DEPARTMENT OF HEALTH
THE REPUBLIC OF THE PHILIPPINES

No. 1

BASIC DESIGN STUDY REPORT
ON
THE PROJECT FOR UPGRADING OF FACILITIES AND EQUIPMENT IN SELECTED FIELD HEALTH UNITS
IN
THE REPUBLIC OF THE PHILIPPINES

JANUARY, 1999

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
KUME SEKKEI CO., LTD.
NOBEL ARCHITECTS & ASSOCIATES, INC.

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PREFACE

In response to a request from the Government of the Republic of the Philippines the Government of Japan decided to conduct a basic design study on the Project for Upgrading of Facilities and Equipment in Selected Field Health Units and entrusted the study to the Japan International Cooperation Agency (JICA).

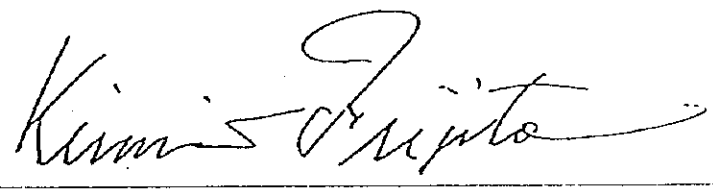
JICA sent to the Philippines a study team from June 30 to July 26, 1998.

The team held discussions with the officials concerned of the Government of the Philippines, and conducted a field study at the study area. After the team returned to Japan, further studies were made. Then, a mission was sent to the Philippines in order to discuss a draft basic design, and as this result, the present report was finalized.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of the Philippines for their close cooperation extended to the teams.

January, 1999



Kimio Fujita
President
Japan International Cooperation Agency

January, 1999

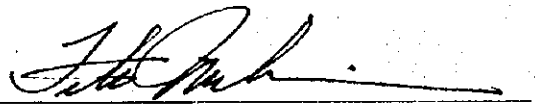
Letter of Transmittal

We are pleased to submit to you the basic design study report on the Project for Upgrading of Facilities and Equipment in Selected Field Health Units in the Republic of the Philippines.

This study was conducted by Kume Sekkei Co., Ltd. and Mohri, Architects & Associates, Inc. Consortium, under a contract to JICA, during the period from June 14, 1998 to February 15, 1999. In conducting the study, we have examined the feasibility and rationale of the project with due consideration to the present situation of the Philippines and formulated the most appropriate basic design for the project under Japan's grant aid scheme.

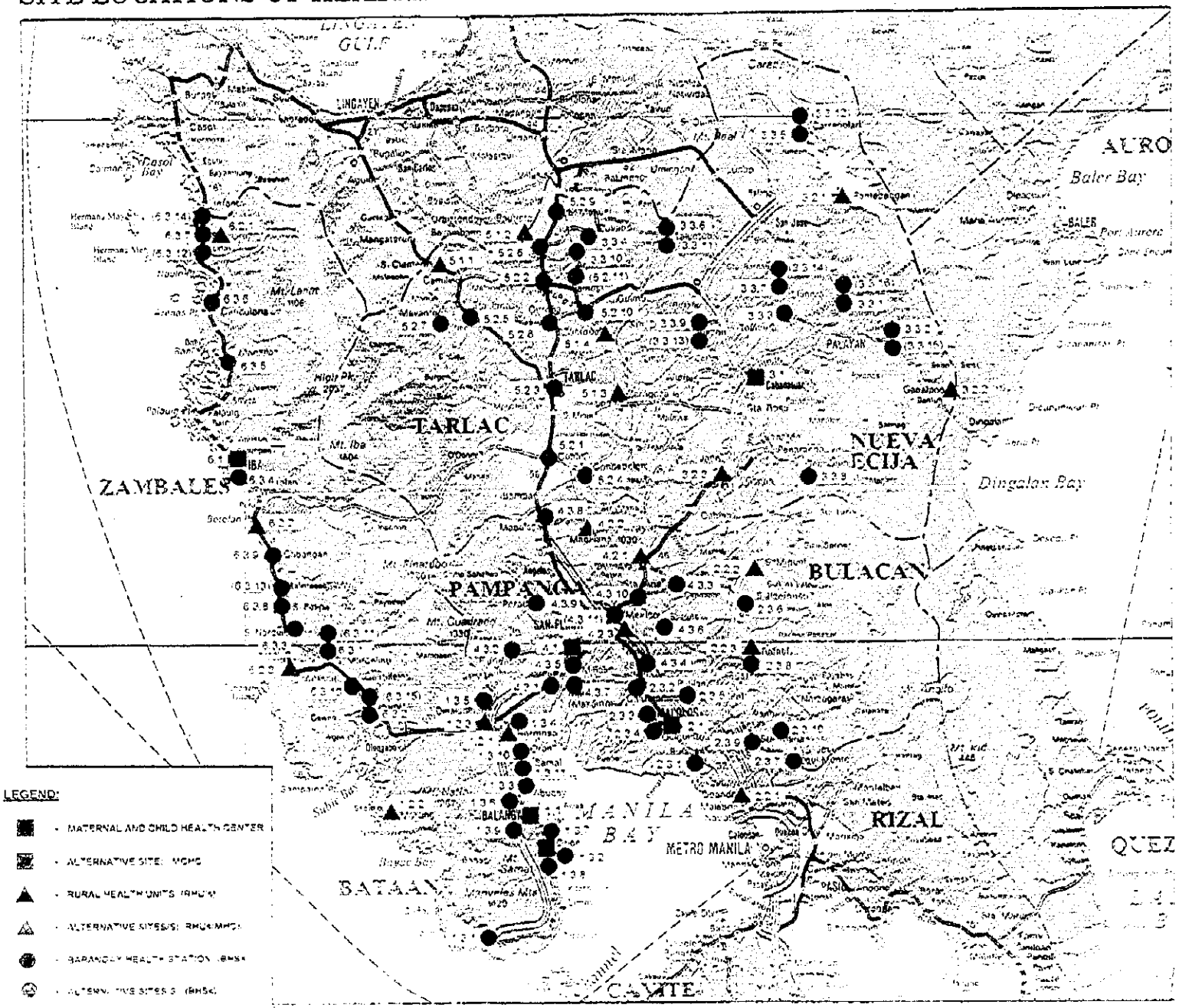
Finally, we hope that this report will contribute to further promotion of the project.

