assist them in managing this particular concern.

5. May 23, 1985

Eight BHWs were present, six from Baog and two from Gitna.

The RHU nurse got the consensus of the group regarding the proposed abolition of the small group meetings due to poor attendance. Those present agreed to scrap this. They agreed however to retain the big monthly meeting. She also suggested that each BHW will report to the group their activities, home visits and patients serviced during these meetings, to which the BHWs reacted positively.

The senior research assistant likewise informed the BHWs that she would occasionally visit them in their houses to assist them in some problems that they might have encountered pertaining to their tasks or roles as BHWs.

As for their "Botika sa Barangay" project, everybody made suggestions on how to raise the funds for the project. They agreed to solicit donations from the community through distribution of letters and envelopes to all the families in the community. As a start, each BHW will contribute an initial amount of ₱10.00 for this project. One BHW was assigned to be the treasurer for this project. They also planned to discuss the whole project with the barangay captain, its mechanics as well as the proposed area for the project in the newly constructed Barangay Hall, adjacent to the health center.

6. June 27, 1985

Only five BHWs were present, one from Baog, and two each from Gitna and Kapatan respectively. The RHU nurse informed the group that the "Botika sa Barangay" project was most welcome by the Barangay captain and that a space will be provided in the Barangay Hall. She also shared the draft of the letter of solicitation to the community for this project.

As to their health activities, one BHW reported, that, although she was not able to do written recording, she was still doing her work, especially home visiting, BP taking and simple treatment of common medical conditions like colds, cough and diarrhea. Another BHW claimed that she was able to record her activities on home visits and treatment of common medical conditions on a sheet of paper but was still confused in using the monitoring sheets. As for the top-performing BHW, she claimed to have a problem in accomplishing the monitoring sheets because of the large number of families assigned to her. The BHWs were again reminded to prioritize the families they need to service.

7. July 25, 1985

Twelve BHWs were present, five from Baog, four from Gitna and three from Kapatan.

A great number of the BHWs were busy with their income-generating activities like sewing bags and selling their finished products, which was the reason for decreased attendance during the past meetings. This was also one of the reasons given over their failure to do regular home visits of families in their catchment areas. Others were also busy cleaning their houses because of the recent floods.

During this month, the BHWs devoted more of their energy and attention to their fund-raising activity for the "Botika sa Barangay" project. They distributed envelopes to the families in their catchment areas. The BHWs from the Baog and Gitna were able to collect ₱1,580.

As for their health activities, one BHW reported that she was still visiting clients. She also kept a supply of medicines on hand for distribution to her clients who might need them. One BHW commented that majority of the families in her catchment area preferred to go directly to the center because of its proximity.

8. August 22, 1985

Eight BHWs were present, two from Baog, and three each from Gitna and Kapatan, respectively.

The BHWs were preoccupied with their fund raising activities during this month. The group in Kapatan submitted their collection amounting to ₱240.00. All solicited donations were deposited in a cooperative bank.

As for their health activities, only two BHWs claimed that clients consulted them in their houses. One BHW admitted that she was busy planting rice in the field, hence, was not able to do her health-related tasks.

Majority of the BHWs were not recording their activities, while one preferred to use a notebook for this purpose. The RHU staff tried to re-motivate them in their tasks as BHWs through verbal praises.

9. September 26, 1985

Ten BHWs, six from Baog, and four from Gitna attended this meeting.

Before this meeting, the research assistants were able to visit some BHWs in their homes, especially those who have missed several meetings for follow-up. Only one BHW was able to submit 13 FMMS forms, partly filled-up. Majority of those who attended, admitted that they no longer visit regularly their priority families, but instead, wait for people to go to them for consultation. One BHW from Baog admitted that her interest waned when the promised toilet bowls did not materialize. Majority of the BHWs were busy with their own economic activities like sewing bags, making mats and selling finished products, hence, they overlooked attending to their health tasks as BHWs.

The "Botika sa Barangay" fund in the amount of ₱1,870 was in a "Pamana" cooperative where a loan twice this amount, ₱3,980 was secured. This amount was appropriated as initial capital for the project. It was agreed that the RHU nurse will buy the needed medicines daily. They also discussed the possibility of someone to man the Botika in the mornings, and agreed to assign one BHW for this task. A Halloween caroling was suggested to raise additional funds for the project. The group seemed more enthusiastic in fund-raising activities rather than health-related tasks.

10. October 24, 1985

Eight BHWs were present, 2 from Baog, five from Gitna and one from Kapatan.

The group was informed about the second post-training test to be given the following month. They were advised to review their modules.

Two BHWs -submitted their monitoring sheets partly filled-up. Another BHW submitted her note-book. Others admitted that they did not accomplish them because they were either busy with household chores or busy with their economic activities.

The "Botika sa Barangay" was opened and being manned by the RHU midwife. No BHW has volunteered yet to man the botika. As for the Halloween caroling, they agreed to do it on the evening of October 31.

The midwife also informed them about the "Under-Six" program in the center to be offered in January. Hence, they were requested to recruit children of age 0-6, for weighing, immunization, deworming, etc. They were also required to disseminate this information in their respective catchment areas.

11. November 28, 1985

Twelve BHWs were present, four each from the three puroks.

This meeting was scheduled for their second post-test on the topics covered during the training period. Before the test, a review was conducted for 30 minutes by the midwife. The set of questions for each topic, numbering 50 items was finished in 50 minutes.

During this meeting too, the RHU midwife informed everyone about the death of the most outstanding BHW. All BHWs attended her funeral wearing their BHW uniform. This latter incident increased the awareness of the BHW existence in the community. It was also during this meeting that the group's cooperation/participation in assigning weights to a BHW performance rating scale devised by the research team was solicited. Their reaction and participation will be discussed in detail in a separate section.

12. December 27, 1985

This meeting was held especially as a holiday gathering and for distribution of awards and prizes for outstanding performances as BHWs during the ten-month period after training. This affair was attended by only 12 BHWs. More BHWs could have attended, and in fact were on their way to this affair, when they were required to attend an instantly scheduled presidential campaign meeting held in the town proper. In this presidential campaign, the target population of the announced presidential incentive were the BHWs who were enticed to attend the meeting because of the announced distribution of certificates, (please see Appendix L, p.) which document the package of health benefits for the BHWs, from the former President of the Philippines himself.

During this meeting, prizes were awarded to top-performing BHWs for 1985. A plaque of merit was given posthumously to the BHW who died only the month before and cash prizes to two others. The awards were based on performance during the ten-month period related to health tasks, written reports, and results of the second post-test. Further, the group was also informed of the planned research dissemination meeting for the forthcoming monthly meeting in January, 1986. The details of this special meeting on research dissemination will also be described in a separate section.

Summarizing, the first three months after training was devoted to stressing the importance of accomplishing the Family Monthly Monitoring Sheets (FMMS) to the BHWs. The emphasis on this aspect was later modified however when, during field visits of the research assistants to the BHWs, and small group meetings conducted with them, the BHWs expressed difficulties in filling up the monitoring forms, as well as their lack of time and seeming low enthusiasm to do home visiting. It was emphasized to them, that the paper work was not a compulsory task for them. Nonetheless, they were still motivated to continue providing health services to their household constituents. The adoption of alternative methods of recording such as the use of notebooks was also discussed. Some questions raised by the BHWs with regards to filling up the FMMS, were: "How will I fill it up?" ("Paano ko ba susulatan?"), "What shall I write?" ("Ano ang-isusulat ko?") Other comments were "I have no time to write", ("Wala akong oras na magsulat"), "My priority is to earn a living" (Kailangan ang kabuhayan ang unahin"). Despite several illustrations/examples given as to the proper accomplishments of the FMMS, this aspect of the monitoring scheme of BHW performance remained a major problem during the ten-month period after training. As an approach to this problem, the RHU and research team were patient in explaining and demonstrating the process of filling up the monitoring sheets, advised them to prioritize families, starting with five families, then increase it gradually to 20. Likewise, criteria for prioritizing their families were formulated and discussed with them.

Another problem concerned the BHWs' seeming lack of enthusiasm to do home visits. During the first three months after training, only 40% of the BHWs have gone home visiting. The rest verbalized their lack of time to do it, while others preferred to wait for patients to go to them. As an approach to this problem, it was stressed to them that making home visits are more important than filling up the monitoring sheets, and reinforcing their commitment to their tasks as BHWs, by magnifying their sense of voluntarism. Likewise, offers to accompany them in their home visit were made by the RHU staff and the research assistants.

The problem of drop-out/absenteeism was magnified especially on the six month after training. It was during this month that majority, of the BHWs were engaged in their own income generating/economic activities. Of the 30 BHWs who finished training, three were unable to do their duties due to household responsibilities, especially for married ones who have given birth. The other five have transfered to new residences outside of Matimbo, while the remaining twenty-two BHWs were engaged in different health activities. These activities were: home visits, treatment of patients who consulted them, immunization campaign, giving of health education, survey on environmental sanitation, and referral of patients. Of the twenty-two who were considered active, only four were consistently present during monthly meetings. A total of 17 were present from time to time during small group meetings and monthly meetings.

In general, the main problem in monitoring concerned their difficulty in accomplishing the monitoring sheet. As previously mentioned, eventually the BHWs were given the option on which type of recording they preferred to use to document their health activities. Interestingly, the "Kapatan" group expressed positive reactions to the use of the monitoring sheet. Some feedbacks from this group were: "It is nice because the months and columns are already provided". ("Maganda dahil nakaulat na ang buwan at may kolum na".), "You will know the illness/progress every month". ("Malalaman mo kung ano ang diperensiya at progreso buwan-buwan").

A positive aspect within this ten-month period which highlighted the strength of the BHWs in this area, was the establishment operationalization of the "Botika sa Barangay". The BHWs intensified their efforts in this project which was conceived six months after their training and started operating in October, 1985. This was the most concrete tangible accomplishment of the BHWs in this area, 11 months after their training. Lately, however, as a result of the incentive provided by the government last December, 1985, which takes the form of free consultation, hospitalization and other health benefits and privileges like free medicines, x-rays and other laboratory examinations, the BHWs expressed renewed interest in their tasks. Proof of this was the perfect attendance of the remaining 22 BHWs from

the original 30 who finished training in November, 1984, in the first monthly meeting for 1986, on January 2. It was during this meeting too where the results of the survey among the community households were shared with the BHWs and RHU staff. Being able to know the data especially those reflecting their deficient performance in health service delivery, the 22 BHWs displayed renewed interest, vigor and determination to perform their tasks more efficiently for the year 1986.

11. Reactions/Participation in Assigning Weights to the Items in the BHW Performance Rating Scale:

In a meeting held on November 21, 1985, the BHWs were asked to participate in the finalization of a performance rating scale to be used in evaluating them. Specifically, the task put before them was to assign exact weights using a ten-point scale, to each item in the scale. The items in the performance scale consists of 2 parts: 5 items on Part I, focusing on the BHWs' actual tasks/functions, while Part II focuses on health related tasks, specifically attendance in monthly meetings and compliance with written requirements. The items in the scale are as follows:

Part I

1. Conducting Household Survey
2. Engaging in Case Finding
3. Giving Health Instructions

    3.1 Environmental Sanitation
    3.2 Proper Nutrition
    3.3 Maternal Child Care
    3.4 Immunization
    3.5 Control of Communicable Diseases

4. Management of Common Medical Conditions

    4.1 Assessing health status
    4.2 Advising treatments/herbal medicines
    4.3 Making appropriate referrals
    4.4 Follow-up of cases handled

5. Community Mobilization

Part II

1. Number of meetings in 10 months
2. Number of priority families to be attended to
3. Number of patients/families per month actually handled

Using the participatory technique, one of the research co-investigators, introduced the task of the BHWs concerning this BHW performance rating scale. Specifically, they were asked to help the trainors and research team in finalizing the form through sharing their own judgment as to which of the listed tasks are important. In reflecting this importance, the BHWs were instructed to think along a 10-point scale. Eventually, the analogy of the purchasing value of ₱10.00 was used, that is, the more important the tasks, the more money will be alloted to the items concerned. An example was illustrated in the blackboard where all the items were written. Points on the money value which will total ₱10.00 or ten points for the 5 main items for Part I were given, e.g., 1 point or ₱1.00 for household survey, 2.25 for case finding, and so on, until the ten points or ₱10.00 are distributed to all the items. The BHWs worked on their respective sheets to assign the corresponding weight for each item. The RHU and research teams also assisted them as necessary. The BHWs were also reminded not to copy the example in the blackboard.

Initially, the BHWs had difficulty assigning points or money value to the items. However, upon repetitive explanations, examples, and answers to their questions, they were able to do the assigned task. This particular task took around one hour to finish. Their sheets were collected afterwards.

They were also asked to assign weights in the form of percentage to the two parts of the rating scale, to make a total of 100%. After some discussions of the issues involved, such as actual performance focused on Part I of the scale, versus attendance and paper work focused on Part II, the BHWs decided by a majority vote that both parts are of equal importance, hence, assigned 50% for each part. This feedback from the BHWs constituted the basis for quantifying their performance, using the

devised performance rating scale. Table 12 presents the weights assigned by the BHWs to each item in the scale.

TABLE 12

WEIGHTS ASSIGNED BY THE BHWs TO ITEMS IN THE PERFORMANCE RATING SCALE

Items	Ratings (n = 26)
Part I	
1. Household Survey	.90
2. Case Finding	1.49
3. Giving Health Instructions	3.00
3.1 Environmental Sanitation	.71
3.2 Proper Nutrition	.64
3.3 Maternal Child Care	.54
3.4 Immunization	.46
3.5 Control of Communicable Disease	.65
4. Management of Common Medical Conditions	2.74
4.1 Assessing health status	.84
4.2 Advising treatments/herbal medicines	.62
4.3 Referrals	.59
4.4 Follow-ups	.69
5. Community Mobilization	2.10
Part II	
1. Number of meetings in 10 months	10
2. Number of priority families	11
3. Number of patients/families/month	9

As shown in the above table it will be noted that a greater weight was assigned to preventive-oriented items such as item no. 3, on health instructions, as against curative, represented by item no. 4, on management of common medical conditions. The BHWs assigned the mean weight of 3.00 to the former, and 2.74 to the latter.

This session was a fruitful one and illustrated a participative activity involving both trainors and BHWs, especially in matters concerning the latter.

12. BHW Reactions/Behavior in Research Dissemination Meeting:

During the first monthly meeting for the year 1986, held on January 30, the focus of the discussion was the results of the survey conducted among the household respondents on February, 1984, and October, 1985. These were the dates covering the pre- and post-training periods of the BHWs. This meeting was attended by the RHU staff, the research team and the BHWs. For the first time, a perfect attendance was achieved among the 22 BHWs in active list, since their graduation in November, 1984. This perfect attendance was taken as a positive index of their renewed interest in their role and tasks as BHWs. Further, this change in attitude, could probably be attributed to the previously mentioned incentive consisting of a package of health benefits embodied in a certificate, provided by the government the previous month.

This meeting was presided by the Senior Research Assistant of the research team who presented the survey results. She started by recalling to the BHWs, that in early 1984, the UPCN-PRICOR research team conducted interviews with the community households in Matimbo, then another interview in late 1985, with the same households except for a few substitutes.

With the help of audio-visual aids, mostly in the form of pie-charts and graphs, she presented the results of the community survey and asked the BHWs to react to them. The main data shared with the BHWs consisted of the following:

1. Socio-Demographic Characteristics of the community respondents (n = 308):

The data showed the respondents to be mostly female, middle-aged with a mean age of 42 years, married, average number of children is 4, self-employed, blue-collar occupation for the husband, Catholic, with a mean income of less than ₱1,000.00, and a mean length of 22 years' stay in the barangay.

2. Other Properties Owned:

The data on this aspect showed more than 70% of the respondents owning household applicances such as electric fan, radio, TV and living room sets, while almost 40% owned stereo, refrigerator stove and clocks. On the basis of this, majority of the respondents can be considered to be living quite comfortably despite their reported low mean income.

3. Environmental Sanitation

There was a slight increase in the previous positively identified findings. For instance, the source of water supply became more sanitary in 1985 compared to 1984. Regarding the type of toilet, there was also a slight increase in water-sealed type in 1985 compared to 1984. However, there was likewise, an increase in number of respondents who do not own toilets in the 1985 survey. A 10% increase in adequate garbage disposal, was also noted compared with the 1984 data. This positive picture was likewise true with regards to drainage facilities which showed a slight improvement in 1985.

4. Awareness of PHC

This was a crucial question which showed marked improvement from the previous replies to this question in 1984. There was an increase in the affirmative response to this question from 57% in 1984 to 88% in 1985.

5. Knowledge about PHC

Knowledge, mostly comprising preventive aspects, likewise had a slight increase, from 71% in 1984, to 76% in 1985.

6. Awareness of BHW Existence

There was also an increase in the affirmative response, from 10.71% in 1984 to 50.32% in 1985.

7. Knowledge about BHW

While knowledge about BHW was mostly curative-oriented, constituting 61.2% in 1984, this knowledge in 1985 included both preventive and curative aspects constituting more than 60% of the total

responses. This same trend was observed with regards to functions and activities of the BHWs, from 1984 to 1985 data.

8. Frequency of Consulting a BHW

From a response of "2 x a month" of the total responses in 1984, majority or 43.5% replied "once a month" in 1985.

9. Health problems identified in the community by the household respondents constituted environmental sanitation, illnesses, malnutrition, water supply and electricity. Interestingly, these problems corresponded with those identified by the BHWs as most pressing community health problems.

10. Criteria for BHW Selection as perceived by Community respondents

The criteria pertaining to age, sex, status, educational attainment, and personality characteristics also matched those cited by the BHWs.

11. BHW Incentives

From a 47.8% who responded cash incentives for BHWs, in 1984, this form of incentive rose to 76.2% in 1985.

12. Who will provide BHW incentives

The providers of incentives as cited by the respondents in 1984 were the: community, representing 17.4% of the total response, 30.4%, for patient, and 26.1% for the government. In 1985, there was an increase in percentage of responses, that is, 49.6%, who cited the community as incentive provider, while government was reduced to 22.8%, and the patient, markedly reduced to 5.7%.

In general the BHWs reacted with animated and serious interest to these findings. At times, when results were in the direction reflecting their inadequate performance, they verbalized defensive remarks.

Some of the reactions of the BHWs in this research dissemination meeting are as follows:

1. On Awareness of PHC and BHWs

The BHWs, generally expressed their satisfaction with the positive findings on this aspect, despite the minimal increase in percentage of response. A determination to work harder on their part to maximize the community's awareness and attain a 100% awareness of both PHC and BHWs was expressed. To quote: "We need to work harder to complete the pie" (in reaction to the presentation of data on these aspects, wherein only 1/2 or 3/4 of the pie depicted the positive findings.)

2. On the frequency of consulting a BHW

This decreased to a once a month basis in 1985 from twice a month in 1984. The BHWs reacted quite defensively. Some reacted by saying they advised the patients to go to the hospital or health center because they had no medicines to give, while others verbalized that they were not available for consultations when needed.

3. Environmental Sanitation

When asked to comment on the finding regarding increase in number of respondents who do not own toilets, the BHWs reacted defensively again. One BHW remarked that there was an increase in population, another made a comment that many toilets have been destroyed; while others pointed to the high cost of constructing toilets. When asked if all of them have toilets, they gave a resounding affirmative response. One added that as BHWs, they are expected to own sanitary toilets since they should be role models in the community in this aspect.

4. BHW Incentives

The BHWs were amused with the results of the survey, showing cash as the favored form of incentive which, as cited should be given by the community. It was at this point that the RHU physician explained further the BHW incentive consisting of a package of health benefits recently granted them by the government in the course of the presidential electoral campaign. The group in general expressed satisfaction with this tangible BHW incentive.

In summary, the BHWs reacted to the findings positively, even to the negative ones. They resolved to perform better for the year 1986. They also decided to continue holding the regular monthly meeting, citing it as the occasion for sharing of concerns and problems in their work. This proved to be a fruitful session for all concerned. It was decided to utilize these findings as the basis for planning their activities in 1986. The BHWs agreed to discuss the mechanisms for utilizing the findings of the survey in their next February meeting.

B. Barangay Dalupirip

Community Profile*

Dalupirip is one of the Barangays in Itogon, Benguet. Travel time from Baguio City takes about two hours with one hour consumed in traversing a paved road and another hour, through a circuitous, narrow, dirt road. Travel during the rainy season is difficult and sometimes dangerous due to landslides and road cuts. Jeepneys ply the routes regularly with a limited number of trips daily.

Travel within the barangay is done mostly by foot. Some well-off residents use their horses.

Dalupirip is composed of 34 "sitios" (sites). Nine of these sitios were covered in a survey done by the BHWs in 1984. The headcount of these sitios reveal a total of 189 households with a population of 1,128. The barangay is primarily an agricultural community. The means of livelihood consists of planting rice, vegetables, and rootcrops.

Dalupirip has a labor force of 506 where 91% of the labor force are employed while 8.8% are unemployed. Farming and gold panning are the common occupations. Around 82% are farmers, 10% are gold panners, while the rest are professional, managerial, technical workers (1.3%), clerks, and sales workers (.6%), service workers (2.3%), skilled workers (1.3%) and an assortment of different jobs (1.5%). The people's common farming technology still avail of the carabao and plow. Harvest is done twice a year. Bananas, rootcrops, coffee, vegetables and some fruit trees are planted usually for household consumption. Some planters sell their harvests in Baguio City. Most households have vegetable gardens. Domestic animals also abound. Around 68% of the households have an assortment of domestic animals like dogs, goats,

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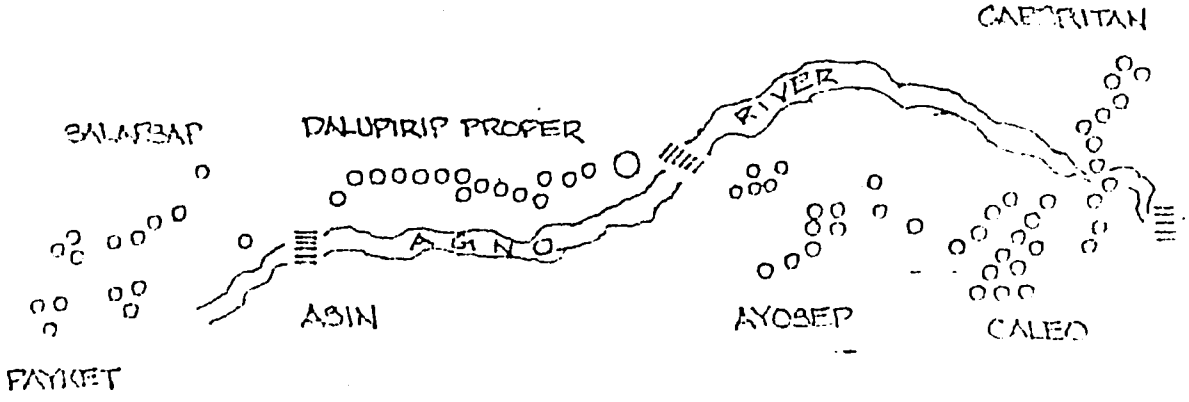
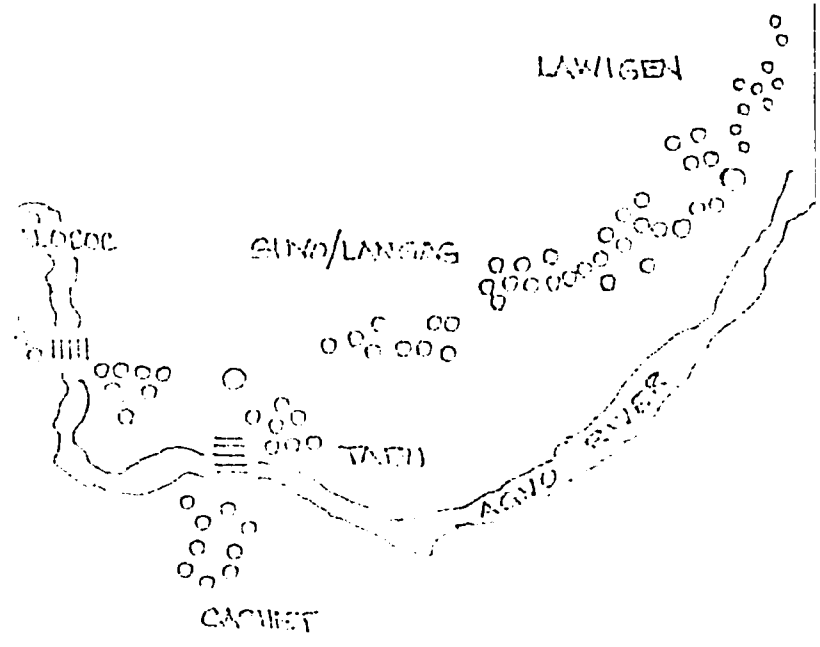
*Data yielded by the household surveys conducted by the BHWs during training and post-training periods.

SPOT MAP OF
DALUPIRIP, ITOGON, BENGUET





chickens, cows, mostly for domestic use. Agno River, Baguio City, and Pangasinan provide the community with fish and other seafoods.

Each household has an average of six members with the males (613 or 54.3%) slightly outnumbering the females (515 or 45.6%). More than one-third (455 or 39.8%) of the population is under 15 years of age. The 0-4 bracket, numbering 165 or 14.6%, while 79 or 32.6% are in the age of greatest productivity, that is 15 to 44. Further, 125 or 11% are in their late middle age, that is, 45-59, while those above 60 years of age comprise 69 or 5.8% ofthe total population. Of the total number of women, 215 or 35% are of child-bearing age.

The level of education cannot be measured adequately for lack of data. The only available information indicates the number of students at 249. Of these, 195 are below 15 years of age while 54 are above 15. Most student go to Dalupirip and Taleg schools for primary and secondary education. A few parents manage to send their children to Baguio City for college. Most of the people are Roman Catholics. Masses are held at Dalupirip proper twice a month.

The people generally speak Ilocano and Ibaloi.

Professional health services are provided by the Rural Health Midwife at Asin, an adjacent barangay. Other sources are the occasional visits of the members of the Provincial and Municipal health staff and the monthly visits from the SLU-MNC mobile clinic. In the "sitios", the BHWs are consulted by the community members for various ailments. Cases needing further treatment are usually referred to hospitals in Baguio City.

As for the environmental situation, majority of the households get their water from springs. Others get it from a centralized public water system (CPWS), rivers or irrigation canals. Drinking water for 44.5% of the households comes from springs. A relatively safe source used by 41.2% is the CPWS.

The most common methods of garbage disposal are open dumping and open burning.

Majority of the households use toilets. The water sealed type comprise only 8.5% of the total toilets in the barangay. Around 92% have the open pit privy type of toilets. A few households share toilets with others.

2. Recruitment and Selection of BHW Trainees

The BHWs who underwent previous training provided by the local Rural Health Unit and SLU-MNC were the ones who responded to the information campaign concerning the new BHW Training program. No new trainees were recruited, hence, the new training program served as a re-training or refresher course for the participants. There were a total of nineteen BHWs who agreed to attend the new training program; ten were previously trained by the RHU personnel and nine, by the SLU-MNC team.

3. BHW Re-training Course

Training in this site started on November 13, 1984, and ended December 11, 1984, for a duration of five weeks. The training schedule consisted of one day didactics followed by four days practicum per week.

The contents covered were basically the five main topics presented in the first case study, patterned after the five impact programs of the MOH.

The trainors were the staff nurses of the SLU-MNC team, assisted by some senior students of the SLU College of Nursing undergoing extended experience in community health nursing.

All BHWs were provided with a plastic envelope containing the modules, related hand-outs on the five main topics, notebook and ball pen. Simple snacks were also provided during each session.

4. Training Site

All didactic sessions were held in the residence of the Barangay Captain. The practicum took place in the community itself.

5. Training Strategies

The main teaching method used was lecture-discussion. The modules served as valuable supplementary teaching tool too. Practicum was monitored through submission of the worksheets for each topic.

The unique features of the BHW training programs in this area were the provision of one day human relations training consisting of group experiences in self-discovery, prior to formal didactics, as well as the use of "Decision Trees".

Pre- and post-tests were also administered at the start and end of the training.

6. BHW Profile

Majority of the BHWs in this area belong to the middle-aged group with age ranging from 30-45. The others are in extreme age groups, three are in their mid-twenties, and two are aged 52 and 70 years respectively. For civil status, three are single and sixteen are married. Their educational background also vary, ranging from primary to high school, or even high school graduate. However, the average educational attainment is that of a high school undergraduate. All are Roman Catholics. The females are mostly housewives while the males are mostly farmers by occupation. Their mean monthly family income is ₱700.00. Their mean length of stay in their Barangay is 30.27 years.

The psychological protocols showed that in general, these BHWs are well-adjusted and have medium level of self-esteem. They also fall within norms on the following personality traits: patience, fortitude, perseverance, creativity, being helpful, and sense of responsibility.

Grossly, they presented a picture of motivated, self-effacing group but interested to serve their fellow men.

7. Trainor Profile

The trainors in this area were two female staff nurses from SLU-MNC, one single, and one married. They were assisted in the didactic portion of the training program by senior nursing students of the SLU College of Nursing, specifically on the topics of Diarrhea and TB control and management. Both trainors are in their mid-twenties. Their mean length of service in the community is around two years.

The psychological protocols revealed a mature, well-adjusted, ambitious personality for both trainors. They also obtained scores corresponding to high level of self esteem, fortitude, being respectful, inquisitiveness, self-actualization, self regard, self-acceptance, being helpful and sense of responsibility. Grossly, they also presented a picture of trainors interested in their task of training BHWs so that they can function effectively in PHC. These trainors likewise generally maintain a harmonious relationship with the BHWs in this area.

8. Supervision and Monitoring of BHW Performance After Re-training

The holding of monthly meetings enabled the trainors to supervise and monitor the performance of the BHWs after their re-training. They were also requested to accomplish and submit the FMMS forms for the families under their care, during these meetings. Later on, they were given the option to choose the manner of recording the services they have rendered to their constituents, that is, the use of FMMS, or notebooks.

The monthly meetings were held every fourth Friday of the month in the residence of the RHU midwife.

9. Reactions/Behavior of BHWs During the Training Period

1. November 13, 1984
Human Relations Training (HRT) was conducted for one day by the two trainors. Only 10 BHWs were present during this session. Initially, there was some reluctance, anxiety and uneasiness on the part of the BHWs to participate in this session. Through some warm-up exercises such as "Getting to Know You", wherein each one was asked to describe one another, they were able to unfreeze themselves, became more relaxed, and were able to share more of themselves with the group. In the process of mirroring each other in the group, the members achieved further insights about themselves.

2. November 14, 1984
Lecture on Primary Health Care'

Eleven BHWs attended this session.

In general, they were familiar with this topic and expressed this verbally to the trainors. They participated well in the discussion by sharing their reactions and comments about the lecture. They were then given their practicum assignment to do household surveys among their assigned households. As a whole, they reacted with moderate interest to this task.

3. November 20, 1984
Lecture on Maternal and Child Health

Eleven BHWs were present. They showed marked interest in the topic. Since the lecture was conducted in their native dialect by a nursing student, they were stimulated to participate more actively by asking questions and sharing their comments as well as experiences in child care. Most of their questions were on the topics of Family Planning, especially on the contraceptive methods. One BHW commented that the use of contraceptives constitute waste of money and time as well, and suggested the use of herbal medicine for the same purpose.

4. November 27, 1984
Lecture on Child Care and Herbal Medicines

Only eight BHWs were present. The group, as in the previous sessions, generally was active in participating in the lecture-discussions. One member also shared her experiences as a mother with regards to the topic of preparing a feeding calendar of a baby from birth to six years of age. Another advocated "Ampalaya" (bittermelon) leaves as the first food of the baby before the mother's milk, based on the belief that the food taken by the baby in the fetal stage should be expelled. Other folk practices were also shared. Some submitted their household survey forms during this session.

They also participated actively on the topic of herbal medicine. Some claimed they have their own herbal garden where they get some of the herbal medicines they "prescribe" to their clients.

5. December 4, 1984.
Diarrhea and TB Control and Management

Sixteen BHWs were present. In general, the BHWs were attentive during the lecture presentation on this topic, especially during actual demonstration sessions. They asked questions on aspects unclear to them, such as Oresol preparation, when and how to give it. Other herbal plants that may be used were also explored.

With regards to the topic of TB Control and Management, some BHWs expressed some uneasiness and reluctance to do the sputum examination. They also aired some problems encountered in giving health teachings to patients diagnosed to be tuberculous. This pertains specifically to isolating the personal belongings and utensils of the tuberculous individual from the rest of the household, especially during the active stage of the disease. The other problem cited was lack of medicines for long term treatment.

6. December 11, 1984
General Wrap-up of the Lecture Topics and Planning for Graduation Day

The topics covered during the previous sessions were reviewed, to which the BHWs responded enthusiastically. They also engaged in another group dynamics activity, such as "The Longest Line" which provided them more insights about group solidarity and cohesiveness.

7. December 15, 1984
Graduation Program

All nineteen BHWs were present during this session. The municipal health officer who delivered the "commencement" message was applauded by the BHWs when she announced the distribution of the BHW kits to all those who completed the re-training course. Each one beamed with delight as they walked to the center of the makeshift program platform to receive their certificates and BHW T-shirts. Cash Awards were also given to four BHWs, for meritorious performances during the training.

The graduation refreshments were prepared by the BHWs. They also contributed musical and dance numbers in the graduation program. As a whole, they resolved to perform well their duties as BHWs, as embodied in the response given by the outstanding BHW during the awards presentation.

10. BHW Performance During the Ten-Month Monitoring Period After Re-Training

1. January 18, 1985

Eleven BHWs attended this first monthly meeting. The importance of monitoring families assigned to them was emphasized by the trainors. Criteria for choosing their priority families were discussed too. The BHWs expressed their difficulties in accomplishing the Monitoring form. A demonstration on the blackboard on how to properly accomplish this form was given. Afterwards, they agreed to submit their accomplished family monitoring forms during the next monthly meeting.

2. February 22, 1985

Fourteen BHWs attended this monthly meeting. They also submitted some family monitoring forms. A question raised pertained to the definition of "household". They claimed there were several families under one roof. They also shared some problems encountered in their practice, such as making home visits. Some BHWs voiced out that some people were not at home during their visits. Another BHW also suggested to make a quarterly check of toilets in the community. They also asked further guidance in the filling out of the monitoring sheets.

In general, the group was visibly ambivalent about accomplishing the monitoring forms. While they recognized its importance as a monitoring tool, they likewise expressed that it is time-consuming to fill ' out for each family assigned to them. Eventually, however, they agreed to continue accomplishing the forms.

3. March 23, 1985

Nine BHWs were present. Prior to this meeting, clinics in the three sites of this barangay were held by the BHWs and SLU-MNC staff.

During this meeting, five BHWs expressed their preference to use the notebook instead of the monitoring form. However, they also suggested the use of the monitoring form as a guide.

The need for a "Botika sa Barangay" in Lawigen was also brought up. A fund raising activity was agreed upon to launch this project.

During their clinics, the BHWs participated in various ways. They helped in assessing the patients. Some assisted the medical technologist in performing laboratory exams. Others assisted in dispensing medicines. Many helped carry the heavy trunks of medicines and equipment through steep foot trails.

During the post-clinic assessment, they gave varied suggestions on how to improve the holding of clinics. They suggested a longer time of preparation to duly inform the community about the clinics, the sending of representatives from the communities to carry the medicines and equipment, and the rotation of tasks among them. The topic of remuneration was also brought up. Majority expressed the need for a salary ranging from ₱250.00 to ₱700.00 per month for their services as BHWs.

4. April 19, 1985

Thirteen BHWs attended this meeting. The monitoring forms were discussed again. Notebooks were given to those who preferred to use them. They were advised, however, to pattern their entries with that of the monitoring form.

The group decided on a film showing as a fund raising activity to buy an additional Blood Pressure Apparatus. They agreed to hold the film showing on May 10, 1985.

5. May 17, 1985

Nine BHWs were present in this meeting. The film showing was held on May 10. They reported on their income and other receivables, amounting to a total of ₱400.00. They also raffled door prizes consisting of grocery bags among them. Aside from the BP Apparatus to be purchased with the funds raised, they agreed to sell smoked fish as an income-generating activity, from which they could draw their allowance as BHWs.

One BHW submitted his notebook consisting of a list of patients he rendered curative services to. However, he did not record his preventive care activities. Another BHW submitted both the notebook and the monthly monitoring form, documenting both her preventive and curative activities.

6. June 21, 1985

Only seven BHWs attended this meeting. The results of the household surveys the BHWs conducted immediately after their training were presented to them by the trainors. The poor status of environmental sanitation in their areas was discussed. They presented the problem of motivating the community in improving the sanitary condition. One BHW however, mentioned food as the main priority rather than sanitary conditions.

The BHWs also discussed their finances, Some were able to sell smoked fish.

Three BHWs reported being able to make home visits in their areas. Two have started filling out the monitoring forms while two others used notebooks.

7. July 19, 1985

Only six BHWs were present in this meeting. They claimed that two BHWs have found jobs in Baguio City, hence, were absent. They discussed further selling of smoked fish and salt as source of income for them.

One Blood Pressure Apparatus set and four thermometers were distributed to them. They agreed to hold an election of officers among them in October when they expect to have more BHWs in attendance. They claimed that the months of August up to September are busy months for planting and harvesting.

In general, the group expressed anew their inability to regularly accomplish the monitoring sheet or notebook due to other responsibilities associated with earning a living.

8. August, 1985

Monthly meeting was postponed because of a strong typhoon.

9. September 19, 1985

Nine BHWs were present. They reviewed their tasks, shared their problems as well as progress in monitoring the families assigned to them.

Two BHWs shared their problem on poor toilet construction , and presence of stray animals in their catchment areas. They also reported that there are people who really do not want to build toilets.

They also verbalized lack of time to record all their activities as BHWs. One BHW, the oldest at 70 years, cannot record his activities, as writing is his main difficulty. Other BHWs raised anew financial concerns and the need to be remunerated for their services.

10. October 18, 1985

Typhoon Signal No. 2 was up, hence, only five BHWs arrived. They were told to notify the rest about the post-test scheduled the following month.

11. November 15, 1985

After a brief review of the modules they utilized during the formal training session, nine BHWs took the post-test for about one hour. This was the same post-test they took immediately after the formal training period in December, 1984. They were informed about the forthcoming Christmas party and awards to be given to outstanding health workers, scheduled on December 15, 1985.

The rest of the time was spent in sharing their concerns as BHWs.

12. December 15, 1985

Sixteen BHWs were present in this gathering. A short Christmas program was held. This was capped by awarding plaques of merit to two BHWs, one male and one female, for their outstanding performance the past ten months after the formal re-training course. Cash prizes were also given to those who had perfect attendance during monthly

meetings, and to the oldest BHW, a 70-year old male who was still able to function as BHW and attend the monthly meetings despite his old age.

During this meeting too, the BHWs were asked to participate in the finalization of the BHW performance rating scale. Their cooperation was solicited by asking them to assign corresponding weight to each item in the scale, utilizing a ten-point scale. All BHWs were attentive and animated during this portion of the meeting.

Over-All Summary

During the monthly monitoring meetings especially the first few months after the formal re-training course, problems like household assignments, accomplishment of household survey forms, home visiting, lack of medicines and difficulty in filling out the monthly monitoring sheets were discussed. Some BHWs shared their positive and negative experiences in home visiting. Some BHWs shared the need for medicines from RHU, since they were confronted with cases needing immediate treatment. Their concern about possible remuneration for their services was also brought up.

During the next three months, only ten to fourteen BHWs attended meetings from time to time. Complete attendance from nineteen BHWs who finished the re-training course was never achieved. The reason given for absences was pre-occupation with earning a living. Sixteen BHWs were able to perform their duties such as treatment of patients during clinics or any time in their homes, making home visits to give health education and motivate families to improve their environmental sanitation. Some BHWs opted to use notebooks to record their activities, while a few agreed to continue filling out the monitoring form. They also launched a film-showing as a fund-raising activity for the purchase of additional BP apparatus, thermometers, and start a capital for a possible source of remuneration for themselves in the future.

The last few months of the ten-month period was devoted to discussing their problems as BHWs, like inability to attend regularly monthly meetings, making home visits, and concern for cash remuneration. As an income generating activity, the selling of smoked fish was started among them, where, for every 10 sets sold, they get one set free. While the funds for this purpose still revolve, many of them expressed the need for improvement, especially regarding the management of their funds. The BHWs have appointed a treasurer among themselves for this purpose. During this time too, they held clinics in the different "sitios". Some also were able to submit the monitoring forms and notebooks containing a list of activities and services they have rendered in their catchment areas.

The meeting in December, was capped by a Christmas program where awards were given to BHWs who demonstrated outstanding performance during the ten-month period after training. they also participated actively in the finalization of a BHW performance rating scale, to be used in evaluating them.

The monthly meeting held in January, 1986 was focused on disseminating to the BHWs the results of the community survey done before and after the implementation of the re-training course. They listened with serious interest and reacted to those aspects reflecting their performance as BHWs.

11. Reactions During Participation in Finalizing the BHW Performance Rating Scale

During the monthly meeting held on December 15, 1985, the BHWs were asked to participate in finalizing the BHW performance rating scale. A total of fourteen BHWs were present in this meeting.

The trainors explained why their cooperation was being solicited in the task. The partnership concept was likewise stressed anew. The BHWs appeared interested and eager to do their assigned task, that of assigning weights to each item in the scale. In explaining their task, the trainor made an analogy with a ten-peso bill (₱10.00), that is, how it should be apportioned to things that should be purchased.

Using the blackboard containing the items in the performance scale, with the BHWs also having before them the performance rating sheet, the trainor read each item one by one and gave examples as to how to assign corresponding weight. For instance, to the first item on household survey, she presented that a weight of one (or ₱1.00) may be given or any value based on their own judgment as to the degree of importance of this particular item, and so on, with the rest of the items, until the total weight of ten points (or ₱10.00) has been distributed.

Initially, some BHWs had difficulty in following the instructions. Further explanations had to be given by the trainors. Finally, they were able to comprehend the task expected of them. It took them at least fifteen minutes to assign corresponding weights to each item in the scale. The Trainors assisted those who had some difficulty in computation.

Table 13 illustrates the weights assigned by the BHWs to each item in the performance rating scale.