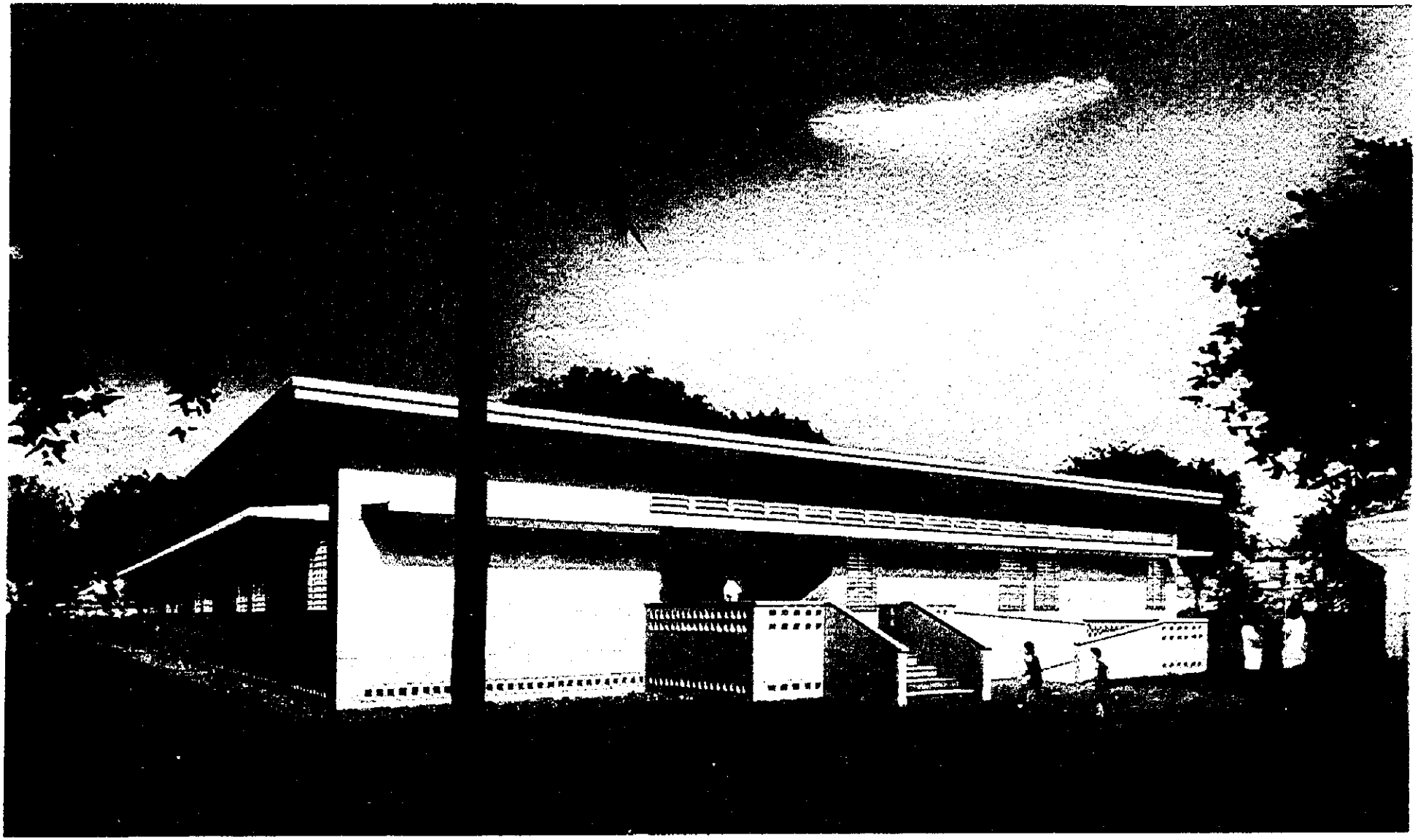
Very truly yours,



Tetsuro Nisihimura
Project Manager,
Basic Design Study Team on
The Project for Upgrading of Facilities and
Equipment in Selected Field Health Units
Kume Sekkei Co., Ltd.
Mohri, Architects & Associates, Inc.
Consortium