TABLE 12

BHW-ASSIGNED WEIGHTS TO ITEMS IN THE PERFORMANCE RATING SCALE

	BHWs (n = 14)
Part I	
1. Household Survey	.96
2. Case Finding	1.30
3. Giving Health Instructions	4.20
3.1 Environmental Sanitation	.84
3.2 Proper Nutrition	.75
3.3 Maternal Child Care	.85
3.4 Immunization	.73
3.5 Control of Communicable Diseases	1.03
4. Management of Common Medical Conditions	2.34
4.1 Assessing Health Status	.56
4.2 Advising treatments herbal medicines	.91
4.3 Referrals	.47
4.4 Follow-ups	.40
5. Community Mobilization	1.20
Part II	
1. Number of Meetings in 10 months	8.7
2. Number of Priority Families	9.3
3. Number of Patients per month	5.5
4. Number of Families per month	7.9

As seen in the above table, the items related to preventive services, especially that on giving health instructions, received more weights, that is, 4.20, compared to the weight of 2.34 given to the item on management of common medical conditions, which is curative. This indicates that the BHWs recognize the importance of preventive services more than curative ones. It should be mentioned that this was one aspect of their training that was emphasized. However, despite this recognition

evident in their perception and concrete feedback through their participation in finalizing this rating scale, this type of service is not actualized in their practice in the community for various reasons. Nonetheless, this is already an encouraging finding in that the BHWs are at least, preventive-oriented even only at the cognitive level. Hopefully, as they go through their practice, this thinking will be actualized in their activities as BHWs.

12. BHW Reactions/Behavior During Research Dissemination Meeting

In a meeting held on January 24, 1986, the results of the Community survey done before and after the implementation of the re-training course were presented to the BHWs. Ten BHWs were present during this meeting.

This meeting was presided by a research assistant from the UPCN-PRICOR research team who presented the survey results using the Ilocano dialect. She started by recalling to the BHWs that in early 1984, the UPCN-PRICOR research team conducted interviews with the community households in Dalupirip, then another interview in late 1985, with the same households except for a few who were substituted.

Using pie-charts and graphs, she presented the results of the community survey and asked the BHWs to react to them, as well as interpret the findings. The main results disseminated to the BHWs were the following:

1. Socio-Demographic Characteristics of the community respondents (n = 103)

The data showed the respondents to be mostly female, married, Roman Catholics, middle-aged, with a mean age of 46 years, average number of children is 5.5; mean family income of less than ₱1,000.00, and modal occupation of farming or gold panning. The respondents' mean length of stay in their barangay is 38 years.

2. Other Properties Owned

The data showed that 72.8% of the respondents owned a radio and 68% owned a dining room set. Only one percent owned Television set, 21.4% owned a clock, and 32% owned a stove. None owned a refrigerator, nor an electric fan. The latter is really not necessary since the climate in the area is generally cool.

On the basis of these data, the respondents, in general, can be considered to fall on low level of living.

3. Environmental Sanitation

Data on this aspect were generally negative. The situation pertaining to water supply, garbage disposal, and toilet has deteriorated from the baseline period to the post-implementation survey. For instance, the number of toilets, specifically the closed pit privy, dropped from 65% in the 1984 to 30.1% in 1985, while the open pit privy increased from 24.2% in 1984 to 42.7% in 1985. The same finding hold true with regards to garbage disposal. While open burning was the predominant method of garbage disposal in 1984, comprising 95.1%, this decreased to 35% in 1985, and open dumping constituted 44.7%.

4. Awareness of PHC

This was a crucial question which showed a decrease in percentage of the affirmative response which was 94% in 1984 to 83% in 1985.

5. Knowledge About PHC

There was a slight increase in percentage of responses concerning preventive aspects, which was 58.8% in 1984 to 64.2% in 1985.

6. Awareness of BHW existence

This was an aspect which yielded the most startling negative finding. From a 99.1% of affirmative response in 1984, this decreased to 92.2% in 1985.

7. Knowledge About BHW

There was a decrease in the perception of the community concerning curative functions of the BHWs, from 87.3% to 60.2% in 1985, and an increase in knowledge about BHW preventive functions, which was only 8.9% in 1984, and rose to 28.7% in 1985.

8. Frequency of Consulting a BHW

The response to this question indicated again a curative orientation with respect to consulting a BHW in the sense that 40% in 1985, showed their inclination to consult a BHW only when a family member is sick. There was none of this type of response in 1984.

9. Health Problems identified in the community consisted of illnesses, lack of safe water supply, lack of health personnel and facilities, poor environmental condition, and malnutrition. These problems corresponded with those identified by the BHWs themselves.

10. Criteria for Selecting BHWs as Perceived by the Community Respondents

This criteria pertaining to age, sex, status, educational attainment and characteristics also matched those identified by the BHWs.

11. BHW incentives

From a 73.8% who responded cash incentives in 1984, this rose to 89.1% in 1985.

12. Who will provide incentives

In 1984, 52.4% responded that the government should provide the incentives and 19% from the private group. In 1985, the government as provider of incentive constituted 63.1% of the response, followed by the private group, constituting 10.8%, then by the community at 7.7%.

In general, the BHWs reacted with serious interest and concern to these findings. Some of their reactions are further described as follows:

1. On the negative finding concerning inadequate environmental sanitation which showed a deteriorating picture from the survey done in 1984 and in 1985, the BHWs chuckled, appeared embarrassed and reacted quite defensively. For instance, seeing in the pie-chart that the number of toilets decreased from those existing in 1984, they reasoned out that the toilets in existence then had been destroyed during the rainy season. Further, they cited that the people are lazy to build new ones. One BHW even commented that food is the main priority of the people and not toilets. Another stated that the people would not get sick despite the absence of toilets. Seriously, however, they realized that this is a finding of the survey that they should pay attention to as BHWs. They resolved to intensify their efforts in this aspect of environmental sanitation.

   To the negative findings concerning the drainage and garbage disposal, the BHWs in recognizing their implications, resolved to make more home visits. They even asked that they be accompanied in these home visits by their trainors. They also suggested coordination of these activities with the barangay officials.

2. Negative Finding on Awareness of PHC and BHW by the Community

   The BHWs could not believe the decrease in percentage of community responses pertaining to this aspect, from the baseline survey to post-implementation survey, that is, from 99% to 92.3%, with regards to awareness of BHW existence, and from 94% to 83% with regards to awareness of PHC. The trainors and researchers verbalized to them that they too were startled with this finding. Some BHWs could not accept this finding and blamed the interviewers. Others admitted that they have not done home visiting much, which could be the reason for the low percentage of awareness concerning their existence.

3. With regards to some positive findings concerning utilization of their services, the BHWs reacted with much delight. They also chuckled upon learning the high percentage of community responses advocating incentives for them, especially cash incentives. In connection with incentives recently granted them by the government, the BHWs expressed general satisfaction with this package of health benefits.

Regarding personality traits of a BHW as perceived by the community, they appreciated the fact that their own perception with regards to these traits were similar to the community responses, such as willingness to serve the community, dedication, good moral character, humility and kindness.

With regards to health problems identified in the community, the findings were also similar to those that have been identified by the BHWs themselves, and which they felt they could assist the community in handling.

In general, the BHWs took the findings including the negative ones, positively. They resolved to do their tasks more diligently and even requested assistance and regular supervision from the trainors. They also agreed to continue holding monthly meetings as well as attend to their family household assignments.

C. Barangay Bagong Silangan

1. Community Profile*

Bagong Silangan is one of the barangays of Quezon City. Travel to this place is easy since the roads are well paved. Tricycles ply the route regularly from the Batasan, Quezon City while "bancas" cross the Marikina river from San Mateo, Rizal. The roads within the barangay are generally asphalted making the "puroks" accessible to each other.

The barangay has a labor force of 2,736. Of these, 39.5% are employed, 24.3% unemployed, and 36.1% with unknown employment status. Skilled workers comprise 51.2% of the employed population, while service workers, like security guards, housemaids, attendants, and waiters comprise 14.2%. The others, comprising 23.7% are engaged in clerical jobs, vending and managing their own "sari-sari" stores. Around 4.9% are professionals, technical and managerial job holders, while 1.8% are farmers, and 3.7% work as dancers, photographers, and other odd jobs. Family income is augmented through raising of pigs, and chickens and vegetable gardening as well, in home backyards.

Bagong Silangan is composed of 773 households. The total population is 4,435. Each household has an average family size of six members with males (2,249 or 50.7%) slightly outnumbering the females (2,186 or 49.3%). More than one third of the population is under 15 years of age. The 0-4 age bracket has a total of 536 children comprising 12% of the total population. Of the total women population, almost one half (1,033 or 47.2%) are of childbearing age.

A great majority (94.8%) of the people are Roman Catholics. The remaining 5.2% are Protestants, Iglesia ni Cristo, Evangelists and other religious sects.

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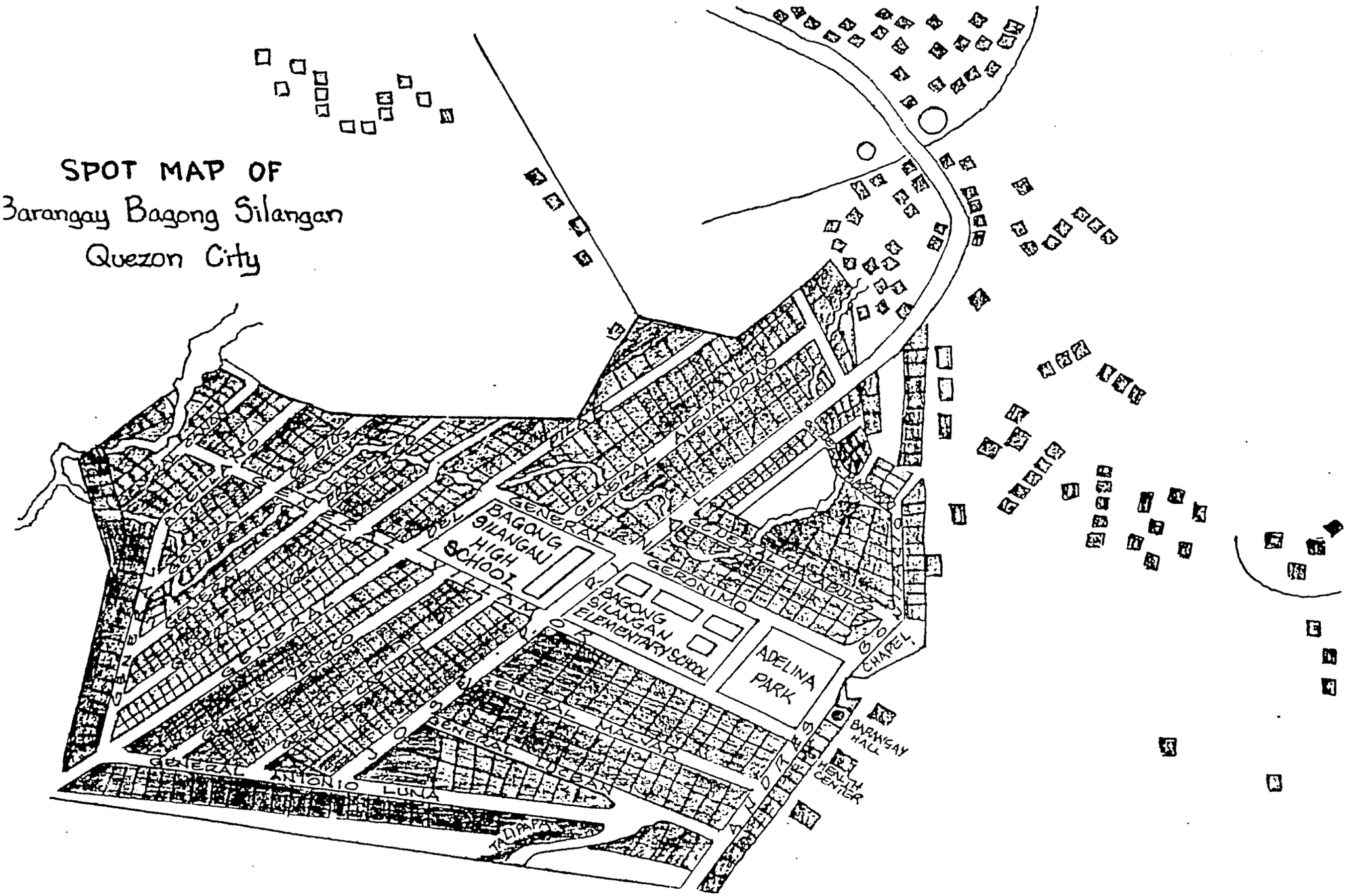
*Data yielded by the household surveys conducted by the BHWs during training and post-training periods.

13 4A

SPOT MAP OF
Barangay Bagong Silangan
Quezon City



Serving the educational needs of the children and youth in this area are one elementary and one secondary school. College education is sought in the nearby colleges and universities by those who can afford.

Health services are provided by the health center which has a doctor, nurse and midwife. The BHWs assist in the provision of health services. Private practitioners in the nearby barangays are also consulted.

Regarding environmental features, the artesian well is the most common source of water for the households. Others secure water from the centralized public water system, private faucets and wells.

Open burning of garbage is the most common practice of majority of the households, while others dump their garbage openly.

A great majority of the households use toilets. More than 50% of the total households use the public toilets. The rest own toilets with 12.7% owning pit privy types; 9% of this are the close type and 3.8% are the open type. The water sealed type is owned by 16.7%, while flush toilets are owned by 14.6%.

2. Recruitment and Selection of BHWs

In a meeting held on November 26, 1984, between the UPCN-PRICOR research team, and the Quezon City Health Department team composed of the Chief Health Officer, Chief Nurse of the Nursing Department, the Assistant Chief Nurse, and the Quezon City Health Nursing Supervisor in charge of the Bagong Silangan Health Center, it was decided to offer a new training program for the BHWs in Bagong Silangan, which could serve as a refresher course. A total of twenty one BHWs agreed to attend the new training program.

3. New BHW Training Course

The new BHW training program, as in the other two study sites consisted of both didactic sessions and practicum on the following five main topics:

1) Primary Health Care
2) Maternal Health Care and Family Planning
3) Infant Health Care
4) Tuberculosis
5) Diarrhea

Following the preferences of the BHWs with regards to the training schedule, the lectures on the five topics were given for straight five whole days from December 3 to 7, 1984. This was followed by practicum experience for four weeks, from December 10, 1984 to January 9, 1985. The practicum experience was monitored through submission of the following worksheets:

1) Household information sheets and survey forms

2) Case finding of pre-natal, post-partum and family planning acceptors

3) Well-baby record

4) Case-finding of TB patients

5) Case-finding of persons with diarrhea

The BHWs were provided with an envelope containing the materials needed in their training. Snacks were also served during the didactic sessions.

4. Training Site

The lectures were conducted in the health center. Most of the practicum activities took place in the field with actual patients.

5. Training Strategies

The lecturer for the five main topics was the nurse supervisor from the Quezon City Health department. She was assisted, however, in the practicum aspects, by the staff nurse and the midwife. The latter also took the main task of monitoring the performance of the BHWs after the training period. Since these BHWs have had previous experiences in Group Dynamics and Transactional Analysis in their previous training, the Group Dynamics exercises were dispensed with except for the exercise on "Communication". The use of modules helped a lot especially in their review for the post-test.

A closing program was held on January 14, 1985. This program was attended by all BHWs who completed the new training program, research assistants and one co-principal investigator from the UPCN-PRICOR research team, the health center staff, and representatives from the Quezon City health department. The BHWs' friends and relatives were present too. The Chief Health Officer of the Quezon City Health Department delivered the inspirational message while the Barangay Captain gave the closing remarks. Special awards for outstanding performance and perattendance were given to deserving BHWs. The BHWs also contributed musical numbers in this program. They also pledged renewed commitment to their tasks and functions as BHWs.

6. BHW Trainees

A total of twenty BHWs completed the new training program. Their socio-demographic characteristics are presented in Table 14 below:

TABLE 14

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF BHWs

Characteristics	Mean
Age	42.4
Sex	Female
Civil Status	Married
Occupation	Housewife
Educational Attainment	High School Undergraduate
Religion	Roman Catholic
Monthly Family Income	< ₱1,000.00
Length of Stay in Barangay (Years)	12.32

This group of BHWs is middle aged and predominantly female, with a lone male member. While majority are housewives, a few are self-employed as dressmakers and vendors. All finished elementary education and reached some years in high school.

The psychological inventories yielded results indicating a generally mature and well-adjusted group. They obtained a medium level of self-esteem, and a high level on the following traits: patience, creativity, being helpful, sense of responsibility, and respect. They also fell within norms on the traits of ambition and fortitude.

Grossly, this group, having had previous experiences in Group Dynamics and Transactional Analysis in their previous training, generally exuded self confidence and verbally expressive of their own opinions and feelings as well. These traits and behavior are particularly observed during the monthly meetings, where almost everyone participated actively at a verbal level.

7. BHW Trainor

As previously stated, the main trainor during the formal training course was the nurse supervisor, a 55 year old female, married, and currently pursuing a graduate degree in public health. Her mean length of service in public health nursing is 25 years.

Results of the personality inventories yielded a high level of self esteem, self-actualizing value, self regard and self acceptance. She likewise obtained high scores on traits of ambition, patience, being respectful, inquisitiveness and sense of responsibility.

Grossly she exhibited sincere interest in the re-training of BHWs.

The other trainors, especially during the monitoring phase after the formal training course, were the Health Center staff nurse and midwife. Both showed interest in their task of supervising the BHWs, especially after their re-training.

8. Supervision/Monitoring of BHW performance After Training

The performance of the BHWs was monitored through the holding of monthly meetings. The BHWs agreed to hold this meeting regularly, on every first Monday of the month at 2:00 p.m. at the Health Center. They also agreed to accomplish the Family Monthly Monitoring Sheet (FMMS) for each family under their care to be submitted during these meetings. In addition, the BHW performance rating scale which the BHWs helped construct was used in evaluating their performance within a ten-month period after the formal training course.

9. BHW Reactions During Training

The following paragraphs are short narrative accounts of each training session focusing on the BHWs' reactions/behavior during the formal training period.

First Session: December 3, 1984

Topic: Orientation to the Training Program Primary Health Care

Eleven BHWs attended this first session. A pre-test on the topic of Primary Health Care was given. The trainor explained the purpose of the new training program and stressed its nature as a refresher course. She gave an overview of the training content, as well as explained the use of the modules. She also re-emphasized the importance of preventive services against the backdrop of her observation that the BHWs tended to be more curative oriented in their tasks prior to this new training program.

The group in general was highly verbally participative during the lecture-discussion. They openly shared their knowledge of Primary Health Care. Many welcome the use of the modules.

Second Session: December 4, 1984

Topic: Maternal Child Care and Family Planning

Fifteen BHWs were present.

In general, the BHWs participated actively in the lecture-discussion by sharing what they know about the topics as well as raised questions on aspects they did not know about. Many of them cited their experiences in pregnancy, especially on pre-natal aspects. They also shared some psychological problems related to methods used in Family Planning, such as the withdrawal method. Majority acknowledged the importance of family planning and agreed to intensify their efforts in motivating their assigned families to practice it.

Third Session: December 5, 1984

Topic: Child Care and Immunization

Fourteen BHWs attended this session.

The BHWs as in the previous days, actively participated in the lecture-discussion. They shared their wealth of personal experiences concerning

child care, such as the value of breast feeding. They also verbalized some common poor feeding practices they have observed in the community, like giving of too much carbohydrates-rich food instead of protein, to the children. They also asked questions concerning some children's mannerisms which they associated with possible psychological disturbances, such as nailbiting and inflicting self-pain.

In general, they demonstrated their knowledge about growth and development of children, and the importance of nutrition, cleanliness, play and recreation for the normal development of children.

Regarding immunization, they verbalized their observation about many mothers' fears of subjecting their babies to immunization because of some side effects.

Fourth Session: December 6, 1984

Topic: Tuberculosis

Fourteen BHWs were present.

This was one topic in which the BHWs' own personal reactions convey the stigma attached to Tuberculosis as a disease. Despite their knowledge about the disease, especially concerning its prevention, diagnosis and management, the BHWs' reactions still conveyed their apprehensions about being contaminated with the disease. They also showed some reluctance in learning and/or doing the sputum examination. Some cited the social stigma attached to the disease as the main difficulty in case-finding of TB patients because the latter would not readily admit having such a disease. They also cited the high cost of anti-TB drugs,thus, posing problems in the long term management of the disease.

Fifth Session: December 7, 1984

Topic: Diarrhea

Seventeen BHWs were present.

The BHWs participated actively in the lecture-discussion on this topic. Majority shared their knowledge about prevention and treatment of diarrhea. In the course of the discussion, they cited the poor environmental sanitation in some of their catchment areas which can cause diarrheal diseases. This was the main problem they identified in their community. They also shared some superstitious beliefs concerning etiology of diarrhea such as "teething" of babies.

The rest of the session was devoted to discussing their concerns regarding their practicum activities. Some were reluctant to do the household survey expressing apprehension about being unwelcomed by the community households.

Practicum:
December 10, 1984 - January 4, 1985

In a meeting held on December 11, 1984 at the health center the practicum requirements were again clarified. All BHWs agreed to submit the worksheet on the first week of January, 1985. They were given also their respective family assignments.

The UPCN-PRICOR research assistants monitored the practicum experience through actual field visits to each BHW during this period.

Prior to the actual closing program the BHWs opted to have a Blood Pressure Apparatus set instead of receiving individual certificate of attendance. They also agreed to contribute ₱10.00 each for the snacks, as well as render musical numbers in the program.

It was agreed upon by the trainors that the chief of the Quezon City Health department will be the guest speaker for the occasion. They also decided to give cash awards for the BHW who was most punctual and had perfect attendance during the training sessions, and for outstanding performance as well. The basis for the latter award was the written course requirements submitted and performance in the post-tests as well.

10. BHW Performance/Behavior During the Ten-Month Period After Training

The following paragraphs present brief narrative accounts of the BHWs reactions/behavior during monthly meetings held within a ten-month period following completion of the new training program.

1. February 11, 1985

Eight BHWs attended this first monthly meeting. The other BHWs were reported to be either sick or busy with other concerns. The staff nurse reminded them about their previous agreement to impose a ₱5.00 fine to those who are absent during meetings. Some BHWs claimed this rule is no longer being followed. One BHW claimed that the reason she attends meetings was that she did not want to pay the ₱5.00 fine. This matter of imposing ₱5.00 fine to absentees was not resolved because only a few BHWs were present.

The BP apparatus set was presented to them, to which they reacted with excitement. They devised a schedule in which to rotate the set among them during week-ends. They also agreed to ask donations from clients who can afford to pay this service. The donations will be used to purchase another set of BP Apparatus.

The use of the Family Monthly Monitoring Sheets (FMMS) was discussed anew. A demonstration on how to properly accomplish it was shown. The criteria for selecting their priority families were explained again.

Some BHWs expressed that they are able to do their tasks but unable to record them due to lack of time. A few BHWs shared their experiences in home visits and how they recorded such activities in the monitoring sheets.

2. March 11, 1985

Fifteen BHWs attended this meeting. This meeting was presided by the president of the group, with the midwife and the staff nurse assisting in facilitating group discussion.

The use of the monitoring sheets was discussed again. The BHWs verbalized some problems related to prioritizing families to be served and difficulties in filling out the forms. Those who have positive experiences with this written requirement tried to motivate others to start accomplishing their sheets. Six BHWs admitted having accomplished this form and felt satisfied about doing so. They verbalized likewise their feelings of satisfaction about follow-up of priority families, such as those with children belonging to 0-6 age group.

The subject of asking donations for the blood pressure taking service was raised anew. They agreed to solicit a donation of ₱2.00 to those who are willing to give it with the amount to be divided as follows: ₱1.00 will go to the BHW fund to purchase another BP Apparatus set and ₱1.00 to the BHW who rendered the service. They also agreed to lift the ₱5.00 fine to those who are absent during monthly meetings for valid excuses. It was also suggested that those who cannot attend should give prior notice of their non-attendance to avoid being fined.

3. April 15, 1985

Only five BHWs were present. The other BHWs were summoed but they were not at home.

Those present submitted their forms. The subject of fund-raising activity was brought up for the purpose of purchasing additional medical supplies and equipment.

4. May 13, 1985

Eleven BHWs attended this meeting.

The lone male BHW shared his problem concerning environmental sanitation in his catchment area. Some BHWs volunteered to visit his site and conduct a sanitation campaign the following week. Those who are regularly filling out the FMMS also taught the others who still had difficulty filling theirs.

A problem in interpersonal relationship among them was also brought up. The concerned parties aired their feelings of resentment towards each other. The staff nurse and the midwife acted as mediators during the confrontation.

5. June 9, 1985

Seven BHWs were present. During this meeting, three BHWs submitted their FMMS.

The fund raising activity was also discussed. The lone male BHW expressed his satisfaction and appreciation for the assistance extended by his co-BHWs during their sanitation campaign the previous month. He reported some improvement in this aspect in his site after the campaign.

The spot map was also updated with the help of the BHWs.

The group, in general, agreed to intensify their efforts in improving environmental sanitation in their catchment areas.

6. July 15, 1985

Seven BHWs attended this meeting. Their fund raising activity consisting of Bingo Social was postponed due to continuous rain. They agreed to change it to a raffle draw instead, to be held in October, to give them more time to solicit prizes.

The group reported on their activities and claimed they have been rendering services in their catchment areas although they are unable to record these in their FMMS.

7. August 13, 1985

Eight BHWs attended this meeting. Two BHWs submitted their FMMS. The other BHWs shared positive outcome of follow-up visits they made to their assigned families, such as completion of immunization for the children in the households. Three BHWs expressed the need for more time to update their FMMS.

Plans for the raffle fund-raising activity were finalized.

8. September 9, 1985

Ten BHWs were present in this meeting. The main concern discussed was the forthcoming raffle draw. The BHWs were preoccupied in selling raffle tickets and soliciting prizes.

No one was able to submit any FMMS due to this current pre-occupation.

9. October 7, 1985

Eight BHWs were present. Only one submitted a FMMS. The group was still quite euphoric over the results of the raffle draw held two days before. They were able to raise more than ₱1,000.00, which they used to buy two more sets of blood pressure apparatus.

10. November 11, 1985

Nine BHWs were present in this meeting. They were informed about another post-test to be given next month. They were asked to review their modules.

The health center staff also presented a new project, that of a Mothers class to be conducted by the BHWs. The group, in general, appeared enthusiastic about this new project.

11. December 30, 1985

Sixteen BHWs reported to take the post-test. A review was held for thirty minutes before the test.

The BHWs were also asked to participate in the finalization of the BHW performance rating scale by assigning weights to items in the scale. Their reactions towards this task will be reported in a separate section.

12. January 31,1986

Fourteen BHWs were present.

This meeting was primarily held to disseminate to the BHWs the results of the community surveys done by the UPCN-PRICOR research team in early 1984 and late 1985. The results of this survey reflected the BHWs performance within a ten-month period, after their re-training.

Their reactions will be described in another separate section.

Over-all Summary

In the first few months after the re-training period, some BHWs, with initial difficulties, were able to submit their Family Monthly Monitoring Sheets. Majority had a positive attitude towards this monitoring requirement. Nonetheless, the actual filling out of the form as well as its submission remained a problem. Despite this inability to submit the forms, the BHWs claimed that they were still doing their tasks and responsibilities. The problem of absenteeism was also discussed. Various reasons for absences were given such as pre-occupation with household chores and earning a living.

During the next three months, there was an improvement regarding submission of the monitoring sheets. About 50% of the BHWs were able to submit them. Majority were also able to choose their priority families. They also expressed positive findings such as general feelings of satisfaction whenever they were able to render service through actual home visits to their priority families. It was also during this period that problems in interpersonal relationship cropped up among them, which resulted in the dropping-out of one member. The fund-raising activity was also planned during this time. The last few months, of the twelve month monitoring period witnessed the successful holding of a raffle draw organized by the BHWs as a fund raising activity. With the amount that they raised, they were able to purchase additional two sets of blood pressure Apparatus. While they still verbalized some difficulty in regularly accomplishing the FMMS, they reported, nevertheless, their continuing role as BHWs through services rendered to their respective constituencies.

This period also witnessed their serious participation in finalizing the BHW performance rating scale. Likewise, they reacted with marked interest to the dissemination of results of the community survey which reflected their own performance as BHWs. Regarding the negative findings of the survey, they resolved to improve their performance and intensify as well, their efforts preventive-oriented services.

11. BHW Reactions/Participation in Assigning Weights to the Items in the BHW Performance Rating Scale

In a meeting held on December 20, 1985, the BHWs were asked to participate in finalizing the construction of a BHW Performance Rating Scale, which will be utilized in evaluating their performance for the past ten months.

One of the co-principal investigators of the research team explained their task, emphasizing the partnership approach in this undertaking. They were asked to help the trainors and the research team to finalize the performance rating form by assigning weights to each item in their scale, using their own judgment about the importance of each item. To do this, they were instructed to think along a 10-point scale. Eventually an analogy of the purchasing value of ₱10.00 was used, that is, the more important the tasks, the more money will be alloted to the items concerned. An example was illustrated in the blackboard. The BHWs, worked on their respective forms to assign the corresponding weight for each item, while the RHU and research teams went around to give them assistance. Initially, they had some difficulty assigning weights or money value to the items. Eventually however, upon repetitive explanations and examples, they were able to do their assigned task. It took an hour to explain and make the BHWs participate in this activity. Later, they were also asked to assign weights in the form of percentage to the two parts of the rating scale, the total of which should be 100%. After some deliberations, the group agreed on 40% for Part I and 60% for Part II. This feedback from the BHWs constituted the basis for quantifying their performance, using the devised performance rating scale.

The following table illustrates how the BHWs assigned weights to each item in the scale.

TABLE 14

WEIGHTS ASSIGNED BY THE BHWs TO THE ITEMS IN THE PERFORMANCE RATING SCALE

Items	BHW Ratings (n = 17)
Part I	
1. Household Survey	1.65
2. Case Finding	1.60
3. Giving Health Instructions	3.27
3.1 Environmental Sanitation	.82
3.2 Proper Nutrition	.65
3.3 Maternal Child Care	.57
3.4 Importance of Immunization	.55
3.5 Control of Communicable Diseases	.68
4. Management of Common Medical Conditions	2.30
4.1 Assessing health status	.65
4.2 Advising treatments/herbal medicines	.67
4.3 Referrals	.39
4.4 Follow-ups	.59
5. Community Mobilization	1.18
Part II	
1. Number of Monthly Meetings	9.3
2. Number of Priority Families	9.0
3. Number of Patients/Families	9.0

As seen in the above table, the preventive orientation of the BHWs was evident in the sense that they assigned more weights to items on preventive services, specifically the item on giving health instructions. This item received a mean weight of 3.27 from 17 BHWs, compared to the mean weight of 2.30 assigned to the item on management of common medical conditions, which is a curative task. This result provides a positive feedback concerning the goals of the new training program held a year ago which emphasized the importance of preventive services more than curative ones. Apparently they have been imbibed with this doctrine, but could not actualize it regularly in their practice for various reasons.

12. BHW Reactions to the Research Dissemination Meeting

On the first monthly meeting for the year 1986, held on January 31, the focus of the discussion was the results of the surveys done among community households in early 1984 and late 1985, by the UPCN-PRICOR research team. It was decided to disseminate the results of these surveys to the BHWs to give them a feedback concerning their performance which were somehow reflected in the survey findings. Further, the findings could be utilized as basis for planning their health activities for the year 1986. Sixteen BHWs attended this meeting.

This meeting was presided by the Senior Research Assistant of the research team who presented the survey results. She started by recalling to the BHWs that in early 1984, the UPCN-PRICOR research team conducted interviews with the community households in Bagong Silangan and another interview in late 1985 with the same households except for a few who were substituted.

With the help of bar graphs, and pie-charts, she presented the results of the two surveys. The main results shared with the BHWs were the following:

1. Socio-demographic characteristics of the community respondents (n = 315)

The results showed the respondents to be mostly female, middle aged with a mean age of 41.3 years; Roman Catholics; housewives, with average number of children of 3.5, blue collar occupation for the husband, with a mean monthly Family Income of less than ₱1,000.00 and a mean length of 22 years' stay in the barangay.

2. Other Properties Owned:

The data yielded that 74.9% owned a radio; 66% owning a dining room set; 64.4% owning a living room set; 42.2% owning a clock, 34%, owning a TV set, 26% owning a stereo and 2.5% owning a refrigerator. These data indicated a generally low level of living for these respondents.

3. Environmental Sanitation

With regards to water supply, there was hardly a change from 93% response of artesian wells as main source of water in 1984, to 92.7% in 1985. It is in the type of toilet where there was a minimal increase in percentage of responses; that is, 71.1% in 1984 owned,to 79.4% in 1985.

With regards to garbage disposal, there was decrease in percentage of response concerning open burning, that is, from 69.8% in 1984 to 65.7% in 1985. With regards to drainage facilities however, there was a slight improvement.

4. Awareness of PHC

There was an increase in percentage of the affirmative response from the respondents, from 24.1% in 1984, to 52.6% in 1985.

5. Knowledge About PHC

There was a change in their knowledge of PHC, that is, from a preventive-oriented perception comprising 89.4% in 1984 to 70.3% in 1985; the curative orientation increased from 5.2% in 1984 to 16.3% in 1985.

6. Awareness of BHW Existence

There was also an increase in the "affirmative" response, from 47.3% in 1984, to 60.95 in 1985.

7. Knowledge About BHW

The curative-orientation concerning BHW function which was 50.3% in 1984, decreased to 44% in 1985, while the preventive orientation likewise decreased from 31.7% to 19.6%.

8. Frequency of Consulting a BHW

The data did not change, that is, once a month.

9. Most Pressing Community Health Problems identified were malnutrition, environmental sanitation, lack of health personnel and medical facilities, and illnesses. These problems matched those identified by the BHWs.

10. Criteria suggested for BHW selection were: Age: around 30 years; sex - female: status - married; and educational attainment - high school graduate. Some personality characteristics deemed important to be possessed by BHWs were willingness to give service, dedication and industry, kindness, good interpersonal relations, good physical condition and appearance, good moral character, humility and leadership.

11. BHW Incentives

There was also an increase in percentage of affirmative response concerning granting of incentives to BHWs, from 44% in 1984 to 56% in 1985. Further, cash as the type of incentive to be given, had an increase in percentage of responses, that is, from 50% in 1984 to 91% in 1985.

12. Who will provide the incentive

In 1984, the following were cited as the incentive "provider": patient, 33.8%; community, 24.1%, and government, 27.8%. In 1985, government as provider of incentives was cited by 82.6% of the respondents, while that by patients, decreased to 4.3% and by the community, decreased to 9.0%.

In general, the BHWs reacted with animated and serious interest to the above survey results. In the face of some negative findings, they reacted quite defensively. Some of their reactions to the above findings were as follows:

1. On some positive findings which showed a slight or moderate increase in percentage of responses, the BHWs appeared satisfied. However, when asked if they were contented with the slight or moderate increase in favorable responses, they answeredin the negative. They expressed that they would aim for a 99.9% increase in favorable responses from the community, if another survey will be conducted again within the year.

2. Regarding the negative finding concerning decrease in percentage of responses concerning knowledge about PHC, which was from 89% to 70.3%, the BHWs reacted quite defensively. They attributed this negative finding to the community's inability to recall the particular services they received from the BHWs.

3. Regarding awareness of BHW existence, while they expressed general satisfaction with the results which showed moderate increase in percentage of responses indicating awareness of BHWs, some BHWs claimed that the community knows them as health workers of the center and not as BHWs.

   They were then advised to re-introduce themselves to the community as BHWs.

4. With regards to incentives, they voiced out their request that they be given the same package of health benefits granted to the BHWs under the MOH. The trainors assured them that this will be taken up with the authorities at the Quezon City Health Department.

   In general, the BHWs reacted positively to the findings, and resolved to improve further their performance. They also agreed to review these findings in their next monthly meeting as a basis for planning their activities for 1986.

Part II. Quantitative Data

The quantitative data in this section are presented in relation to the following indicators reflecting the effectiveness of the solutions developed, namely, BHWs, Trainor, and Community.

A. BHW Index:

1. Knowledge Gained:

One of the goals set by the alternative training strategies for BHW training in PHC was for the BHWs to obtain a minimum pass level of 70% in short tests given after each major topic during the formal didactic training period. Further, it was expected that as the BHWs continue to function within the health system, they will be able to retain knowledge gained during their training. This was explored through the administration of the same set of tests ten months after training. The following table presents the two sets of scores obtained by the BHWs in each study site. These scores were subjected to a T-test to determine their statistical significance.

TABLE 16

KNOWLEDGE SCORES OF BHWs

Study Sites	n	Immediately After Training %	n	Ten Months After Training %	t-value
Bagong Silangan	20	81.2	17	88.7	4.65*
Dalupirip	30	79.4	26	83.1	1.19
Matimbo	17	70.0	13	74.2	2.37*

*Statistically significant at .05 level.

As seen in the above table, the BHWs in the three study sites had increase in their average scores indicating their level of knowledge attained immediately after the formal training period to the post-training period.

The T-test showed that the increase in scores for the two study sites of Bagong Silangan and Matimbo were statistically significant. The increase in the scores in Dalupirip, while not statistically significant could still be appreciated as indicating the level of retention pertaining to knowledge gained. This result can be considered a positiveoutcome of the training program which may be attributed to the use of the modules which supplemented the training as well as provided the BHWs with a handy reference in their practice and review as well. The modules were reviewed by the BHWs in preparation for the second post-test session.

2. Performance

Using thedevised performance rating scale, the number of BHWs who were able to meet the minimum pass level of performance was determined. Those who obtained scores equal or above the set mean performance score were considered to meet the minimum pass level of performance, while those who scored below were considered to perform poorly. Table 17 presents the number of BHWs in each study site who obtained minimum performance pass scores.

TABLE 17

NUMBER OF BHWs WHO OBTAINED MINIMUM PASS PERFORMANCE SCORES

Study Sites	n	Actual Number of BHWs	%
Bagong Silangan	17	10	58.82
Dalupirip	19	7	36.84
Matimbo	22	8	36.36

As seen in the above table, in terms of quantifying the performance of the BHWs, only 58.82% of the total number of BHWs in active service in Bagong Silangan met the minimum level of performance considered passing. In Dalupirip and Matimbo, a smaller percentage of 36.84% and 36.36% respectively, were obtained as meeting the minimum level of performance. This indicates that more than 50% of the BHWs in the latter sites, and about 40% in Bagong Silangan need to be remotivated and guided further to function more efficiently.

It is worthwhile mentioning too that a close examination of the psychological traits of the BHWs who obtained minimum or beyond pass level of performance revealed that they possessed a medium and even a high level on the trait of self-esteem. Other personality traits of high level or within norms, associated with these BHWs, were ambition, fortitude, creativity, patience, inquisitiveness, being helpful and sense of responsibility. These are desirable personality traits and characteristics that a BHW must possess to be able to perform his tasks and functions with maximum efficiency. It is likewise interesting to note that the BHWs in the three study sites who were given awards for outstanding performances at the end of the ten-month period after training demonstrated these desirable personality traits.

3. BHW Drop-Outs

There had been drop-outs among the BHWs within a ten-month period after training (or re-training for the Bagong Silangan and Dalupirip sites). Out of a total of 30 who graduated in Matimbo in November, 1984, only 22 as of January, 1986, are in active status. In Bagong Silangan, 17 out of 20 who underwent re-training, are still active, while in Dalupirip 16 are in active status out of 19 who took the re-training course. These drop-outs occurred in the months of June, 1985 in Bagong Silangan; August and September, 1985, in Dalupirip, and February, March, July, and October, 1985, in Matimbo. The main reason for dropping out was due to finding employment elsewhere. For instance,

in Dalupirip, two BHWs found a job in a mining company, hence, had to migrate out of the area, while one married a non-resident of her area, and moved out likewise. In Matimbo, some BHWs married or gave birth, hence, got pre-occupied with taking care of the baby, while the others also found employment. In Bagong Silangan, one BHW dropped out because of interpersonal problems with her co-workers, while the two others found employment elsewhere.

4. BHW Motivation to Continue Service

Those who are still functioning as BHWs claimed to receive no monetary compensation for services they render to their communities. However, they still continue to function out of their sincere desire to serve their fellow men. They admitted feeling some kind of personal satisfaction for being able to help and render service to others. Some also verbalized that they learned about health and illness management through their training and practice as BHWs, and this was reason enough for them to continue functioning to be able to learn more. A number of BHWs, especially in the Dalupirip site received remuneration for their services to their clients mostly in the form of vegetables and fruits.

5. Household Coverage

In Dalupirip, the number of households covered by each BHW, ranged from 2 to 50, with an average of 10 families for the majority. In Bagong Silangan, the average number of household coverage is 10, however, three BHWs have more than twenty households. In Matimbo, while the average number of households is 20 for a greater majority, 8 BHWs have more than 20 households. To the question raised if they are able to serve their household assignments 78% of the BHWs in Dalupirip responded in the affirmative while 96% in Bagong silangan and 81% in Matimbo, answered likewise. For those who responded in the negative, the reason given for not being able to serve their household coverage was that the people did not consult them.

6. Assessment of the training program

Table 18 presents the BHWs responses as to whether or not the training programthey underwent provided them with knowledge and skills they needed in their health tasks in the community.

TABLE 18

BHW RESPONSES CONCERNING ADEQUACY OF THE TRAINING PROGRAM

Responses	Matimbo (n - 21)		Dalupirip (n - 16)		B. Silangan (n = 16)	
	f	%	f	%	f	%
Yes	20	95.2	15	93.7	15	93.7
No	1	4.8	1	6.3	1	6.5
Total	21	100.0	16	100.0	16	100.0

As seen in the above table, there is a consistent high percentage in the affirmative response from the BHWs in the three study sites concerning the adequacy of the training program they underwent.

In addition, majority of the BHWs likewise claimed that they were able to apply what they have learned from their training in their practice especially maternal child care, management of diarrheal cases, and herbal medicine. They also gave satisfactory ratings to their trainors when asked to evaluate them.

With regards to training content, the following table presents ranking of the topics according to degree of importance by the BHWs in the three study sites.