SITE LOCATIONS OF HEALTH FACILITIES



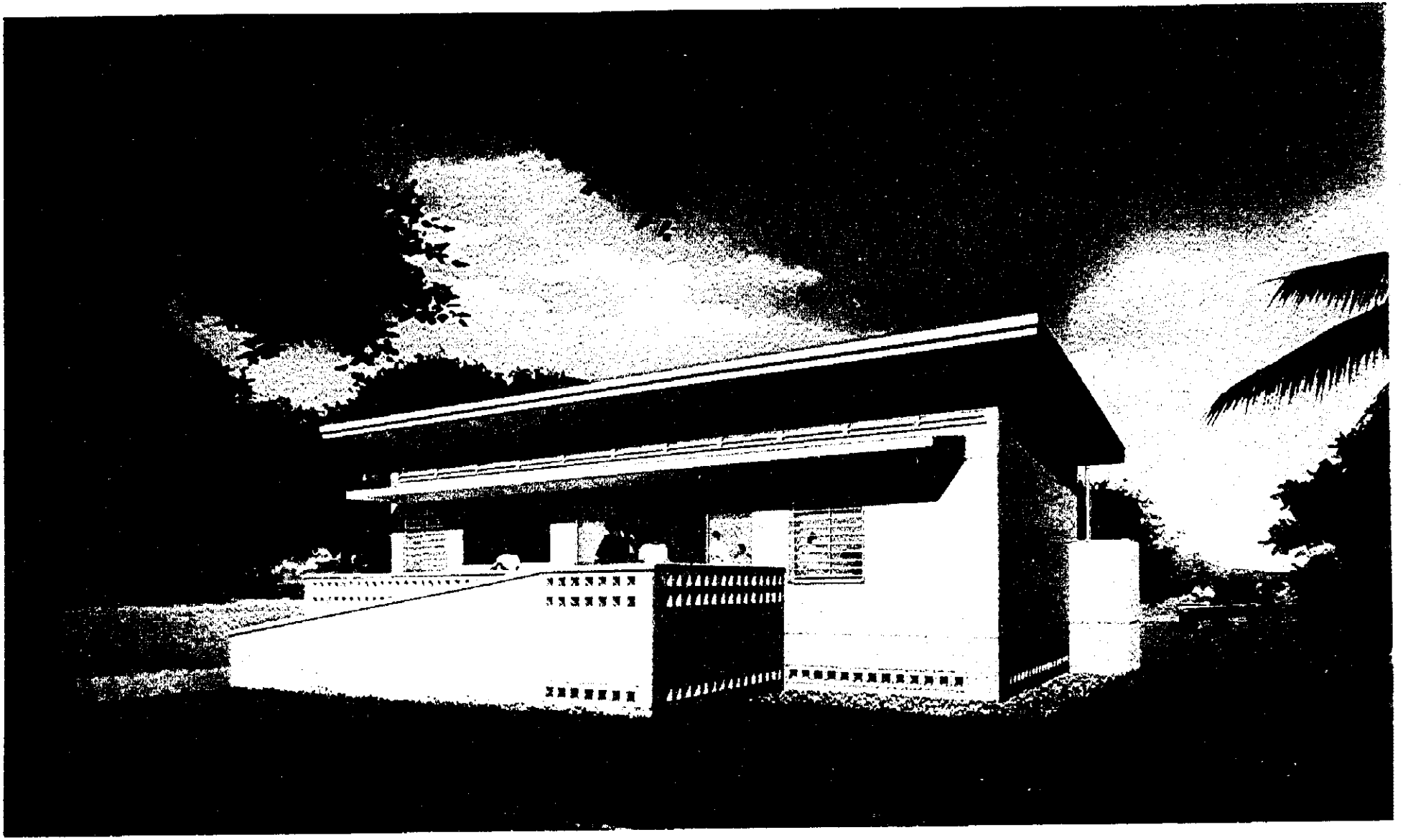


Maternal and Child Health Center／MCHC

The Project for Upgrading of Facilities and Equipment in Selected Field Health Units

Rural Health Unit／RHU

The Project for Upgrading of Facilities and Equipment in Selected Field Health Units



Barangay Health Station／BHS

List of Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacille de Calmette - Guerin
BHS	Barangay Health Station
BHW	Barangay Health Worker
CARI	Control of Acute Respiratory Infections
CBR	Crude Birth Rate
CDD	Control of Diarrheal Diseases
CDR	Crude Death Rate
CPR	Contraceptive Prevalence Rate
DPT	Diphtheria /Pertussis /Tetanus Vaccine
EPI	Expanded Program on Immunization
FP/MCH	Family Planning / Maternal and Child Care
GII	Global Issues Initiative (on Population and AIDS)
IEC	Information, Education and Communication
IMR	Infant Mortality Rate(1,000 birth)
IRA	Internal Revenue Allotment
IUD	Intrauterine Device
LGU	Local Government Unit
LPP	Local Performance Program(USAID)
MCHC	Maternal and Child Health Center
MHO	Municipal Health Office / Officer
MMR	Maternal Mortality Rate(100,000 live birth)
ORT/ORS	Oral Rehydration Therapy / Oral Rehydration Salts
PCM	Project Cycle Management
PHC	Primary Health Care
PHO	Provincial Health Office / Officer
PIP	Public Investment Program
RHM	Rural Health Midwife
RHO	Regional Health Office
RHU	Rural Health Unit
TBA	Traditional Birth Attendance
TFR	Total Fertility Rate
U5MR	Under Five Mortality Rate(1,000 live birth)

<Government Organizatipons>	
DECS	Department of Education, Culture and Sports
DILG	Department of Interior and Local Government
DOH	Department of Health
NEDA	National Economic Development Agency
POPCOM	Commission on Population

<International Agency/Donors>	
ADB	Asian Development Bank
AusAID	Australian Agency for International Development
GTZ	German Agency for Technical Cooperation
KfW	Kreditanstalt fur Wiederaufbau of Germany
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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CHAPTER 4 PROJECT EVALUATION AND RECOMMENDATIONS

ANNEX

CHAPTER 1 BACKGROUND OF THE PROJECT

Chapter 1 Background of the Project

1-1 Health Conditions in the Philippines

1-1-1 Stagnating Health Indicators

The Philippine government has long been working on medical care policy and it has achieved high levels in terms of medical care technology. However, communicable diseases remain a major health problem in the Philippines, with top-ranking ailments consisting of pneumonia, diarrhea, bronchitis, tuberculosis, and so on. Moreover, malnutrition, which has a detrimental effect on the health of children and pregnant women, is prevalent and exists in combination with adult and chronic ailments such as heart disease, vascular disease, and malignant tumors, etc.

The Aquino administration was put into effect with a view to improving the peoples standard of health, nutrition, welfare and rural sanitation. And following measures were taken; 1) improvement of national health, medical care and nutrition, 2) implementation of public health and medical care services for all peoples by 2000 through PHC facilities, and 3) promotion of family planning in order to improve the home environment for peoples.

In a continuation of this policy to the Ramos administration from 1993, measures to enhance prevention and promotion of public health services, provide comprehensive nutritional services on the community level, and to implement family planning and maternal and child health (FP/MCH) care. In particular, through disseminating primary health care (PHC) and encouraging peoples participation, efforts have been made to achieve a low cost and sustainable rural health services.

Table 1-1-1 Comparison of MCH Indicators with Surrounding Countries

			Thai -land	Malay -sia	Philip -pines	Indo -nesia	HDI Mid. Counties Mean*
Births with attendant	(%)	1990-96	71	94	53	36	74
Underweight births	(%)	1990-94	13	8	15	14	11
U5 underweight	(%)	1990-96	26	23	30	35	18
IMR	(per 1,000 births)	1994	29	12	36	53	46
U5MR	(per 1,000 births)	1995	32	13	53	75	52
MMR	(per 100,000 births)	1990	200	80	280	650	206
life expectancy of women (age)		1994	72	74	69	65	69
TFR		1994	1.0	3.4	3.8	2.5	2.7
Human development indicator (HDI)		1997	59	60	98	99	65

Note: * excludes China
Source: UNDP Human Development Report 1997

In this way the Philippine government has made an improvement of MCH and nutrition as priority area and has channeled efforts into "development of human resources" especially. Despite this effort, health indicators in the Philippines are still only medium to low compared with surrounding ASEAN countries as shown at Figure1-1-1. Room for improvement particularly exists with respect to the infant mortality rate (IMR), U5 mortality rate (U5MR) and the maternal mortality rate (MMR). Moreover, the high total fertility rate (TFR) exerts population pressure and is another area where improvement efforts need to be made.

1-1-2 Devolution and Rural Health System

(1) Decentralization and Related Issues

The Local Government Code (LGC, 1991) was put into effect from January 1, 1992. Under this devolution, the health care system was transferred to local government units (LGUs) over a period of four years, and the Department of Health has retained policy planning and monitoring functions, but the actual administration of public health was handed over to provincial governments and municipalities. Concerning health care facilities, the Regional Hospitals (RH: about 200 beds) and Medical Centers (MC: about 400 beds) located in each region are controlled by the Department of Health. Meanwhile control of lower level Provincial Hospitals (PH: about 200 beds) and District Hospitals (DH: 25-50 beds) has been handed over to the Provincial governments. City and Municipality have been charged with managing Regional Health Units (RHU) and Barangay Health Stations (BHS), and in this way public health services directly connected to community peoples have come to be provided.

Table 1-1-2 Scale of LGUs Following the Local Government Code (1991)

	Province	City	Municipality	Barangay
Population (persons)	250,000	15,000	25,000	2,000
Area (km2)	2,000	100	50	—
Income (1991 prices)	20 mil. pesos	20 mil. pesos	2.5 mil pesos	—
Leader	Governor	Mayor	Mayor	Captain
Health Officials	5 years experience	3 years experience	3 years experience	—
Number of organizations	75 Provinces	65 City	1,538Municipal	41,293 Barangay

Source: Prepared from "Health Administration in the Philippines", Nakahara, 1991

The Department of Health, acting as the central government agency, is responsible for carrying out the following: 1) planning of policies and measures, 2) setting of criteria and ordinances, 3) monitoring and evaluation, 4) research, 5) securing of funds, 6) technical assistance (planning, training, audio and visual teaching materials, operating support), and so forth. LGUs implement their own unique local measures, determine implementation procedures and allocate resources, etc.

Table 1-1-3 Role of the DOH Following the Local Government Code

1) Implementation of national level Core Programs. (EPI, TB, Lepra, ARI, CDD, FP, etc.)
2) Implementation of test development programs using domestic funds.
3) Formulation of state standards concerning prevention, treatment and Counter-measures for important diseases.
4) Legal regulations and authorization.
5) Coordination with other ministries and agencies.
6) Operation and maintenance of National hospitals. (Special Hospitals, Medical Centers, Regional Hospitals)

Source: JICA Country-based Health Cooperation File: Philippines 1997

Furthermore, the Department of Health has compiled a core program and provides technical guidance based on agreements concluded with local government units. Measures in this area are divided into the following five components: 1) Save motherhood measures (FP/MCH), 2) Nutritional promotion (supplementation of vitamin A, micro-nutrients such as iodine, etc.), 3) preventive vaccinations (EPI), 4) tuberculosis (TB), and 5) safe water supply and sanitation. Moreover, the Department of Health procures necessary medical supplies and distributes them to LGUs throughout the country. These medical supplies include anti-tuberculotic, peroral salt water, acute respiratory tract infection (A/P) medicine, vaccines, iodine, vitamin A, contraceptives, and so forth.