TABLE 19

TOPICS RANKED BY BHWS ACCORDING TO IMPORTANCE

Topics	Matimbo (n = 26)	Dalupirip (n = 18)	B. Silangan (n = 17)
Primary Health Care(PHC)	6	4	1
Maternal Child Care(MCH)	1	1	3
Family Planning(FP)	3	5	4
Nutrition	5	6	7
Herbal Medicine	7	7	6
Tuberculosis	4	2	2
Diarrhea	2	3	5

It can be seen that the BHWs in the three study sites differed in their ranking of topics according to the degree of importance. However, their ranking with regards to certain topics were quite close to each other. For instance, ranked number one by the BHWs in Matimbo and Dalupirip was the topic of MCH, which got a rank of 3 from the BHWs in Bagong Silangan. Other topics which received almost identical rankings from the BHWs in the three study sites were Family Planning, Nutrition, Herbal Medicine, Tuberculosis and Diarrhea.

Some problems they shared in connection with the training program pertained to lack of practicum especially in handling home deliveries, (especially cited by the BHWs in Dalupirip area), proper cutting of the cord of the newly delivered baby, and no actual demonstration of preparation of herbal medicines. Some complained about the inaudible voice of some lecturers, which posed some difficulty in comprehending the subject matter taught. Others cited that not all methods of Family Planning were adequately explained.

Finally, the BHWs also suggested the following criteria for selecting a BHW trainee as shown below:

TABLE 20

CRITERIA FOR BHW SELECTION

Characteristics	Matimbo (n = 26)	Dalupirip (n = 16)	B. Silangan (n = 16)
Age	25-29 years	15-24 years	15-19 years
Sex	Female	Male or Female	Male or Female
Civil Status	Single	Single	Single or Married
Educational Attainment	High School graduate	High School undergraduate	High school graduate

From the above table, it is noted that the BHW respondents, who are mostly middle-aged preferred younger person. With regards to educational attainment, they suggested those who have reached at least secondary education. For the Bagong Silangan and Matimbo areas, the predominant preference was a high school graduate.

B. Trainor Index

1. Assessment of BHW Training Program

In general, all trainors in the three study sites rated the new BHW Training program as adequate. They claimed that the program provided the BHWs with basic knowledge and skills they needed in their work. They also cited the modules as a very valuable and helpful supplementary teaching tool.

Some problems they cited during the training period were tardiness and absences. These were the same problems encountered in the post-training period. The latter had, on the average, only 50% attendance, and in some instances, even lesser. This was the prevailing situation in all study sites. The trainors also cited lack of audio-visual aids that can supplement the lecture-discussion methods used in didactic sessions, such as slides and film strips. Further, lack of incentives to BHWs was also related to the waning interest of BHWs in their work after formal training.

Some BHW personality characteristics cited by the trainors as facilitating learning were high degree of motivation, interest, commitment and inquisitiveness. Further, an educational background of at least post-elementary was also cited as enabling the BHWs to understand the subject matters readily.

In turn, trainor characteristics identified by the BHWs as facilitating learning were approachability, patience, good sense of humor, good interpersonal relations, facility with language expression, interest in teaching, and ability to motivate learners. On the other hand, trainor characteristics cited as hindering learning were impatience and lack of interest in teaching.

Finally, the following table presents the ranking of topics according to the degree of importance by the trainors in each study site.

TABLE 21

RANKING OF TOPICS BY TRAINORS ACCORDING TO IMPORTANCE

Topics	Trainors in		
	B. Silangan (n = 1)	Dalupirip (n = 1)	Matimbo (n = 1)
Primary Health Care	1	4	1
Maternal Child Care	3	2	3
Diarrhea	5	1	4
Tuberculosis	2	3	5
Child Care	4	1	
Environmental Sanitation		5	

It will be noted in the above table that the trainors in Bagong Silangan and Matimbo had identical rankings of at least three topics, namely, Primary Health Care, ranked number one by both; Maternal Health Care, ranked number 3, and Tuberculosis, which they ranked as number 2. They differed in the topics which they ranked as 4th and 5th, however. They also had close ranking on the topic on Diarrhea.

In the case of the trainor in Dalupirip, it will also be noted that she closely ranked at least two topics, namely, Maternal Child Care and Tuberculosis with a rank of 2 and 3 respectively, against the ranks of 3 and 2, given for these same topics by the trainors in Bagong Silangan and Matimbo.

C. Community Index

As illustrated in the model of this study, the community factor is the crucial index of the success or effectiveness of the alternative BHW training program field tested in each study site.

As previously stated, in the first quarter of 1984, a community survey aimed at gaining information about the community's socio-economic demographic characteristics, environmental features, perception of health problems in the community, awareness of PHC and BHW as well as utilizing the latter's services, and other aspects, was done. In 1985, ten months after the implementation of the Alternative BHW Training Program, another survey was conducted, using the same questionnaire and same households used in 1984, in the three study sites. Data obtained before and after the program implementation are compared and analyzed in the following sections.

The total number of household respondents in 1984 in each study site was maintained, that is, 315 for Bagong Silangan, 103 for Dalupirip, and 308 for Matimbo. Further, the respondents who were no longer in residence in the area concerned. were substituted by those who occupied their previous sites. Thus, for Bagong Silangan, a total of 45 or 14.2% comprised the new respondents, while for Dalupirip and Matimbo, a total of 9 or 8.7% and 30 or 9.7% constituted the new respondents respectively.

1. Socio-demographic characteristics

Table 22 presents the socio-demographic characteristics of the household respondents in the three study sites.

TABLE 22

SOCIO-DEMOGRAPHIC CHARACTERISTICS OF COMMUNITY RESPONDENTS IN THE THREE STUDY SITES

Characteristics	B. Silangan (n = 315)		Dalupirip (n = 103)		Matimbo (n = 308)	
	Before	After	Before	After	Before	After
Mean Age	40	41.3	42	46	40	41.8
Modal Sex	Female	Female	Female	Female	Female	Female
Modal Civil Status	Married	Married	Married	Married	Married	Married
Mean No. of Children	4.3	4.4	4.7	4.8	4.08	4.2
Modal Occupation	House-wife	House-wife	Farmer/ Gold Panner	Farmer/ Gold Panner	House-wife	Self-employed
Modal Spouse's Occupation	Blue Collar	Blue Collar	Farmer/ Gold Panner	Farmer/ Gold Panner	Blue Collar	Blue Collar
Modal Religion	RC	RC	RC	RC	RC	RC
Mean Length of Stay in Barangay (years)	9	10.8	37.8	40	33	34.8
Modal Family Income	<₱1000	<₱1000	<₱1000	<₱1000	<₱1000	<₱1000

As seen in the above table, the socio-demographic characteristics of the community respondents in the three study site did not change from baseline data. Except for the item on modal occupation, which showed a change from housewife to self-employed in the Matimbo area, and item of mean length of stay in Barangay, which showed a slight increase in all three study sites, the rest of the characteristics remained stable. Thus, generally, the respondents in all three study

sites were middle aged, female, married, having an average number of 4-5 children, housewives, Roman Catholics, and have stayed long in their present residences. They generally belong to low income group too.

2. Level of Living

With regards to level of living, it should be mentioned that majority of the respondents own the house and lot they live in. Likewise, a great majority of the respondents in Matimbo especially, and to a certain extent, in Bagong Silangan, have adequate housing materials compared to the few residents in Dalupirip having such. Further, based on the presence/non-presence of certain possessions and properties, evidenced by household appliances owned such as televisions, stereo sets, refrigerators, stove, electric fans, dining and living room sets, only the Matimbo respondents can be said to have a moderate level of living. This site also has electricity supply compared to the two others which have none. Among the three study sites, Dalupirip is classified as the most depressed community, followed to a certain degree by Bagong Silangan.

3. Environmental Features

Table 23 presents the environmental features of the three study sites.

TABLE 23

ENVIRONMENTAL FEATURES OF THE THREE STUDY SITES

Features	B. Silangan (n = 315)		Dalupirip (n = 103)		Matimbo (n = 308)	
	Before %	After %	Before %	After %	Before %	After %
1. Water Supply:						
Adequate	98.4	99.7	61.2	60.2	98.4	99.4
Inadequate	1.6	0.3	38.8	37.8	2.6	0.6
2. Type of Toilet						
Adequate	76.5	80.0	29.1	4.9	86	81.5
Inadequate	23.4	19.9	70.9	95.1	14	18.5
3. Drainage Facilities						
Adequate	2.9	5.4	2.9	1.9	12.4	28.2
Inadequate	97.1	94.3	97.1	98.2	87.6	71.6
4. Garbage Disposal						
Adequate	86	85	98.1	46.7	63.6	74.7
Inadequate	14	15	1.9	53.3	36.4	25.3

As shown in the above table, there was a general improvement, though only slightly in the environmental features in the study sites of Bagong Silangan and Matimbo. The reverse holds true, however, for Dalupirip where the prevailing environmental picture is of deterioration, as evidenced by marked decrease in number of adequate toilets, and garbage disposal. It will be recalled that this was an aspect of the survey results dissemination held with the BHWs in this area to which they reacted quite defensively but nevertheless, resolved to still do something about. On the other hand, the BHWs in the two sites, while appreciating the slight increase in these features of the environment in their respective areas, recognized that the results were still below target goals. They resolved likewise to engage in more preventive health services, such as making more home visits to the families in their catchment areas.

4. Community Awareness of BHW Existence

TABLE 24

COMMUNITY AWARENESS OF BHW EXISTENCE

Response	Matimbo				Dalupirip				Bagong Silangan			
	Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	33	10.71	155	50.2	102	99.0	95	92.23	149	47.3	192	60.95
No	275	89.29	153	49.68	1	1.0	8	7.77	166	52.70	123	39.05
Total	308	100	308	100	103	100	103	100	315	100	315	100

As seen in the above table, except for the Dalupirip area, there is a big increase in percentage of Community household respondents who responded "Yes" to the question pertaining to awareness of BHW existence in their community. The marked increase in the Matimbo area from 10.71% to 50.32% can thus be appreciated, and so with the Bagong Silangan area, which increased from, 47.3% to 60.9%. A startling finding however, was the slight decrease pertaining to BHW awareness in the Dalupirip area, from 99% to 92.23%. A possible explanation for this could be the change of respondents in the community households surveyed. Other possible reasons could be that the respondents who were interviewed had no longer active BHWs servicing them. Regardless however, of any plausible explanation for this negative finding, this is one crucial matter that should further be examined by the RHU and SLU-MNC teams as well as the BHWs themselves. The latter took this finding quite positively with the resolution to improve on their performance for the year 1986.

This awareness of BHW existence can be linked likewise to awareness by the community of the concept of Primary Health Care (PHC) as shown in Table 26 below.

5. Awareness of PHC

TABLE 25

AWARENESS OF PHC IN COMMUNITY

Response	Matimbo				Dalupirip				Bagong Silangan			
	Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%
Yes	57	18.51	88	28.57	94	91.2	83	80.58	76	24.13	166	52.70
No	251	81.49	220	71.43	9	8.8	20	19.42	239	75.87	149	47.31
Total	308	100	308	100	103	100	103	100	315	100	315	100

The above table shows an increase, though slightly, in awareness of PHC existing in their community, by the respondents in the study sites of Matimbo and Bagong Silangan, that is, from 18.51% to 28.57% for the former, and from 24.13% to 52.70% for the latter. A startling finding anew, however, was the slight decrease in awareness of PHC in Dalupirip. This was consistent with the findings presented earlier on awareness of BHW existence, which showed a similar decrease.

6. Perceived Functions of BHWs

TABLE 26

PERCEIVED FUNCTIONS OF BHWs BY COMMUNITY RESPONDENTS

Functions	B. Silangan(n = 315		Dalupirip(n = 103)		Matimbo(n = 308)	
	Before %	After %	Before %	After %	Before %	After %
Preventive	70.9	75.7	7	15	13.3	43.7
Curative	14.1	11.2	90.2	45.2	66.6	26.3
Preventive Curative	15	13.1	2.8	39.8	20.1	30
Total	100	100	100	100	100	100

The above table presents the findings pertaining to the perceived functions of the BHWs by the community respondents. The table shows an increase in percentage of responses with regards to the preventive functions of the BHWs in all the study sites. For instance, in Bagong Silangan baseline data of 70.9% increased to 75.7% in the post-implementation period. In Dalupirip, an increase from 7% to 15% occured, and in Matimbo, the percentage was from 13.3% to 43.7%. The reverse picture with regards to curative function likewise occured. This was a consistent finding in the three study sites. The marked decrease in percentage of responses who perceived curative functions of the BHWs was illustrated in Dalupirip and Matimbo.

While the percentage increase in community responses with regards to the preventive functions ofthe BHWs is minimal, this finding still is an encouraging one.

7. Utilization of BHW Services:

Table 27 below presents an increase, though slightly in the percentage of respondents who consulted the BHWs before and after the implementation of the new training program. The increase was especially evident in Bagong Silangan and Matimbo which showed an increase from 36.75% to 61.42% in the former and from 55.2% to 78.23% in the latter. For the respondents in Dalupirip, the pattern of response which was already high did not change much.

TABLE 27

PERCENTAGE OF COMMUNITY RESPONDENTS WHO CONSULTED BHWS

Response	B. Silangan (n = 315)		Dalupirip (n = 103)		Matimbo (n = 308)	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Yes	36.75	61.42	81.2	82.2	55.2	78.23
No	63.25	38.58	18.8	17.8	44.8	21.77
Total	100	100	100	100	100	100

Other results of the study support the above findings, specifically, the aspect pertaining to the inclusion of BHWs as among the personnel consulted by the community for various health problems and needs. In general however, the medical personnel remained the top health personnel preferred to be consulted by the community respondents. Nonetheless there was a slight increase in community responses indicating their inclination to consult the BHWs for various health problems and needs. Table 28 below presents this specific finding.

TABLE 28

COMMUNITY'S INCLINATION TO SHARE HEALTH NEEDS AND PROBLEMS WITH BHWs

Response	B. Silangan(n = 315)		Dalupirip(n = 103)		Matimbo(n = 308)	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Yes	45.34	71.27	73.78	89.33	45.19	66.55
No	54.66	28.73	26.22	10.67	54.81	33.45
Total	100.00	100.00	100.00	100.00	100.00	100.00

Table 29 further illustrates the community's perception concerning the BHWs' capabilities to help them.

TABLE 29

COMMUNITY'S PERCEPTION CONCERNING BHWs' CAPABILITIES TO HELP THEM

Response	B. Silangan(n =315)		Dalupirip(n = 103)		Matimbo(n = 308)	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Yes	31.18	63.16	95.4	81.46	38.44	72.21
No	69.82	36.84	4.6	18.54	61.56	27.79
Total	100.00	100.00	100.00	100.00	100.00	100.00

As shown in the above Table, the affirmative response from the Matimbo and Bagong Silangan areas increased, signifying their faith in the capabilities of the BHWs to help them. The reverse is true however, in the study site of Dalupirip which showed a decrease in the affirmative response from 99% to 81.46%. The reasons cited in the previous sections may also hold true for the negative finding.

As a whole, the positive attitude by the community towards the BHWs attested by the foregoing data is further supported by the community respondents' reply concerning availability of the BHWs for needed services. The majority of the respondents in the three sites yielded common identical responses that the BHWs were available and accessible for consultation when needed.

The BHW services actually availed of by the community are presented in Table 30, in rank order.

TABLE 30

BHW SERVICES ACTUALLY AVAILED IN RANK ORDER BY THE COMMUNITY

BHW Services	Matimbo		Dalupirip		B. Silangan	
	Before Rank	After Rank	Before Rank	After Rank	Before Rank	After Rank
Environmental Sanitation	3.5	4	1	2	2	4
Maternal Child Care	3.5	7	6	9	3.5	7
Health Education	5	8.5	2	4	5	5
Family Planning	6	6	9	10	6.5	9
Nutrition	8.5	10	7	8	3.5	8
Immunization	8.5	3	8	7	9	6
Community, Mobilization	2	8.5	4	6	6.5	1
Case Finding	8.5	5	5	3	8	2.5
Management of Common Medical Conditions	1	2	3	1	1	2.5
Drug Depot	-	1	-	5	-	10

As shown inthe above table, a change occurred in the type of services actually availed of by the community respondents in the three areas, from the baseline period to the post-implementation period. During the baseline period, more preventive services, within the first five, were availed of by the community, except in Matimbo and Bagong Silangan while a curative service, namely, management of common medical condition obtained a rank of one. During the post-implementation period, this same curative service got a rank of one in Dalupirip, and ranks of 2 and 2.5 respectively in Matimbo and Bagong Silangan. The rest of the services ranked within the top five were preventive oriented, however. Thus, it can be stated that even if the curative service received the top rank among services actually availed of by the community, especially in the post-implementation period, the rest within the top five were still preventive oriented. It is speculated that the curative service occupied top ranking due to the time period of data-gathering which was the cold season when there is a prevalence of respiratory diseases.

In brief, these findings on utilization of BHW services are already encouraging despite the low percentage of positive responses. The data in the foregoing tables illustrated near achievement of the goals set in implementing the new training program, namely, to have at least 50% of the community to utilize BHW services, especially preventive over curative ones, at a ratio of 2:1 within six months to one year after training.

8. Most Pressing Health Needs and Problems of the Community

The community respondents also identified some of their most pressing health needs and problems. Most of these pertained to illness, environmental sanitation, malnutrition or lack of food, health services and facilities.

These problems were consistently among the first five ranked by the respondents in the three study sites as most pressing. In this regard they likewise opined that the BHWs can assist in meeting these problems through mobilizing the barangay, as well as through rendering ofpreventive and curative services.

9. BHW Incentives

In another light, the community respondents in the three areas were also unanimous in their affirmative response when asked if incentives should be provided the BHWs for carrying out their tasks within the health care delivery system. Table 31 below, illustrates this type of response.

TABLE 31

COMMUNITY RESPONSE CONCERNING BHW INCENTIVES

Response	B. Silangan (n = 315)		Dalupirip (n = 103)		Matimbo (n = 308)	
	Before	After	Before	After	Before	After
	%	%	%	%	%	%
Yes	51.83	87.19	83.44	92.26	57.46	84.58
No	48.17	12.81	16.56	7.74	42.54	15.42
Total	100.00	100.00	100.00	100.00	100.00	100.00

Further, the community respondents identified the sources of incentives such as patients, community, government and other private groups.

These incentives, as cited by the community respondents, generally are of two types: cash or in kind. The latter may consist of medical benefits, awards, or any form of recognition for services rendered. Cash as an incentive was cited by majority of the respondents in the three

study sites, especially during the post-implementation period. As documented in the case studies presented earlier, the subject of incentives has been a key concern, especially in Dalupirip, and constituted one of the main topics discussed in several meetings. Henceforth, the recently granted BHW incentive from MOH consisting of a package of health benefits and privileges was most welcome by the BHWs in Matimbo and Dalupirip. The group in Bagong Silangan however, are still eagerly awaiting to get such incentive from the Quezon City Health Department.

The above data convey the idea that even the community respondents think that the BHWs should be duly remunerated for services they render to the community.

10. Criteria for BHW Selection as Perceived by Community Respondents

The community respondents in the three areas likewise yielded some criteria for BHW selection. This include socio-demographic characteristics as well as personality traits.

TABLE 31

CRITERIA FOR BHW SELECTION AS PERCEIVED BY COMMUNITY RESPONDENTS

Characteristics	Bagong Silangan		Dalupirip		Matimbo	
	Before	After	Before	After	Before	After
Mean Age	27	30	23	27	26	36
Sex	Female	Female	Either	Male	Either	Female
Civil Status	Single or Married	Married	Single or Married	Single	Single	Married
Educational Attainment	High School graduate	High School graduate	High School graduate	High School graduate	High School graduate	High School graduate

As noted in the above Table pertaining to age as a criterion for BHW selection, there was a change in preference from a young adult to late adult or middle aged individual among the community respondents in the three areas in the post-implementation period. This was especially marked in the Matimbo area, where the preferred age was 36 from the original response of 26 in the baseline period. As for the other two areas, there was an increase likewise by at least 3 years, from the baseline period to the post-implementation period. This conveys the community perception of a BHW as a mature person. Further, such maturity could perhaps be guaranteed by a later chronological age. Regarding sex as a criterion for BHW selection, the preference for female BHWs did not change in Bagong Silangan, while in Dalupirip and Matimbo, there occurred a change in sex preference. As shown in the table, respondents in Matimbo preferred a female BHW during the post-implementation period from either sex during the baseline period. This pattern of response had the opposite among the Dalupirip respondents, where sex preference changed from either male or female in the baseline period to male only during the post-implementation period. With regards to civil status, a change in response also ensued from baseline period to the post-implementation period. The respondents in Bagong Silangan preferred only married BHWs, from no specific preference during the baseline period. This same pattern of response was exhibited by the Matimbo respondents. In contrast, the Dalupirip respondents expressed preference for a BHW who is single, in contrast to their previous response of single or married during the pre-implementation period. As for educational attainment, the preference for a BHW who is a high school graduate was consistent in all three areas before and after the implementation of the new training program.

Table 32 below presents the perceived personality characteristics of BHWs collated from the responses of the community respondents in the three areas. They are presented in rank order according to frequency of responses obtained, from the highest to the lowest.

TABLE 32

PERCEIVED PERSONALITY CHARACTERISTICS OF BHWs BY THE COMMUNITY

Personality Characteristics	Ranking by Community Respondents		
	B. Silangan	Dalupirip	Matimbo
Dedicated	2	1	2
Kind	3	2	3
Good Moral Character	6	4	6
Knowledgeable and Skillful	6	5	5
Leadership trait	7	6	7
Good Interpersonal Relationship	4	8	4
Humble	8	9	7
Willingness to give service/help/sympathy/ concern to others	1	3	1
Good Physical Condition and Appearance	6	7	7

As gleaned in the above table, the personality traits listed obtained almost identical or close rankings in the three study sites. For instance, the trait of willingness to give service/ help/sympathy/concern to others obtained a rank of one in Matimbo and Bagong Silangan, while in Dalupirip, this trait obtained a rank of 3. The other traits which had almost identical or close rankings, were kindness, which obtained ranks of 3 in Bagong Silangan and Matimbo, and

2 in Dalupirip. Within the top five in the list of personality traits, is dedication, which got a rank of 1 in Dalupirip and a rank of 2 in Bagong Silangan and Matimbo. Most of the traits in the list obtained identical rankings in at least two of the three study sites.

These personality traits that a BHWs must possess as perceived by the community respondents are important aspects to consider in formulating selection criteria for BHW trainees. These traits may later on be related to those BHWs who have performed efficiently their tasks and functions. Further, these are some of the traits that are tapped by psychological/personality inventories. This finding raises pertinent implications towards criteria formulation for BHW trainees on the aspect of personality traits/characteristics.

V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

As previously stated, this study focused on the operational problem on training of BHW's in primary health care. It attempted to devise solutions to the problem in this area, utilizing operations research techniques of problem analysis, solution development and solution validation. The results of problem analysis, yielded both positive and negative findings on the quality of training of BHWs, assessed in Phase I of the study. Based on these findings, solutions to the problem were proposed and field tested in Phase II of the study. Finally, the outcome of the solution validation was evaluated in Phase III.

The outcome or effectiveness of the solutions developed and field-tested were evaluated along the following indices: trainor, BHW and community.

In general, the results of the field testing of the alternative training strategies using the trainor, BHW and community indices were positive and favorable. The BHW training program was rated generally adequate by both Trainor and BHWs who underwent the program. Both claimed the program covered the essential content needed by the BHWs in their practice in the community. The

goals of the training program were achieved to a great extent with regards to BHWs' acquisition and retention of knowledge, and performance as well. Some problems cited by the BHWs concerning their training pertained to lack of practicum with regards to certain topics, their inability to attend monthly meetings and submit monitoring forms, and lack of medicines and equipment they need in their practice, such as blood pressure apparatus. The trainors, in turn, cited problems such as tardiness and absences of BHWs during monthly meetings, non-submission of monitoring forms and lack of audio-visual aids that can enhance their lecture-presentation during the formal training period.

The community indices yielded positive results likewise, especially on the aspects of community awareness of BHWs and PHC, as well as utilization of their services. The results, however, were of low percentages in general. Nonetheless, they can still be appreciated considering the fact that the program has been in implementation for barely twelve months when a post-implementation survey was done, hence, still quite short a time to fully evaluate its impact or effectiveness.

By way of conclusion, the results of this study definitely raise important implications in BHW training programs, especially pertaining to the aspects of Content, Practicum, BHW task, and Supervision and Monitoring of BHW performance after training. Apropos, the following specific conclusions are further derived from this study:

1. The alternative training strategies with its distinctive features of utilizing modules, actively involving BHWs in evaluating their performance, and disseminating to BHWs community survey results reflecting their performance as BHWs, were generally adequate and provided the BHWs with basic knowledge and skills they needed in rendering health services to the community. The data on trainor, trainee and community indices buttress this conclusion.

2. There is a need for the community to be more involved in the recruitment process and selection of BHWs who will undergo BHW training program.

3. The use of module proved to be an effective supplementary tool in BHW training program and served as handy reference for review purposes as well.

4. Periodic consultations with BHWs and actively soliciting their cooperation in matters related to their performance, such as the construction of a BHW performance rating scale, number of household assignments, as well as dissemination of results of the community survey reflecting their own performances, served to re-kindle and sustain their continuing interest and motivation to perform their functions as BHWs.

5. Group Dynamics served not only as predidactic catalyzers but provided valuable insights as well in relation to self growth and team building among the BHWs.

6. Granting of concrete incentives in any form is necessary to sustain BHW interest and motivation in their work.

7. There is still a need to improve on the supervision and monitoring aspects of BHW training programs related specifically to sustaining their interest and motivation to continue functioning as BHWs.

8. There are distinctive personality traits and characteristics of BHWs associated with efficient performance.

9. There are distinctive trainor personality traits and characteristics that facilitate as well as hinder BHW learning.

10. BHW performance reflects the kind of training they underwent.

Finally, in the light of the foregoing conclusions, the following recommendations are made:

1. Make the community more aware of their participation in BHW training through selecting or nominating a representative from their community to undergo BHW training.

2. Implement a set of criteria for BHW selection especially on personality traits and educational background, once the number of applicants to BHW training programs increases.

3. Evolve a more effective monitoring scheme in monitoring BHW performance, one that they would appreciate and to which they can devote time to attend and accomplish.

4. Continually involve the BHWs in actively participating, not only in evaluating their own performance, but in planning the content as well as skills to be taught, by getting their opinions on these aspects of the training program.

5. Sustain the interest and motivation of the BHWs in their work through some kind of incentives (aside from the package of health benefits recently provided by

the government), as well as through demonstration by trainors of interest in their work.

6. Continually involve BHWs in evaluating their own performance. A peer evaluation is also suggested.

7. For the trainors, to continually seek ways of improving their teaching and supervisory skills in BHW training, especially after training.

8. Conduct another operations research study on various training mixes along the variables of content, trainor and selection criteria pertaining to trainees' age, sex, civil status and occupation. For instance, on trainee variable, it would be worthwhile to compare the effects of a training mix using housewives only versus a heterogenous group, or an all-male or an all-female group; young adults versus middle-aged groups; and those with primary or elementary education versus those with high school education. For trainors, the use of a midwife, versus a nurse, or a health educator, or even an experienced BHW may also be tested. For training content, a competency-based curriculum may be compared against the ongoing standard BHW training programs. For training method, an on the job-training which is more skills-oriented maybe compared with the standard teaching method of didactics followed by practicum. Further, cost-effective analysis maybe included in data analysis.

Another operations research may be proposed to focus more on the operational problem of supervision of BHWs especially after training.

9. For the end users of this study, such as the administrators and PHC implementors, to continually extend the necessary administrative and logistical support to BHW training programs throughout the country, specifically the provision of more indigenous training program materials. Also, for the social scientists to explore deeper the concept of "voluntarism" in the local health delivery system against Filipino values and culture, as well as the concept of "incentives" for services supposedly rendered on a voluntary basis. Are the two concepts complementary, or in conflict, in the Philippine setting?

10. For the funding agencies, to continually sponsor studies of this kind until we come up with what could really be an effective BHW training program especially in relation to crucial indices of community awareness and utilization of BHW services in this country.

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APPENDICES

APPENDIX I

ADMINISTRATIVE

A. RESEARCH STAFF AND THEIR MAIN ROLES:

1. Leticia S.M. Lantican, Ph.d., R.N.
Co-Principal Investigator No. 1

Served as Project Director. Provided over-all technical direction and supervision in all phases of the project. Was responsible for the research methodology, instrumentation, training and supervision of Research Assistants and Field Interviewers, data analysis, writing of progress reports and final report. Co-monitored BHWs during the training and post-training periods in the study sites of Matimbo and Dalupirip. Responsible for administrative aspects of the project during the extension period (December, 1985 to February, 1986). Responsible for planning and implementation of the Research Dissemination Seminar held on March 7, 1986. Maintained linkage with MOH and personnel of the three study sites.

2. Thelma F. Corcega, M.P.H., R.N.
Co-Principal Investigator No. 2

Shared responsibilities in providing technical direction and over-all management of the research project. Responsible for designing the alternative BHW Training Program, especially writing of modules in Phase II of the project, writing of some progress reports, preparation of quarterly financial reports and other administrative aspects of the research. Monitored BHWs during training and post-training periods in Bagong Silangan, Dalupirip and Bulacan. Assisted in training and supervision of Research Assistants and Field Interviewers, finalizing research instruments, and Phase I data analysis. Maintained linkage with MOH and personnel of the three study sites.

3. Trinidad S. Osteria, D.Sc. (Demography)
Research Consultant

Provided technical expertise on the research design, instrumentation, data analysis, statistical tests and other problematic aspects of the project. Critically evaluated first drafts of the Final Report.

4. Miss Virginia Orais, M.S., R.N.
Training Consultant No. 1

Acted as MOH representative to this project. Assisted in designing and implementing the BHW Training Program field-tested in Phase II of the project; coordinated with the key administrative personnel in charge of the MOH study site in Bulacan. Assisted in finalizing the BHW performance rating scale. Helped in planning and implementing the Research Dissemination Seminar. Acted as moderator during the seminar.

5. Aurora S. Yapchiongco, M.A.; M.P.H.; R.N.
Training Consultant No. 2

Provided technical expertise in designing the alternative BHW training program field-tested in Phase II of the project and built-in evaluation components of the training program. Assisted in module production, supervision of BHW trainors in Phase II of the project and in planning and carrying out the Research Dissemination Seminar.

6. Research Assistants

Assisted the co-principal investigators in various phases and activities of the project, through actual field work: interview of Trainors, BHWs and community respondents; monitoring and follow-up of BHWs, especially in the post-training period. Assisted in Data-Analysis through coding, tabulation, statistical computation and process documentation of field activities.

Senior Research Assistants:

Rosie Sia - January to September 1984

Stella Palencia - (Originally an R.A.; became Senior R.A. from October, 1984 to May, 1985)

Brigette Lao-Nario - (Originally an R.A.; became a Senior R.A. from June, 1985 to February 28, 1986)

Research Assistants:

Donna Mascardo - (January, 1984 to December, 1984)

Armi Pigason - (January, 1984 to June, 1985)

Lorna Garcia - (July, 1985 to February, 1986)

7. Clerk-typist:

Mrs. Erlinda Bilog

Typing of progress reports, financial reports, communications, drafts and final report, monthly vouchers.

8. BHW Trainors

8.1 Mrs. Teresita Bayan (Nurse) - Bagong Silangan Quezon City site

8.2 Mr. Luther Garcia (Nurse) - Dalupirip Benguet site

8.3 Dr. Sylvia Santos (RHU Physician) - Matimbo, Bulacan site

B. PRICOR FUNDING:

1. Amount Appropriated: ₱992,832.50

2. Estimated Total Cost of the Study : 545,070.92

APPENDIX II

RESEARCH DISSEMINATION SEMINAR

A Seminar to disseminate the results of this study was held on March 7, 1986 at the PCED Hostel located at the main campus of the University of the Philippines in Diliman, Quezon City. It was a well-attended affair, with participants comprising mainly of the end-users of the study.

I. Participants

A great majority of the participants, numbering 35 came from the Ministry of Health, with 20 representatives from the National health Office composed mostly of administrators, and heads of various departments in the Ministry. This group was headed by no less than the Assistant Minister for Health Affairs and National Primary Health Care Coordinator, who was also a member of the panel of reactors. From the regional office No. 3 in San Fernando, Pampanga, three came, composed of its Deputy Director, the regional training specialist who is a nurse and also a panel reactor, and another regional nurse supervisor. From the Bulacan Provincial Health Office, the Deputy Provincial Health Officer, the Provincial PHC coordinator, who was also a member of the panel of reactors, and the provincial Nurse supervisor, comprised the delegates to this seminar.

The local Rural Health Units from Itogon, Benguet Province, Matimbo, Bulacan and Bustos, Bulacan, were also represented by the RHU teams composed of the physician, nurse and midwife. In general, majority of the participants were physicians, followed by a number of nurses and some midwives. The other group representing health service came from the Quezon City Health Department headed by its Chief Health Officer, another physician, assistant Chief Nurse, a Nurse Supervisor, a staff nurse and a midwife. The academicians were represented by faculty members from the University of the Philippines College of Nursing, and a representative each from the Institute of Public Health and Institute of Community Development. The BHWs also

participated in this seminar, with two representatives each from Dalupirip, Benguet, and Matimbo, Bulacan, and four representatives from Bagong Silangan, Quezon City. The other guests came from funding agencies such as the US-AID, with three representatives headed by the Chief of the Population, Health and Nutrition office and two others. The other participants came from the private sector, such as the Philippine Nurses' Association, Trade Union Congress of the Philippines, and other organizations rendering health services to the community. In brief, the participants constituted mostly decision-makers, planners, academicians, and practitioners in health and health-related disciplines.

II. Program*

The session in the morning consisted mainly of the presentation of the results of the study by Dr. Leticia S.M. Lantican, a co-principal investigator. A brief statement about operations research was given. The presentation covered the following aspects of the study: background, objectives, problem analysis, solution development, solution validation and results. She ended her talk with presentation of the conclusions and recommentations and asked the audience's reactions especially to the latter, from which the resolutions pertaining to BHW Training Programs, were to be formulated in the afternoon session. She also presented slides illustrating various phases and activities of the research, especially those activities involving the BHWs. Before the study presentation, each participant was provided an abstract of the study which helped the audience in following the presentation, as well as in formulating concrete resolutions. The study presentation was then followed by reactions from panel members representing the different health offices of the Ministry of Health. The national health office was represented by the Assistant Minister for Health Affairs and National PHC Coordinator, Dr. Flora Bayan, the regional health office by the regional training nurse, Mrs. Alejandrina Cacho; the provincial health office, by the provincial PHC Coordinator, Dr. Magdalena Gonzales, and the local health office, by an RHU midwife, Miss Lerma Estrella.

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*Please see program, Appendix M, p. 335.

An open forum followed the presentation of the panel reactors which continued till past lunch time. Due to the enthusiasn and active participation of the audience, the small group discussions scheduled in the afternoon were shelved in favor of a plenary one. In this session, which took the whole afternoon, the audience participated actively through asking further questions about the study, sharing their own experiences in BHW Training program in particular and PHC in general. Finally, some resolutions, using the suggestions and recommendations given in the study as guides, were formulated for the improvement of BHW Training programs.

In general, this research dissemination seminar was successful, judging from the active participation of the audience.

The following is a summary of the reactions given by the panel of reactors to the research presentation.

Dr. Flora Bayan, MOH Assistant Minister for Health Affairs and National PHC Coordinator:

Dr. Bayan emphasized the following points in her reaction to the study:

1. Recruitment Process: The community should actively participate in the recruitment process and selection of BHW trainees. She shared her observation that most BHWs in the different regions were appointed and not elected by the community. Further, these BHWs are either sister, wife, cousins, or friends of the health center personnel. She cited the "Sarikaya" project on Family Planning launched in 1978 in Bulacan, where the FP motivators were elected by the community. This project was considered successful.

   She further cited that through this involvement of the community in the recruitment and selection of BHWs the latter will be beholden and accountable to the community, and not to the health center personnel.

2. Support System: This is needed to sustain the interest of BHWs in their work. She also cited that in addition to certificates or plaques given to BHWs for outstanding performance, some cash awards can also be given, for BHWs do need money too, like the other salaried health personnel.

3. She also cited the need for effective trainors, not necessarily one with a high degree of academic achievement. She also affirmed the choice of the RHU midwife as trainors since they are the ones working closely with BHWs. Hence, she emphasized the need to train the RHU midwives as trainors of BHWs in PHC.

4. Evaluation: This aspect should be undertaken by a team composed of BHS midwife, the PHC committee and some members of the community.

5. BHW Scenario in the year 2000

   Will there still be BHWs in the year 2000? Dr. Bayan envisions that by the year 2000, there will no more BHWs because all households will have BHWs, especially composed of mothers who are the "best BHWs' in the World".

Mrs. Alejandrina Cacho - Nurse Training Specialist, Regional Health Office No. 3, San Fernando, Pampanga:

Mrs. Cacho expressed that the study as a whole is very relevant and that the results of the study will be very helpful in determining the most effective strategy in training Barangay Health Workers.

She also stated that the training scheme field-tested in Phase II of the study is the present strategy that they are utilizing in Region No. 3. Regarding the problem cited by the BHWs in the Dalupirip site, concerning lack of practicum in handling home deliveries, she said that they do not encourage the BHWs to handle some home deliveries, unless she is a "hilot" (traditional birth attendant), in which case, the "hilot" can even be recommended to undergo "hilot" training program being conducted by the RHU personnel and funded by UMCEF.

Regarding the other problem cited by BHWs, which was lack of medicines, Mrs. Cacho attributed this to their curative-orientation, hence, the preventive-orientation should be emphasized in BHW training.

Regarding trainor factor, Mrs. Cacho emphasized that training strategies should consider the fact that the BHWs are adult learners, and not children, hence, training methods must be appropriate to this background level. She also mentioned that the training program utilized in the study is tailored to the needs of adult learners.

She also emphasized, like Dr. Bayan, the importance of recruitment and selection of BHWs, and to consider the personal traits and characteristics in the selection of BHWs.

She also expressed agreement to the conclusions and recommendations of the study. Another recommendation she added was to hold a community assembly at the end of the training of BHWs, to re-introduce the BHWs to their own communities.

Dr. Magdalena Gonzales, Provincial PHC Coordinator Malolos, Bulacan:

Dr. Gonzales started her reaction by citing the study's relevance in PHC, and the importance of research in the particular area for improvement of health services. She narrated several fables with emphasis on their morals as well as implications in BHW Training programs. She cited the case of a nurse who underwent training in PHC and when she went home to her particular area of assignment and was confronted with an emergency case of diarrhea, she forgot the mixture or proportion of the different components of the hydration solution. She then cited the moral of the study as having something to do with clearly defining what the students or trainees should really learn. The other interpretation of the study was that some courses spend much time on detailed facts, while the less detailed but important facts and skills are not well learned and developed respectively.

She affirmed the similarity of the training strategies utilized in the study with the ones that they have had in Bulacan.

She also cited the problem of drop-outs, hence, emphasized the need to sustain the interest of the BHWs in their work, and to make the training more preventive oriented rather than curative.

She also made use of the analogy of the seed, sower and soil to BHW Training program where the seed corresponds to the training design, the sower to the trainors, and the soil to the community. She emphasized the soil, which is the community, and the need to prepare them, through consideration of their particular culture, values and needs, in the training of BHWs. For instance, she raised a very important issue or point, such as we have good seeds (training design and supervision) and sowers in the form of good trainees, but can we till the soil or community along their identified needs and priorities in the light of their social, political, economic, cultural and spiritual aspirations and actual practice?

Lastly, she commended the UPCN for this research, citing the need for such studies as a form of feedback to the service personnel, which also motivates them to go on further in their work.

Miss Lerma Estrella, RHU Midwife, Bustos, Bulacan:

Miss Estrella started by expressing her appreciation of the results of the study. She also stated that the BHW traits and competencies cited in the study also exist in her service area in the town of Bustos, with a population of 38,338 for 4,718 houses. There are 235 BHWs in Bustos, serving the needs of the town at a ratio of 1 BHW: 20 households. She also cited the criteria used in BHW Training in this particular area such as the following:

a. must know how to read and write
b. willing to help people
c. residents of the place
d. selected by the people, Barangay council, or Barangay PHC committee

She also emphasized the importance of attitudes of the RHU midwife in BHW training. She cited traits of patience and willingness to guide and understand the BHWs as individuals. Based on her experience as a BHW trainor, she affirmed the importance of good working relationship ("pakikisama") between the Rural Health midwives and BHWs, emphasizing the partnership undertaking for both in health service delivery to the community.

She also cited the need to emphasize the 5 impact programs to BHWs and their primary responsibilities in their catchment areas.

Miss Estrella also recommended to give due emphasis on the importance of IEC (Information, Education, Communication) in BHW training especially against the backdrop of a preventive-orientation, more than a curative one. In addition, a topic and demonstration on "First Aid", must be included in the course content.

She ended by emphasizing the need to improve on the referral scheme with inter-disciplinary health manpower, i.e., among rural health unit midwives, nurses and physicians.

III. Some Issues Raised and Resolutions Formulated During the Open Forum and Plenary Sessions (A.M. and P.M. Sessions)

Issues:

1. What should Training Content Be?

   Resolution: While there is a standard content, it should also include topics based on needs and problems identified in the community. Topics on Mental Health and Nutrition should also be included.

2. Who Should be Trainors?

   MOH stand: It should be the RHM (Rural Health Midwives) forthey are in close association with BHWs and can speak more the language of BHWs.

   Resolution: 1) Continue and improve training of RHMs as trainors of BHWs in PHC. The midwives should also be perceptive of the BHWs' feelings and needs. Better rapport should be established with BHWs. 2) Trainors must always bear in mind that BHWs are adult learners and not children, hence should adopt appropriate training strategies in consideration of this fact.

3. Selection Criteria for BHWs: Is there a need to identify psychological traits of prospective BHW trainees?

   Resolution: 1) Utilize a screening tool to identify desirable personality traits and characteristics. 2) There should be active Community participation in BHW selection. The community must nominate an individual who is acceptable to them. In turn, this individual, must be willing to render service to the community. 3) An educational background of at least elementary education in a young adult should be added to the present selection criteria.

4. Supervision of BHWs:

   1) How to monitor BHW activities? With continuous monitoring and supervision, are we assured that the BHWs will continue to work as expected?

   2) How can drop-outs be prevented?

   3) How to sustain BHW interest in their work?

   4) What kind of BHW incentive will be best?

   5) Who will provide monetary incentive to BHWs?

   6) How many hours should a BHW work?

   Resolutions: BHW should be supported by "people power".

   1) Monetary Incentives are necessary to sustain BHW interest in their work. A mechanism can be worked out in such a way that the community will shoulder such type of incentive, for instance, through income-generating projects.