As is summarized in Table 1-1-4, local government units have encountered a number of problems following the implementation of decentralization. For example, 1) local governments cannot secure sufficient budgets, 2) there is a lack of planning and management capacity, and 3) implementation of unified local health services has become difficult due to the division of responsibilities (between provinces, cities and municipalities).

Table 1-1-4 Problems Following Decentralization (1992)

1)	Since politicians and administrators have little understanding of the public health and medical care sector, there is difficulty in securing necessary budgets.
2)	Disparities exist in terms of health funding and level of services between affluent LGUs and poor LGUs.
3)	In LGUs that are being forced to reduce budgets, the level of services is falling due to cuts in medical supplies and reductions in examination tours and training, etc.
4)	Medical supplies and equipment are distributed by the provincial governments, however, sometimes such supplies tend to be delayed or not sufficient.
5)	If provincial officers do not display understanding towards public health administration, the morale of prevention and PHC staff falls.
6)	The division of authority between provinces, cities and municipalities hinders the referral and training systems.
7)	The salaries and working conditions of health staff who have been transferred to the LGUs (approximately 45,000) have declined.

Source: JICA Country-based Medical Cooperation File: Philippines 1997

(2) PHC and the Rural Health System

Primary health care (PHC) is an important component of national health policy of the Government of the Philippines. The Government regards it as an integral element of socioeconomic development and having the goals of; 1) achieving cooperation with community, 2) expanding access to services by peoples participation, and 3) securing sustainability by cost-save implementation.

PHC has been implemented on the nation wide since 1981. This promotion of PHC combined with the viewpoint of cost effectiveness (low cost) proposed by the World Bank, and provision of health services directly linked to the specific needs of community and promotion of people's participation. It is also expected to pave the way for an overall and comprehensive approach to national health programs and health projects sponsored by donors.

Responsibility for implementing PHC in rural area rests with Rural Health Midwives (RHM), who are assigned to approximately 17,000 BHSs throughout the country. In order to become a RHM, one must receive special education for about two years after junior high school and then pass a national exam. The duties of RHMs are not simply limited to examining expectant mothers and assisting in childbirth, but cover a wide range of activities including mothers' classes, expectant mother checkups, infant checkups, first aid, preventive inoculations (BCG, polio, DPT, etc.), discovery of TB patients (saliva

sampling, smear sample preparation), administration of TB medicine, health education, family planning guidance, IUD insertion, and so on. In addition, RHMs report Barangay health records (births/deaths, stillbirths, pregnancy conditions) to their immediate regional health units (RHU) once per week and at the same time receive advice from the doctor and nurses assigned to these RHUs.

The work of RHMs is assisted by Barangay health workers (BHW) who are trained volunteers. These BHW assist the activities of RHMs, transmit information from RHUs, check TB patients and pregnancies in the Barangay , etc., and perform various public relations activities. An effective network of Barangay health workers is currently being constructed with a view to promoting public participation. In this way the health care service delivery system in the Philippines is moving away from government dependence and shifting priority towards self-help on the levels of individuals, families and communities.

1-2 Economic Situation and Structure

The Ramos administration has worked out "Philippine 2000", which is a strategy for development that ultimately aims to raise per capita income to $ 1,000 by year 20000. Also lower the poverty rate from 50% to 30%, it aimed that achieving the free market economy, developing export industries, developing human resources, and so on.
In the Medium-term Philippine Development Plan 1993-1998, human development and poverty alleviation were fixed as the primary goals and efforts were made to execute with the five main components of; 1) human resources development, 2) agricultural and industrial sector development, 3) infrastructure development, 4) macroeconomic and financial stability, and 5) development administration.

Concerning the economy, as a result of the infrastructure development and deregulation measures, economic growth began in earnest from around 1994 and the GDP in 1996 increased by 5.6% over the previous year. In the national budget, the Tax System Reform Bill for IMF support was passed in December 1997, however, the economic fundamentals of the Philippines is still fragile. It is forecast that the revenue shortage will increase in line with the recession that has followed the Asian economic crisis.

The economic growth rate peaked in 1996, when the real GDP increased by 5.7% over the previous year, and in 1997 this gradually slowed to 5.1%. Export performance in 1997 was good amounting to $ 25.2 billion (22.8% up on the previous year), and imports stood at $ 32.9 billion (around 10% up on the previous year) after being affected by a slowdown in corporate activity brought about by rapid depreciation of the Peso. Due to a number of negative factors such as continuing depreciation of the Peso, sustained inflation, aftereffects of the currency crisis, depression of internal demand and so on, it is forecast that economic growth in 1998 will slow to around 2%.

Table 1-2-1 Economic Indicators in the Philippines

	1993	1994	1995	1996	1997
Population(million)	67.00	68.60	70.30	71.90	-
Exchange rate (Peso/US $)	27.120	26.417	25.714	26.216	29.471
GDP (1 billion Peso)	1,475	1,693	1,906	2,197	2,452
Per capita GDP (US $)	811	934	1,055	1,165	-
GDP actual growth rate (%)	2.1	4.4	4.8	5.7	5.1
Consumer price index (% previous year)	7.6	9.1	8.1	8.4	5.1
Foreign exchange reserve (million US $)	5,921	7,121	7,775	11,745	8,738

Source: Asia Institute "World Trends", 1998/9

1-3 Outline of the Request

In the health sector Public Investment Plan (1994-2004), the Philippine government is striving to make improvements in the priority areas of women's health, and maternal and child health and nutritional improvement. However, having an infant mortality rate of 44/1,000 and an maternal mortality rate of 210/100,000 (DOH, 1994), the Philippines is still a medium to low level country within ASEAN in terms of health indicators.

Following devolution of the Local Government Code in 1992, finances and administrative authority concerning the health sector in local level were almost totally transferred to LGUs. As a result, municipal health offices provide medical care services and preventive inoculations to community peoples and are responsible for managing health staff, etc. However, municipalities are confronted by problems of health staff shortages or inadequacy of facilities and equipment. Moreover, although regular training is required in order to raise the technical skills and knowledge of health staff, the training facilities are deteriorated and thus impede the effective implementation of staff development.

The planned facilities by the Project, i.e. Regional Health Units (RHU) and Barangay Health Stations (BHS), are health service facilities on the city and municipal level. Meanwhile, a Maternal and Child Health Center (MCHC) was established as part of the JICA technical cooperation (FP/MCH Project Phase I) in Tarlac Provincial Hospital, and it is recognized that this has made a certain contribution to the improvement of MCH services in that province. This MCHC is acting as a core provincial facility in the area of MCH service and conducting staff training, disease prevention activities and accepting obstetrics / gynecology and pediatric patients that cannot be handled by RHUs. Therfore, MCHC plays an important role in aiding the effective implementation of JICA technical cooperation in tandem with treatment and prevention activities.

In view of the above, the Government of the Philippines has formulated a plan aimed at improving the health situation of women and infants in Region III (Central Luzon) through establishing RHUs and BHSs, those facilities are either deteriorated or have not yet been built. And providing MCHC facilities in the five remaining provinces of Region III apart from Tarlac. It has requested the Government of Japan to provide grant aid for implementation of the project.

Upon receiving the above request, the Government of Japan conducted a preliminary study in January 1998 with the objectives of confirming the contents of the request and ascertaining that the Project will support the on-going JICA technical cooperation and contribute towards improving MCH services in the target area in tandem with the said

project technical cooperation activities.

The technical cooperation by JICA, the FP/MCH Project Phase-I, was implemented over five years between April 1992 and March 1997 with the aim of improving the family planning and maternal and child health sector in Tarlac Province. It is recognized that this project contributed towards improving FP/MCH services, strengthening local health activities via people's participation, and raising the capacity of MCH workers through providing training and IEC materials such as audio/visuals.
Phase II of the project (April 1997 to March 1992) currently under implementation intends to disseminate the achievements of Phase I to all six provinces of Region III.

The outline of the Project and the contents of the request are as follows.

Table 1-3-1 Project Outline and Contents of the Request

(Project Outline)	
Overall Goal:	Improvement of women and children health conditions in Region III
Project Purpose:	Improvement of maternal and child health and medical care services in Region III
Expected Outputs:	1) Improvement of medical care service functions in the target facilities 2) Improvement in the skill levels of maternal and child health and medical care workers
(Request and Implementaion)	
Contents of request	Construction of facilities in the six target provinces (60 BHSs, 19 RHUs, 5 MCHCs)
Implementation plan:	Implementation of the health activities and staff training so far conducted in Tarlac Province to all six provinces of Region III

CHAPTER 2 CONTENTS OF THE PROJECT

Chapter 2 Contents of the Project

2-1 Objectives of the Project

(1) Project Objective

The Philippine government began efforts directed at primary health care (PHC) from the 1970s, aimed at providing base preventive services to the rural population, including programs for inoculation, maternal and child health, prevention of schistosomiasis, tuberculosis, etc. Furthermore, action sectors pertaining to nutritional improvement, family planning, and maternal and child health was intensified from the 1990s, comprising integrated measures for safe water supply, upgrading of sanitary facilities, prevention of communicable diseases, etc. In this manner, the Philippine government has established PHC as a primary strategy within its overall health policy, and accorded health related activities a major priority in social and economic development.

Despite these government level efforts, however, communicable diseases continue to be a top ranking cause of illness in the Philippines. Although mortality from communicable disease is exhibiting overall decline, pneumonia, diarrhea, bronchitis, tuberculosis, etc. continue to be chronically present in the population. Also, malnutrition is a serious problem particularly with regard to children and pregnant women, making it urgently necessary to improve the quality of, and expand access to, maternal and child health services. Accordingly, the Department of Health has designated five components under a national program for maternal and child health, i.e. EPI, CDD, ARI, MCH, and monitoring of child nursing, baby food and infant growth.

In 1992, the Philippine government put into effect the Local Government Code, 1991. Under this legislation, the Department of Health took steps in coordination with rural communities and with the participation of local residents to expand access to health and medical service, and establish sustainability of rural health at low cost. In this manner, the Philippines is pursuing the devolution of the country's health and medical system from its previous dependency on the central government, to a local community based system centered on mutual assistance and self-reliance. The core of this local community health and medical system is the Rural Health Unit (RHU) and the Barangay Health Station (BHS). These grass roots health facilities are maximally

proximate to the daily life of the rural population, and serve to improve access to preventive services in the areas of public hygiene, and maternal and child health.