      Another alternative is to look for individual sponsors for each BHW in the community similar to the "pook patnubay" (sponsor) scheme, tested in "Sarikaya" project.

2) No definite policy on hours that the BHWs should render can be formulated because they are volunteers. They are expected to render service only in their free time, nor are they expected to report to the clinics. (However, the BHWs from Bagong Silangan expressed that they rotate in rendering service at the health center, and that on some days, they render at least 8-16 hours of service to the community)

3) To ease the paper load of BHWs, a family folder in the form of checklist of ailments as well as management received from BHWs may be left with each family, who will fill out such forms, instead of the BHWs. This will constitute a family folder which will be provided to each family. (A pilot project on the use of this family folder is now ongoing in some MOH model barangays)

4) Need to reinforce BHWs' enthusiasm in filling out monitoring sheets through recognition from their trainors of their efforts to dosuch. E.g., the trainors may discuss each case with them, or during monthly meetings. The trainors should positively reinforce the BHWs who are able to submit accomplished monitoring forms. Explain how it will be used in improving services to the community household.

5) Need for another study focusing on problems in supervision of BHW.

5. Will MOH recognize the BHWs trained by private organizations by granting to them the same incentive recently granted the BHW such as the package of health benefits, as well as BHW ID and BHW kit?

   Resolution: Relationship with non-governmental agencies involved in training BHWs in PHC, should be explored. The office to handle this matter will be the MOH Ceordinating Office.

APPENDIX A

Assessment of BHW Training Program

Barangay: _____ Location: _____
Date/Year Implemented: _____
Number of Training Sessions Offered Yearly: _____

A.

Training Session Offered	Duration	No. of Recruits	No. of Drop-Outs	No. of Retained & Functioning	
				Less than a Year	1 Year and Over

Training Methods

B.

Content Coverage	Lecture-Discussion	Demonstration	Audi-Visual Presentation	Role Play	Case Discussion	Others
1. Course Content: Topics						
2. Practicum: Activities						

APPENDIX A

Masustansiyang Pagkain

Kalinisan

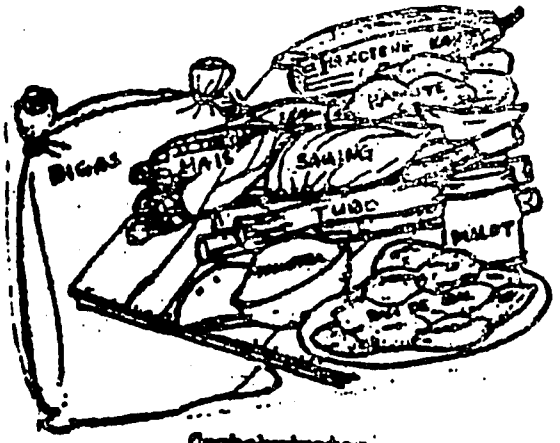
Pagbabakuna

at

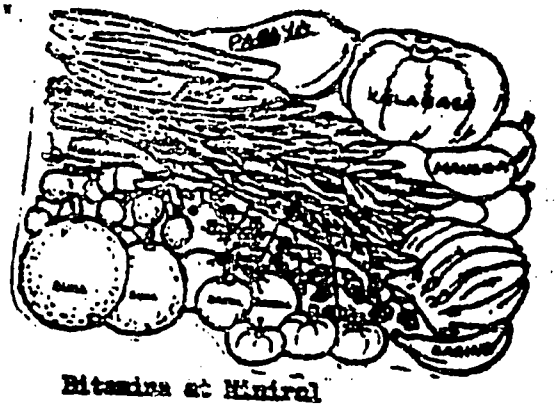
Pagmamahal

Larawan Bilang 1. Mga dapat gawin upang mapangalagaan ang kalusugan ng mga bata.

Larawan Bilang 2. Pagpapasuso sa bata mula sa dibdib ng ina.



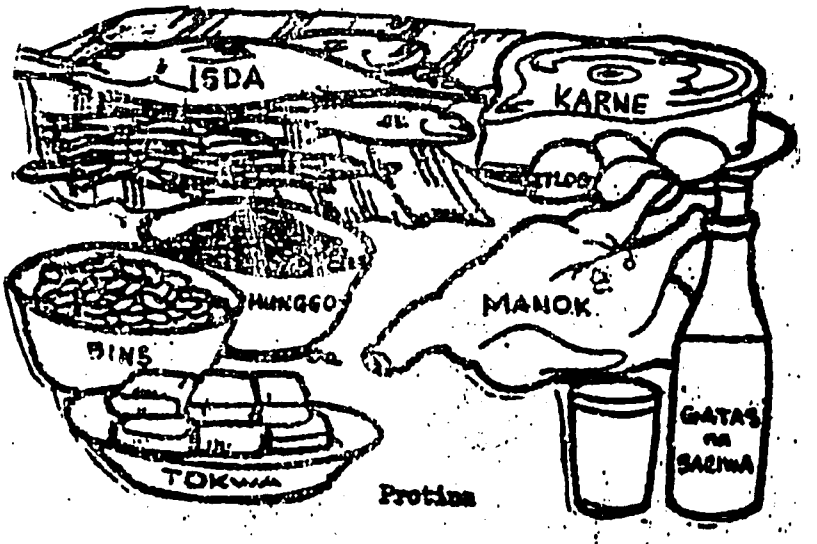
Carbohydrates



Bitamina at Mineral

Larawan Bilang 3.

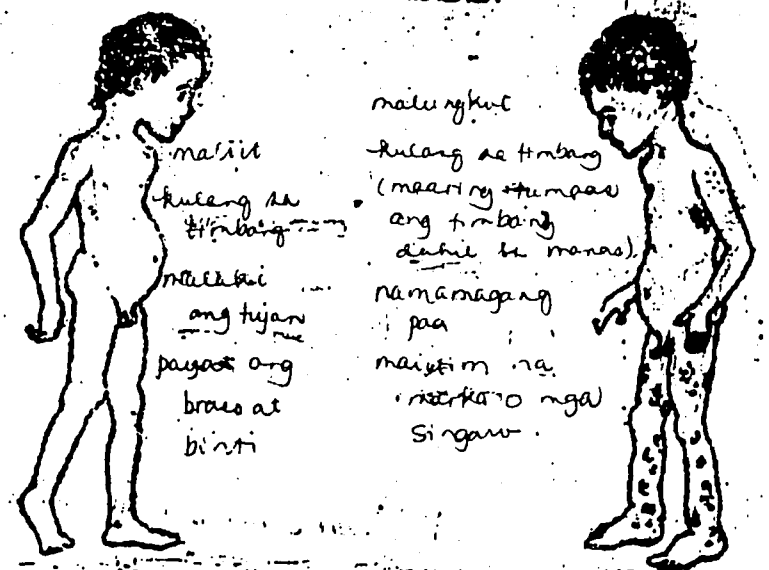
Iguhit ang pangunahing grupo ng pagkain.



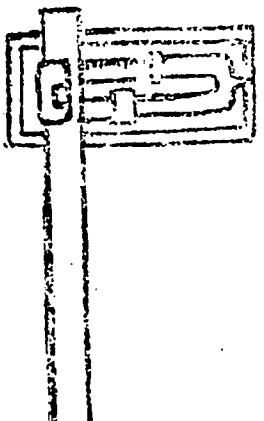
Protina

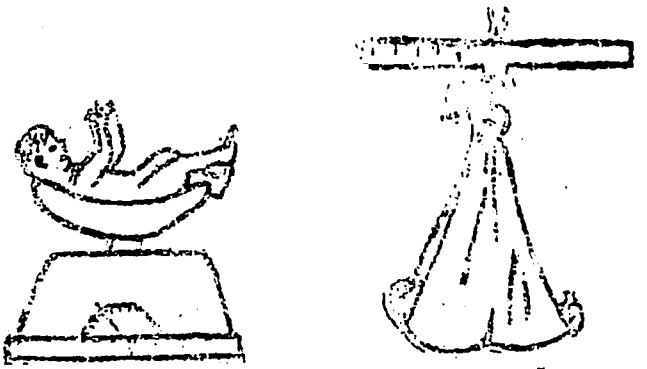
KULANG SA NUTRISYON ANG DALAWANG BATANG ITO

HINDI GAANONG MALALA



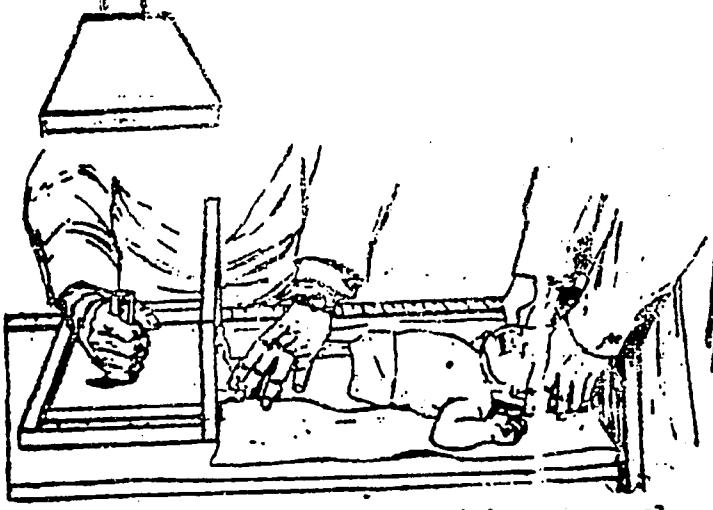
Larawan Bilang 4. Ang batang kulang sa nutriyon.





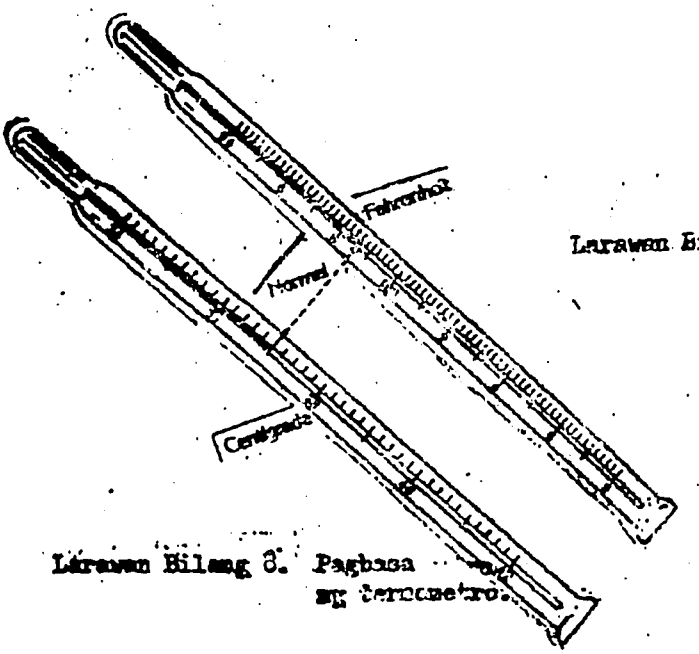
Larawan Bilang 5b. Pagtitimbang na sanggol.

Larawan Bilang 5a. Pagtitimbang sa bata.



Larawan Bilang 6a. Pagsukat ng haba ng sanggol.

Larawan Bilang 6b. Pagsukat ng taas ng bata.



Larawan Bilang 8. Pagbasa ng termometro.

Larawan Bilang 8. Tamang hawak sa sanggol habang pinapaligoan.

APPENDIX B

PRICOR Assisted Research Project
U.P. College of Nursing

Interview Schedule/Questionnaire for Trainors

Interviewer: _____ Coder: _____
Date: _____ Date : _____
Time begun: _____ Time Finished: _____ Editor: _____

Good _____, I am _____, a field researcher of U.P. College of Nursing-PRICOR. We would like to get some information regarding the Barangay Health Workers Training. This research aims to develop alternative training designs and approaches for the BHW. I would like to solicit your assistance. There are some portions I will ask you and there are some portions you may answer yourself. This interview may take an hour or more to finish.

Area: _____
(Sitio/Purok, Barangay, Town)

I & II (Can be filled up by respondent)

To Interviewer: Check for completeness of responses.

I. General Information

Name: _____ Age: _____ Sex: _____
Civil Status: _____ No. of Children: _____
Position/Title: _____
Monthly Income: _____ Total Monthly Family Income: _____
Honorarium Received During Training: ___ Yes, Amount: _____
___ No
Length of Service in Health Care Service Delivery: _____ Years
Length of Service in PHC: _____ Years

II. Professional Qualifications:

Educational Attainment:

___ College undergraduate _____ Degree _____ Year
___ College graduate _____ Degree _____
___ Post graduate _____ Degree _____
___ Others, specify _____

Professional Update Experience:

List trainings/seminars attended for hte last five years. Specify those underwent as trainor in PHC.

DATE/DURATION TOPIC/NATURE VENUE

No. of BHW's Trained: _____ Date: _____ Place: _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

_____ _____ _____

Total

III. Assessment of BHW Training Program:

1. What is the process of recruitment for the BHW trainees?
   - ___ Community information/advertisement
   - ___ Through home visits
   - ___ Recommendations by community/political leader
   - ___ Others, specify _____

2. a. What are the criteria used for selection of BHW trainees?
   - ___ Age: _____
   - ___ Sex _____
   - ___ Civil Status: _____
   - ___ Educational Attainment: _____
   - ___ Community Status:
     - ___ Formal leader (elected or appointed)
     - ___ Member of any organization or association
     - ___ Informal leader
   - ___ Personality characteristics, specify: _____
   - ___ Others, specify: _____

   b. Who formulates the criteria? _____

3. What screening procedures are utilized for BHW trainee selection?
   - ___ Exams
   - ___ Interview
   - ___ Others, specify: _____
   - ___ Recommendations from: _____
   - ___ Physical Exam

4. Were you involved in the preparation of BHW training program?

   ___ Yes ___ No (Proceed to Q.4.2)

   4.1 If yes, what is the nature of your involvement?

   4.2 Who else are involved in the program preparation?

   4.3 How are program contents determined?

   4.4 Were needs and problems of community identified prior to training program preparation?

   ___ Yes ___ No ___ Don't Know

   If yes, how were needs and problems of community identified?

5. What resources/support/mechanisms are available for implementation of training program?

   a. administrative

   b. others (specify sources too)

6. Assessment of Training Program

   Interviewer: Write topics/courses listed in Training Manual.

   Respondent : Could fill up the appropriate columns for each of the following questions. (Skip 5.1 and 5.3)

   6.1 What are the courses/topics taken?

   6.2 How do you assess the adequacy of the content of each course/topic?

   6.3 Teaching methods used.

   6.4 How do you assess the adequacy of duration of each topic?

   6.5 How do you assess the teaching method used for each topic?

   6.6 Rank the course/topics in the order of importance.

   6.7 What are the problems you encountered for each course?

   6.8 What are your recommendations for the improvement of the course offering?

Courses/Topics	Assessment of Content	Assessment of Duration and Teaching Methods Used						Ranking of Courses/Topics	Problems encountered for each course	Recommendation for improvement of course offering
		Lecture		Practicum		Others				
		Duration	Assessment**	Duration	Assessment**	Duration	Assessment**			

Assessment of content of courses/topics and duration in terms of adequacy

5 - very adequate
4 - adequate
3 - neither
2 - inadequate
1 - very inadequate

**Assessment of teaching methods

1 effective
2 ineffective

6. What are the problems encountered during the training? What are your suggestions and recommendations for improving existing BHW training programs?

	Problems Encountered	Recommendations
a. Setting of training program		
b. Objectives		
c. Selection of BHW		
Criteria		
Recruitment		
d. Preparation of course		
content		
e. Course content focus		
f. Supervision		
g. Teaching methods		
h. Practicum		
i. Duration		
j. Training materials		
k. Training facilities		
l. Incentives		
Trainors		
Trainees		
m. Others, specify		

IV. Training Approaches:

1. What tools do you utilize to evaluate learning?

___ Pre and post-test
___ Exams after every topic or daily
___ Performance during the training
___ Others, specify: _____

2. What trainee charateristics/traits/attitudes have you observed which best facilitate learning?

3. a. What characteristics/traits/attitudes have you noticed in yourself to which trainees responded positively in terms of facilitating their learning?

b. What characteristics/traits/attitudes have you noticed in yourself to which trainees responded negatively in terms of facilitating their learning?

V. BHW Evaluation:

1. How would you rate the performance of the BHWs you have trained? (Indicate percentage of trainees/ BHWs falling under different ratings.* Percentage for each health care activity during a specific time frame, i.e., immediately after training, should equal to 100%).

Health Care Activities	During Training		Immediately after Training		6 mos. after Training		1 year after Training	
	S	U	S	U	S	U	S	U
a. Maternal & Child Health								
b. Family Planning								
c. Nutrition								
d. Communicable Disease Control								
- Immunization								
- Case Finding								
- Follow-up Referral								
e. Environmental Sanitation								
f. Management of Common Medical Condition								
g. Health Education								
h. Food Production								
i. Income Generating Activity								
j. Community Mobilization								
k. Drug Depot (Botika sa Baryo)								
l. Other Activities								

*CODE: S - Satisfactory
U - Unsatisfactory

2. Based on the above, what do you think are the service areas that need to be emphasized in BHW training and why?

A R E A S	:	R E A S O N S
	:	

3. Please indicate how many of the BHWs you have trained demonstrated the following traits satisfactorily and unsatisfactorily.

To interviewer: Using the total number of BHWs trained in the area, compute/ indicate the percentage of BHWs demonstrating traits satisfactorily and unsatisfactorily.

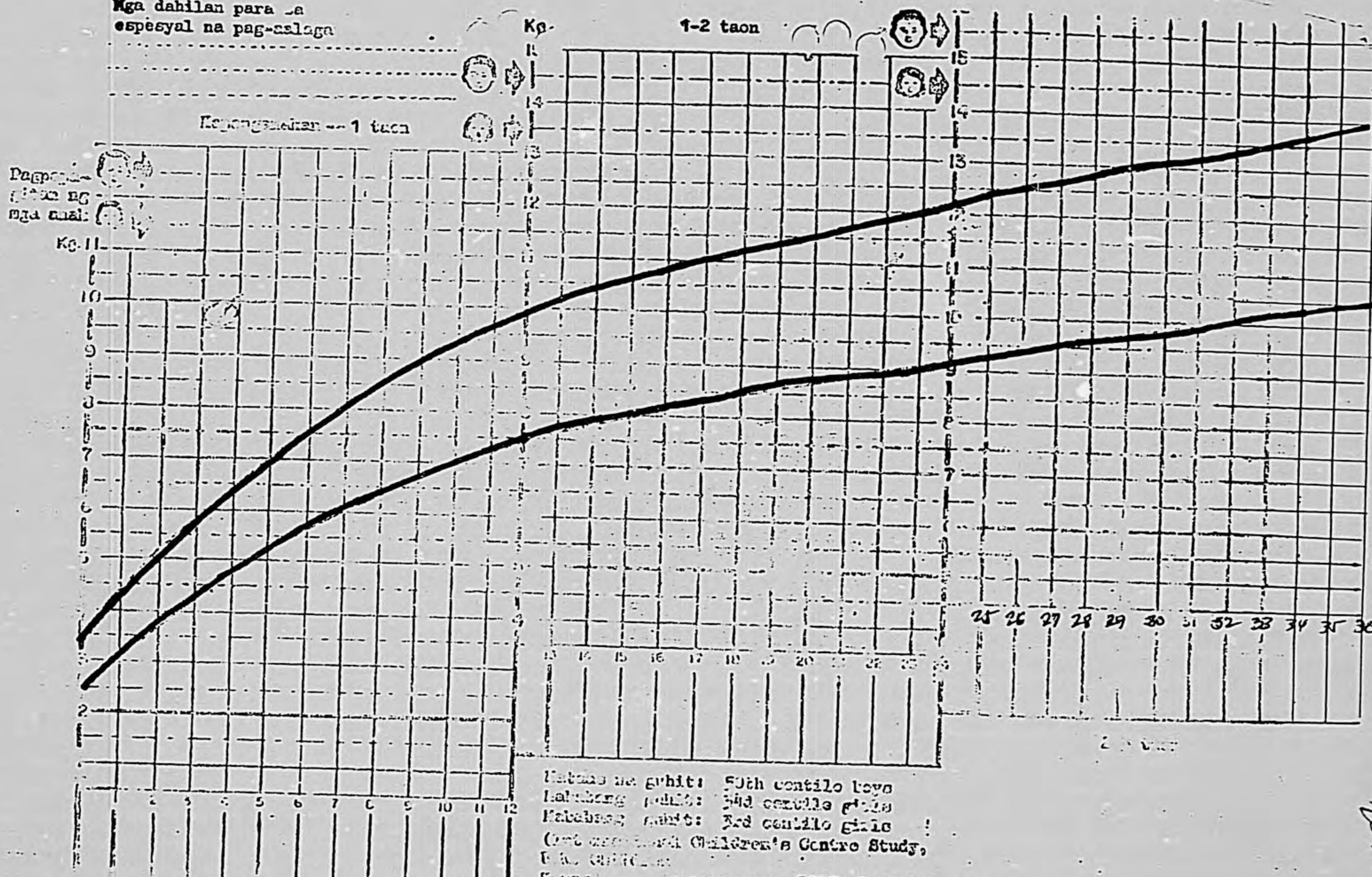
T r a i t s	:Satisfactorily	:Unsatisfactorily
1. Positive attitudes towards training	:	:
2. Comprehension of subject matter discussed	:	:
a. Objectives of training	:	:
b. Topics	:	:
3. Skills Development	:	:
a. Nursing Procedures	:	:
b. Laboratory Procedures	:	:
c. Communication	:	:
d. Others	:	:
4. Positive Personal Traits/Qualities	:	:
a. Motivation	:	:
b. Interest	:	:
c. Interpersonal Relations	:	:
d. Initiative	:	:
e. Industry	:	:
f. Punctuality	:	:
g. Others	:	:
	:	:

4. Fill up appropriate columns for the following questions:

   4.1 What are the controls/monitoring schemes adopted by trainors after BHW training?

   4.2 What problems are encountered in administering these controls/ monitoring schemes?

Control/Monitoring Schemes	Problems



Mataas na guhit: 50th centilo boys
Katamtamang guhit: 3rd centile girls
Mababang guhit: 3rd centile girls
(... Children's Centre Study, ...

Appendix 2

209A

APPENDIX C

PRICOR Assisted Research Project
U.P. College of Nursing

Interview Schedule for Barangay Health Worker

Interviewer: _____ Coder: _____
Date: _____ Date : _____
Time: Started: _____ Finished: _____ Editor: _____

Good _____, I am _____, a field researcher of U.P. College of Nursing-PRICOR. We are here to make an assessment of the Barangay Health Worker Training Program. These assessments will be utilized to adapt a new and better training program, to meet the needs of the BHW and the community they serve. This interview will take about an hour or more to finish.

Name: _____ Area: _____
Sex : _____ Age: _____ Civil Status: _____ # of Children: ___
Educational Attainment: _____ Religion: ____ Length of stay in Bgy: ___
Occupation: _____ Spouse's Occupation: _____ Total Monthly family Income:
₱ _____
Name of Trainors: 1. _____ Date of Training: _____
2. _____ Venue: _____
3. _____
4. _____

---

1. How did you learn of the BHW Training Program?

___ Through the Health Center ___ Neighbor
___ Barangay Advertisement ___ Others, specify:

2. How were you recruited for training as BHW?

___ Volunteer
___ Nominated by Barangay Council
___ Selected as representative from Barangay
___ Others, specify: _____

3. Are you still functioning as a BHW?

___ Yes Proceed to Q.4 ___ No

3.1 If no, when did you stop functioning as a BHW?
3.2 Why? _____
Proceed to Q.7

4. What form of compensation do you receive for health services rendered as a BHW?

___ None Proceed to Q.4.1
___ Money (Specify amount and source) _____
___ Others, specify: _____

4.1 If none, what motivated you to continue providing services?

5. How many households should you cover? _____

5.1 Are you able to serve all the households in your barangay/area of assignment?

___ Yes ___ No

5.2 If no, why? _____

6. Fill up appropriate columns for the following questions:

6.1 What among the services you rendered as a BHW are frequently availed of by the community?

6.2 What services are least availed of?

6.3 Rank the services according to frequency of use.

Services	Frequently Availed of	Least Availed of	Ranking
Maternal and Child Health			
Family Planning			
Nutrition			
Communicable Disease Control			
- Immunization			
- Case finding			
- Referral & follow-up			
Environmental Sanitation			
Management of Common Medical Conditions			
Health Education			
Food Production			
Income-Generating Activities			
Community Mobilization			
Drug Depot			
Other Activities			

7. Based on the training program you underwent, what do you think should be the criteria for selection of BHW trainee?

___ Age _____ ___ Status in the Community _____
___ Sex _____ ___ Personality characteristics,
___ Civil Status _____ specify: _____
___ Educational Attainment ____ ___ Others, specify: _____

(For those who answered "NO" to Q.3. p.1., proceed to Q.9., p.4 & Q.10, p.5)

8. Did the training program provide you with the necessary knowledge and skills in the current services/health tasks you are now performing as a BHW?

___ Yes ___ No

8.1 Explain answer.

9. Assessment of Training Program
(Fill up appropriate columns for each of the following questions.)

9.1 What are the courses/topics you have taken?
9.2 How do you assess the adequacy of the content of each course/topic?
9.3 I'll read to you the topics you mentioned. For each topic, what
to methods of teaching were utilized, and how would you assess the
9.5 adequacy of duration and effectiveness of teaching methods used.
9.6 Rank the topics in the order of importance.
9.7 What are the problems you encountered for each course?
9.8 What are your recommendations for the improvement of course offerings?

10. What do you think should be the traits and qualities of a good/best BHW? (For those who answered no to Q.3 p.1 proceed to Q.11 p.6.)

11. What community health needs and problems have you identified?

11.1 How did you arrive at these needs and problems?

11.2 What community health needs and problems have you identified that have not been met by your training?

12. Please rate the BHW trainors on the following:

Characteristics/Traits	Trainor 1 _____		Trainor 2 _____		Trainor 3 _____		Trainor 4 _____	
	S*	U**	S*	U**	S*	U**	S*	U**
Punctuality								
Knowledge of Subject Matter								
Clinical Skills								
Teaching Methods Utilized								
Interest in Teaching								
Interest in Learning of Trainees								
Abi lity to Motivate								
Ability to Assess Needs of Trainees								
Ability to give constructive criticism								
Follow-up supervisory skills								

*S = Satisfactory

**U = Unsatisfactory

APPENDIX D

Interview Schedule for Community Respondents

Interviewer: _____ Coder: _____
Date: _____ Date: _____

Time Started: _____ Time Finished: _____ Editor: _____

Good _____, I am _____, a field researcher of U.P. College of Nursing-PRICOR. We are here to make an assessment of the health services rendered in your community. These assessments will be utilized to adopt a new and better training program, to improve the health care delivery system in your community/barangay.

This interview will take about an hour or more to finish, and we would like to request your help and cooperation in answering this interview schedule.

Area: _____
(Sitio/Barangay)

Perception Survey Concerning BHW:

Respondent: Wife/Mother, or Single but head of the family.

I. General Information:

Name: _____ Sex: _____ Age: _____
Civil Status: _____ No. of Children: _____
Religion: _____ Length of stay in Barangay: _____
Occupation: _____ Spouse's Occupation: _____

II. Level of Living:

1. House: Owned: _____ Rented: _____ Rent Free: _____
2. Lot : Owned: _____ Rented: _____ Rent Free: _____
3. Do you own other land? ___ Yes ___ No

3.1 If yes, how big and where? _____

4. Other properties owned:

___ Radio
___ TV set
___ Stereo/cassette
___ Electric fan
___ Wall/table clock
___ Refrigerator
___ Gas/electric stove/range
___ Living room set
___ Dining room set
___ Reading materials

5. Source of water supply

___ house faucet
___ public faucet
___ artesian well
___ deep well
___ river
___ others (specify) _____

6. Type of toilet: Check if shared ____

___ open pit privy
___ closed pit privy
___ flush
___ pail system
___ public
___ water-sealed
___ others (specify) _____

7. Type of refuse and garbage disposal

___ open dumping
___ open burning
___ burial in pit
___ composting
___ incineration
___ others

8. Type of drainage facility:

___ none
___ open drainage
___ blind drainage
___ others (specify) _____

9. Source of light

___ gas
___ electricity (koryente)
___ others (specify) _____

10. Type of housing materials:

___ concrete
___ mixed cement and wood
___ wood
___ bamboo & nipa/cogon
___ others (specify) _____

III. Community Involvement:

1. Are you involved in community activities?

___ Yes
___ No

1.1 If yes, what is the nature of your involvement?

1.2 If no, why are you not involved?

IV. Attitude Towards Various Health Workers and Level of Awareness of Existing Health Programs/Services

To interviewer: Show Flash Card A concerning health problems/services and fill up appropriate column for each question.

1. Here is a list of health problems/services. I'm going to ask you some questions about them.

Health Problems/Services	Person Consulted	Reason	Management Done	Person Preferred given a chance	Reason
1. Respiratory					
2. Gastro-intestinal					
3. Fever/Influenza					
4. Measles/Mumps					
5. Immunization					
6. Nutritional Problem					
7. Accident/Wound Dressing					
8. Pre-natal Care					
9. Delivery					
10. Family Planning Services					

2. Have you heard of the Primary Health Care or PHC

___ Yes ___ No Proceed to Q. 3

2.1 If yes, what about PHC?

2.2 Is there a PHC program existing in your community?

___ Yes ___ No Proceed to Q. 3

2.3 If yes, what do you know about this program?

3. Have you heard of the Barangay Health Workers?

___ Yes ___ No END OF INTERVIEW for those who answered NO

3.1 If yes, how did you learn about the BHWs?

3.2 What do you know about the BHWs?

3.3 What functions/activities of the BHW have you observed?

4. Have you attended any meetings concerning BHW recruitment?

___ Yes ___ No Proceed to Q.5

4.1 If yes, what are discussed in such meetings?

5. Did you have any participation in the selection of BHW in your community?

5.1 If yes, what type of participation?

5.2 If no, why not?

6. What do you think should be the criteria in selecting BHW trainees for training program?

___ Age
___ Sex
___ Civil Status
___ Educational Attainment
___ Status in Community
___ Personality Characteristics
___ Others

V. Utilization of BHW Services

1. Do you or any member of your family consult a BHW?

___ Yes ___ No (Proceed to Q.1.2)

1.1 If yes, how often?

____ Once a week
____ Twice a month
____ Once a month
____ Every other month
___ Twice a year
___ Once
___ Others, specify _____

1.2 If no, why? Proceed to Q.5

2. Here is a list of services provided by the NHWs.

To Interviewer: Show Flash Card B concerning services provided by BHWs one by one and ask the following questions. Fill up appropriate columns for each question.

Column I : 2.1 Which of these services have you availed of?

2.2 Reasons

Column II : 2.3 If availed of, were you satisfied with the services that you received?

2.4 Reasons.

Column III: 2.5 In your opinion, are these services necessary?

2.6 Resons.

2. List of services provided by the BHW:

Services	Column I: Availed of			Column II: If availed of, satisfied			Column III: Services necessary		
	Yes	No	Reasons	Yes	No	Reasons	Yes	No	Reasons
a. Maternal & Child Health									
b. Family Planning									
c. Nutrition									
d. Communicable Disease Control - Immunization - Case Finding - Referral & Follow-up									
e. Environmental Sanitation									
f. Management of Common Medical Conditions									
g. Health Education									
h. Food Production									
i. Income-Generating Activities									
j. Community Mobilization									
k. Drug Depot									

3. Has the BHW organized activities other than preventive, curative, and other health-related services?

___ Yes ___ No Proceed to Q.4.

3.1 If yes, what?

4. Have you been approached by the BHW for services other than above?

___ Yes ___ No Proceed to Q.5

4.1 If yes, what?

5. Do you go directly to a nurse, doctor, or midwife despite the presence of a BHW?

___ Yes ___ No Proceed to Q. 6

5.1 If yes, why? and what illness do you consult directly?

6. Are you able to tell your BHWs your needs and problems?

___ Yes ___ No Proceed to Q.6.3

6.1 If yes, why?

6.2 What needs and problems are you able to tell your BHWs?

6.3 If no, why?

7. What do you think are your most pressing health needs/problems in this community?

7.1 How can the BHW assist you in handling these needs/problems?

8. In your opinion, does the BHW have the preparation and capability to meet your health needs and problems?

___ Yes ___ No

8.1 If no, why?

9. If you need a BHWs' services, is he or she readily available?

___ Never
___ Seldom
___ Occasionally
___ Frequently
___ Always

10. Do you think that the BHW should be given some kind of incentives/privileges?

___ Yes ___ No (If no, why? _____)

10.1 If yes, what?

10.2 How could the incentives be provided to them?

APPENDIX E

Results of Problem Analysis

Tables 1-12

APPENDIX E

Table 1

Content Coverage of the Training Program Manual Syllabi in the Three Study Sites

Bagong Silangan	Dalupiri	Matimbo
1. Orientation -objective/goals -expectations	1. Primary Health Care -concept, goal, objectives elements, approaches and strategies	1. Orientation to the Course
2. Health and Social Problem		2. Goals, Concepts and Objectives of PHC worker
3. Community Health Agencies	2. Principles and Approaches in Community Organization	3. Roles and Activities of PHC Worker
4. Principles of Health -factors which affect health -the body and how it functions -body normals (TPR, BP)	3. Community and Spot Mapping	4. Human Reproduction
	4. Prevention of communicable Diseases Through Health Education of the People -Phil. Health Situation Infection Chains -Communicable Disease and Immunization -Environmental Sanitation	5. Nutrition
5. Nutrition -basic three food groups (balanced diet) -nutrition of vulnerable age groups -recognition of nutritional deficiencies -diet and budget -food preservation	5. Health Assessment and Treatment of Common Ailments in the Community - IPPA, BP taking, TPR -simple anatomy and physiology of body system -community and spot mapping	6. Maternal and Child Care
		7. Environmental Sanitation
		8. Communicable Disease
		9. Drug Abuse
		10. Population Education and Family Planning
6. Maternal and Child Health -pregnancy and prenatal care -attendance at delivery emergency situation: -post partum care mother, baby and family -growth and development of child to 6 years	6. Health Assessment and Treatment of Common Ailments in the Community -IPPA, BP taking, TPR -simple anatomy and physiology of body system a. Digestive system b. Respiratory system	11. Medical and Surgical Emergencies
		12. First Aid
		13. Herbal Medicine
		14. Spiritual Health
		15. Dental Health Care
		16. Recording and Reporting
7. Responsible Parenthood -human reproductive process		17. Instruction in BP, T, PR, and RR Taking

Bagong Silangan	:	Dalupirip	:	Matimbo
-tradition and cultural attitude regarding sex and family life -family life-relationship and responsibilities -family planning methods 8. First Aid -wounds, animal bites, skeletal injuries -unconsciousness, cardio-respiratory arrests -poisoning, heat exhaustion, burns 9. Transmission of Disease -various modes of disease transmission (germs, virus, insects and animal-air and water) 10. Body Systems and Health Care -Respiratory system common colds influenza bronchitis asthma diptheria pneumonia -Tuberculosis 11. Gastrointestinal System -Non Communicable Problems and Diseases -indigestion -colic -ulcer -obstruction 12. Communicable Disease -Cholera -Dysentery -Typhoid Fever 13. Worm Infestation	:	c. Cardiovascular d. Musculo skeletal e. Integumentary f. Genito-urinary g. EENT h. MCH, FP, Nutrition i. Simple and Common Disease Affecting the Above System j. First Aid k. Herbal Medicines -herbal and medicinal plants -Collection, identification, propagation, preparation, indication/dosage/storage 7. Problems and Needs Felt by the Community -Consolidation/analysis of data from survey -Presentation of survey results -Interpretation of Data	:	

Bagong Silangan

14. Integumentary System
    - scabies, ring worm
    -pediculosis, fungus
    -impetigo, boils
    -eczema

15. Circulatory and Nervous System
    -Rheumatic heart disease
    -hypertension
    -thyroid/glandular
    -emotional problem
    -anemia/tetanus
    -rabies, h-fever
    -hepatitis, malaria

16. Genito-urinary and Reproductive System
    -urinary infections
    -kidney stones
    -tumors
    -venereal disease

17. Common Childhood Diseases
    -measles
    -mumps
    -chicken pox
    -whooping cough

18. Home Nursing
    -home and general environment
    -bed care
    -body mechanics
    -rehabilitation measures
    -teething
    -diet and feeding of sick persons
    -disposal of waste
    -disinfection in the home

19. Mental Health and Science

20. Rehabilitation Measures

21. Sanitation and Environment
    -water source collection, storage
    -food protection
    -disposal of garbage, waste matter, excess

22. Immunizations

23. Dispensing of Medicines
    -authorization
    -manner of dispensing
    -sterilization, sterile technique
    -administration of injectable medicines

Bagong Silangan

24. Reporting and Statistics
    -interviewing and reporting
    -records and recording

25. Local Health Association/Organization
    -specific needs and resource of the community
    -planning of activities towards set goals
    -initial plan for BHW follow-up plans

APPENDIX E

Table 2

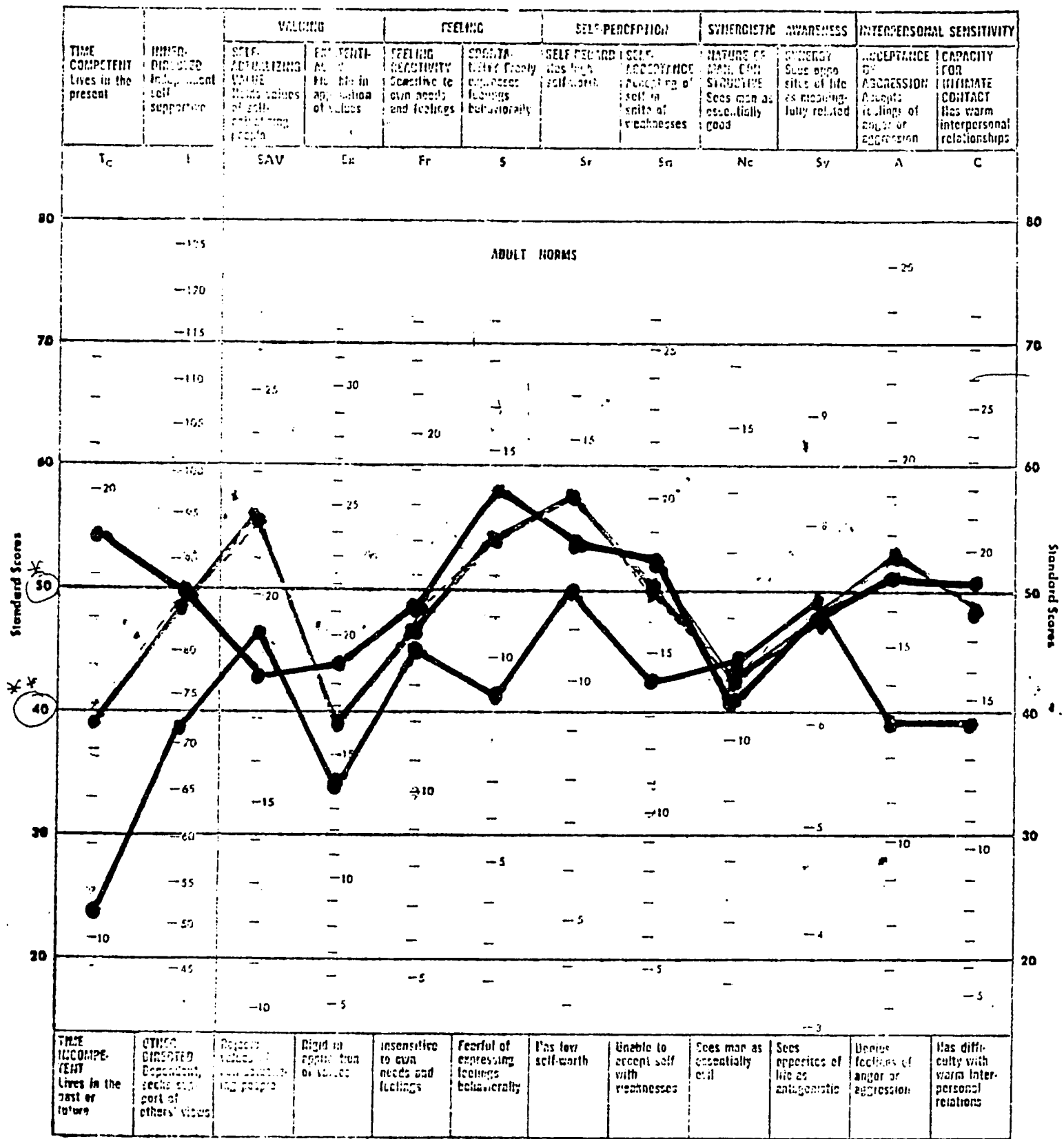
GSE of Trainors

Study Site	n	Score	Equivalent Level
Matimbo	3	29.33	Medium
Dalupiri	5	31.4	High
Bagong Silangan	2	32	High

Table 3

Personality Profile of BHW Trainors

B.S. —— n = 2
Dalupirip — n = 5
● - Matimbo — n = 3



*. Norms for Americans
**. Norms for Filipino Executives

APPENDIX E

Table 4

PUP Trainor Results

Scales	Norm	B.S. n=2	Dalupirip n=5	Matimbo n=3
Ambisyon (Ambition)	3.33	3.38	3.20	3.83
Pagkamatiyaga (Patience)	3.20	3.5	3.8	3.86
Lakas ng Loob (Fortitude)	2.54	2.75	2.85	2.42
Pagkamagalang (Respectful)	3.58	3.38	3.2	3.92
Pagkamalikhain(Creativity)	2.95	3.7	3.04	2.33
Pagkamatulungin (Being helpful)	3.08	3.6	3.92	3.40
Pagkamausisa (Inquisitiveness)	3.14	3.25	3.6	3.39
Pagkaresponsable (Sense of responsibility)	3.34	3.63	3.9	3.42

APPENDIX E

Table 5

BHW GSE Results

Study Site	n	Score	Equivalent level
B. Silangan	14	27.06	Medium
Dalupirip	13	25.08	Medium
Matimbo	16	29.14	Medium

Table 6

BHW "PUP" Results

Panukat ng Ugali at Pagkatao (PUP):

Scale	Norm	Average Scores: B.S. (n=16)	Dalupirip (n=13)	Matimbo (n=14)
Ambisyon (Ambition)	3.33	3.33	3.06	3.20
Tiyaga (Patience)	3.20	3.76	3.20	3.52
Lakas ng Loob (Fortitude)	2.54	2.20	2.62	2.39
Pagkamagalang (Being respectful)	3.58	3.78	3.83	3.68
Pagkamalikhain (Creativity)	2.95	2.95	3.25	2.96
Pagkamatulungin (Being helpful)	3.08	3.26	3.17	3.16
Pagkamausisa (Inquisitiveness)	3.14	2.94	2.74	3.10
Pagkaresponsable (Sense of responsibility)	3.34	3.55	3.69	3.36

APPENDIX E

Table 7

Assessment of BHW Performance by Trainors

Services Rendered by BHW	Matimbo (n=3)				Dalupirip (n=5)				Bagong Silangan (n=2)			
	DT %	IAT %	SMA %	YA %	DT %	IAT %	SMA %	YA %	DT %	IAT %	SMA %	YA
Maternal and Child Health	71.7	78.3	81.7	78.3	67.5	72.5	76.7	75.0	80.0	75.0	70.0	65.
Family Planning	83.3	85.0	85.0	76.7	63.8	78.0	75.0	72.5	70.0	60.0	60.0	60.
Nutrition	90.0	85.0	86.7	78.3	65.0	75.0	78.7	76.0	80.0	75.0	75.0	75.
Communicable Disease Control: Immunization	90.0	90.0	90.0	90.0	72.0	78.8	88.3	84.0	70.0	65.0	65.0	65.
Communicable Disease Control: Case Finding	90.0	87.5	95.0	85.0	67.0	70.0	90.0	-	-	-	-	-
Communicable Disease Control: Follow-up and Referral	86.7	90.0	90.0	80.0	59.3	65.0	90.0	-	-	-	-	-
Environmental Sanitation	85.0	86.7	85.0	78.3	70.0	85.5	91.3	88.0	70.0	65.0	65.0	65.
Management of Common Medical Condition	86.7	83.3	85.0	81.7	75.0	85.8	90.3	88.0	70.0	65.0	60.0	55.
Health Education	80.0	80.0	76.7	73.3	69.5	80.0	86.0	86.0	70.0	70.0	70.0	70.
Food Production	80.0	80.0	75.0	70.0	77.7	85.3	89.3	85.5	80.0	75.0	75.0	75.
Income Generating Activities	-	-	-	-	70.0	75.0	80.0	80.0	75.0	70.0	70.0	70.
Community Mobilization	75.0	75.0	75.0	70.0	72.5	77.5	81.7	85.0	65.0	60.0	60.0	60.
Drug Depot	80.0	80.0	80.0	80.0	65.0	70.0	77.5	80.0	-	-	-	-
Other Activities	-	100.0	100.0	85.0	-	-	-	-	-	-	-	-

Legend: DT - During Training
IAT - Immediately After Training
SMA - Six Months After
YA - A Year After

APPENDIX E

Table 8a

Assessment of Training Program by Trainors & Trainees in Dalupirip

Assessment of Content, Duration of Lecture, Practicum, Other Teaching Methods:

Courses or Topics	Assessment of Content*		Assessment of Lecture				Practicum				Other Teaching Methods			
			Duration* of Lecture		Effectiveness** of Lecture		Duration*		Effectiveness**		Duration*		Effectiveness**	
	X Ta n=5	X Te n=13	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te
Introduction to Phil. Health Situation	4.2	3.8	4	3.8	1	1					3.8	4	1	1
Community Survey and Spot Mapping	4	4.1	3.7	3.6	1	1	4	3.8	1	1				
Transmission of Diseases	4	3.9	3.8	3.9	1.4	1					4	3.7	1	1
Health Assessment Skills	4.6	3.9	4.6	3.5	1	1	4.4	3.6	1	1	4.2	3.6	1.2	1
Basic Anatomy and Physiology &CommonDis.	4.4	3.6	3.8	3.9	1.2	1					4.0	3.9	1	1
Environmental Sanitation	4.2	3.6	4.2	3.8	1.2	1					4.2	3.9	1	1
Maternal & Child Health	4.4	3.8	3.8	3.8	1.6	1					4.2	4	1	1
Family Planning	4	4	3.8	4	1.4	1					4.2	4	1	1
Nutrition	3.4	3.8	3.4	3.9	1.4	1					4.5	3.9	1.4	1
Common Childhood Diseases	3.4	3.8	3.2	3.8	1.4	1								
Herbal Preparation	4.2	3.9	4	3.7	1	1					4.2	3.9	1	1
Community Organization	4.2	3.7	4	3.4	1.2	1								
Health Program Planning	4.5	3.6	4.2	3.5	1	1								
Clinic Practicum	4.5	2.9	-	-	-	-	4	3.6	1	1				

*Assessment of Content & Duration:

5 - Very Adequate
4 - Adequate
3 - Neither
2 - Inadequate
1 - Very Inadequate

**Assessment/Effectivity of Teaching Methods:

1 - Effective
2 - Ineffective

Legend:

Ta - Trainor
Te - Trainee

Table 8b

Assessment of Training Program by Trainors & Trainees in Bagong Silangan

Assessment of Content, Duration, Practicum and Other Teaching Methods Used:

Courses/ Topics	Assessment of Content*		Assessment of Lecture				Practicum				Other Teaching Methods			
			Duration* of Lecture		Effectiveness of Lecture		Duration*		Effectiveness**		Duration*		Effectiveness**	
	X Ta n=2	X Te n=16	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te
Orientation	4.5	4.1	3	3.8	1.5	1								
Principles of Health	4.5	4.0	4.5	4	1	1								
Nutrition	4.5	4.4	4	4.1	1	1	3	4.2	1	1				
Maternal and Child Health	4.5	4.4	3.5	4.1	1.5	1	2.5	4.2	1	1	5	4.2	1	1
Responsible Parenthood	3	4.3	3	3.9	1	1	2.5	3.2	1.5	1				
First Aid	4.5	4.2	4	4.1	1	1	2.5	4.3	1	1				
Transmission of Dis.	4.5	4.3	3.5	4.0	1.5	1	2.5	4	1	1				
Body Systems and Health Care	4	4.6	4	4.6	1.5	1					4	4.4	1	1
Common Childhood Diseases	2.5	4.1	1.5	4	1	1					3	4.1	1.5	1
Home Nursing Care	3	4.6	2	4	1.5	1					4	4	1.5	1
Environmental Sanitation	4	4.5	3.5	4.5	1.5	1					4.5	4.2	1	1
Immunizations	4	4.2	3	3.6	1	1					4.5	4.2	1	1
Dispensing of Medicines	4	4.4	3	4.1	1	1					4.5	4.3	1	1
Reporting and Statistics	4.5	4.5	2.5	4.2	1.5	1					4	4.1	1	1
Local Health Organization & Association	4.5	4.4	2	4.2	1	1					4.5	4	1	1

*Assessment of content and duration:

5 - Very adequate
4 - Adequate
3 - Neither
2 - Inadequate
1 - Very inadequate

**Assessment/Effectivity of Teaching Methods

1 - Effective
2 - Ineffective

Legend:

Ta - Trainor
Te - Trainee

Table 8C
Assessment of the Training Program by the
Trainors & Trainees in Matimbo

Assessment of Content, Duration, Practicum and Other Teaching Methods Used:

Topics/Courses	Assessment of Content*		Assessment of Lecture				Assessment of other Teaching Methods			
			Duration of Lecture*		Effectiveness of Lecture**		Duration of Methods*		Effectiveness of Methods**	
	X Ta n=3	X Te n=12	X Ta	X Te	X Ta	X Te	X Ta	X Te	X Ta	X Te
Orientation/Roles of BHW	4	3.7	4	3.1	1	1				
Human Reproduction	4	3.5	4	3.5	1.3	1				
First Day of Cycle of Life	4	3.5	4	3.7	1.3	1	4	3.5	1.3	1
Nutrition	4.3	3.9	4	3.7	1	1				
Maternal and Child Health	4	4.0	3.3	3.5	1	1				
Environmental Sanitation	4	4.0	4	3.8	1	1				
Communicable Diseases	4.3	3.7	3.3	3.5	1	1				
Drug Abuse	4.3	3.2	3.6	3.7	1	1				
Population Education and Family Planning	4.3	4.2	3.3	3.7	1	1	4	3.6	1	1
Medical-Surgical Emergencies	4.3	3.9	3.3	3.6	1.3	1	4	3.7	1	1
First Aid	4	3.7	4	3.9	1	1	4	3.8	1	1
Herbal Medicines	4	4	4	3.8	1	1				
Spiritual Health	4	4.1	4.3	3.8	1.3	1				
Dental Health Care	4	3.7	4	3.7	1	1				
Recording and Reporting	3.6	3.9	4	3.5	1	1				
Instruction on BP, TPR, CR-Taking	4	3.4	3.6	3.3	1	1	3.6	3.6	1	1

*Assessment of content of courses & duration in terms of adequacy:

5 - Very Adequate
4 - Adequate
3 - Neither
2 - Inadequate
1 - Very Inadequate

**Assessment/Effectivity of Teaching Methods:

1 - Effective
2 - Ineffective

Legend:

Ta - Trainor
Te - Trainee

APPENDIX E

Table 9a

Ranking of Courses by Trainors & Trainees According to Importance

Bagong Silangan

Courses/Topics	Trainors(n=2) Rank	BHW (n=16) Rank
Orientation	1	11
Principles of Health	7.5	9
Nutrition	2.5	1
Maternal & Child Health	7.5	2
Responsible Parenthood	6	6
First Aid	4	4.5
Transmission of Disease	5	10
Body System & Health Care	12.5	12
Common Childhood Diseases	2.5	8
Home Nursing Care	12.5	4.5
Environmental Sanitation	10	7
Immunizations	11	3
Dispensing of Medicines	9	13
Reporting and Statistics	14	15
Local Health Association and Organization	15	14

APPENDIX E

Table 9b

Ranking of Courses/Topics by Trainors and Trainees According to Importance

Barangay

Courses/Topics	Trainors (n=5) Rank	BHW's (n=13) Rank
Intro to Phil. Health Situation	2	3
Community Survey and Spot Mapping	5	6
Transmission of Diseases	3	12
Health Assessment Skills	7	1.5
Basic Anatomy and Physiology and Common Diseases	11.5	8.5
Environmental Sanitation	1	1.5
Maternal & Child Health	6	14
Family Planning	9	13
Nutrition	8	7
Common Childhood Diseases	11.5	8.5
Herbal Preparation	13	10
Community Organization	4	4
Clinic Practicum	14	5
Health Program Planning	10	11

APPENDIX E

Table 9c

Ranking of Courses/Topics by Trainors & Trainees According to Importance

Marimba

Courses/Topics	Trainors (n=3) Rank	BHW's (n=14) Rank
Orientation, Roles, Activities of PHC Workers	1	7
Human Reproduction	11.5	12
First Day Cycle of Life	11.5	14
Nutrition	2	8
Maternal & Child Health	11.5	3.5
Environmental Sanitation	6	3.5
Communicable Diseases	7	10
Drug Abuse	8	13
Population Education and Family Planning	3	1
Medical & Surgical Emergency	15	6
First Aid	4	2
Herbal Medicine	5	11
Spiritual Health	14	15
Dental Health	9	9
Recording and Reporting	16	16
Instruction on BP, T, PR, CR Taking	11.5	5

APPENDIX E

Table 10

Trainee Responses on Whether or Not Training Provided Necessary Knowledge and Skills

Responses	Matimbo		Dalupiri		Bagong Silangan		Total	
	f	%	f	%	f	%	f	%
Yes	12	86	10	77	16	100	38	88.4
No	1	7	2	15	-	-	3	7
Not much	1	7	-	-	-	-	1	2.3
Maybe	-	-	1	8	-	-	1	2.3
Total	14	100%	13	100%	16	100%	43	100%

TABLE 11a

PROBLEMS ENCOUNTERED BY TRAINORS DURING TRAINING - BACONG SILANGAN

Problems Encountered	Recommendations
A. Setting of Training Program:	
1. Lack of cooperation and support from other faculty members	1. Each faculty member should think of the importance, value of community work.
B. Objectives:	
1. Hard to grasp 2. Objectives were set based on the perceptions of few faculty members	1. Continue explaining the objectives
C. Selection of BHW: Criteria/Recruitment	
1. BHW's not educationally prepared. 2. Poor interpersonal relationships.	
D. Preparation of Course Content:	
1. Based on what the trainors want them to know.	1. Based on their needs (BHW s)
E. Course Content Focus:	
1. Based on what "we" thought the BHW should know.	1. More evaluation of needs
F. Supervision:	
1. Supervisor does not live in the barrio.	1. "24 hours" supervision; supervisor should come from the community.
G. Teaching Methods:	
1. Practicum experience apprenticeship were lacking.	1. Focus on practicum, and apprenticeship methods rather than didactic s
2. They didn't use all types of teaching methods due to inavailability of materials.	2. Teaching should be done at UPCN
H. Practicum:	
1. BHW's do things without thinking of the principles behind their actions	1. Focus on the principles in simplest way that they can understand.
I. Duration	
1. Short time	1. Longer time for all topics

Problems Encountered	Recommendations
J. Training Materials:	
1. Lack of teaching materials	1. More materials should be available
K. Training Facilities:	
1. Inadequate but realistic	1. Health Center should be adequately equipped
L. Incentives:	
1. Trainors	1. Some remuneration, i.e. free lunch; Training Center should be near the place of work.
a. No incentives were given	
2. Trainees	2. Give some remuneration
a. No incentives	
M. Others	
1. Jealousy from barangay captain	1. Better working relationship through more knowledge about the barangay captain and community leaders.

TABLE 11b

PROBLEMS ENCOUNTERED BY TRAINORS DURING TRAINING - DALUPIRIP

Problems Encountered	Recommendations
A. Setting of Training Program:	
1. Time constraints	1. Allot 1 month to prepare syllabus and training manual already in dialect of BHW
2. Inability to gauge the level of knowledge of the trainees.	2. Taught the basics only, native dialect used as a medium, used simple terms, previous clinic results utilized for charting, community assembly to discuss expectations.
3. Inadequate references	3. Look for additional references, i.e. notes during college days, from WHO
4. No systematic planning and programming of topics	4. 5-6 months preparation prior to implementation
5. PHO didn't give permission for training	5. None
6. MNC clinics in other areas were disrupted	6. None
7. Lack of consultation with experts on such areas	7. Review with those who had implemented such thing.
B. Objectives:	
1. Too high, for long-term, and MNC is about to end	1. Should be set at the start of the program.
C. Selection of BHW: Criteria/Recruitment:	
1. Hard to recruit BHW due to their own financial constraints	1. None
2. Hard to mix slow learners with fast ones.	2. More time and supervision in depressed areas.
3. BHW to 10 households is ideal; students and singles migrate to other places, or are not allowed	3. Students and singles should not be recruited because most of the time, they are not around.
4. No barangay PHC Committee to sign the certificate	4. There should be an existing functioning barangay PHC in each barangay organized by MOH.
5. Many of those interested can't pass the pre- and post-test.	5. Inform them at the start of training of the criteria for passing the pre- and post-tests.

Problems Encountered	Recommendations
D. Preparation of Course Content:	
1. Lack of materials from which to base course content	1. Micro-teaching, role-playing should be strictly adhered to
2. Lack of time	2. 5-6 months preparation before implementation; there should be an existing functioning barangay PHC in each barangay organized by MOH.
3. Health-team members with different ideas.	3. Compromise among team members
E. Course Content Focus:	
1. None	
F. Supervision:	
1. BHWs have different levels of knowledge	1. Individual supervision
2. Lack of supervision due to big number of areas covered (20)	2. Staff schedule - 5 days in community 1 day in office instead of 3 days each.
G. Teaching Methods:	
1. Some Ilocano words were not understood (communication barrier)	1. One of the trainors (an Ibaloi) translated those words to Ibaloi
2. More time was spent in writing and copying by the BHWs thus, little time left for explaining	2. A training manual to be given to BHWs to read at home be further explained during lectures.
3. Some of the resource persons for the seminar were unable to meet their planned schedules so coverage of some assigned topics was inadequate	3. The time-table previously set should be strictly adhered to.
H. Practicum	
1. Not enough	1. Clinic days up to now serves as practicum
2. During clinic practicum, community people still questioned the credibility of the knowledge and skills of the trained VCHWs	2. Give time for community folks to gradually acccpt the trained VCHWs

Problems Encountered	Recommendations
I. Duration	
1. Lack of time, training duration is very short for the content prepared	1. Make duration longer; a lesser content and have the most important topics
J. Training Materials	
1. Lack of A-V; no herbal medicines; handbook; no handouts because they might not attend.	1. Buy film projector with generator for the project; Put a set of herbal medicine books at the Botika sa Barangay
2. Lack of materials, office supplies, stencils, bond papers, etc.	2. Propose to SLU Hospital before start of training.
K. Training Facilities:	
1. The room (RHU) is very small	1. Have a bigger room with proper ventilation and enough chairs.
2. Poor ventilation	
L. Incentives:	
a. Trainors	
1. No incentives were given to trainors	1. Transportation of trainors, speakers. Adequate funding of training
b. Trainees	
1. No incentives; no transportation allowance	1. Provide transportation allowance, provide kit to give importance to BHWs; free merienda.
2. "Busy sila, nahihiyang magsalita" (They were busy and ashamed to talk.)	2. Ask for their free time; regular monthly meeting; give medical kit
M. Funding: Others	
1. Lack of funding	1. Funding from PHC, barangay

TABLE 11c

PROBLEMS ENCOUNTERED BY TRAINORS DURING TRAINING - MATIMBO

Problems Encountered	Recommendations
A. Setting of Program	
1. Hard to call a community assembly	1. Ask for a PTA meeting at the school and announce it there
2. Logistics - lack of fund	2. Funding from MOH
B. Objectives	
1. Did not meet the requirement	1. None
C. Selection of BHW: Criteria/ Recruitment	
1. Time constraints	1. Should be done on weekends (Saturday)
2. Hard to recruit BHW due to their own financial constraints	2. Give incentives, i.e. allowance
D. Preparation of Course Content:	
1. How to shorten the time from 2 weeks to one week	1. Adequate funding
E. Course Content Focus:	
G. Teaching Methods	
1. Difficult topics not understood easily	1. Get lecturers who can speak on the level of BHWs
H. Practicum:	
1. Lack of materials, equipment	1. Provide DHW with kit.
I. Duration	
1. Very short - one week	1. Ideally, 2 weeks (M-F), summer
2. Was cut short due to financial problems	2. Adequate funding
J. Training Materials	

Problems Encountered	Recommendations
K. Training Facilities	
1. Space - not really comfortable	1. Make full use of what is available
2. Lighting	
L. Incentives:	
a. Trainors	
b. Trainees	
1. None, so at first, they were hesitant	1. What they learn can be used for themselves and can teach to their children and gandchildren
M. Funding: Others ;	
1. There were drop-outs during the seminar due to other priorities	1. Schedule seminar-workshops according to the least busiest time of the trainee.
2. Film showings on related topics, discussions and other audio-visuals weren't immediately presented after discussion of the topics.	2. If possible, present films immediately after discussion of related topics.
3. No administrative staff was provided i.e. for typing	3. Availability of at least one typist.
4. Misunderstanding among staff	4. Each staff is assigned as coordinator in an area

Person Consulted by the Community
for Health Needs & Problems

Person Consulted

A. Prenatal Care:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	255	91.7	71	87.6	249	90.2	575	90.6
Paramedical	9	3.2	2	2.5	9	3.2	20	3.1
BHW Alone	-	-	1	1.2	1	0.4	2	0.3
BHW with others	-	-	-	-	1	0.4	1	0.2
Combinations	14	5.0	7	8.6	16	5.8	37	5.8
Total	278	100	81	100	276	100	635	100

B. Delivery:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	224	77.5	45	67.2	203	67.4	472	71.8
Paramedical	26	9.0	14	21.0	39	13.0	79	12.0
BHW alone	1	0.3	1	1.5	13	4.3	15	2.2
BHW with others	-	-	1	1.5	3	1.0	4	0.6
Combinations	38	13.1	6	9.0	43	14.2	87	13.2
Total	289	100	67	100	301	100	657	100

C. Family Planning Services:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	105	99.0	16	88.9	141	94.6	262	96.0
Paramedical	1	1.0	-	-	4	2.6	5	1.8
BHW alone	-	-	2	11.1	4	2.6	6	2.2
BHW with others	-	-	-	-	-	-	-	-
Combinations	-	-	-	-	-	-	-	-
Others	106	100	18	100	149	100	273	100

LEGEND:

AF - Actual Frequency

D. Nutritional Problem:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	40	97.6	30	73.2	66	100	136	91.9
Paramedical	1	2.4	-	-	-	-	1	0.7
BHW alone	-	-	11	26.8	-	-	11	7.4
BHW with others	-	-	-	-	-	-	-	-
Combinations	-	-	-	-	-	-	-	-
Total	41	100	41	100	66	100	148	100

E. Immunization:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	199	85.4	73	98.6	182	68.9	454	79.5
Paramedical	1	0.4	1	1.4	-	-	2	0.4
BHW alone	-	-	-	-	-	-	-	-
BHW with others	-	-	-	-	1	0.4	1	0.2
Combination	33	14.2	-	-	81	30.7	114	20.0
Total	233	100	74	100	264	100	571	100

F. Respiratory:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	281	97.2	31	31.0	193	71.7	505	76.7
Paramedical	2	0.7	-	-	2	0.7	4	0.6
BHW alone	2	0.7	12	12.0	12	4.4	26	4.0
BHW with others	-	-	50	50.0	11	4.0	61	9.1
Combination	4	1.4	7	7.0	51	19.0	62	9.4
Total	289	100	100	100	269	100	658	100

G. Gastrointestinal:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	213	95.9	27	35.5	121	77.6	361	79.5
Paramedical	4	1.8	-	-	4	2.6	8	1.8
BHW alone	1	0.4	10	13.2	7	4.4	18	4.0
BHW with others	-	-	32	42.1	11	7.0	43	9.5
Combination	4	1.8	7	9.2	13	8.3	24	5.3
Total	222	100	76	100	156	100	454	100

H. Fever/Influenza:

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	202	94.0	24	32.9	111	75.0	337	77.3
Paramedical	-	-	-	-	2	1.4	2	0.4
BHW alone	5	2.3	13	17.8	10	6.8	28	6.4
BHW with others	-	-	29	39.7	5	3.4	34	7.8
Combination	8	3.7	7	9.6	20	13.5	35	8.0
Total	215	100	73	100	148	100	436	100

I. Accident/Wound Dressing:

Category Label	BBulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	98	96.1	12	63.2	67	87.0	177	89.4
Paramedical	3	2.9	1	5.3	3	3.8	7	3.5
BHW alone	1	1.0	6	31.6	7	9.0	14	7.1
BHW with others	-	-	-	-	-	-	-	-
Combination	-	-	-	-	-	-	-	-
Total	102	100	19	100	77	100	198	100

J. Measles and Mumps

Category Label	Bulacan		Benguet		BS		Total	
	AF	RF	AF	RF	AF	RF	AF	RF
Medical	130	94.2	27	79.4	109	91.6	266	91.4
Paramedical	5	3.6	-	-	3	2.5	8	2.7
BHW alone	-	-	3	8.8	2	1.6	5	1.7
BHW with others	-	-	2	5.9	-	-	2	0.7
Combination	3	2.2	2	5.9	5	4.2	10	3.4
Total	138	100	34	100	119	100	291	100

APPENDIX F

"GD" Exercises*

I. Unfreezing Exercises:

A. 1. Who am I: A getting-Acquainted Activity

Goal: To allow participants to become acquainted quickly in a relatively non-threatening way.

Allow each member of the group to give a brief introduction about the self. After all the members have introduced themselves, the activity is processed by the facilitator. Each member is asked to share his feelings about this activity.

B. The Longest Line:

Goal: Team building, to demonstrate effects of competition on team efforts.

Instructions:

1. Everyone is asked to stay in one place, preferrably on a wide space.
2. The group is divided into two.
3. The facilitator asks each group to form the longest line, utilizing only what they have with them, including their own selves. This means that no member is allowed to take other things outside, e.g., to get a rope outside the room, to get a stick in their bags, etc.
4. The facilitator gives a time limit (10 minutes) for the group to form the longest time. Facilitator measures which among the two groups formed the longest line.

Processing:

1. After the activity, the facilitator asks the group the following questions:

   1.1 What do you feel as winners?
   1.2 What do you feel as losers?

*Can be given as "warm-up" activities before each didactic session.

For the winners:

What made you win over the other group? (State the factors that brought about the winning.)

For the losers:

What do you feel made your group lose?

1.3 What do you feel about the whole activity?
1.4 What are the learning insights you gathered from the activity?

C. "Team Building" Activity

Goal: To demonstrate effects if competition on team efforts.

Activity:

Ask the participants to group themselves. Each member of the group is asked to choose anything in the surroundings, e.g., stones and to construct something on the floor, using the objects they have chosen.

The facilitator gives a time limit (10 minutes) for the group to construct something. Then, convene the participants and process the activity.

Processing:

Allow each group to share the symbol they have constructed with others.

The facilitator asks the group the following questions:

1. What do you feel working with others in the group?
2. What are the insights you gathered from the activity?
3. What factors enhance or impede the formation of the symbol?

D. Break Out:

Goal: To realize how it feels and what it means to belong to a group and to be accepted by it.

To discover how a group can serve ... reinforcement and a support as well as a barrier and hindrance to one's aspiration and commitment.

Activity:

After groups have been formed using one of several procedures, have each group stand in a circle and hold hands. One of their members (voluntary or appointed, but voluntary is preferred) stands in the

middle. His task is to try to break out (for a motive which he considers seriously before going to the circle). The task of the group is to get him to stay inside the circle as long as they could hold him there. It is made clear at the start that this experience is a physical expression of unity. The group wants to keep in all of the members.

Should the person in the middle "breakout," his task becomes that of getting into other groups. The group's task is to keep its members in and the other out.

Sharing:

This is a very intense experience and needs to be talked about after it is completed. Talk about feelings generated. The following questions may be asked to provide directions to the sharing.

1. How did you feel about breaking out; about keeping the person in?
2. Why did you want to break out? To keep the person in?
3. What can we say about belonging and not belonging?

E. Communication

Goal: This exercise will test the accuracy of communication passed from one person to the other, and identify blocks to communication.

Activity:

1. The participants divide themselves into groups.
2. Each group will assign a group leader who will read silently a message as information written on a piece of paper from the facilitator.
3. At the facilitator's signal, the group leader will pass the message, through whisper, to the next group member, until the last participant receives the message.
4. The last participant who receives the message then tells the group the message or information he receives.
5. The facilitator asks the group leader if the message is accurate, as if there is any addition, subtraction, or distortion to the original information.
6. Then, he convenesthe participants and process the activity.

Processing:

The facilitator asks the group the following questions:

1. What do you feel about the whole activity?
2. What factors block communication:
3. How can we prevent this communication breakdown?
4. What are the learning insights you gathered from this activity?

APPENDIX G

Modules

APPENDIX G

PRIMARY HEALTH CARE

INTRODUCTION

Primary health care has been adopted by the Ministry of Health as the approach towards attaining Health for All Filipinos by the Year 2000. Partnership with the community characterizes this new approach. In order to become an effective partner one has to understand the meaning of primary health care. This module will help you understand what is primary health care as well as your roles and functions in this new approach.

Objectives

Upon completion of this module, you should be able to:

1. Define primary health care.
2. State the goal of primary health care.
3. Enumerate the different elements of primary health care.
4. Explain what is a barangay health worker.
5. Discuss roles and functions of BHW in primary health care.

What is primary health care?

Primary health care is a partnership among community, the government and the private sector or non-government organization for the purpose of improving health and quality of life. It recognizes the importance of the involvement of the community in identifying health and health related problems and finding solutions to these problems.

Why is it necessary to involve the community in identifying problems and seeking solutions to these problems?

The community should be involved in identifying problems and seeking solutions because they are the ones who know the conditions in their area. They know the problems, and can discuss ways and means to solve these. It is clear therefore, that the primary health care is community based.

What are the other features of primary health care?

Aside from being community based, primary health care as an approach provides essential health care which is:

- Accessible and acceptable to individual and families in the communities (through their full participation);
- Sustainable at a cost which the community and the government can afford;
- Aimed at developing self-reliance for individual and community health;
- Part and parcel of the total socio-economic development effort:

What is the goal of primary health care?

The goal of primary health care is health for all Filipinos in the year 2000. It aims to attain the following:

1. Promotion and maintenance of health among the greatest number of Filipinos especially those in the remote and economically depressed communities.
2. Development of community leadership and initiative in identifying

community health problems and needs and seeking their solutions in the spirit of self-reliance.

3. Provision of relevant health and health related services to complement community efforts.

What are the elements of primary health care?

The elements of primary health care are the following:

1. Education on prevailing health problems and the methods of preventing and controlling them.
2. Promotion of adequate food supply and proper nutrition.
3. Basic environmental sanitation and an adequate supply of safe water.
4. Maternal and child care and family planning.
5. Immunization against the major infectious diseases.
6. Prevention and control of locally endemic diseases.
7. Appropriate treatment of common diseases and injuries, and
8. Provision of essential drugs.

Why is there a need to have Barangay Health Worker?

A barangay health worker is needed to help facilitate and hasten the delivery of health and health related services to the community.

Who is a Barangay Health Worker?

1. One who is a non-professional health worker residing in the area (group of 20 families) he serves.
2. One who is a voluntary worker and selected by the community.
3. One whose work complements that of government or other community

development programs at the primary level.

4. One who works closely with the local health team and whose work is linked with that of other health facilities.

What are the roles of a Barangay Health Worker?

The roles of a barangay health worker are:

1. Health educator-

The barangay health worker is expected to share all that he/she had learned in the training with the families in his area of coverage.

2. Motivator-

He/she is also expected to motivate families in the practice of hygiene and sanitation, nutrition and responsible parenthood.

3. Provider of health care-

As provider of health care he/she can:

a) Render life-saving measures to emergencies;

b) Detect early signs and symptoms of high-risk pregnancies, infants and pre-schoolers, tuberculosis and diarrhea;

c) Refer these cases to the midwife immediately;

d) Visit families for follow-up e.g. prenatal and TB.

4. Recorder-

A barangay health worker keeps a record of all the activities done and reportsthem to the midwife.

5. Liason officer-

A barangay health worker acts as the link between the community and the health personnel. He/she is also expected to assist the midwife in organizing families in his/her area of coverage for the purpose of identifying problems, and finding solutions to these problems.

INTRODUCTION

One of the tasks of the PHC worker is mobilizing the community for health action. You learned that one of your roles is a liason officer or the link between the community and the health personnel. In so doing, you are expected to organize the community for health action. This module will help you in the performance of this function.

Upon completion of this module you are expected to:

1. enumerate the necessary ingredients of partnership;
2. explain how a work group develops;
3. explain guidelines in the management of committees or groups.

What are the necessary ingredients of partnership?

Partnership is a relationship where the parties involved have equal rights and responsibilities in their effort to attain a common objective. In order to have partnership the following ingredients are necessary:

1. the belief that partners are co-equal
2. open mindedness
3. respect and trust
4. commitment to enhance each other's capabilities for partnership

The PHC-worker should understand and realize that each member of the community is his partner. They are all partners in working towards improving health and quality of life.

How does a group develop?

In any undertaking requiring group effort, it should be realized that work group undergoes stages of development. Gathering people together

to work collectively oftentimes can not be achieved with just one meeting. Sometimes, several meetings are required. During the first meeting, each member or participant usually have different feelings. Some are enthusiastic, others just watch and observe, while some may ask question. Later on there will be conflicts. Negative comments and criticisms become more frequent. Some may try to dominate the group. The group may dissolve if it is not able to resolve its conflict, however, if the conflicts are resolved, the group members will now become cohesive and each one will accept the responsibility and give his share so that the group will be able to attain its objectives. When this happens, the group becomes a working group.

In any group, each member plays a different role. The following are some of the roles that help the group attain its task.

1. Starter: Proposes goals and tasks to initiate action within the group.
2. Information and Opinion Seeker: Asks for facts, informations, opinions, ideas, and feelings from other members to help group discussion.
3. Coordinator: Shows relationships among various ideas by pulling them together and harmonizes activities of various subgroups and members.
4. Information and Opinion Giver: Offer facts, opinions, ideas, suggestions, and relevant information to help group discussion.
5. Direction Giver: Develops plans on how to proceed and focuses attention on the task to be done.
6. Summarizer: Pulls together related ideas or suggestions and summarizes major points discussed.
7. Reality Tester: Examines the practicality and workability of ideas,

evaluate alternative solutions, and applies them to real situations to see how they will work.

8. Diagnoser: Figures out sources of difficulties the group has in working effectively and the blocks to progress in accomplishing the group's goals.
9. Evaluator: Compares group decisions and accomplishments with group standards and goals.
10. Elaborator: Building on previous comments, giving examples, enlarging on it.
11. Energizer: Stimulates a higher quality or work from the group.
12. Consensus Taker: Checks the group to see if the members are ready to make a decision or take some action.

What are the guidelines to be observed in the management of committees or groups?

Committees or groups can be productive or not, depending on how it is handled. We are dealing with human behavior which can be very difficult at times, however, some guidelines can be observed which can help one handle committees or groups more effectively. These are the following:

1. Select appropriately the chairman and members using as a guideline the purpose for which the committee or task group is formed.
2. Ensure adequate pre-meeting preparations:
   a. Prepare the agenda well - select the items properly such that the issues can be discussed within 2 hours. Sequence the items properly.
   b. Circulate in advance background information.
   c. Ensure attendance of those who shall make vital contributions

for effective decision-making during the meeting. This is accomplished through adequate communication and follow-up of these people.

d. Prepare physical facilities to be conducive to productive discussions.

3. Conduct the meeting appropriately.

a. Start the meeting by reading/discussing minutes of previous meeting.

b. Explain the purpose of the meeting; what is expected at the end, for example, whether a decision should be made.

c. Make sure that everybody understandsthe issues and reasons for discussing these.

d. Prevent misunderstanding and conflict.

e. Encourage everybody to participate.

f. Terminate the discussion once the group has reached an agreement/ consensus. The chairman can also terminate the meeting when:

1) members need more time to think;

2) discussion shows that views of people not present are important;

3) more information is needed;

4) not enough time to go over the topic adequately;

5) events are changing and decisions made may not be appropriate;

6) two or three members can discuss and solve the problem outside the meeting.

g. Make a brief and clear summary of what has been agreed upon.

4. Record the minutes of the meeting.

The following information should be included:

a. Date, time, and place of meeting.

b. Purpose of the meeting

c. List of those who attended, specify presiding officer.

d. Summary of discussions and decisions.

e. Problems encountered.

Maternal Health Care

INTRODUCTION

To achieve the optimum health of the Filipino women, the maternal health care services should be strengthened. Since the BHWs stay in the barrios, and are familiar with the expectant mothers their services are oftentimes sought by the expectant mothers. This would be the form of health education regarding childbearing, or actual care given during their prenatal, delivery, or postpartum period. The BHWs therefore, if properly trained, can be of great service to the community, and will be of great help to the midwives and to other health care providers. It is believed therefore, that the training of the BHWs in maternal health care should be emphasized, so that the quality of care given to mothers and their babies will be greatly improved.

OBJECTIVES

Upon completion of the module, you are expected to:

1. discuss common signs and symptoms of pregnancy
2. identify all pregnant women in area of coverage
3. discuss importance of pre-natal check-up and post-natal care
4. discuss care of mother during pregnancy and after delivery
5. explain danger signs and symptoms of pregnancy and after delivery
6. refer mothers with the above signs and symptoms immediately
7. discuss the importance of family planning and responsible parenthood
8. explain the different methods of contraception
9. refer mothers for family planning services

COURSE CONTENT

I. Pregnancy and Care During Pregnancy:

1. When does pregnancy occur?

The woman's ovary or egg nests normally releases one every month. This happens usually at the middle of a menstrual period ; for a woman who menstruates every 28 days, it is on the 14th day. The egg coming from the ovary travels its way to the womb through the tubes located on either side of the womb.

The male counterpart of the female egg is the male sperm released during intercourse in the woman's birth canal. There are millions of sperms released by the male, however, only one sperm is needed to produce a baby! Pregnancy begins when the male sperm unites with the female egg. They merged into one, travels into the womb from their meeting place in the tube, and embeds itself there. It then grows gradually until it becomes a fullterm baby. Usually the child is born approximately 280 days or 9 calendar months after conception.

2. What are the signs and symptoms of pregnancy?

A pregnant woman presents the following characteristics:

a. The woman stops menstruating.

b. "Morning sickness" (dizziness, nausea, vomiting).

c. She may have to urinate more often.

d. The belly gets bigger.

e. The breasts get bigger.

f. "Mark of pregnancy" (dark areas on the face, breast, belly).

g. The baby begins to move during the 5th month or so.

3. What is the importance of prenatal care and supervision?

Prenatal care and supervision is very important during pregnancy to maintain the health of the expectant mother. It has been said that a healthy mother begets a healthy child, and the pregnancy of the mother is the foundation for the normal development, adequate growth, and good health of the baby. Going for prenatal care will reduce discomforts and avoid complications of pregnancy. It will also prepare the mother physically and psychologically fit for delivery and care of the newborn baby.

4. What are the discomforts of pregnancy?

The expectant mother will complain about the following discomforts:

a. Nausea and vomiting:

Relief may be obtained by eating a piece of cracker, sweets, sugar cane and sips of cold water or ice chips. Avoid fatty foods and avoid eating large meals.

b. Burning or pain in the pit of stomach or lower part of the chest:

Eat only small amount of food. If possible, drink milk. Very little fat should be included in the diet.

c. Backache:

This can be relieved by exercise, maintenance of good posture, taking short rest periods, and wearing comfortable footwear.

d. Cramps:

Force the toes upward and put pressure on the knee to straighten the legs.

e. Varicose veins:

Advise woman to raise legs for about 5-10 minutes several times a day.

f. Hemorrhoids:

Prevent constipation by including fruits and vegetables in the diet. Avoid spicy foods. Drink at least 8 glasses of water everyday.

g. Swelling of the feet:

Decrease salt and salty foods in the diet. Rest, with both feet up several times a day.

h. Frequent urination:

Nothing can be done to relieve this but it will just subside by the end or 3rd month. Later, during the last weeks of pregnancy, the symptom will reoccur.

i. Shortness of breath:

Relief may be obtained by sleeping in bed with pillows or being in semi-sitting position with the back well supported.

j. Vaginal discharge:

To relieve this discomfort, frequent perineal pad is advised.

5. What are the needs of a pregnant woman?

The important needs of an expectant mother which should be met are the following:

a. Nutrition:

It is important that the mother eats the right kind and amount of food because the health of the baby will depend on

her nutritional status. The expectant mother should eat all the nutritious foods she could get. No food is bad for a pregnant woman - too salty foods should be advised against a woman who has high blood pressure or edema. The following foods should be taken by the mother:

a) Energy-giving foods:

These are the foods that give us strength and energy:

Sources: rice, bread, corn, camote, gabi, casava, margarine, noodles.

b) Body-building foods:

They make the baby grow and develop well.

Sources: meat, chicken, fish, "alimango", eggs, cheese, beans - dried or fresh, ("abitsuelas", "garbansos", "mongo","toge", "tokwa"), nuts, milk, internal organs.

c) Protective foods:

They contain vitamins and mineral. These are important to the mother and fetus to give color to their blood, to develop strong bones and teeth, healthy eyes, skin, hair, to increae the body's resistance to infection, and to maintain good body habits.

Sources: camote tops, kangkong, malungay, talong, squash, pechay, quava, mango, banana, papaya, pomelo.

d) Water:

Drink at least 8 glasses of water everyday.

b. Bathing:

The expectant mother should take regular baths. as much as possible, daily. Showers or sponge baths may be taken at any time, but, chilling should be avoided.

c. Care of the breasts:

The nipples should be washed with warm water. They should be kept clean and dry.

d. Bowel habits:

The pregnant woman should maintain the regular habits of elimination. Constipation may be prevented by drinking sufficient amount of fluids, eating plenty of fruits and vegetables, and doing some exercises.

e. Rest, Sleep and Exercise:

An average of 8 hours of sleep daily is necessary, and the mother should relax his body and mind to attain rest. Instead of standing, the mother should sit whenever possible with her feet and legs elevated. She could also do her normal activities at home but should avoid overstanding and lifting heavy objects.

f. Clothing:

Pregnant woman should wear comfortable clothes which fit loosely. They should be discouragedto wear tight bands in the abdomen ("bigkis") because this interferes with the flow of blood and breathing of the mother. She should wear low-heeled and comfortable shoes.

g. Marital Relations:

The expectant mother should not refrain from intercourse when she desires it, except for women who have repeated abortions, ruptured membranes, or vaginal spotting. However, many doctors advise the woman to restrict intercourse during the last month of pregnancy.

h. Travel:

When an expectant mother should take long trips, she should plan frequent rest periods. She can get out of the car occasionally and walk a short distance to relieve stiffness and muscle ache.

i. Medical Care During Pregnancy:

Prenatal care and supervision should start as early as possible.

Frequency of Clinic Visits:

Once a month ..... 1st to 7th month

2x a month ..... 7-8 months

Every week ..... 9 month

6. What is done during a prenatal check-up?

A prenatal check-up in a health center includes the following:

a. History taking:

Record: -name, age, number of pregnancies and deliveries

-date of last menstrual period, and date of expected delivery

-other illnesses of the mother

-illnesses and conditions in the family

-previous pregnancies and deliveries of the mother

-history of present pregnancy and complaints of the mother.

b. Physical Examination:

1) weigh the mother

2) take BP, T, PR, RR

3) inspect teeth and throat

4) examine heart and lungs using a stethoscope

5) inspect both breasts and nipples

6) inspect fingers and legs/feet for signs of swelling

c. Obstetric Examination:

1) palpate the abdomen for the size and position of the baby

2) listen to the heart beat of the baby through a stethoscope

d. Laboratory Test:

The expectant mother will be asked to bring a sample of her first urine in the morning for urine testing. A blood examination may also be done to see if she has anemia.

e. Health Instructions:

The mother is taught about her care and that of her coming baby. Also, the results of the laboratory exams are told to her. She may be given vitamins and iron tablets to take if the doctor think it necessary.