Table 2-1-1 Health Delivery system in the Philippines

	Activities	Facility
Tertiary Health Services (DOH)	♦ Provide integrated health services include preventive, Curative and Rehabilitative. Medical Center for education and training of special Doctors, Regional Hospital for rural specific health. ♦ 200 - 300 beds, specialized department system.	MC: Medical Center RH: Regional Hospital
Secondary Health Services (Provincial Government)	♦ Provide secondary services as provincial main hospital and support Primary Health Units. ♦ PH (100 to 200 beds), DH (50 to 100 beds), Sanitary Hospital (150 beds) and others. ♦ 4 Clinics: Medicine, Surgical, Pediatric, Ob/Gy Laboratory: TB, Malaria, Water, X-ray, etc.	PH: Provincial Hospital DH: District Hospital
Primary Health Services (Municipalities)	♦ Provide primary health services such as FP/MCH, Public Health, Nutrition, etc. No beds prepared. ♦ RHU(every 10, 000 population) MD,PHN,Midwife, Lab-tec, Sanitary Inspector ♦ BHS(every 1, 500 population) RHM(one) and several BHWs	RHU: Rural Health Unit BHS: Barangay Health Station

Nevertheless, many of these rural health facilities intended to provide direct service to the local population are obsolete or rented facilities, and suffer from drastic shortages of equipment and medical supplies. They are thus constrained in their capacity to extend the envisioned basic service to the target beneficiaries. Accordingly, the objective of this Project is, through facility improvement and equipment supply, to upgrade basic health and medical service, and subsequently expand access to this service by the local population.

Implementation of the Project, and effective utilization of the RHU/BHS network centering on the Maternal and Child Health Centers (MCHC), will enable as follows;

1) effective implementation of an integrated program of family FP/MCH, public health, various health related campaigns, etc.,
2) strengthen health activities in all six provinces of Central Luzon by health personnel trained at the MCHCs,
3) improve access by the local population to direct health and medical services at the RHUs/BHSs,
4) public awareness and educational activities at the regional level utilizing IEC vehicles and teaching equipment.

(2) Linkage with Project Type Technical Cooperation

A Family Planning / Maternal and Child Health program under Project Technical Cooperation by JICA has already been initiated in Tarlac province, receiving high evaluation as a GII program. Since April 1997, phase II of this project has been underway with the aim of extending the geographical scope of project benefit to all six of the provinces comprising Central Luzon. Targets and anticipated impacts under this phase II are as follows:

Table 2-1-2 Action Plan for JICA FP/MCH Project, Phase II

(under Project Technical Cooperation)

Overall Goal:	To improve health status through the DOH'S Reproductive Health strategy in Region III.
Project Purpose:	To achieve region-wide improvements in reproductive health status among all the provinces in Region III (Central Luzon) through dissemination of the gains from the FP/MCH Project in Tarlac.
Results /Outputs:	1. Improved project management and capacity for objective evaluation. 2. Developed manpower resources through both formal/informal skills training, mutual information exchange with other health workers and technical transfer by experts in the related health fields. 3. Improved capability of local government staff to manage health programs. 4. Improved health status of community people in the project areas through people's active participation in health activities. 5. Smooth dissemination of IEC materials pilot-tested in the project area.
Activities:	1. Conduct of survey, monitoring and evaluation activities in collaboration with research & academic institutions. 2. Implementation of training and re-training program for health workers (Midwives, Nurses, Health Officials) 3. Upgrade of facilities, medical and IEC equipment 4. Conduct of health-related community participation 5. Development, preparation and dissemination of IEC materials.

DOH – Department of Health, FP - Family Planning.
MCH – Maternal and child Health, IEC – Information, Education and Communication

2-2 Basic Concept of the Project

In order to support the Project Type Technical Cooperation (phase II) currently underway, the Project will (i) establish a Maternal and Child Health Center (MCHC) on the grounds of each provincial hospital, (ii) under the umbrella of which will be established RHUs (3 locations) and BHSs (10 locations) in each province, and (iii) supply basic equipment necessary for the health activities of these facilities. In this manner, the Project aims to improve the quality of and access to health service in the Central Luzon region, and upgrade health conditions affecting women and children in the region.

The Project Type Technical Cooperation (phase I) is aimed at upgrading the quality of FP/MCH service at the primary health and health service level (RHU/BHS) in Tarlac province, to be achieved through human resources development (training program), promotion of health related IEC activities, encouraging the participation of the local population in health activities, supply of health related equipment, etc. Also, a Maternal and Child Health Center was established at the provincial level to serve as a central facility for integrated maternal and child health service throughout the province. The outpatient section for maternal and child health at the provincial hospital was transferred to the diagnosis and treatment section of the Center in order to provide comprehensive treatment and preventive service. The Center receives patients referred by the RHUs/BHSs, as well as high risk expectant and nursing mothers. The Center's training department also provides a venue for human resources development in the form of training programs for primarily RHU/BHS health and medical staff, and local residents.