7. Who are the high risk mothers?

A high risk mother is a pregnant woman with any of the following characteristics:

a. age of 17 years and below; 35 years and above

b. has had 6 or more children

c. has poor history of past pregnancies:

- 2 or more spontaneous abortions
- 2 or more premature deliveries
- previous Cesarian delivery
- prolonged labor
- vaginal bleeding during pregnancies

8. What are the danger signs of pregnancy?

The following signs and symptoms of complications of pregnancy which the pregnant women themselves or the BHWs may encounter should be referred immediately to the midwife:

a. bleeding from the vagina

b. swelling of the face or fingers

c. severe, continuous headache

d. dimness or blurring of vision

e. pain in the abdomen

f. persistent vomiting

g. chills and fever

h. sudden escape of water from the vagina

II. Post-Natal Care:

A. What is the post-partum period?

This is the period which starts from the delivery of the placenta and ends when the mother's reproductive organs have returned to the nonpregnant state. It varies from 6-8 weeks.

B. What are the needs of a post-partum mother?

1. Nutrition:

On the first day after delivery, liquids may be given to the mother, and a full diet may be given already on the second day. Body-building foods may help increase the milk secretion.

2. Breast care:

After the mother has rested, the breasts of the mother may be given to the baby for breastfeeding. The sucking of

the baby even if there is no milk yet will stimulate milk production. Before feeding the baby, the breasts and nipples should be washed with warm water. To have more milk, advice the mother to:

a. drink plenty of liquids
b. eat as much as possible, milk products and body building foods
c. get plenty of sleep
d. avoid getting very tired and upset
e. nurse her baby more often
f. eat every kind of nutritious food she can get

3. Bathing:

A sponge bath may be given after delivery and the mother should be helped during her first bath. She may take a few bath as early as 3 days after delivery as long as she is strong enough already. Chilling should be avoided.

4. Perineal Care:

After delivery, bloody discharge from the vagina (lochia) may be seen, which lasts for 3-6 weeks. At first, the discharge consists mainly of blood (first 3 days), then it becomes watery, and changes to pinkish color. On the 10th day, the discharge decrease in amount and becomes colorless.

For the comfort of the mother, and to prevent infection, the genital area should be cleaned with soap and warm water, or with a decoction of guava leaves.

5. Early Walking·

The mother who delivered normally is encouraged to move in bed for the first day, and on the 2nd day, she is allowed to walk around the bed and go to the bathroom.

6. Clothing:

The mother should wear clean, light, loose and comfortable clothes. They should be discouraged from wearing "bigkis"

7. Post-Partum visit:

Advise the mother to visit the health center 6-8 weeks after delivery for examination.

C. Who are the high risk post-partum mothers?

The following problems after childbirth should be reported immediately to the midwife:

1. mothers with continuous bleeding of the vagina
2. mothers with high fever (more than $38^{o}C$) persisting for more than 2 days.

III. FAMILY PLANNING:

Family planning is having the number of children you want, and when you want them. The aim of family planning is to promote healthy and happy families.

A. What is the importance of family planning?

Family planning helps the mother, the father, the whole family and the country in general. It helps the mother by giving her a

chance to recover her health after delivery, to care for her child more, and still be able to do her work in the house.

It helps the father because he has lesser children to support and care for, giving him more opportunity to save for the future. It therefore helpsthe family to have a happy and secure family.

Also, it helps our country to prevent overpopulation, to reduce the poverty, unemployment, lack of food, clothing, shelter, education, of our people.

B. Who are the possible acceptors of family planning methods?

1. Young parents who want to delay having children.
2. Parents who decide that a small number of children is enough.
3. Parents who want to space their children years apart.
4. Parents who do not want children anymore.

C. What are the different family planning methods?

Husband and wife should decide together and share the responsibility in choosing the Family Planning method. Some factors that should be considered are: effectiveness, safety, convenience, availability,and cost of Family Planning method.

The following are the Family Planning methods:

1. Traditional Methods:
   a. Withdrawal - This is a method in which the man lets his sperm (or seed) be deposited out of the vaginal canal to prevent conception.
   b. condom - The man wears this over his organ so that his sperm will be deposited on the condom rather than on the vaginal canal.

c. diaphragm - This is a device the woman uses to prevent the sperm from entering her uterus.

d. douche - This is the method in which the woman washes her vaginal canal with soap and water, sometimes, vinegar, right after intercourse.

2. Modern Methods:

a. Pills - Piils are substance that will prevent the release of the eggs from the ovary, therefore, preventing the sperm from meeting the egg.

b. IUD - This is a plastic material and is placed inside the uterus to prevent the meeting of the egg and the sperm.

c. rhythm method - This method considers the occurance of menstruation in a woman. The method is very good only for women who have very regular menstrual cycles. In this method, intercourse is avoided on days when egg is expected to be released from the ovary, or during the "unsafe" period.

d. sterilization - This is done by expert doctors or Family Planning coordinators and are commonly called "BTL" (bilateral tubal ligation) for women, and "vasectomy" for men, to permanently prevent pregnancy.

e. injection - The woman is injected with Depo-Provera to prevent pregnancy from occuring.

D. What is the role of the BHW in family planning?

The BHW is usually the first person the mothers call during their pregnancy and delivery, hence, she has the chance to explain to them about family planning. Since the BHW is familiar with the

community residents and stays in the community, she can teach those in doubt, and refer the couples, friends, neighbors or relatives to the health center for further advice on Family Planning. The Family Planning Coordinator will explain to the couple the different methods in FP, and can advice the couple on what method to use. Childless couples who want to have a child will also be helped by the FP coordinator.

MODULE ON CHILD CARE

INTRODUCTION

Child care is an important part of Maternal and Child Health. The health of children largely depends on the way they are cared for. The total well-being of a child is a foundation of good health throughout his life.

As a Barangay Health Worker, you can do much to help the mother and the family in child care.

This module will help you understand the essential aspects of child care and how to manage the care of normal children.

OBJECTIVES

After mastery of this module, you will be able to:

1. Enumerate the major aspects of child care.
2. Identify the characteristics of a healthy child.
3. Give examples of factors that increase the risk of children to illness.
4. Discuss proper nutrition of infants and young children.
5. Give the advantages of breast feeding.
6. Identify correct weaning practices.
7. Describe the signs and symptoms of undernutrition.
8. Give the importance of monitoring growth and development of a child.
9. Take the weight and height of a baby.
10. Identify what a baby can do in the first 2 years of life.
11. Explain basic immunization for children.
12. Identify common signs and symptoms of illness in children.
13. Identify some common herbal medicines.
14. Describe how to give some simple nursing care to a child.

CARING FOR THE CHILD

A. What are the aspects of child care?

Child care aims to promote the health of the child from birth to 6 years of age. It focuses on proper nutrition, normal growth and development, basic immunization and prevention of common childhood diseases. (See Appendix A - Figure 1. Aspects of Child Care)

The essential care needed to maintain a healthy baby include the following:

1. Food - proper food for baby makes him grow faster and brighter.
2. Clothing and Warmth - the baby's clothes should be warm enough and loose enough for comfort.
3. Bathing and Cleanliness - regular bathing keeps baby clean and comfortable.
4. Exercise - a baby gets exercise by moving his arms, legs and hands. Short play periods are healthful.
5. Air and Sunshine - fresh air and sunshine keeps baby well.
6. Rest and Sleep - enough rest and sleep should be provided. Keep children warm and dry and protected from strong lights and drafts.
7. Good habits - habit formation begins in infancy. Keeping a planned schedule around baby's needs will promote habit development.
8. Accident prevention - children, especially toddlers are generally active. Keep the home and their play area safe.
9. Mothering - love and care promote development of the child's personality.

What are the characteristics of a healthy child?

A healthy newborn:

1. Has skin that is pinkish in color.
2. Gives a good strong cry.
3. Displays active motions.
4. Shows no signs of physical deformities.

A healthy child:

1. Has energy for daily activities and does not tire easily.
2. Has energy for active play.
3. Weight appropriate for his age.
4. Is generally aware and interested in what's going on around him.
5. Interacts well with playmates.
6. Demonstrates physical skills appropriate for his age.

Who are high risk babies?

Priority attention is given to infants who are at high risk. Examples of this groups are:

1. Premature babies - those low in birthweight and born less than 9 months.

2. Babies born of mothers who had difficult delivery and pregnancy complications.
3. Babies with congenital defects.
4. Babies belonging to very poor, incomplete and multi-problem family.

B. Proper Nutrition

The growth and development of a child is dependent on proper nutrition. This means adequate amount of basic nutrients should be included in his/her diets at all times.

Breastfeeding

Breastmilk is the best food for the baby. Encourage all mothers to breastfeed their babies (see Appendix A - Figure 2. Breastfeeding the Baby).

Breastfeeding has several advantages, namely,

1. It is a complete food.
2. It contains certain substances that give protection against germs.
3. It is free and readily available.
4. It is fresh and clean, thus reducing the dangers of diarrhea and other illnesses.
5. Mother's holding of her baby while breastfeeding gives warmth and tender loving care to baby.

Breastfeeding should be started right after birth. After 4 months the baby needs supplemental food in addition to breastmilk. You can help the mother remember important points by preparing with her a feeding calendar as shown below.

Feeding Calendar

Age of Child	Breastfeeding	Other Foods
At birth	Start at birth and whenever the baby asks for breast	None, unless not enough breastmilk, in which case additional artificial feeding can be given. Advice mother to go to the health center.
4 months	Continue breastfeeding	Add at least (1) soft food or mashed food 4 times a day. Examples of such foods are boiled egg, mashed ripe banana, mongo, squash, potato or camote and liver.

Age of Child	Breastfeeding	Other Foods
6 months	Continue breastfeeding:	Add other foods 4 times a day like boiled mongo with leafy vegetables such as camote leaves and malunggay, fish "sinigang" with sitao and kangkong.
One year & older	Continue breastfeeding: up to 2 years of age.	

Note: Milk should remain one of the basic foods of children.

How to introduce new food to the baby:

New food is strange to the baby. To make sure that the baby eats it, introduce new food with care. Here are some helpful points to remember when feeding the baby with new food:

1. Introduce only one food at a time.
2. Give small amounts of any food (one tablespoon or less) at the beginning.
3. Give food of soft consistency when starting with solid foods. Gradually increase consistency.
4. Give the baby only as much food as he is willing to take. If the baby refuses to eat a new food, leave it for a week or two, then try again.
5. When the baby is able to chew, gradually give chopped vegetables, fruits and meats.
6. If the baby objects to taking some foods, mix them with other foods he likes until he becomes accustomed to the taste.

What is weaning?

Weaning should be done gradually to accustom the child to food other than mother's milk. Weaning eventually leads to complete disappearance of breastmilk about the second year of the baby's life. Wrong weaning practices result in undernutrition.

What are the basic food groups?

To help the family prepare the right kinds of food for the children everyday the basic food groups including their functions and some sources are described in the table below.

Basic Food Groups

Food Groups	Functions	Sources
1. Body-building foods (protein)	Makes body grow. Rebuilds body after illness or injury. Makes child's teeth and bones strong.	Fish, meat, poultry, milk, eggs, dried beans such as mongo, white beans, etc.
2. Energy giving foods (carbohydrates and fats)	Gives energy for work and play.	Rice, corn, camote, cassava, gabi, ube, potato, sugar, panutsa, bread, biscuits, butter, coconut milk, oil, margarine.
3. Body-regulating foods (vitamins & minerals)	Keeps body organs in working condition. Helps fight common illness	Fruits such as bananas, papaya, guavas, atis, mango. Leafy vegetables such as sili leaves, camote leaves, malunggay, kangkong, saluyot Other vegetables like squash, carrot patola, ampalaya, eggplant, tomatoes.

(See Appendix A - Figure 3. Basic Food Groups)

Well planned meals are not only nutritious but also economical. Here are some tips to keep in mind:

1. Select fruits that are fresh, mature, ripe and free from cuts or insect bites.
2. Select vegetables that are fresh, in season, tender and free from insect bites.
3. Buy fish that are fresh and without stale odor. Fresh fish has clear eyes, red gills, firm flesh and intact scales.
4. Choose liver of animals that is fresh and free from whitish spots.
5. Lean meat is preferrable from meat with thick fat.
6. Dried beans and nuts should be free from molds or insect bites.
7. Rice and other cereals should be clean and free from small stones.
8. Canned goods should be rust and bulge free.

Signs and symptoms of undernutrition

A child who does not get the right kind and amount of food shows the following signs and symptoms of undernutrition:

1. Hair - very thin, light colored and easily pulled.
2. Eyes - has difficulty seeing in the dark; inside of the eye appears pale.

3. Face - wrinkled skin, moon face.
4. Lips - pale with cracks at the corner of the mouth.
5. Neck - usually enlarged.
6. Skin - pale, scaly.
7. Arms and legs - show swelling and muscle wasting.
8. Underweight
9. Very inactive and passive; easily fatigued.
10. Poor appetite
11. Retarded growth
12. Bleeds easily

(See Appendix A - Figure 4. The Undernourished Child)

Refer children with the above signs and symptoms to the health center.

C. Monitoring Growth

Why monitor growth?

Growth of the child is monitored to make sure that the child is healthy and is maintained healthy. An infant who does not get proper nutrition does not grow and develop to his full physical and mental capacity.

What to measure?

A growth chart will help tell whether a baby or child is growing normally (see Appendix B - Chart).

An infant doubles its weight at five (5) months and triples it in one year. Birth length is increased by 25 centimeters during the first year.

How to measure?

Hereunder are the following steps in taking measures of height and weight.

1. Measure the following:

   a) Weight - weigh the child without clothing on a weighing scale. (Appendix A - Figure 5. Weighing the baby/child)
   b) Length - lay the infant on a table. Carefully draw out the infants full length with his head well aligned. Mark end of head and feet. Measure distance of marks in centimeters with a tape measure. (Appendix A - Figure 6. Measuring length/height of baby/child.)
2. Locate the age of the baby (in months) in the horizontal scale (Appendix B - Chart).
3. Locate the weight of the baby (in kilograms) in the vertical scale (Appendix B - Chart).

4. Mark with a "dot" the intersection of both measures.
5. A "dot" inside the space between the dark lines is a good sign.
6. When monitoring, connect the dots plotted from one month to another. Observe the direction of the line showing the child's growth. They show good, danger, and dangerous signs.

Good sign Danger sign Very dangerous sign

Refer danger and very dangerous signs to the health center.

What the baby can do?

Normal children can do certain things as they go through infancy and childhood. The table below describes what a child can do through the first 2 years of life.

What the child can do in the first 2 years of life.

Age in Months	What the Child Can Do
Newborn	Fisted hands; startles readily
1	Regards (diminishes activity when talked to) Starts to smile
2	Vocalizes (small throaty sounds).
3	Turns head towards sound.
4	Can follow moving objects and reach for object.
5	Holds head; laughs loudy; reaches objects.
6	Sits with support; rolls over.
7	Plays with rattle; bounces; recognizes familiar faces.
8	Sits without support.
9	Creeps; holds bottle when feeding.
10	Pulls to feet.
11	Stands with support; says two words with meaning.
12	Stands alone; takes a few steps; attempts to use a spoon; obeys commands or request; cooperates in dressing.
15	Walks well alone; Feeds self with spoon; says four to five words; turns pages and pats pictures.
18	Sits self in child's chair; creeps upstairs; has 10 words; plays ball.
2 years	Runs well Can go up and down the stairs Uses a fork Combines 2 or 3 words in sentences Toilet-trained during the day

D. Basic Immunization

Children may suffer from two kinds of diseases: communicable or non-communicable. Communicable diseases refer to those transferred from one person to another. They are caused by germs (microorganisms) such as bacteria and virus. For example, tuberculosis is caused by a bacteria and influenza by a virus. Non-communicable diseases are those that are not caused by germs and not transferrable from one person to another. For example, heart disease.

Many communicable diseases among children can be prevented through immunization. Among these are tuberculosis, diptheria, pertusis, tetanus, poliomyelitis, measles and cholera.

What is immunization?

Immunization is the introduction of vaccine into the body to stimulate the formation of antibodies which fight disease-causing germs. The antibodies help the natural soldiers of the body to fight against germs. There are different types of antibodies. Each fights a particular germ.

Immunization protects children against germs causing common communicable diseases such as tuberculosis, diphtheria, pertussis, tetanus, cholera and measles. Encourage mothers to bring their child for immunization. Following is a table of the basic immunization for children.

Schedule of Basic Immunization

Type of Immunization	When to Give	Number of Dose
BCG (against tuberculosis)	From 3-14 months	Once
DPT (against diphtheria, tetanus, pertussis)	From 3 mos.- 3 years	2-3 doses at 6 mos. interval
Oral Polio	Under 3 years	2 doses at 1½-2 mos. interval; 3rd dose 6-12 mos. later

Fever following immunization is a usual response of the body to the introduction of a vaccine. Allay the fears of the mother. However, when fever is prolonged refer child to health center.

E. Common Signs/Symptoms of Childhood Illness

A child who is sick may have one or more of the following signs/symptoms:

1. Paleness
2. Muscle weakness
3. Cough and colds
4. Loss of appetite and sleep
5. Irritable
6. Loss of weight
7. Easily gets tired
8. Fever
9. Flushing of face
10. Swollen, reddish eyes
11. Nausea and vomiting
12. Dizziness

When a child has any of these signs and symptoms refer her/him to the health center.

F. Herbal Medicine

Certain herbs can be used for the treatment or relief of the following conditions:

1. Fever: Lagundi leaves

Boil the leaves in 2 glasses of water for 15 minutes or until 1 glass remains. Cool and strain.

Amount of chopped leaves needed:

If dried, for 7-12 years - 2 tbsp.
2-6 years - 1 tbsp.

If fresh, for 7-12 years - 3 tbsp.
2-6 years - 1½ tbsp.

Divide the decoctions into 2 parts. Drink 1 part every 3 to 4 hours.

2. Stomachache

Guava leaves, tsaang gubat leaves, mangosteen peel.

Use one of the plant materials listed. Boil in 1 glass of water for 15 minutes. Cool and strain

Amount of chopped materials needed for each type of plant:

If dried, for 7-12 years - 1 tbsp. guava leaves or
1 tbsp. tsaang gubat leaves or
½ tbsp. mangosteen peel

If fresh, for 7-12 years - 1½tbsp. guava leaves or
1½tbsp. tsaang gubat

3. Cough

Lagundi leaves, balanoy leaves, oregano leaves or alagaw leaves.

Use one of the plant leaves listed. Boil leaves in 2 glasses of water for 15 minutes or until only 1 glass remains. Cool and strain. Divide the decoction into 3 parts. Drink 1 part 3 times a day.

Amount of chopped leaves needed:

If dried, for 7-12 years - 2 tbsp. lagundi leaves or
2 tbsp. balanoy leaves or
1 tbsp. oregano leaves or
3 tbsp. alagaw leaves
If fresh, for 7-12 years - 1½tbsp. lagundi leaves or
2 tbsp. balanoy leaves
for 2-6 years - 1½ tbsp. alagaw leaves

G. Simple Nursing Care

When the baby appears ill, his temperature can be taken with a thermometer (see Figure 7).

How to take the temperature:

1. Wash thermometer in soap and water. Wipe with a clean tissue or cotton balls.
2. See that the thermometer is at or below 36° Centigrade or 97° to 80° Farenheit.
3. Place the thermometer under the child's tongue and let him close his lips.
4. Let the thermometer stay in the child's mouth for at least one minute. Then remove and wipe it dry with cotton or tissue before reading. Read the thermometer. Record temperature reading.
5. Wash thermometer with soap and water. Wipe dry and keep in proper place.

When the baby's cord is not yet off or when a child is ill, a sponge bath is given instead of a full bath.

How to give a Sponge Bath:

Prepare: Bath blankets
Soap and basin
Soft wash cloth or clean old camiseta

1. Line table with a blanket.
2. Place baby on the table.
3. Place blanket over baby.
4. Clean nose and ears with wet cotton buds.
5. Loosen clothing.
6. Proceed as in full bath except in rinsing where wet wash cloth is used instead of allowing water to rinse the body. When baby is well again a full bath is given.

How to bathe a baby:

The best time to bathe a baby is before the mid-morning feeding or about 10:00 in the morning. Here are some tips in bathing a baby.

1. Keep the room warm by closing open windows and doors. Avoid chilling the child.
2. Check if all the necessary things for bathing are on hand.
3. Always handle the baby with clean hands.
4. Hold the baby securely in the basin while giving him a bath. (See Figure 8, Correct Way of Holding the Baby in Bath Tub)
5. Soap the baby's head first and rinse over basin. Be sure water does not enter his ears. Dry head with towel.
6. Soap arms, chest, neck, abdominal area and lower extremities. Rinse and dry. Wash genitals.
7. Clean nose and ears.
8. Change clothes and diaper and then feed the baby.

MODULE
ON
TUBERCULOSIS CONTROL

INTRODUCTION

In the Philippines, tuberculosis is still one of the highest leading causes of morbidity and mortality. In fact, it has a prevalence rate of 6 per 1,000 population and it affects almost all ages. While it affects all people in any socio-economic level, the disease is more prevalent among the lower level because of poor environment and nutrition. In this regard, the Ministry of Health has given priority to tuberculosis control and prevention, so much so, that appropriate logistics for diagnosis and treatment is being provided.

In order to maximize the efforts and logistics provided for the Tuberculosis Program of the country, the strategy of utilizing Barangay Health Workers in case finding will be tried/used. This module is therefore intended to prepare the competencies of BHWs to participate actively in the tuberculosis program of the Ministry of Health.

OBJECTIVES

At the end of this module the participants will be able to:

1. Discuss her/his functions in tuberculosis control/prevention.
2. Explain cause, transmission, and treatment of tuberculosis to sputum positive cases;
3. Identify individuals with signs and symptoms of tuberculosis;
4. Prepare correctly sputum smears from the specimens colected from symptomatic cases;
5. Send to BHS midwife properly labelled/identified slides of sputum smears;
6. Make regular follow-up of individuals on chemo-therapy;
7. Maintain/keep record of tuberculosis cases within her/his catchment area; and
8. Report regularly to BHS midwife progress and result of chemotherapy of T.B. cases among households under her/his care.
9. Discuss her/his function in TB control/prevention.

CONTENT

1. Facts about tuberculosis, including signs/symptoms of tuberculosis.
2. Collection of sputum specimen and preparation of sputum smear and labeling of glass slides.
3. Referral of cases and follow-up visits.
4. Recording and Reporting.
5. Roles/functions of BHW in T.B. Prevention and control:

1) Explain facts about tuberculosis.
2) Identify all suspects within catchment area.
3) Collect sputum specimen of all suspects.
4) Keep/maintain complete record of T.B. case in her/his catchment area.
5) Follow-up regularly all T.B. patients within her/his catchment area.
6) Report regularly/refer to BHS midwife all suspects and progress/results of chemo-therapy of tuberculosis cases.

PRACTICUM

Should be able to do the following:

1. Identify/refer to BHM symptomatic cases in her catchment area.
2. Explain facts about T.B.
3. Collect/prepare sputum smear
4. Recording and reporting of cases.
5. Follow-up T.B. cases

NARRATIVE
ON
TUBERCULOSIS

FACTS ABOUT TUBERCULOSIS

1. Tuberculosis is a disease caused by a germ called Tubercle bacilli.
2. It generally affects the lungs but it also effects other parts of the body such as the bones, joints, kidneys, etc.
3. Anybody can acquire the disease and thousands die of it every year.
4. It is a long lasting communicable disease but it is CURABLE if treatment is done early and completely.
5. It is not a disease one is born with (hereditary) but it is acquired through:

    5.1 Inhaling air that is contaminated with tuberculosis germs from the secretions of the cough or sneeze of a sick person.
    5.2 Inhaling the dust carrying the germs from the sputum of a tuberculous person.
    5.3 Using the utensils and personal things of a sick person with tuberculosis.
    5.4 Drinking milk from tuberculous cow or cattle.
    5.5 Sleeping with a tuberculous person.
    5.6 Kissing a tuberculous person.

Therefore, people in crowded homes and neighborhood are in great danger of getting the disease.

6. Exposure to the disease and lowered body resistance due to lack of rest (fatigue), inadequate sleep, and improper diet can hasten the development to tuberculosis.

SIGNS/SYMPTOMS OF TUBERCULOSIS

1. Prolonged cough of more than one month with abundant phlegm.
2. Fever in the afternoon and night sweating of one month duration.
3. Loss of appetite.
4. Loss of weight.
5. General body weakness.
6. Coughing out of blood or blood streaked phlegm.

Anybody with at least five (5) of the above symptoms is already a suspect and should therefore be advised for sputum examination.

COLLECTION OF SPUTUM SPECIMEN

1. Explain reason for collection of sputum.
2. Ask patient to wash/rinse his mouth.
3. Demonstrate/teach how to produce a good specimen from deep down lungs.

3.1 Ask patient to place both hands on his hips and press the abdomen with both his hands.
3.2 Then instruct him to take a deep breath and to the height of the inspiration ask him to cough vigorously two or three times to produce sputum/phlegm.
3.3 Then ask him to spit out sputum into container without spilling/soiling the outside portion of the container.

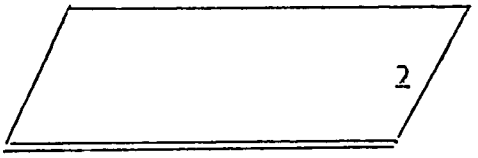
4. Examine the sputum specimen to make sure it is sufficient or the right type.

Characteristics of the right type of sputum specimen is mucoid thick yellowish, sometimes it is greenish in color with blood streaks.

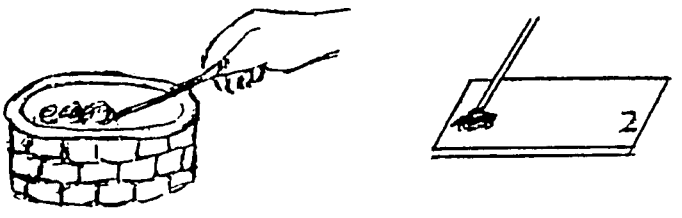
If the specimen collected do not have the above characteristic repeat step 3 (3.2 to 3.3).

PREPARATION AND LABELING OF SPUTUM SMEAR

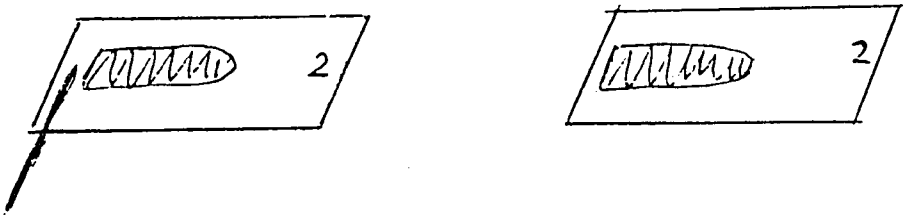
1. Smear should be prepared immediately after collection.
2. Number the right end of the glass slide to conform with the numbers assigned to you by your BHS midwife and the listing of names of patient in your notebook. Be careful not to interchange the numbers of the slide and your list.



3. Get one or two coconut midribs about 3 inches in length and select/pick up the thickest purulent, mucoid or blood stained part of the specimen and transfer to glass slide.

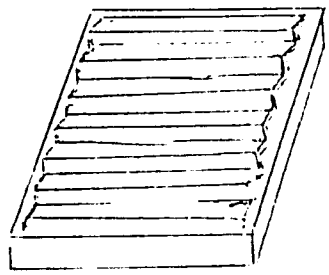


4. Then with the use of the coconut midrib spread evenly and thinly the sputum on the glass slide, making sure not to touch or erase the number inscribed.

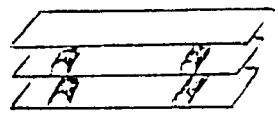


5. Dry the specimen by placing it on an even surface and expose to air.
6. Packing of Glass slides.

6.1 Make a box the size of the glass to accommodate about 10 glass slides and line the inside part (opposite sides) of the box with corrogated cartoon from a milk box and will not stick to each other.



Or, put coconut midrib on both ends of each glass slide and stock glass slide with sputum smear one over the other with midribs in between glass slides to prevent them from sticking to each other.



6.2 Then pack this firmly with tape or string or rubber band.
6.3 Write your name (as the BHW) and Barangay/Purok where the specimen was collected on top of the box.
6.4 Send or give immediately to BHS midwife.

FOLLOW-UP VISITS

Who should be followed-up:

1. All suspects for sputum examination.
2. All found to be positive to sputum examination for referral to the BHS midwife so chemotherapy can be started immediately.

3. All defaulters who were found to be amiss in taking the oral INH regularly amd/or failed to return for streptomycin injection as per schedule.
4. All cases on chemotherapy and are complaining of side effects/reactions to the drugs such as:

   4.1 numbness
   4.2 Ringing of ears
   4.3 Dizziness

WHO SHOULD BE REFERRED TO THE MIDWIFE

1. All suspects for sputum examination.
2. All suspects with positive result to sputum examination
3. All those under chemotherapy and re-exhibit the above side effects to the drugs.
4. Patients with severe bleeding (hemoptysis).

RECORDING AND REPORTING

1. All T.B. suspects for sputum examination and tuberculous cases followed-up should be entered in the notebook. Item should include:

NAME OF PATIENT	AGE	Sex M	Sex F	Address	Date/ Place of contact	REMARKS
Example:						
1. Juan dela Cruz	54	x		3 Sitio Talong	H-3/24/84	Smear taken and submitted to BHW midwife
2. Juana Santos	60		x	"	H-4/1/3	(+) sputum informed to see MW for treatment
3. Anita Bula	36		x	"	H-4/21/84	Refused injection because of ringing of ears
4. Pedro Paz	49	x		"	H-4/23/84	Always forget to take INH one or two days: claims she takes at one time all the INH she missed. Advised accordingly.

MODULE ON DIARRHEA

I. INTRODUCTION

Diarrhea is one of the most common causes of illness and death among infants and pre-schoolers. It can result in serious undernutrition when diarrheal episodes are often and even death due to dehydration. However, diarrhea can be prevented and treated. You, the Barangay Health Worker, can play a key role.

This module will help you understand what diarrhea is, its causes and dangers and its prevention and management.

II. OBJECTIVES

After mastery of this module you should be able to:

1. Describe diarrhea and its causes.
2. Explain the dangers of diarrhea.
3. Describe how diarrhea should be managed.
4. Describe the signs and symptoms of dehydration.
5. Demonstrate how to prepare and administer ORESOL.
6. Discuss the importance of basic sanitation.
7. Describe the various methods to:
   a. Keep drinking water safe.
   b. Observe food hygiene.
   c. Dispose waste properly.
   d. Keep home and surroundings clean.
   e. Control insects and rodents.

III. DIARRHEA AND ITS MANAGEMENT

A. What is Diarrhea?

Diarrhea is the passing out of stools which contain more water than normal. It is characterized by loose watery stools. As a guide, the passing of two or more loose watery stools in a day should be considered as diarrhea.

Most cases of diarrhea last for only a few days. However, some can last longer. For practical purposes, it is useful to consider two types of diarrhea.

1. Acute Diarrhea - lasts less than 21 days and is usually caused by germs.
2. Chronic Diarrhea - lasts more than 21 days and may be caused by germs or the result of malnutrition.

B. What Causes Diarrhea?

Diarrhea often occurs when germs enter the intestines and inflict the bowels. These germs cannot be seen. They are introduced into the intestine through the mouth, in one of the following ways:

1. Through dirty or old food.
2. Through dirty water, milk or liquids.
3. Through dirty hands.
4. Through dirty cooking or feeding utensils (including babies' feeding bottle)

The germs in the stools can be passed from one person to the other (see Figure 1). The germs leave the bowel, through the stool, through which they can infect hands, liquids or food. Insects and dirt may also transfer germs from the stools to the food.

Diarrhea may also be caused by malnutrition and by worms and other parasites.

The body normally takes in salt and water it needs through drink and food. It loses water and salt through the stool, vomitus, urine and sweat. When someone is healthy, water and salt are absorbed into the body as food passes through the intestine. When diarrhea occurs, the intestine does not work normally. Water and salt are not absorbed so well, and more water and salt leave the body through the stool. The more diarrhea a child has, the more water and salt he loses. If more water and salt are lost from the body, the person becomes dehydrated. This is what happens in diarrhea.

Dehydration occurs faster:

- in infants and small children because they need more water in proportion to their body weight.
- in a hot climate because it induces sweating.
- in patients with fever because of sweating and fast breathing which results in more water evaporation.
- in a patient who vomits because of loss of body fluid and lack of liquid input.

The signs of dehydration may be:

- Thirst - this is the first sign of dehydration. A young child will show signs of thirst by crying.
- Loss of weight - when a child becomes dehydrated, his body becomes lighter. A severely dehydrated child may have lost ten percent of his normal body weight. This weight loss occurs in a few hours or days.

. Sunken, tearless eyes - this is a very important sign. The eyes of the child fell back because he has lost the fat behind them.

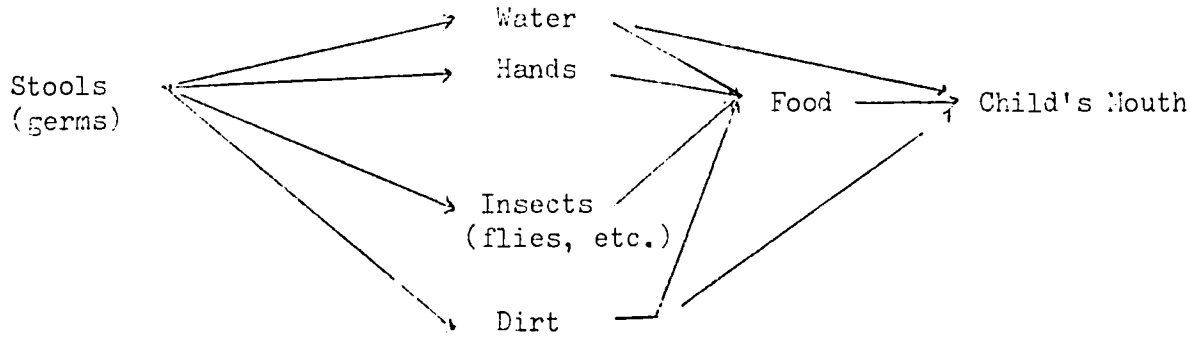


FIGURE 1

C. What are the Dangers of Diarrhea?

The two main dangers of diarrhea are dehydration and undernutrition. Both can lead to death.

Dehydration

When a child has diarhhrea, he has loose watery stools which lead to the loss of a large amount of body fluids (water and salt). This results in DEHYDRATION or drying-out. The idea of dehydration is illustrated by the leaking bucket picture in Figure 2. If the body loses too much liquid, death will result.

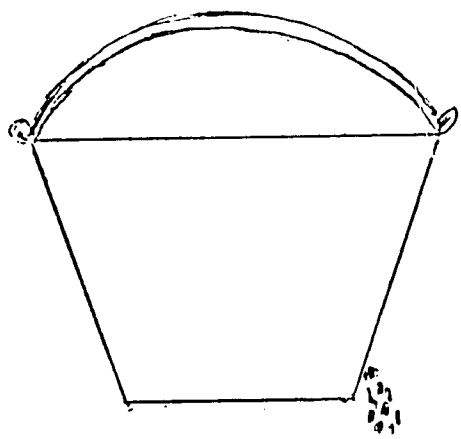


FIGURE 2

- Dry mouth - a dehydrated child cannot produce enough saliva. His mouth and tongue then becomes dry and red.
- Sunken fontanelle - the fontanelle is the soft place between the bones of the top of a baby's skull. When a baby becomes dehydrated, his fontanelle sinks. The mother can feel the edge of his skull bones around it.
- Loss of skin elasticity - the skin of a normal child is elastic. If the skin of his abdomen is pinched and then released, the skin quickly goes flat again. A dehydrated child's skin is dry and less elastic. It sticks up for some seconds before it goes flat.
- Fast Breathing - because of dehydration, a child breathes faster (40 to 60 times a minute) and deeply.
- Fast-weak pulse - dehydration makes a child's pulse faster and weaker.
- Little urine - a healthy child urinates about every three hours. Urination of reduced and less frequent in a dehydrated child because he tries to save water. When a dehydrated child is treated, he passes much urine again.
- Shock - this is caused by severe dehydration. A child is quiet and his skin is pale and cold. Shock is a very serious sign. It requires intravenous fluids immediately.

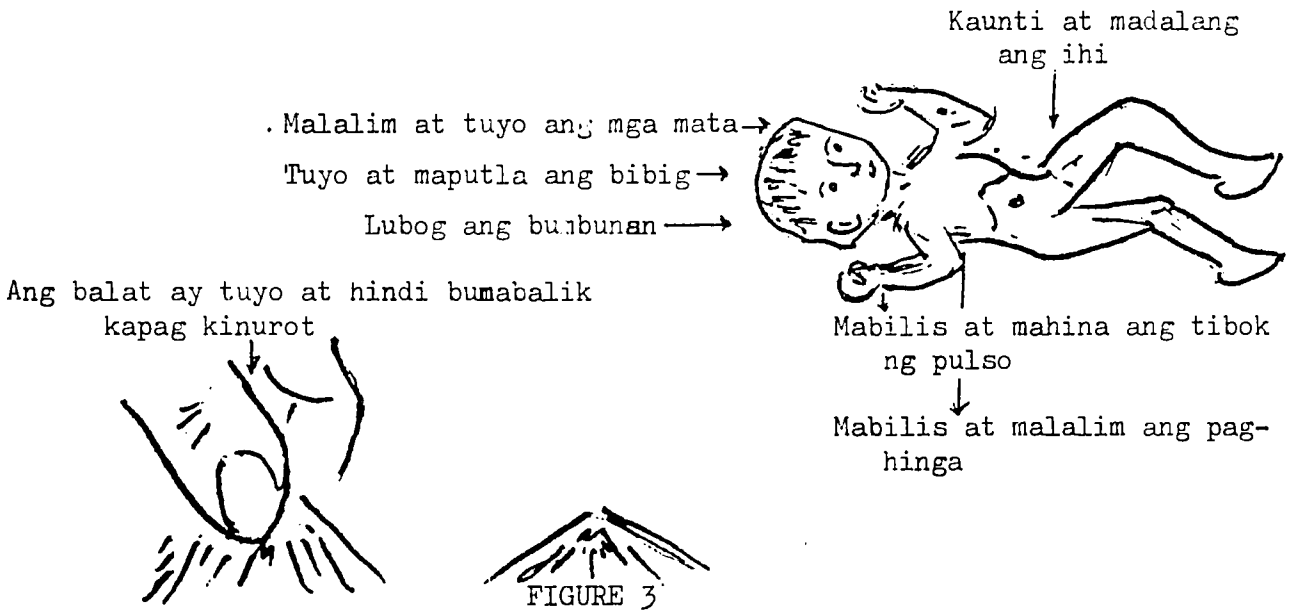


FIGURE 3

Undernutrition

The small intestine is the principal part of the body where the foods are absorbed into the body through the intestinal wall. When a child has diarrhea, the normal way food are taken in and absorbed is changed because:

1. Less food is taken due to loss of appetite and the mother's belief of not feeding the child when he has diarrhea.

2. The food stays a shorter time in the intestine. This reduces the intake of nutrients.

3. Food cannot go through sometimes because the intestinal wall is changed by the infection and may result in vomiting.

4. In case of fever, the body normally requires more food. This leads to the utilization of the body's reserve food.

Undernutrition weakens the child's resistance and increases the possibility of new and more serious diarrheal episodes. Because of the dangers of undernutrition, food should be given to children with diarrhea and extra food should be given during the recovery period.

D. How Should Diarrhea be Managed?

There are two important things to do in the management of diarrhea:

1. To prevent dehydration from occuring if possible, and;
2. To treat dehydration quickly and effectively if it does occur

Prevention of Dehydration

Dehydration can usually be prevented in the home by giving fluids more than the usual amount as soon as diarrhea starts. The typical fluids are breastmilk (for infants with diarrhea), water, tea, fruit juices and homemade sugar and salt solutions.

Homemade sugar and salt solution is an effective liquid in the prevention of dehydration. The requirements and procedure in the preparation of this fluid as well as the recommended dosage is described below.

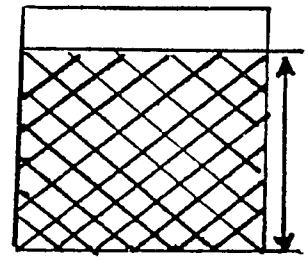
Requirements:

1. A teaspoon
2. A clean container that will hold one liter or a little more
3. Salt, as used on food or for cooking
4. Sugar or any sort, unrefined lump sugar or purified sugar
5. Drinking water (clean or boiled water)

Steps in the Preparation of Sugar and Salt Solution:

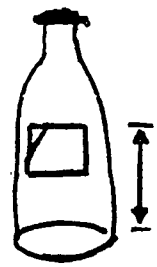
1. Measure one liter of drinking water into the container (if water is not safe to drink, boil for five minutes and let cool). Some empty containers which may be used for measuring one liter of water are as follows:

   a. One family size soft drink bottle.
   b. Five small Nescafe diamond glasses filled with water until the horizontal line.



Five Times

   c. Four San Miguel Beer bottles filled with water until the level of the upper white line of label.



Four times

2. Take salt in a teaspoon, level it with a knife or flat object. Add one level spoonful of salt to the water and mix well.

3. Take eight level teaspoonful of sugar. Put in water and mix well.

Recommend Dosage for Children:

Give small amount, a few teaspoonfuls at a time. A child needs a cupful of this solution to replace water lost in each stool. One cupful for each diarrhea stool. Continue as long as there is diarrhea.

Treatment of Dehydration

If dehydration is not prevented and does occur, the recommended treatment is Oral Rehydration Therapy using a solution made with oral rehydration salts (ORESOL). This is available in the Barangay Health Center and in a drugstore.

ORESOL is a solution which can replace the fluids and nutrients which the body loses during diarrhea. It contains glucose (a form of sugar) and ordinary salt. ORESOL is an effective treatment for dehydration in children and adults alike.

The requirements and steps in the preparation of ORESOL and the recommended dosage are as follows:

Requirements:

1. A clean container that will hold one liter or a little more.
2. Drinking water (clean or boiled water)
3. A clean spoon for mixing the liquid
4. One packet of ORESOL powder.

Steps in ORESOL Preparation:

1. Measure one liter of drinking water into the container (if water is not safe, boil for five minutes and let cool). The empty containers (family size soft drink bottle, Nescafe diamond glass and San Miguel beer bottle) mentioned earlier may be used for measuring one liter of water.

2. Open both compartments of the ORESOL packet and empty all contents of the packet into the container with one liter of water.

3. Mix all the contents of the two compartments of ORESOL in the water until all the powder is dissolved.

Fresh ORESOL solution should be mixed each day in a clean container. The container should be kept covered. Any solution remaining from the previous day should be thrown away.

Recommended Dosage:

Infants Less than a Year

Give 1/3 to 2/3 glass of ORESOL every hour for 6 hours. Give water after two parts ORESOL. Continue giving ORESOL as long as there is diarrhea. (For infants that are breastfed, do not use feeding bottles when giving ORESOL. The child might not like to be breastfed again and this could cause under-nutrition. Use a cup and spoon to give ORESOL. For infants who are not breastfed, give ORESOL in the same way they get food and other fluids. As soon as they get well, give them solid foods)

Children 1 Year to Less than 2 Years

Give 2/3 1 glass of ORESOL every hour for 6 hours. Give water after every 2 parts of ORESOL. Continue ORESOL treatment as long as diarrhea persists.

Children 2 Years and Above

Give 1½ glasses of ORESOL every hour for 6 hours. Give additional water. Continue ORESOL while there is diarrhea.

ORESOL should be stored in a cool place. In case contents of ORESOL packet has melted, become brown or caked, it can still be used if dissolved completely in water.

The other things that should be noted when using ORESOL treatment are:

1. Sometimes, vomiting may happen when giving ORESOL. This is not a bad indication. Treatment should be continued. Let the patient rest for 5-10 minutes, then resume giving ORESOL in small amount at frequent intervals.

2. Breastfeeding should be continued. Liquids, soft foods and then the usual foods should be given as tolerated. The amount should be increased as the patient recovers. The stomach should not be rested during a diarrheal episode.

3. If edema around the eyelids occur, stop administering ORESOL temporarily and continue giving other fluids like milk, rice water, tea, fruit juices, etc.

4. If the patient's condition does not improve, bring or refer him to the nearest health center, clinic or hospital.

E. Prevention of Undernutrition

The other danger of diarrhea is undernutrition. This can be prevented by giving enough and correct food during diarrhea.

Children fed throughout the serious stage of diarrhea get enough nutrients and gain more weight than the unfed children. During oral rehydration by ORESOL and other fluids, the mother should continue to give her milk, alternating it with ORESOL and other liquids. The mother should breastfeed the baby now and then, as the baby may be weak and tired. If the baby is not breastfed, the mother may continue to give half strength formula milk.

During oral rehydration, give food especially prepared for infants. Choose foods that are very nutritious and which the baby likes. Give these five or more times daily. To let the child take as much milk as he can, give food after oral rehydration.

During diarrhea, the child uses his stored energy. As soon as diarrhea stops, the child's appetite greatly increases. Take this chance to give him his usual food in addition to some or all the food he missed during illness.

F. Basic Sanitation

Diarrhea can be prevented by observing sanitary measures. These include drinking safe water, food hygiene, proper disposal of waste, home sanitation and control of insects and rats.

Drinking Water

Water is safe to drink when it is taken from safe sources and does not contain germs, chemicals or materials that can cause disease or even death.

Sources of water that are safe for drinking include:

1. Deep well - drilled or driven more than 100 feet.
2. Artesian well - a shallow or deepwell where water is under pressure and may or may not rise above the ground level.
3. Dug well - a shallow well dug up manually and enclosed with concrete casing and cover.
4. Springs - are natural flow of water coming from ground seepage, usually at the foot of a hill or mountain.
5. Rainwater - as long as it is properly collected.
6. Piped water - are distributed to houses through pipes coming from a safe source.

Some practices to keep water safe for drinking are as follows:

For the water container at home;

1. Use a jar with cover and with a faucet.
2. Use a clean container.
3. Change the water every 2 or 3 days.
4. Clean drinking glass or cup with soap and water. Provide each family member his own glass or cup.
5. For a container without faucet, use a clean dipper to get water from the container to the drinking glass or cup.

To collect and transport drinking water from a safe source:

1. Use clean, covered container.
2. Avoid handling the handle of the container or the water with dirty hands

Unsafe water can be made safe for drinking by:

1. Boiling the water for 3 minutes after boiling bubbles have appeared.
2. Disinfection using chlorine tablets. Ask your sanitary inspector for instructions.

Food Hygiene

Observance of food hygiene include measures indicated below:

1. Food sources - make sure that:

   a) Meat comes from healthy animals.
   b) Fish, shells, crabs come from clean water.
   c) Vegetables and fruits are fresh and come from clean sources.
   d) Tins of canned goods do not bulge and are free from rust.

2. Food Storage

   a) Store food in clean container and keep cool.
   b) Protect food from flies, insects, rats, etc.
   c) Discard spoiled food.

3. Food Preparation

   a) Prepare food with clean utensils/equipment.
   b) Prepare food with clean hands.
   c) Cook food properly.
   d) Food should be prepared by a healthy member of the family.
   e) Serve food in clean plates.
   f) Keep kitchen area clean and free from flies.

Waste Disposal

Proper waste disposal is important because the practice:

1. Prevents contamination of fingers, food and water by germs, worm eggs and other parasites that pass out of the stools or are present in garbage.

2. Prevents the spread of diseases such as diarrhea to other members of the family and neighborhood.

3. Prevents insects such as flies, cockroaches, ants, rodents and animals from coming into contact with waste.

The common ways of disposing waste properly are:

For Human Waste:

Use of sanitary toilets:

a) Sanitary pit privy
b) Water sealed toilet
c) Flush toilet

2. Avoid using unsanitary toilets such as:

   a) Open space
   b) Overhung
   c) Cat hole
   d) Antipolo type

THIS NOT THIS

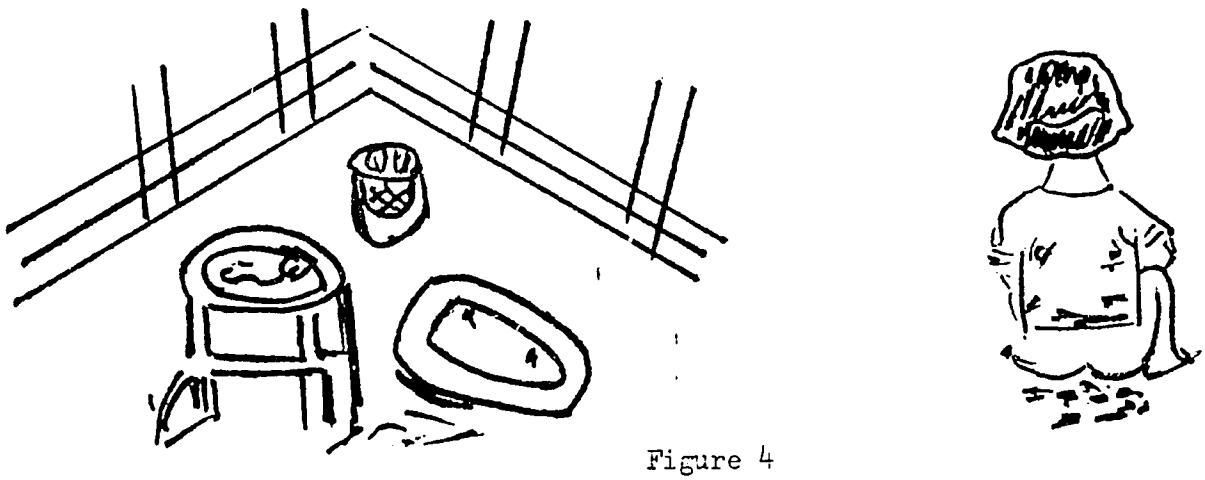


Figure 4

Refuse and Garbage:

1. Burying - deposit in a pit and cover with soil.
2. Burning - in a pit or on the ground
3. Feeding to animals - left over food and other garbage can be fed to pigs, chicken and other poultry livestock.
4. Composting - decomposing garbage, leaves, rubbish and animal waste into a pit and covering with soil. This compost can later be used as soil conditioner and fertilizer.
5. Use of tight covered receptacle and daily garbage collection for final disposal.

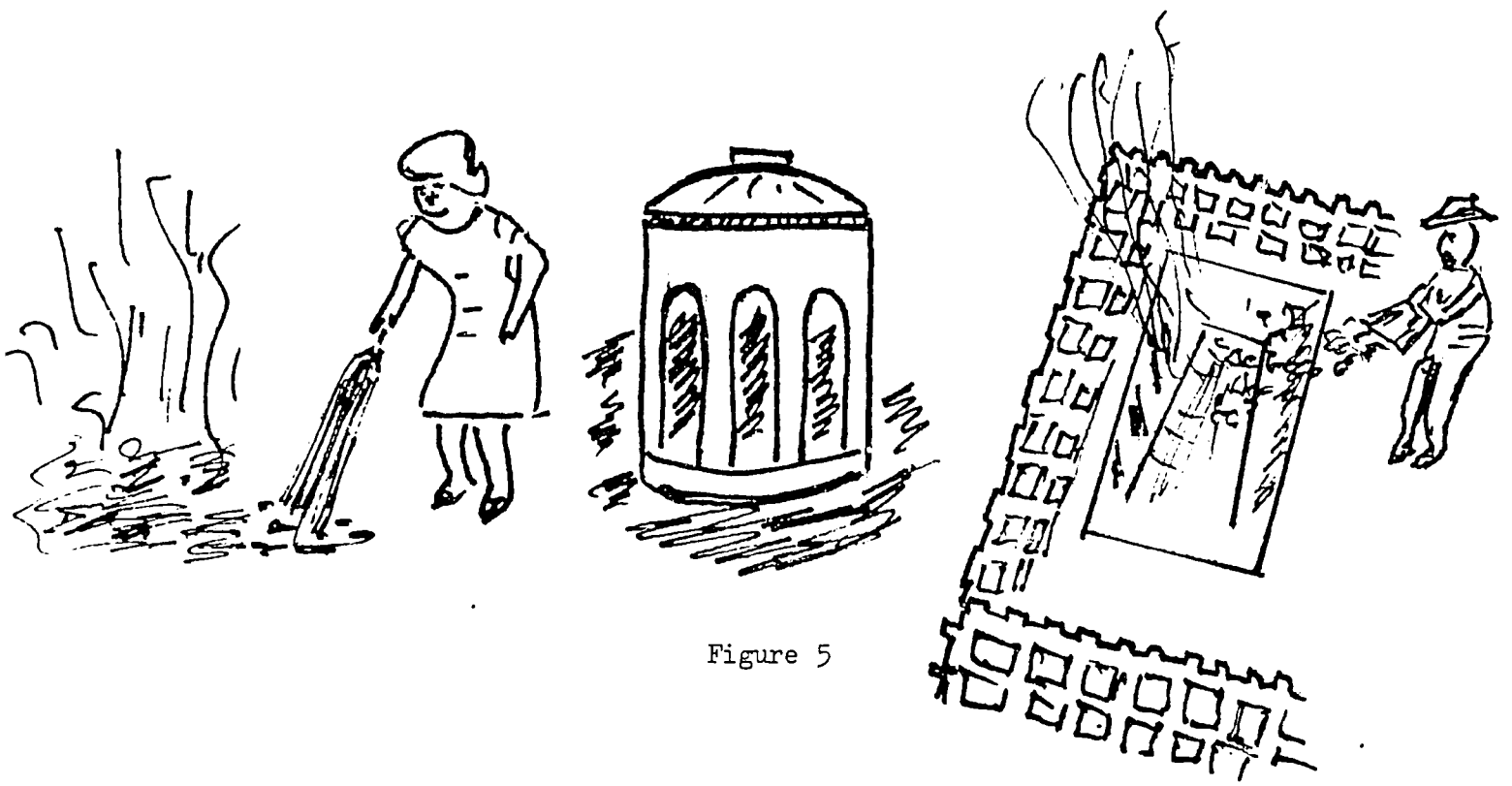


Figure 5

Home Cleanliness

1. Sweep floor daily. Remove cobwebs and clean walls regularly. Remove unnecessary hangings and keep sleeping materials (mats, pillows, etc.) in clothes closet or proper corner.

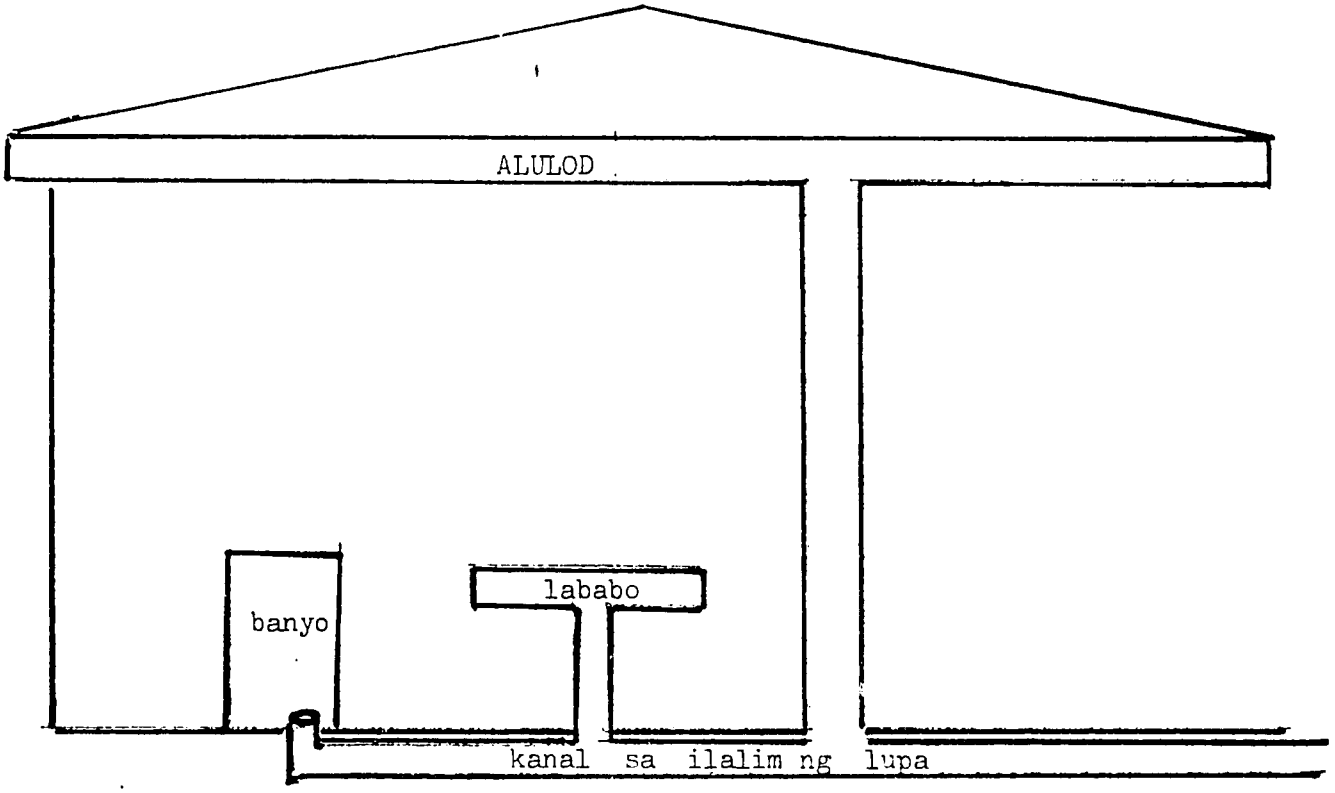
2. Wash clothes and beddings frequently

3. Avoid spitting on floors or wells.

4. Keep house surroundings clean. Clean and drain old tins, etc. of standing water. Dispose all rubbish properly.

5. Keep domestic animals from licking children. Keep other animals from play area of children.

6. Have a blind drainage for dirty water.



BLIND DRAINAGE
Figure 6

Insect and Rat Control

Household pests are carriers of many diseases. For instance, gastro-enteritis, diarrhea, cholera, dysentery and typhoid germs are carried by flies. Malaria and H-fever are transmitted by mosquitoes. Destroying breeding places and harborage of insects and vermin prevents spread of disease. The table below will help you locate the breeding and harborage places of common household insects and rats and advise you on ways to get rid of them.

Insect/Vermin	Breeding and Harborage Places	Ways of Removing Them
1. Mosquitoes	Slow flowing or stagnant water, tins, tires, tree holes, large leaves holding rain water, water storage tanks, drums, flower vases, etc.	Drain stagnant water, remove tins, tires and leaves; change water in storage tanks, drums, flower vases weekly and more often.
2. Flies	Unsanitary toilet, garbage dumping place, animal manure, other decaying organic matter.	Improve toilet. Cover dumping site with soil at least 2 feet depth, remove all manure and other decaying organic matter.
3. Bed Bugs	Beds, cushions, chairs and mattress.	Pour boiling water or apply hot steam and application of chemicals.
4. Cockrcaches	Dark, dump places like underneath kitchen sink, behind cupboard cook shelves, etc.	Clean areas and spray chemicals, cover food and garbage cans.
5. Rats	Unsanitary toilet, garbage dumping place, drainage, storage rooms, etc.	Improve toilet. Cover the dumping site with soil at least 2 feet depth, clean garbage can and provide cover, rat proof storage room.
6. Ants	Mounds near the house or under the house near food sources.	Destroy mound and spray with chemicals, store food properly and clean garbage can and kitchen and remove food particles in the areas.

APPENDIX H

Practicum Activities and Worksheets

Appendix II

Practicum Activities and Worksheets

Practicum for Topics on PHC and BHW

Activities for field practice

1. Organize a community meeting among the families in area of coverage.

   Discuss the following:

   a. What is primary health care?

   b. Why community involvement is important in primary health care?

   c. What is a BHW?

   d. What can a BHW do?

2. Conduct a survey of the families in your area of coverage. Fill-up the form provided for the purpose.

3. Locate the different families in the spot map.

HOUSEHOLD INFORMATION SHEET

BHW: _____ Date: _____

Head of the Family: _____ Family Number: _____

	Members of the Family	Birthdate	Age	Sex	Relationship with the Head of the Family	Occupation	Religion
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
14.							
15.							
16.							
17.							
18.							
19.							
20.							
21.							
22.							
23.							
24.							
25.							

HOUSEHOLD INFORMATION SHEET

1. Toilet Facility: (Mark "X" if shared): _____

_____none	_____"arinola"
_____open pit privy	_____pail system
_____close pit privy	_____public toilet
_____flush system	_____others, specify: _____

2. Source of drinking water:

_____house faucet	_____deep well
_____public faucet	_____river
_____artesian well (specify how deep): _____	_____rain
	_____others, specify: _____

3. Source of water for household use:

_____house faucet	_____deep well
_____public faucet	_____river
_____artesian well (specify how deep): _____	_____rain
	_____others, specify: _____

4. Type of refuse and garbage disposal:

_____ open dumping	_____ composting
_____ open burning	_____ incineration
_____ burial in pit	_____ others, specify: _____

5. Do you have a vegetable garden?

_____ yes _____ none

6. Do you have any animals?

_____ yes _____ none

6.1 Enumerate:

a.
b.
c.

7. Did any member of your family die since October, 1983 up to present?

_____ yes _____ none

7.1 Name of deceased:

7.2 Age when died:

7.3 Reason:

Guidelines for Recording a Meeting

Date: _____

Time: _____

Place: _____

Purpose of the Meeting: _____

_____

_____

Attendance:

1. 14.
2. 15.
3. 16.
4. 17.
5. 18.
6. 19.
7. 20.
8. 21.
9. 22.
10. 23.
11. 24.
12. 25.
13.

Presiding Officer: _____

Minutes of the Meeting: _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Problems Encountered: _____

_____

_____

_____

Note: Use additional sheets of paper if necessary.

PERFORMANCE RATING SCALE

PHC

The following Scale shall be used to evaluate performance of above activities:

5 - Did procedure well/properly and can be relied to do it alone.
4 - Performed fairly, but feels secure if trainor is around for consultation.
3 - Performed fairly but quite clumsy and nervous.
2 - Performed poorly but very receptive to instructions/suggestions and asks questions/help of trainor.
1 - Performed poorly and has poor attitude to supervision.

Tasks/Activities for Field Work (Week I)	EVALUATION		Remarks Post Activity conference
	BHW	Trainor	
Conduct an ocular inspection of BHW's catchment area (purok, neighborhood)			
Make a population profile (20 families/HHs) of area			
Prepare a rooster of barangay officials			
Make a directory of existing Matimbo/catchment area resources:			
1. Local civic and religious association/ organization			
2. Other sources of health including indigenous healers			
3. Schools, industries, agencies, business establishments, etc.			
Conduct a household meeting to:			
1. Exchange views about PHC			
2. Sell idea of PHC			
3. Organize households in catchment areas			
4. Identify areas of concern			
Make a record of minutes of meeting.			

MATERNAL HEALTH CARE

(Worksheet)

Record for Referral:

I. PRE-NATAL:

1. Name of Pregnant Mother: _____
2. Name of Husband: _____
3. Age of Pregnant Mother: _____
4. GP: _____
5. _____
6. Date of Last Menstrual Period: _____
7. Date of Delivery: _____
8. Illnesses of the Pregnant Mother: _____
   _____
   _____
9. Disease of the Family: _____
   _____
   _____
10. Difficulties/Illnesses of Past Pregnancies: _____
    _____
    _____
11. Complaints of the Pregnant Mother: _____
    _____
12. Date of Pre-Natal Visit at the Health Center:
    A. First visit: _____
    B. Succeeding visits:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

13. Referred by: _____
    (Name of BHW)

II. POST-PARTUM:

1. Name of Mother: _____
2. Name of Husband: _____
3. Date of Delivery: _____
4. Complaints of the Mother: _____

_____

5. Date of Visit to the Health Center: _____

III. FAMILY PLANNING:

1. Name of Mother: _____
2. Age: _____
3. Name of Spouse: _____
4. Age: _____
5. GP: _____
6. _____
7. No. of Living Children: _____
8. Ask the Following:

A. Have you used Family Planning Methods before?

____ Yes ____ No

B. If "Yes", what method have you utilized? _____

C. Reasons for stopping the practice of Family Planning:

_____

_____

_____

9. Referred by: _____

Child Care

Supervised Field Activities

A. Clinic Activities:

Do the following procedures:

1. Take the weight of the baby.
2. Take the length of the baby.
3. Take the weight of the child.
4. Take the height of the child.
5. Record the data in the growth chart.
6. Take the rectal temperature.
7. Take the oral temperature.
8. Record the temperature taken.

B. Home Visit:

1. Take the health history:
   a. Birth history
   b. Developmental milestone
   c. Supplemental feedings given
   d. Immunization
2. Case finding:
   a. Undernutrition
   b. Illness
   c. Physical Deformities
3. Observation of accident hazards
4. Demonstrate the following:
   a. Sponge bath
   b. Tub bath
   c. Introducing new foods
5. Conduct conference with the mother to advise on:
   a. Importance of proper nutrition
   b. Importance of breastfeeding
   c. Importance of basic immunization
6. Use of herbal medicines.
7. Refer cases to health center

Well Baby Record

Name of Child: _____ Sex: _____ Age: _____

Mother's Name: _____

Family Number: _____

Purok Number: _____

1. Birth History:

   a. ___ Full Term ___ Premature

   b. Place of Birth: ____ Hospital ___ House ___ Others: (specify) _____

   c. Assisted by: ____ Doctor ___ Midwife ___ Hilot

      Others: (specify) _____

   d. Manner of Delivery: ____ Caesarian ___ Forceps

      ____ Breech ___ Vaginal

2. Developmental History:

What Baby Can Do	When (age in months)
Regards	
Smiles	
Turned Over	
Crawls	
Sits	
Stands	
Walks with Support	
Walked Alone	
Run	
Teething	
Speaks	
Others: (Specify) _____	
_____	
_____	

3. Manner of Feeding: ____ Breastfeed ____ Artificial Feeding

   a. Supplemental Food:

Food	When Started (age in months)
Rice Water	
Forridge	
Calamansi juice	
Rice	
Meat	
Vegetables	
Soup	
Bread	
Camote	
Egg	
Fruits	
Vitamins	
Others	

4. Immunizations — When Given

BCG _____
DPT _____
Polio _____
Cholera _____
Measles _____

5. Physical Inspection:

a. Common Signs and Symptoms of Illness:

____ Fever

____ Diseases of the Eyes:
( ) Redness ( ) Lacrimation
( ) Swelling ( ) Icteric Sclera
( ) Itching ( ) Others, specify: _____
( ) Gummy Secretions

____ Diseases of the Ears:
( ) Impacted Cerumen/ Ear Wax ( ) Ringing of the Ears
( ) Deafness
( ) "Luga" - pus in the ears ( ) Others, specify: _____
( ) Pain

____ Diseases of the Mouth and Throat:
( ) Tonsilitis ( ) Dryness
( ) "Cold Sores" ( ) Cracking of the lips
( ) Cough ( ) Others, specify: _____
( ) Swelling of the corner of the jaw

____ Swelling of the Neck ____ Paleness
____ Nausea and Vomiting ____ Jaundice
____ Diarrhea ____ Bluish Discoloration
____ Passing of Worms ____ Abdominal Enlargement
____ Headache

____ Skin Diseases:
( ) Scabies ( ) Fungal Infection
( ) Infected wounds ( ) Others, specify: _____

____ Diptheria:
( ) Whitish and grayish spots on tongue and tonsils

____ Measles:
( ) Rashes or red spots that are usually raised and appear first on the face and neck, then spread to the abdomen, arms and legs.

____ Chicken Fox:
( ) Small, itchy and reddish spots that starts on the body and spreads to the face, arms, and legs.

____ Mumps:
( ) Swelling of the corner of the jaws

____ Polio:
( ) Wasting of the legs ( ) Paralysis of body parts

____ Whooping Cough:
( ) Cyanosis of the lips and nailbeds during coughing.

____ Others:(specify) _____
_____

6. Physical Deformities:

____ Paralysis
____ Club Foot
____ Dislocation of the Hips
____ Umbilical Hernia
____ Hydrocele
____ Harelip and Cleft Palate
____ Cerebral Palsy
____ Cretinism and Dwarfism
____ Mongolism
____ Cross-eyed
____ Polydactyly or Syndactyly
____ Others, specify: _____
_____
_____

GUIDELINE FOR TB PREVENTION

Name of Patient: _____ Age: _____

Address: _____ Sex: _____

Signs and Symptoms:

INSTRUCTION: Place a check (/) on the space provided before each sign or symptom observed or complained by the patient. Indicate the duration on the opposite space provided.

_____ Cough: _____ Dry: _____
_____ Productive: _____

_____ Afternoon Fever: _____

_____ Loss of body weight: _____

_____ Loss of appetite: _____

_____ Generalized body weakness: _____

_____ Bloody sputum: _____

_____ Blood-tinged cough: _____

_____ Others, specify: _____

_____

ANALYSIS OF SLIDE PREPARATION

The following scale shall be used to evaluate the performance of the BHW on the above activities:

5 - Did the procedure well/properly and can be relied to do it alone?
4 - Performed fairly, but feels secure if trainor is around for consultation
3 - Performed fairly but quite clumsy and nervous
2 - Performed poorly but very receptive to instructions/suggestions and ask questions/help of trainor
1 - Performed poorly and has poor attitude to supervision

Tasks/Activities for Field Work	Evaluation		Remarks Post Activity Conference
	BHW	Trainor	
1. Collection of sputum:			
1.1 Health teaching on the collection of a good sputum specimen			
1.2 Analysis of the sputum			
1.3 Proper collection and placement on a class container			
2. Preparation of slide:			
2.1 Preparation of working area			
2.2 Labeling the slide			
2.3 Placement of the sputum smear on the slide			
2.4 Packing of the slides			
3. Giving of the properly labeled slides to the midwife			
4. Recording and Reporting			

Reminder to the Trainees: **Write your opinions for the improvement of the activity on the opposite sheet.**

WORKSHEET ON DIARRHEA

Name of Child: _____ Date: _____

Age: _____ Sex: _____

A. Diarrheal History

____ When started
____ Frequency per day ____ Color ____ Odor
____ Foods eaten before diarrheal episodes

_____ _____
_____ _____
_____ _____

B. Physical Appraisal

Ask:	(1)	(2)	(3)
1. Diarrhea:	___ Less than 4 watery stools	___ 4 to 10 watery stools per day	___ More than 10 watery stools/da ___ Much blood and mucus
2. Vomiting:	___ None or small amount	___ Some	___ Very frequent
3. Thrush:	___ Normal	___ More than normal	___ Unable to drink
4. Urine:	___ Normal	___ Small amount, dark	___ No urine for 6 hours
Look:			
5. General condition:	___ Well,alert	___ Unwell,sleepy, irritable	___ Very sleepy, unconscious
6. Eyes:	___ Normal	___ Sunken	___ Very dry & sunke
7. Mouth & tongue:	___ Wet	___ Dry	___ Very dry
8. Breathing:	___ Normal	___ Faster than normal	___ Very fast & deep
Feel:			
9. Skin:	___ Pinch goes back quickly	___ Pinch goes back slowly	___ Pinch goes back very slowly
10. Pulse:	___ Normal	___ Faster than normal	___ Very fast, weak cannot be felt
11. Fontanelles: (in infants)	___ Normal	___ Sunken	___ Very sunken
Take:			
12. Weight:	___ No weight loss during diarrheal illness	___ Some weight loss	___ Much weight loss
13. Temperature:	___ Normal	___ Slight fever	___ High fever $>39^{o}C$

Decide:	(1)	(2)	(3)
14.	( ) No dehydration	( ) Some dehydration	( ) Severe dehydration
Treatment:			
15.	( ) Give salt and water solution	( ) Give ORESOL	( ) Refer immediately to health center or hospital
	( ) Normal feeding	( ) Continue breast-milk or ½ strength of formula	
	( ) Encourage more fluids	( ) More fluids	( ) If conscious start ORESOL immediately

Appendix I

Family Monthly M toring Sheet

(FMMS)

BHW: _____

Date: _____

No. of Family Members: _____

Head of Family; _____

List of Health Services Rendered to Families on a Monthly Basis

(Based on "PUSH Project")

Year 198_

Tasks	Initial Information	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.	Oct. Nov.	Dec.
A. Environmental Sanitation 1. Toilet 2. Source of Drinking Water 3. Source of Laundry Water and Household Use 4. Garbage Disposal 5. Care of Domestic Animals												
B. Immunization (0-6 years) List type of immunization, date and next schedule	Name: Age: 1. 2. 3. 4.											
C. Family Planning List down number of children desired; if practicing FP, and method of FP used.												

Tasks	Initial Information	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
D. Pre-natal, Delivery and Post-natal 1. Pre-natal a. Date of Consultation b. Complaints c. Management 2. Expected Date of Delivery (List down complications, if any) 3. Post-natal a. Date of Consultation b. Complaints c. Management													
E. Nutrition 1. Weighing (0-6 years) List weight; if underweight, and degree 1 2 3 2. Feeding Program (0-6 years) (List if participant or not) 3. Infant Feeding a. Milk 1) Mother's 2) Bottle 3) Mixed b. Supplementary Food (Specify)	Name Wt. Age												
F. Disease List type of disease, management done, type of health personnel who rendered treatment and results of treatment.	Name Age 1. 2. 3.												

Tasks	Initial Information	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
G. Death List reasons for death	Name Age 1. 2. 3.												
H. Birth List down date of birth, sex and information on child.	Name Age 1. 2. 3.												
I. Other Source of Income (Specify)													

APPENDIX J

Post-Tests

APPENDIX J

Post-Test

PRIMARY HEALTH CARE & BHW

Name: _____

Date; _____
Sitio/Barangay: _____

A. Right or Wrong

____ 1. In Primary Health Care, the community has no say regarding programs to be instituted.

____ 2. The government is the only one responsible for the health of the people.

____ 3. Self-reliance can be achieved through Primary Health Care.

____ 4. The goal of Primary Health Care is health for all Filipinos in the year 2000.

____ 5. A barangay health worker is trained to serve families in his/her area of coverage in the barangay and those needing his help.

____ 6. A barangay health worker does not need any help in doing his work.

____ 7. A barangay health worker can function without undergoing training.

____ 8. A barangay health worker should share his knowledge with other members of the community.

B. Put an X before the tasks a barangay health worker can perform.

____ 1. Mobilize community members on activities to promote health and prevent diseases.

____ 2. Give health teachings.

____ 3. Refer a malnourished child to the midwife.

____ 4. Prescribe antibiotics.

____ 5. Give injection.

____ 6. Attend deliveries.

____ 7. Visit a prenatal mother who did not come for appointment.

____ 8. Disseminate information related to activities of the health center.

____ 9. Organize out-of-school youth to help in cleanliness campaign.

____ 10. Report incidence of diarrhea.

FAMILY PLANNING:

TRUE or FALSE: Write T if true or F if false.

____ 1. Family Planning is the proper use of effective methods to help the couples have the number of children they want, and when they want them.

____ 2. The program of Family Planning emphasizes that this is a shared responsibility of the couples.

____ 3. The pills can be taken by the wife even without consulting a doctor or a family planning coordinator.

____ 4. The role of the VCHW in Family Planning is to explain, teach and refer barangay residents for further advises on Family Planning.

____ 5. The IUD is fitted by a doctor in the woman's uterus to prevent pregnancy.

____ 6. A vasectomy will cause impotence in a man.

____ 7. The rhythm method is effective only for women with regular periods/menstrual cycle.

____ 8. The Family Planning program also helps childless couples who wish to have children.

CHILD CARE: Post-Test

Name: _____ Date: _____
Sitio/Barangay: _____

A. True or False (10 points)

_____ 1. Child care promotes the health of children.
_____ 2. A good, strong cry of a newborn baby is a sign of good health.
_____ 3. The formation of good health habits starts in infancy.
_____ 4. Artificial feeding is as nutritious and as good as mothers milk.
_____ 5. Babies more than 4 months of age do not need any supplementary feedings because mothers milk is enough.
_____ 6. New food should be introduced one at a time to the baby.
_____ 7. A baby doubles its birth weight in the first year of life.
_____ 8. Refer baby who does not "roll over" after 10 months.
_____ 9. Fever is a normal response of the body to the introduction of a vaccine.
_____ 10. It is safer to take the temperature of a baby by mouth.

B. Put a check ( ) on the answers (9 points)

1. What are the 3 major aspects of child care?

___ a. giving basic immunization
___ b. proper nutrition
___ c. monitoring growth and development
___ d. teaching how to read and write

2. What are the 3 basic food groups?

___ a. energy giving food
___ b. body building foods
___ c. height increasing foods
___ d. body regulating foods

3. What basic immunization should the child receive?

___ a. immunization against tuberculosis
___ b. immunization against cholera and dysentery
___ c. immunization against polio
___ d. immunization against diptheria, tetanus, and whooping cough

4. This is a sign of undernutrition

___ a. retarded growth
___ b. refuses food
___ c. red marks on skin

MATERNAL HEALTH CARE

Name: _____ Date: _____

Sitio/Barangay: _____

Post-Test

TRUE or FALSE: Write T if True or F if False.

____ 1. The baby normally begins to move during the 5th month or so.

____ 2. Going for pre-natal care is very important to maintain the health of the mother and the baby.

____ 3. When a mother suffers from nausea and vomiting, advice her to eat fatty foods for relief.

____ 4. To avoid varicosities, advice the pregnant mother to raise her legs for about 5-10 minutes several times a day.

____ 5. Examples of foods that give us strength are rice, corn, camote, cassava and bread.

____ 6. Frequent urination on the first months and last weeks should not be a cause of worry.because it is one of the common discomforts of pregnancy.

____ 7. The expectant mother should be discouraged to wear "bigkis" because this interferes with the flow of blood and breathing of the mother.

____ 8. All expectant mothers should avoid intercourse during her whole course of pregnancy.

____ 9. The expectant mother can take her regular baths but should avoid chilling.

____ 10. Encourage the pregnant mother to go for prenatal care at the health center as early as possible.

____ 11. A pregnant mother with vaginal bleeding should be referred immediately to the midwife.

____ 12. A pregnant woman who has had 6 or more children has lots of experiences already and is not considered high risk anymore.

____ 13. For the mother to have more milk, advice her to nurse her baby more often.

____ 14. For the comfort of a newly delivered mother and to avoid infection, the genital area can be washed with a decoction of guava leaves.

____ 15. After delivery, the mother does not need medical care and supervision anymore.

TUBERCULOSIS: Post-Test

Name: _____ Date; _____

Sitio/Barangay: _____

TRUE or FALSE

____ 1. Tuberculosis is a disease caused by a germ called Tubercle Bacilli.

____ 2. The heart is often affected in tuberculosis.

____ 3. Tuberculosis is inherited.

____ 4. Tuberculosis is a disease of the rich and poor.

____ 5. TB is acquired through inhaling air that is contaminated with tuberculosis germs from secretions of the cough or sneeze of a sick person.

____ 6. Blood exam is the best method of TB detection.

____ 7. TB can be cured through proper and religious medical treatment.

____ 8. Prolonged cough with more than one month with abundant phlegm is one of thesymptoms of tuberculosis.

____ 9. A watery, coloreless sputum is a good sputum specimen.

____ 10. A BHW can help in the prevention with TB in the community through case finding of TB patients and health teaching about TB prevention.

Name: _____ Date: _____

Sitio/Barangay: _____

Presented below are a series of questions on diarrhea. Check the appropriate box if the statement is True or False.

		True	False
1.	A child has diarrhea if he has two or more loose watery stools in one day.	/ /	/ /
2.	Diarrhea can be transmitted to another person by flies.	/ /	/ /
3.	Diarrhea is caused by unseen germs that enter the intestine through the mouth.	/ /	/ /
4.	Diarrhea during teething should not be a cause of worry.	/ /	/ /
5.	Malnutrition can result from diarrhea.	/ /	/ /
6.	Dehydration in diarrhea results from much loss of fluids and salt from the body.	/ /	/ /
7.	The main danger of diarrhea is stomach pain or cramps.	/ /	/ /
8.	Undernutrition can result from diarrhea.	/ /	/ /
9.	An infant with diarrhea becomes dehydrated because he can not eat.	/ /	/ /
10.	Sunken fontanelle is a sign of dehydration.	/ /	/ /
11.	Breastfeeding should be continued when an infant has diarrhea.	/ /	/ /
12.	More fluid than normal should be given as soon as diarrhea starts.	/ /	/ /
13.	ORESOL is a drug that prevents dehydration.	/ /	/ /
14.	The patient should not take food or other liquids when using ORESOL.	/ /	/ /
15.	Observance of basic sanitation prevents many diseases.	/ /	/ /
16.	Dirty water can be made safe for drinking by boiling it.	/ /	/ /
17.	As long as clean water is being used it is not necessary to observe cleanliness in preparing food.	/ /	/ /
18.	Disposing waste in running stream is proper because it is immediately washed away.	/ /	/ /
19.	Pet animals like dogs and cats can transmit germs.	/ /	/ /
20.	Diarrhea and other childhood diseases can be prevented by controlling flies and other insects from coming in contact with food.	/ /	/ /

APPENDIX K

BHW Performance Rating Scale

Part I. Listed below are activities agreed upon by trained BHWs in Dalupirip, Itogon; Matimbo, Bulacan and Bagong Silangan, Quezon City, which they are able to perform 10 months after training. Based on the degree of importance, kindly assign weights to each item (Item 1-5), the total of which should not exceed 10. In addition, redistribute the weights assigned to items 3 & 4 to items below each. We would like to evaluate and give awards to deserving BHWs using these criteria.

_____ 1. Conducting household survey
_____ 2. Case finding
_____ 3. Giving health instructions on:
  _____ 3.1 Environmental Sanitation
  _____ 3.2 Proper Nutrition
  _____ 3.3 Maternal & Child Care
  _____ 3.4 Importance of immunization
  _____ 3.5 Prevention & Control of Communicable/Endemic Diseases (TB, Malaria, Diarrhea)
_____ 4. Management of Common Medical Conditions
  _____ 4.1 Assessing health status (taking BP, body tempera temperature, and weight)
  _____ 4.2 Advising on common household treatments including use of herbal medicines
  _____ 4.3 Making appropriate referrals
  _____ 4.4 Making home visits for follow-ups
_____ 5. Mobilizing community for health activities and related activities e.g., fund-raising for establishment of botika sa barangay.

Part II. In addition to the above, kindly indicate the acceptable level of performance for each of the following items:

At the end of 10 months, each BHW is supposed to have:

_____ 1. Attended _____ monthly meetings.
_____ 2. Followed-up ____ priority families (monitoring sheet properly filled up and accomplished.)
_____ 3. Attended to at least ____ families every month.

In like manner as in Part I, kindly assign weights to each item based on the degree of importance, the total of which should not exceed 10.

Thank you.

BHW "Incentive" CERTIFICATE

MALACAÑANG
MANILA

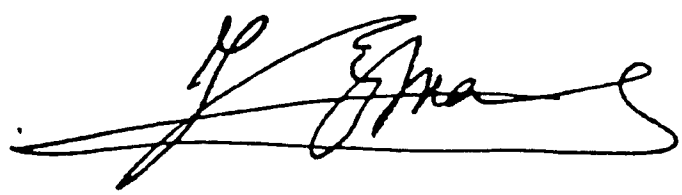
16 December 1985

I am happy to know that you are among those chosen as Barangay Health Worker in your locality and that you have unselfishly devoted your time and efforts for the service of our people.

In appreciation of this noble act and commitment to community service, I wish to inform that from this time on, you and your immediate dependents shall be entitled to free consultation, hospitalization and treatment in any health center or hospital of the Ministry of Health, for as long as you are in active service as a Barangay Health Worker.

Again, I take this opportunity to thank you for your valued support to the government's programs for health and development.

Very truly yours,



President Ferdinand E. Marcos

PROGRAMME

8:00-9:00 REGISTRATION
9:00-11:00

PHILIPPINE NATIONAL ANTHEM

OPENING REMARKS ..... Professor Aurora S. Yapchiongco
Dean, UP College of Nursing

PRESENTATION OF THE RESEARCH PAPER ..... Leticia S.M. Lantican, Ph.D., R.N.
Co-Principal Investigator
Associate Professor
UP College of Nursing

"ALTERNATIVE TRAINING STRATEGIES FOR BHWs'
in PRIMARY HEALTH CARE"

REACTIONS TO THE RESEARCH PAPER

PANEL OF REACTORS

Dr. FLORA BAYAN
Assistant Minister for Health Affairs &
National Primary Health Care Coordinator
Ministry of Health, Manila

MRS. ALEJANDRINA CACHO
Regional Training Nurse
Region III, San Fernando, Pampanga

DR. MAGDALENA GONZALES
Provincial Primary Health Care Coordinator
Province of Bulacan

MRS. LERMA ESTRELLA
Regional Health Midwife
Bustos, Bulacan

11:00-12:00 OPEN FORUM

MODERATOR: Miss Araceli Maglaya
Professor, UP College of Nursing

L U N C H

ENTERTAINMENT NUMBERS BY BHW REPRESENTATIVES FROM BENGUET, BULACAN & QUEZON CITY

1:30-3:00 SMALL GROUP DISCUSSIONS
3:00-4:00 PLENARY SESSION
4:00 CLOSING REMARKS ..... Dr. Estrella F. Duñgog
Head, UPCN Research Program

EMCEE: Professor Josefina D. Baylon
Head, Continuing Education Program
UP College of Nursing

UNIVERSITY OF THE PHILIPPINES SYSTEM
HEALTH SCIENCES CENTER
COLLEGE OF NURSING
Diliman, Quezon City
tel. nos. 976061/976081
local 226/546

Office of the Head
Research Program

8 March 1984

Dr. Stewart Blumenfeld
Senior Scientist
P R I C O R
5530 Wisconsin Ave.
Chevy Chase, Maryland 20815
U.S.A.

Dear Dr. Blumenfeld:

Thank you for your letter of 24 February 1984, inviting me to participate in a PRICOR workshop you plan to hold in Mexico City this coming May. Professor Corcega and I discussed this matter and agreed that I will be the one to represent our study group.

I will send you a summary of what we have accomplished thus far in our project by 15 April. We have just mailed a copy of our first Technical Progress Report through Mr. Gary Cook of US-AID yesterday addressed to Mr. Jack Reynolds in compliance with the terms of our subagreement. We're through with data-gathering in Bulacan Province and will move next week to Mountain Province and Bagong Silangan, Quezon City. The experience thus far, despite the rigors, has been very challenging and educational. We're proceeding quite smoothly, as planned.

Here's looking forward to a stimulating learning experience in Mexico City, especially on Operations Research.

Thank you again and warmest regards!

Sincerely,

Leticia S.M. Lantican
LETICIA S.M. LANTICAN, Ph.D., R.N.
Principal Investigator

/esb

UNIVERSITY OF THE PHILIPPINES SYSTEM
HEALTH SCIENCES CENTER
COLLEGE OF NURSING
Diliman, Quezon City
tel. nos. 976061/976081
local 226/546

Office of the Head
Research Program

April 2, 1984

Dr. Stewart N. Blumenfeld
Senior Scientist
PRICOR
5530 Wisconsin Avenue
Chevy Chase, Maryland 20815
U.S.A.

Dear Stewart,

Thank you for your letter of March 19, 1984 providing us some feedback concerning our first Progress Report. Regarding response interpretations for the psychological instruments, may I just discuss this with you during the workshop in Mexico. One personality inventory we used, as I have mentioned in the Progress Report, is locally developed, and the Manual is written in Filipino language. I will translate in English some portions and bring relevant materials for this purpose.

Enclosed herewith is a summary report of our study you asked for in connection with the workshop. We are proceeding as scheduled in our data-gathering phase. Now that classes are over, we expect to devote full time work to data analysis this coming months. Trina and I have scheduled our activities such that only the report writing phase needs to be done when we come back from our trip, so as not to unduly burden Thelma of the bulk of responsibilities during our absence.

Incidentally, may I be informed regarding some particulars of this travel, since I intend to pass by the U.S. on my way home. I have a standing invitation to visit the University of Texas in Austin which I failed to honor during my U.S. trip last July. Also, I want to visit anew UCSF, in Frisco, (my Alma Mater) for some professional update. I want to plan my itinerary now and find out likewise how much more I need to add to my travel fare for this side trips.

Dean Recio received your regards most pleasantly but likewise lamented the loss of the UCLA Bruins this year.

Warm regards and here's looking forward to our meeting soon.

Sincerely,

Letty

LETICIA S.M. LANTICAN, Ph.D., R.N.
Co-Principal Investigator

UNIVERSITY OF THE PHILIPPINES SYSTF
HEALTH SCIENCES CENTER
COLLEGE OF NURSING
Padre Faura, Manila

10 August 1984

Office of the Head
Research Program

RECEIVED AUG

Dr. Stewart Blumenfeld
Senior Scientist
PRICOR
5530 Wisconsin Avenue
Chevy Chase, Maryland 20815
U.S.A.

Dear Dr. Blumenfeld:

This is a belated letter to thank you for extending me the privilege of attending the highly educational and successful PRICOR workshop held in Mexico City last May. The credit goes to you of course, for doing an excellent job as workshop coordinator.

It is with regret, however, that I write you only now as things have been rather hectic since my arrival on 8 July from an extended trip to the United States. Compounding matters was a sprained right wrist I sustained en route home last 7 July. This incapacitated me temporarily from my work for at least two weeks. Presently, I am now able to function normally.

As far as our research project is concerned, we are still on schedule despite some problems encountered on account of our transfer to our Manila office. We are now analyzing the computer print-outs released by the Technological Resource Center (TRC). We have decided at this stage to retain Bagong Silangan in Quezon City and Barrio Matimbo in Bulacan as study sites for Phase II of the project. Furthermore, we plan to get another area in Bulacan to serve as a new area on which to test the alternative schemes to be developed based on the results of Phase I. On the other hand, we decided not to include the Mountain Province site because of budgetary constraints owing to its distant location. The revised budget I submitted to Ms. Graham has a total estimate exceeding $50,000.00. This was based on utilization of four areas in Bulacan as stated in the research proposal. Anyway, we may have to call you overseas for your reaction on this matter.

I am sorry I missed your visit here in Manila. I extended my stay in the U.S. to attend the American Nurses' Association (ANA) convention held in New Orleans on 22-28 June. I informed Dean Recio and Thelma about this through letters I mailed in Texas on 1 June. Unfortunately, they did not receive such letter. I thought, likewise, that Trina would relay to you my expected date of arrival in Manila which was 8 July. It was really with best intentions on my part to catch up with your own schedule here then but my activities in the US did not permit it to be so. Anyway, I hope to make it up to you in your next visit here.

Warmest regards.

Sincerely,

LETICIA S.M. LANTICAN, R.N., Ph.D.

/esb

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OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA GEN. REG. NO. 27

UNITED STATES GOVERNMENT

Memorandum

TO : Joy Riggs-Perla, OPHN

DATE: October 1, 1984

FROM : Marichi G. de Sagun, OPHN

SUBJECT: Status of PRICOR - UPCN Project "Alternative Training Strategies for BHWs in Primary Health Care" as of 27 September 1984

1. Phase I (assessment of BHW Training Programs) has virtually been completed, per schedule, with an analysis of the training program manuals used and data obtained from trainors, trainees and community respondents.

2. It looks like the proponents have altogether given up any attempt on quantitative analysis and are using descriptive/qualitative analysis instead. Although this limitation had been cited in the approved proposal, the effect of this decision becomes a bit disturbing when coupled by the proponents' admission that it was equally "difficult to pinpoint and link trainors and trainee variables to training program variables, and eventually linking them to community acceptance ... and utilization of BHWs." Isn't this what the research is all about? How does one develop an alternative training strategy if a substantial understanding of the linkages of major entities/factors involved (as given in their model) is lacking?

3. Then again, the proponents have decided to "adapt a pre-post implementation research design and utilize again the three study sites" instead of looking for new ones as originally proposed. With this decision, doesn't this make the research and its findings a very, very case specific one? I'm afraid that unless some common denominators are identified (e.g. general community needs and socio-cultural characteristics, etc.) a wider range policy application of research results might be difficult.

4. Looking at their timetable of activities, how confident can we be of the findings that will be generated in the evaluation of the effects of alternative training program mixes with only 7 to 12 or so months after training?

5. For all the "problems" encountered by both trainors and trainees, it seems that the major prescription of the proponents is the revision of the training manual. It would be interesting to know what revisions in the manual were/are being made as well as other relevant aspects of the entire training scheme (criteria for selecting BHW, duration of training, incentives for trainors and trainees, monitoring and evaluation, etc.).

6. Other comments/thoughts are pencilled in on the report (sorry about that).

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA GEN. REG. NO. 27

UNITED STATES GOVERNMENT

Memorandum

MEMO : For the Record October 16, 1984

FROM : Marychi G. de Jagun, OPhN

SUBJECT : Meeting with Dr. Leticia Lantican and Dr. Thelma Corcega re "Alternative Training Strategies for BHWs in Primary Health Care"

1. Phase II (training/retraining of BHWs) of the project is currently underway. The training program at Brgy. Matimbo, Malolos, Bulacan is on its second week of implementation with Brgy. Dalupirip, Itogon, Benguet soon to follow. Negotiations with MOH and Quezon City Health officials have just been concluded for the Bagong Silangan training.

2. The rather low frequencies of data obtained in Phase I of the study constrained the investigators to resort to descriptive and qualitative data analysis. This has also led to major changes in the whole research design. As a result, they are now keeping detailed records (diaries) of the day to day project activities, giving emphasis on the process and strict monitoring (and feedback) of Phase II activities.

3. Regarding our concern about the change in the research scheme (from control-experimental to pre-post), Dr. Lantican said that this had to be done since the findings of Phase I showed that the greater need was to improve on the existing training strategies. The results of Phase I did not give them enough basis to evolve alternative training mixes for implementation in different (experimental) areas. A pre-post scheme was adopted after consultations with Dr. Osteria and Dr. Blumenfeld were made. Dr. Lantican gave an assurance that some commonalities will be identified and an attempt at "standardizing" some aspects of the training scheme will be made (e.g. social preparation, group dynamics, etc.).

4. Dr. Lantican admitted that they think the evaluation of the effectiveness of the modified training strategy is too soon, but they will be doing it just the same because of the time limitations of the project. She did not mention any plans for "follow-up evaluation" outside the project's completion date.

5. Dr. Lantican mentioned that they are concentrating on the training aspect of the program and not so much on the other factors, i.e. selection criteria, incentives for trainees/BHWs, health status of the people upon the advice of Dr. Blumenfeld.

6. Dr. Lantican is pleased that, if not for anything else, the project seems to be creating some degree of awareness and recognition within the MOH staff about some training dynamics. She mentioned that the MOH trainors have asked for copies of their questionnaires which MOH plans on administering in other "model" areas.

7. Dr. Lantican and Dr. Corcega welcome AID staff field visits.

cc: Dr. L. Lantican
Dr. T. Corcega

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OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA GEN. REG. NO. 27

UNITED STATES GOVERNMENT

Memorandum

FOR : Joy Riggs-Perla, OPHN DATE: December

FROM : Marichi de Sagun, OPHN *marichi*

SUBJECT : Fourth Technical Progress Report of the project "Alternative Training Strategies for BHWs in Primary Health Care"

1. The technical report covers the period 9/1/84 to 11/30/84 which was devoted mainly to the design and implementation of a modified training program for the BHWs, based on Phase I (Assessment) findings.

2. Results of Phase I indicated that while the training programs covered essential information needed by the BHWs and were rated adequate by both trainors and trainees the community responses did not reflect these positive assessments. In two of the the three study sites (which are all identified as "model training areas") there was low awareness of BHW existence, and consequently, low utilization of their service by the community. The investigators are attributing this to the BHWs being unclear about their roles and responsibilities as well as to the inadequate supervision and monitoring of BHW performance after training.

3. Specifically, the following "deficiencies" were noted in the previous training of the BHWs:

3.1. Roles and functions of BHWs were not clarified such that they were unclear about what their tasks are

3.2. Focus was more on didactics rather than skills development

3.3. Content had too wide a coverage, even if the essential topics were covered, and was more curative than preventive

3.4. The training program did not include a mechanism for supervision and monitoring of BHW performance and services which resulted to inadequate follow-up after training

3.5. Information campaign in the community regarding the BHW training program was inadequate.

4. In view of the above, the following were the main features of the modified training programs in the study sites:

4.1. Community assemblies were held to inform the community about the new training program. The old BHWs were invited to attend the new training program.

4.2. Syllabus focused on five main topics with added emphasis on the preventive aspects.

4.3. Topics were divided into modules and exams/quizzes were given after each module.

4.4. Duration of training was reduced from 8-12 weeks to 5 weeks, with 1 day devoted to didactics and 4 days practicum per week.

4.5. All didactic sessions were preceded by group dynamics experience as warm-up to impress on the participants the importance of open communication.

4.6. Practicum activities were monitored through the use of worksheets.

4.7. Monitoring to be done through monthly meetings and use of monthly Household Record Form.

4.8. Specific household coverage for each BHW was given.

4.9. Use of pre and post test to assess effectiveness of training.

4.10 Process documentation of training sessions.

5. The trainings were held on the following dates:

Brgy. Matimbo (Bulacan): 10/2/84-11/9/84
Brgy. Dalupirip (Benguet): 11/13/84-12/11/84
Bagong Silangan (Quezon City): 12/4/84-1/4/85

6. Among the problems encountered were:

6.1. Lack of volunteers. The desired number of BHWs to meet the 1 BHW to 20 households ratio was not attained because of lack of volunteers. This resulted to some households not being covered by any BHW and/or some BHWs having large household assignments.

6.2. Tardiness and absenteeism. Because of the harvest season and other domestic concerns, punctuality and perfect attendance in didactic sessions constituted the main problem during the training. This was partially solved by the use of modules which provided the opportunity for self-study.

6.3. Monitoring of research activities. With the research office based in Manila, monitoring of activities in Brgy. Dalupirip (Benguet) posed some difficulties. A research assistant was hired for this purpose in addition to telephone and written communications as well as regular weekly visits.

6.4. Participant composition. Not all the old BHWs were willing to attend the new training program. The investigators believe that this factor has substantial implications in view of the pre-post test design of the research.

7. In progress are monthly monitoring of BHW performance and regular meetings with trainors and the formulation of Indices of Satisfactory Performance of BHWs in terms of service outcomes.

8. Comments/Questions:

8.1. The problem of "lack of volunteers" cannot be attributed solely to inadequacies of the training program and therefore cannot be resolved by an improved training program alone. Perhaps it will be useful to determine the extent to which an improved training program can help remedy the situation, e.g. through a better understanding of the BHWs roles and functions, expectations of both BHWs and community can be set at the most realistic levels.

8.2. Inasmuch as inadequate supervision and monitoring of the BHW was identified as a factor which led to the low level of awareness and utilization of BHW services, what monitoring and supervision schemes have been devised that can be carried out even after the completion of the ~~report~~? What is the level of MOH involvement in each of the three study sites? I think that a realistic alternative should consider the participation and involvement of MOH since UPCN and SLUCN may not be "permanent" structures in the concerned barangays and it is the RHU, particularly the midwife, that will eventually remain as the primary contact of the BHW. The inability to provide adequate supervision is not a weakness of the training as a process but of the (BHW) program mechanics as a whole. Therefore, the training content can only be improved to the extent that the relevant aspects of the overall program mechanics are improved.

8.3. The Monthly Household Health Record, being the major monitoring tool to be used, should be clearly and adequately explained. It is important that the BHW is clear on its purpose and utility. Perhaps it should also be stressed that the MHHR is not just a form to be filled up or a record to be kept, but a tool by which actions should be derived.

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First meeting with SB concerning the Lantican project, 9:00 on 4/25/86.

HIGHLIGHTS OF THE PROJECT

1. CHW and Trainer selection.

The question of selection was addressed through the use of personality tests. Looking for a group of variables for selection ofnew trainers and CHWs.

Was the GSE test only done once, when?

Check on personality tests and summary of their findings.

Check files for a letter from Marichi, who addresses this issue and also summarises a presentation of this material at a conference (and to the MOH?).

2. Nature of the training.

How they selected the alternative strategies for training, what were the variables? There should be a letter in the files (after FEB 28, 1985) indicating how they decided on interventions.

Examination of training should have lead to a program of alternative solutions to recitfy current training and CHW program problems. What were the methods of evaluation used, what were considered the norms, what were the norms developed, how were they to be applied in the new program, in the selection and training processes.

You can not really examine selection and training without CO and supervision because no matter how good selection and training are if there is no CO or supervision the project will not work. See if the project makes some statement like this.

SUMMARY

1. Statement of purpose: Selection and training
2. Who participated, briefly
3. Methods: how they analyized the program
4. Outcome: personality tests for selection: norms developed for selection
5. nature of training they implemented, what were the variables and what were the outsomes.
6. Presentation of findings to the MOH.

The analysis should have lead to a program of alternatives to rectfy existiing training problems.

Need to back and read the files on these issues.

UPCN-PRICOR Research Project

Title : Alternative Training Strategies for BHW's in Primary Health Care

Location: Luzon Region, Philippines

Sponsor : CHS-PRICOR

Principal Investigators: Dr. Leticia S.M. Lantican
Prof. Thelma F. Corcega
Faculty Members
U.P. College of Nursing
University of the Philippines Manila
Diliman, Quezon City
Philippines

Starting Date: December 1, 1983

Completion Date: November, 1985

"Alternative Training Strategies for BHW's
in Primary Health Care"

I. Purpose of the Study:

This is a two year operations research project which aims to develop solutions to anticipated problems in the design and delivery of training of BHW's in primary health care service delivery. Consisting of three phases, the specific objectives of the study are to: examine ongoing training programs for BHW's in primary health care; identify the complex interplay of factors involving the selection, training, and supervision of BHW's in the field, as well as problems/difficulties encountered in providing BHW training programs; develop and field test alternative strategies utilizing various training mixes in BHW training programs; and finally, evaluate the effects of these alternative BHW training mixes.

This study is being undertaken by the University of the Philippines College of Nursing Research Program through two of its faculty members, acting as Co-Principal Investigators in collaboration with the Ministry of Health (MOH) over a 24-month period. To date, MOH's involvment at the provincial level, consists of provision of study sites for all phases of the study. It will also provide the necessary training personnel for Phase II of the study, specifically a training consultant and BHW trainors.

The study proper started December 1, 1983 and envisioned tc be completed by November, 1985.

II. Research Methodology:

The study comprise three phases. Phase I assesses the quality of training programs provided the BHW's utilizing the following indices: training programs, trainee-related factors, especially performance outcome; trainor-related factors and community recipients' responses.

Three communities in the Luzon region currently receiving Primary Health care services are utilized as study sites for this phase

of the study. Two sites are academically initiated and directed, one in an urban dpressed area in Quezon City under the aegis of the University of the Philippines College of Nursing, and the other, a rural setting in Benguet Province, a mountainous region in Northern Luzon, under the direction of St. Louis University College of Nursing. The third site is an MOH-PHC demonstration area in Bulacan province in Central Luzon.

Data gathering instruments for Phase I comprise four major categories:

1. Interview questionnaires for the three types of respondents, namely: BHWs, BHW trainors and community household respondents.
2. BHW observational sheet (to be used in observing actual performance in both field and clinic settings)
3. Training Manual Assessment Guide
4. Psychological instruments, consisting of a structured personality inventory and a devised projective instrument, to obtain additional data on personality characteristics of both BHW's and trainors which can not be elicited by direct interview questionnaires.

For sampling, all trainors and trained BHW's in three sites are included in the study, while the sample size for the community respondents is 50% of the total households purposively selected, that is, every other household.

For Phase II of the project which involves the development, implementation and field testing of alternative training mixes for BHW's based on results of Phase I, including its evaluation (Phase III), the sample sites will be confined tc MOH-served barangays, also in the Luzon region. A control group/community, comparable in characteristics with the experimental ones, but will not receive any alternative training mix, will also be included in the research design for Phase II.

Data Analysis:

In-depth, qualitative analysis that will examine and assess critically the content of the training programs, modes of instruction and problems encountered will be done. In addition, quantitative descriptive analysis will determine the interrelationship among the predictor variables (trainee characteristics, trainor characteristics and program variables). Appropriate statistical procedures will also be employed. For qualitative data, non-parametric tests such as chi-square will be used. For quantitative data, a correlation matrix will first be drawn. Likewise, attempts will be made to utilize regression analysis, ANOVA, or Factor Analysis in order to isolate the factors/ training variables that affect the performance of the BHW's. For Phase II of the project, Cost-effective analysis will also be done to relate training cost with the population covered and the services rendered.

Summarizing, the research design and procedure is as follows:

Phase:	Focus:	Sample Sites	Procedure
I	Assessment of BHW Training Programs	Luzon Region- one government and two non-government, representing 2 rural and one urban depressed areas.	1. Examination and analysis of training program manuals 2. Questionnaire Survey/ Interview of trainors; BHW's and community household respondents 3. Observation of actual performance of BHW's
II	Development and Field Testing of Alternative Training Program Mixes	Experimental and Control groups/sites in MOH directed barangays in Luzon region	1. Quasi-experimental design 2. Selection and matching of Community groups; experimental and control; Experimental: will receive alternative training mixes to be developed Control: will not receive any alternative training mix
III	Evaluation of Phase III	Same as in Phase II	1. Same procedure as in Phase I

III. Problems Encountered:

The main problem initially encountered concerned the recruitment of research assistants who are familiar with the culture and can speak the dialect of the household respondents for the Benguet Province study site. This was eventually resolved by the hiring of field data collectors from the region itself only for the duration of data-collection in this site. The other problem, inherent in any field work, but especially prominent in this same site, involved risky travel/trek on foot trail to reach the households who live in distant sitios aside from being located far apart from each other. With perseverance however, on the part of the field data collectors and the regular research assistants, the able support and assistance of the SLU College of Nursing especially for the much needed transport facilities, and cooperation from the community residents themselves, this problem was likewise surmounted.

The other major problem consisted of replacing the original choice of an MOH study site in Nueva Ecija because of the deteriorating peace and order situation obtaining therein, with a community in Bulacan province, considered comparable in "reputation" as an MOH-PHC demonstration area. Because of the whole hearted cooperation extended by the Provincial Health personnel, from the Provincial Health Officer himself down to his staff at the Rural Health Units, as well as the community respondents themselves, the data-gathering experience in this site has been less problematic and gratifying.

IV. Current Status of the Project:

Since the project officially commenced last Dec. 1, 1983, it has proceeded according to schedule and has accomplished the following activities for Phase I, namely,

1. Finalization of data collecting instruments
2. Selection of study sites and samples

3. Recruitment and training of Research Assistants

4. Actual data gathering - At present, data gathering in one study site, involving trainors, BHW's and community respondents, in Barangay Matimbo, Bulacan, officially terminated on the second week of March, while data-gathering in Mt. Province and Bagong Silangan, Quezon City involving same types of respondents, are ongoing, and expects to be finished as scheduled by middle of April.

Editing of protocols are scheduled likewise to be finished by end of April, while coding, tabulation, data analysis and report writing will be the activities for the months of May and June.

TO: Jim Heiby, ST/H
THROUGH: Jack Reynolds, PRICOR
FROM: Stewart Blumenfeld, PRICOR
SUBJECT: Trip Report--Papua New Guinea and Philippines
DATE: 4/12/85

Purpose of TDY

Papua New Guinea: Review status of research with Principal Investigator, visit study field sites, reviewapplication of the OR approach, and discuss potential application of the research with head of the sponsoring agency.

Philippines: Review status of research with Principal Investigators of the two ongoing studies, assist with clarification of model used in UP College of Nursing study to generate solutions for testing, assist in design of model for generating solutions in UP Institute of Public Health study, review status of final report in preparation by staff of UP-Visayas study, and participate in briefing of MOH by UP-Visayas staff on results of study.

Papua New Guinea, February 10-15, 1985

The purpose of this study is to develop a training program that will motivate and equip the staff of the rural health centers and posts to shift their focus from near-exclusive concentration on curative service toward more concern for preventive and promotive care. These staff are the most peripheral health workers in the PNG system. The lowest level of these are the Aid Post Orderlies (APO), who nevertheless have a minimum training of 12 months of essentially medical training and very much a curative orientation. Their supervisors are fully-trained nurses who have the same orientation. The government of the Department of East New Britain (equivalent to a state or province) would like to incorporate a stronger preventive and promotive component in its PHC service package and is therefore very supportive of this study. The study is under the auspices of the Catholic Health Service, which has been delegated responsibility for delivery of health services to roughly half the population of East New Britain. The Principal Investigator is Ellen Vor der Bruegge, an American working under the umbrella of the University of Tennessee, which holds the subagreement with PRICOR.

My first appointment was with Dr. Malcolm Boulton, an Australian who recently became the Assistant Secretary for Health of East New Britain. (This is the top job; the Secretary is the chief administrative officer for the Province and each department is headed by an Assistant Secretary.) He is very enthusiatic about the project and in fact spent several days with Vor der Bruegge helping to conduct a pilot test in a remote area of the training modules developed from an earlier workshop (see below). Prior to going to the field, he had reviewed the material produced in the workshop and the multiple criteria utility assessment (MCUA) which had led to it. Since his experience in the field, he has become an advocate of the OR approach in general and MCUA in particular. He has asked Ellen Vor der Bruegge to clear a day for a workshop with the entire senior staff of the Department of Health and has said that if that workshop went well, he would suggest to the Secretary that it be repeated for other departments of the ENB government.

a very significant finding in light of MOH policy, a finding that deserved much more prominence in the study report and in any briefings they presented. Since the final report had not yet been published, I prevailed upon Siason and Osteria to change its emphasis by dwelling more on the process of how the villagers were helped by the study staff to create and learn to manage the boticas. Since there was some money left in the contract, I also asked that more data be obtained, if possible, on who exactly was using the boticas, what drugs they were turning over mostly, and why those who were not using the botica were not and what they were doing instead. I do not know if this information will actually be gathered because the field staff has already been let go. If it is not, then on my next visit I plan to propose to USAID that they "encourage" PCHRD (USAID supplies most of their operating funds) to look into the status of the former PRICOR boticas and see if they can't get some of this information.

While I was in-country, USAID received notice of a two-day workshop on health services R&D sponsored by PCHRD. A component on community-financed boticas is included on the agenda. PCHRD had not invited the UP-Visayas team to make a presentation, although Trini Osteria was invited as a general participant. The failure by PCHRD to include a presentation of the PRICOR study obviously upset the USAID/HN staff and a phone call to PCHRD rectified this oversight. USAID chalked up the omission to careless planning rather than deliberate action.

We are awaiting the arrival of the final report and a report on the MOH/PCHRD briefing. I have also asked the USAID/HN monitor to provide me with their assessment of the reception given the presentation by MOH and PCHRD and their feeling about the impact it might have on policy and activities in these organizations. I will try to follow up at the Ministry and at PCHRD on my next visit.

Philippines: U.P. College of Nursing, February 17 - March 1, 1985

This study is aimed at developing a more effective strategy for selecting, training, and supervising barangay health workers (BHWs). However, discussions with the P.I.s, Dr. Letty Lantican and Prof. Thelma Corcega (now also Dean of UPCN), made it pretty obvious that they now are concentrating more on training, somewhat less on supervision, and not at all on selection criteria. The reason for the latter development, they say, is that in the problem analysis phase, the important characteristics identified by trainers and barangay residents alike is that trainees be volunteers, literate, and residents of the community. Other factors, such as age, sex, and minimum educational level, did not generate a consensus.

The progress report received prior to my departure on this trip spelled out the one selected "solution" to the problem (i.e., the training strategy to be field-validated) in terms of decision variables (content, method, trainer, location, duration, and cost) and constraints, but did not indicate what other values for the decision variables also had been evaluated and passed over. One of the tasks of this visit with the team was to establish that they had indeed systematically evaluated all the potential strategies. I found that this had been the case and we laid out a format for documenting this. (This supplementary report now has been received.)

The BHW training program has begun and I was able to spend one day in the field observing. I was introduced and my relationship to the project explained. As part of my obligatory few words I talked about the movement in many countries toward the use of community health workers and their role in the total care system. When I asked what they thought might be their most important problem in carrying out their tasks, the response was pretty universally not being paid I then repeated my comments about people and communities having to accept responsibility for taking care of themselves when they can and leaving to government or the private sector those things trhat are beyond them. I'm sure that was not what they wanted to hear, but they gave me rice cakes and orange soda anyway.

The study seems pretty much on track, although some friction had developed just before I arrived between staff of one of the rural health units and some of the BHWs they are supposed to supervise. The issues seemed to boil down to the RHU staff not really thinking much of the BHWs' capabilities and providing too close supervision in terms of not allowing the BHWs to plan their own health education training sessions with the villagers and not providing access to the sphygmomanometer when the RHU staff are not around. The P.I.s were planning to discuss the problem with the RHU staff to make sure they understood the real issues and interpersonal dynamics before they made any further moves toward resolution of the conflict. This is a particularly interesting problem because, for this group of BHWs, one of the RHU staff was a trainer and the training location was the health center itself.

Philippines: U.P. Institute of Public Health, February 17 - March 1, 1985

The purpose of this study is to develop a training strategy that will improve the ability and motivation of barangay health workers to deliver an effective nutrition component in their service mix. The Principal Investigator is Dr. Carmencita Salvosa-Loyola, Chairman of the Department of Nutrition of the Institute of Public Health. The co-investigator (Adelisa Ramos) is the Chief Nutritionist of the Ministry of Health; a key consultant is Dr. Lourdes Sumabat, the Assistant Director of the Nutrition Service of MOH.

The two biggest problems the project faced at the time of my arrival were, one, inability to produce an analytical model to make the transition between problem analysis and solution development and, two, failure of the two key MOH cooperants to commit significant time to helping develop this model. My visit at this time seemed to help break the logjam on both counts.

On my visit last July, although we had concentrated on design of the survey which would be used to gather data on present BHW performance and training, we did talk some about the use of multiple criteria utility assessment to design the training strategy. Since then, the survey has been completed and analyzed. It appears, however, that for more than a month before my arrival no systematic atttempt had been made to develop the training strategy. Dr. Loyola said that she had been unable to get her MOH colleagues to set aside time to work with her. While this may have been the case, it was also clear that she and the research staff did not know how to proceed with the MCUA.

As is often the case, the arrival of an outsider with a limited time in-country provided the impetus for action. As it happens, Sumabat, Ramos, and I have worked together before, both when I was involved in the evaluation of the Title II program in the Philippines and when I had a project with the

National Nutrition Council, so there was also a pleasant reunion factor involved. Salvosa-Loyola and her staff, Sumabat and Ramos, study consultant Trini Osteria, and I were able to have two very productive days together. We laid out the MCUA framework and, based on a system analysis of malnutrition in the barangays, settled on three overall objectives representing broad skills which the BHW should have at the completion of the nutrition module in their training program. These were that the BHW should know how to do community and household nutrition assessment, should know of a range of intervention strategies and how to relate each to problems turned up in the assessment, and should be able to evaluate the outcome of strategies undertaken; these objectives were given consensus weights of 1.0, 1.0, and 0.4, respectively. Each broad objective then was divided into a series of subobjectives. For example, the assessment objective included a need to know how to determine nutrition status by weighing, ascertaining age, measuring height, and reading the standard Filipino nutrition status chart. It also included a need to understand the various forces which could be the underlying causes of malnutrition and how to estimate which of these were the most likely problem in a particular household or barangay. All the various subobjectives were then given weights. Decision variables, constraints, and possible strategies were also discussed. At the end of the second session, an excellent MCUA was well along. Our agreement was that the group would finish it and send me a copy.

Before I left, Dr. Salvosa-Loyola confided that she was very pleased because Ms. Ramos and especially Dr. Sumabat were usually very hard to pin down for any substantial block of time. Dr. Sumabat, in fact, was so taken by the process that she asked if she could lift a short section section of my OR methods paper (she'd seen the draft I'd given Salvosa-Loyola) for a paper she was presenting the following week at the annual meeting of the Philippine Society of Dietitians and Nutritionists. (I'd addressed that group myself in 1982.) The other thing she requested was that on my next visit I clear half a day for a workshop on OR at the Ministry.

In two sessions, we made good progress on the MCUA but were not able to finish. Our agreement was that they would finish it and send me a copy. A recent letter from Dr. Salvosa-Loyola says that they are still working on it and that the MOH now has brought in two additional people from their Training Division, an excellent sign of their serious intent.

Meetings With USAID/HPN

USAID/HPN remains very supportive of these studies and has assigned the monitoring task for all three of them to a new member of the staff, Mrs. Marichi de Sagun, who until recently worked for the National Nutrition Council; I know her from there. She is well up on the status of the projects. As noted earlier, USAID is particularly anxious that the Ministry of Health and PCHRD take into account the work of the financing study as national policy is evolved, and has taken steps such as convening the study team briefing for those organizations and reminding PCHRD that a report of that study would be most appropriate in their upcoming workshop.

MEMORANDUM

TO: Jim Heiby, ST/H
THROUGH: Jack Reynolds, PRICOR
FROM: Stewart Blumenfeld, PRICOR SB
SUBJECT: Trip Report, Philippines and Korea, June 20 - July 13, 1984

The purpose of this trip was to provide methodologic technical assistance to the three PRICOR studies in the Philippines and, in Korea, to review with the project staff results of the recently-analyzed baseline survey, discuss the present state of the implementation of the community health leader training program, and discuss the service utilization simulation model now under development by the co-Principal Investigator.

PHILIPPINES: U.P.-VISAYAS (#108)

This study is aimed at assisting barangays in Iloilo Province develop means for funding PHC. Of the six test barangays, five have opted to develop community-financed boticas sa barangay, while the other decided upon a hospitalization emergency loan fund. All six of the funds are up and running. Interestingly, when the communities encountered early difficulties in raising the capital they needed to get started they asked if PRICOR (i.e., the local study group) could help out with "seed money". This approach was concurred in by the Filipino study group and was passed along to PRICOR/Washington. Following our discussion here, we demurred on grounds that such external intervention would not demonstrate the viability of self-organizing financing schemes. In the end, when outside help was not forthcoming, the communities were able to raise enough capital to get started from their own resources using a combination of self-taxation and various fund-raising schemes such as raffles and community events.

In this trip, I was able to visit three of the barangays and went over their "books" in detail. I was pleased to find that the records are being kept according to the protocol prepared as guidelines by the study staff and that each of the funds is generating a small profit. In a briefing by the study staff, I was assured that the other three are in equally good shape. Overall, it appears that to date the organization and management goals for these funds are being met.

One problem persists, however, and it reflects no change from that which I brought up to the project staff on my last visit to the site in August 1983, namely that, while one of the goals of the study is to find ways to encourage the villagers to use their own resources to fund preventive and promotive activities, all activity so far is aimed at therapeutic care. The barangay residents, when I queried them myself on this point, talked of vague plans in the future to perhaps do something in latrine construction (water supply is not a problem), but I have the distinct impression that it would be unhealthy to hold one's breath waiting for this to come to pass.

suggested that it would be very useful for the Governor's staff to keep very careful notes on the progress of this financing scheme so that it could be written up as a case study at some point.

This study is scheduled to conclude in January, at which time the team will present its results to the Regional Ministry of Health and, more importantly, to the Deputy Minister of Health for PHC and his staff. The Deputy Minister is considered the key decisionmaker by the team because he has the authority to implement this financing approach on a pilot scale if he likes it. (The study team has made a strong plea that I be present at these sessions to help with technical matters and to demonstrate PRICOR support for their work and their recommendations. USAID staff also will be present.)

PHILIPPINES: U.P. COLLEGE OF NURSING (#208)

The purpose of this study is to develop effective selection, training, and supervisory strategies for stabilizing barangay health workers, i.e., reducing turnover of these CHWs. The team recently completed the field portion of its survey to gather data required to determine present practices in training, supervision, and service delivery and congruence in these areas between the expectations of the barangay residents, the BHWs, and the BHW trainers. Included in this survey is a unique psychological evaluation of the BHWs to see if personality traits can be detected which have a strong predictive capability for selection of effective, stable BHWs. (One of the P.I.s for this study is a nurse with a Ph.D. in psychology.) The survey instruments used in the communities have been sent to the same Technological Resources Center for data entry and analysis; at the time of my visit, the TRC was two weeks late delivering the first output. The instruments used to survey the BHWs and the trainers are being collated and analyzed by hand.

Not atypically, the study staff are eager, once the analyses are in hand, to get to the field to experiment with some strategies. As we discussed next steps, however, it became clear that they do not have a firm idea of how they would use the data they've just gathered to develop, assess, and select appropriate strategies. We discussed possible approaches, settled on a multiple criteria utility assessment, and reviewed the methodology. I pointed out that even though the study is a few weeks behind schedule, this phase should not be short-circuited. Some time, in fact, already has been made up because field test site selection was started early. In a trip to the field, I was taken to meet the captains of several of the barangays which will be used in training the new BHWs. Before closing out my meetings with the project staff, we reviewed the types of variables which would be used to evaluate the outcome of the tested strategies and agreed--again--that these would be basically performance measures, not morbidity. We had discussed this on my previous visit, as well as in letters, but the lesson from evaluators that outcome's the real target has taken firm hold, and convincing people that process evaluation has a legitimate function is not easy.

The statistical consultant for this project is the same person, Dr. Osteria, who is the P.I. on the UP-V study. After my experience with the analysis being employed in that case, I felt it necessary to discuss the nature of the

analysis contemplated for this study. I explained my fear that the rigorous parametric analyses proposed (in both cases) were more elaborate than required and, perhaps, than warranted by the quality of the data. We discussed possibilities in the realm of non-parametric analysis, my intention being mainly to sensitize her to my concern without being too directive at this time. The importance of this is magnified because Dr. Osteria is also the statistical consultant for our third, and newest, project in the Philippines! Although it's hard to say what the ultimate impact of these discussions will be, I feel that some progress was made, as Dr. Osteria, who previously was adamant about the need for access to a powerful mainframe-based statistical package (SPSS, SAS, etc.), did agree to consider using a microcomputer-based package (Statpac, Statpak) if I would send her some literature. At present, neither of the two Manila-based studies (this one and the next to be discussed) yet have access to a microcomputer. However, we located some machines which might be accessible and I authorized use of PRICOR funds to rent time on them. The two study staffs were going to follow up on this.

I had been invited by the Dean of the UP College of Nursing, which is the subcontractor for this study, to address the senior research class and faculty on the subject of operations research in general and with regard to PHC in particular. Faculty from other nursing schools in Manila also had been invited. I covered the general OR approach (the gospel according to PRICOR) initially, and then, with considerable audience participation, illustrated the method and application of multiple criteria utility assessment. By providing some guidance, I was able to turn this example into a model of the UPCN PRICOR study. I could see our study team taking assiduous notes. The group was quite lively and seemed genuinely interested in the contrast between OR and experimental research, with which, of course, they are much more familiar. They appeared to grasp the MCUA technique and were fascinated by its potential as a fairly simple and straightforward tool for decisionmaking at a level beyond intuition. A whole morning was devoted to this session and the Dean and other faculty were most appreciative.

PHILIPPINES: U.P. INSTITUTE OF PUBLIC HEALTH (#295)

The purpose of this study is to develop training strategies which will improve the ability of the barangay health worker to deliver nutrition services. The study has just begun (May 1984). The first task of the project is to assess existing training practices and the knowledge, attitudes and practices which current training strategies produce (concerning nutrition) in the BHW's, plus an assessment of nutrition knowledge and practices in the target population. This information will be obtained by survey.

My visit was deliberately timed to enable me to consult with the staff of this project at its beginning. Thus, I was able to examine the survey instruments before they were actually implemented. Although the instruments had already been reviewed and revised by the two cooperating MOH consultants (one of whom is chief of the Nutrition Division of MOH), I found them to be too broad, i.e., developing too much information not directly relevant to the nutrition component of the GOP PHC program, ambiguously worded in a number of places, and open-ended to a degree which would make coding and editing very difficult and

clear-cut analysis problematic. We reviewed the questionnaires in detail and I have asked that the next revision be sent to me before they are even field-tested. Also, since the P.I. had thought that she was ready to begin the survey exercise, she was on the verge of hiring interviewer staff and beginning their training. She has agreed to delay this.

We also talked about how the data, once gathered, would be used to develop and select new training strategies. Once again, it was clear that this was a problem area. Consequently, the staff and I spent considerable time going over possible analytic strategies. We agreed that non-parametric partial correlation would be used to a degree and that this would feed into MCUA (they had attended the seminar at UPCN).

I accompanied the P.I. as she inspected proposed sites (and attendant BHWs) for initial surveying and ultimately testing new training strategies. Although some earlier contacts had been made with MOH staff in the area, the site visits demonstrated that some of the barangays were just too far off of reasonably decent roads to be practical. Thus, the period during which the survey instruments are being re-worked also will be used to pin down field sites.

MEETINGS WITH USAID/PHILIPPINES STAFF

USAID/P/HN has always been, and remains, very supportive of the PRICOR studies. Each of the three projects has a USAID staff member assigned as liaison and one finds that, even though the PRICOR study is not a first-line responsibility, they are pretty much up to date on the project's activities. They also are extremely helpful in facilitating communication between the P.I.s and PRICOR. Joy Riggs-Perla was on home leave at this time, but I did have a chance to speak to her before I left Washington. She is satisfied with the progress of the UP-V study, which is in her area of responsibility. Upon my arrival in Manila, I met with Gary Cook (responsible for the UPCN study), Dodong Capul (the UPIPH study), and John Dumm (OHN Chief) to sketch out my itinerary and plans for the two weeks and to receive their comments on specific matters which they thought I should look into or simply be aware of. Immediately prior to leaving the country, I met with them again to brief them on the results of my visits to each study. Dr. Capul had also cleared a day to go with the UPIPH staff and me to look at potential field sites.

KOREA: SEOUL NATIONAL UNIVERSITY COLLEGE OF NURSING

This study is aimed at developing a strategy for involving community leaders in the delivery of health services (first aid, health education, and case-finding). The study is one of PRICOR's first group and, with a six-month, no-cost extension, is scheduled to end next June. The work is progressing satisfactorily. Several visits were made to the field to allow me to observe the training of the community leaders by the Community Health Practitioner (specially trained nurses who now constitute the lowest level of health sevice deliverers in the Korean system). This study was set up to contrast a test area with a "control" on the basis of various service utilization rates and the big worry of the study staff right now is that the latter suddenly has received a

PHILIPPINES — Leticia Lantican

Objectives: Develop solution s to problems in the design and delivery of Barangay Health Worker's (BHW's) training in PHC.

Phase I: Examine ongoing BHW PHC training; identify factors affecting selection, training and supervision of BHW's in the field, as well as problems, difficulties encountered in providing BHW training (by interviews with trainers). Interview (with questionnaires) of BHW's and households will be done in 3 communities currently receiving PHC services. BHW performance in the clinic and in the field will be observed.

Phase II: Develop alternative training strategies.

Phase III: Field test alternative strategies using quasi-experimental design (6 experimental and 1 control communities). Evaluation of field test results.