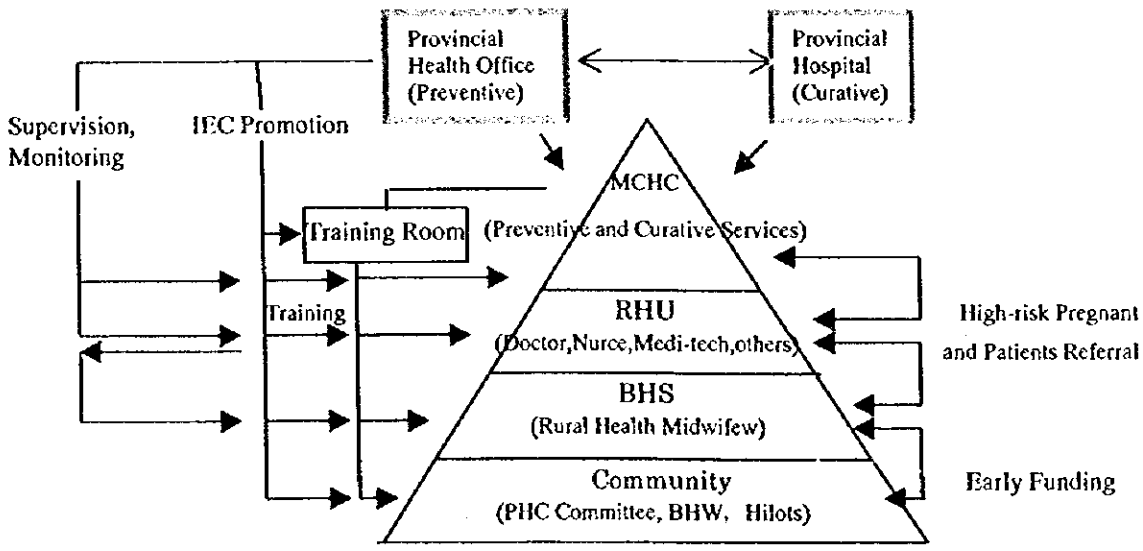

Figure-1 Outline of Maternal and Child Health Service at the Provincial Level

At the same time, the Media Center within the Department of Health in Manila provides support in the preparation of IEC materials, and the video and other educational materials so produced have been effectively applied to public awareness and PR activities. The maternal and child health diaries and handbooks distributed on a pilot basis as one part of these activities, as well as the training in public hygiene, maternal and child health, and nutritional guidance received by many of the RHU/BHS health staff have upgraded the quality of primary level health service throughout the province.

The Project Technical Cooperation (phase II) aims to apply the activities in Tarlac province under phase I as a model, particularly those which exhibit significant impact, and expand these to all six provinces of the Central Luzon region. Specifically under this Project, the Maternal and Child Health Center established in Tarlac province in phase I provides a model for setting up identical MCHCs in the other five provinces of the region as core facilities for maternal and child health service. At the same time, these facilities provide locations for training of health and medical staff, as a means of strengthening human resources related to maternal and child health service province-wide.

In the case of the RHUs/BHSs which are the locus for grass roots, rural health service, there are instances where effective service cannot be extended due to insufficient numbers and obsolescence of facilities. The Project will address this by new construction and rehabilitation of these health facilities, as well as equipment supply, to strengthen the health service structure throughout the entire province, and provide a venue for efficient and effective activities under the Project Technical Cooperation.

(1) Content of Service provided by Maternal and Child Health Centers (MCHC)

1) Role of MCHC

As core facilities for maternal and child health service, the MCHCs to be established in each province are envisioned to have the following role and function.

- Comprehensive preventative management becomes possible throughout the perinatal period of the expectant mother up to and including examination of newborn infants.

- Conventionally, services provided at the provincial hospital have been skewed towards treatment of existing illness, with preventive measures being carried out only on an individual basis for outpatients. In the case of maternal and child health service, however, it is both important and effective for constant management to be effected throughout the entire perinatal period.
  Also, maternal and child health is intrinsically linked to family planning, pre and post natal examination, obstetrical/gynecologic and newborn infant health-screening, pediatric diagnosis and treatment, etc., and more efficient and effective services related to health management for women and children can be anticipated.

- A consistent program of management is possible through appropriate maternal and child health service at each level.
  Integrated management of a consistent maternal and child health service can be anticipated from the BHSs to the hospital level (tertiary medicine level) within the province. At the same time, efficient monitoring becomes possible, thereby providing essential feedback for modification of activities and formulation of the most appropriate next-generation strategy.

- Improved referral is possible under maternal and child health service.
  The provincial hospital accepts patients referred by the RHUs, as well as expectant and nursing mothers exhibiting high risk symptoms. The MCHCs under the Project will centrally manage preventive, diagnostic and treatment functions, making possible an efficient process of preventive activities → outpatient diagnosis and treatment → hospital check in / surgery, etc., thereby upgrading the RHU/BHS referral system.

- A consistent monitoring system for newborn, nursing and post-nursing infant growth becomes possible.

  At the clinics for children under 5 years old, consistent monitoring of growth becomes possible for newborn, nursing and post-nursing infants, comprising the prime strategy for child health management. By incorporating this function at the MCHCs, child health is improved and technology transfer based on this model is possible to health workers at the RHUs/BHSs under the center umbrella.

- Human resources development in the area of maternal and child health workers becomes possible.

  Human resources development is an important strategy in strengthening maternal and child health service, and in this light various training programs have been carried out. In particular, there is need for post-graduation education and refresher training of midwives (RHM) and the health workers who provide guidance to these at the most immediate grass-roots level, as well as effective training and practical instruction for the BHWs (health volunteers). Under the Project, a training section will be established at the MCHCs aimed at providing the above education and training at low cost, efficiently and on a broader scale.

Under the Project, only the obstetric/gynecologic and pediatric outpatient sections at each provincial hospital are to be transferred to the MCHC for centralized management, and this would pose some concern that channels of flow and movement of health workers, patients and medical equipment and supplies might become more complex. However, existing outpatient sections at provincial hospitals are cramped and overcrowded, and to alleviate this situation some hospitals have already established other temporary facilities for maternal and child outpatient care (Bataan and Bulacan provinces). Also, paramedical sections at present as well have been established separate to outpatient sections, and implementation of the Project is thus not anticipated to create any inconvenience in the above regard. Accordingly, the basic concept for the MCHC which has achieved beneficial results in the case of the Tarlac Provincial Hospital is deemed worthy of expansion to all the provinces of the region.

2) Utilization Performance for Maternal and Child Health Service

Patient acceptance performance at each provincial hospital for FY 1997 is shown in the following table. Daily average numbers of persons receiving outpatient attention are 15~40 for obstetrics/gynecology, 10~35 for prenatal examination, 20~60 for the pediatrics, and 2~9 for family planning.

With the establishment of MCHC facilities and related equipment supply envisioned under the Project, the number of accepted patients is expected to steadily increase with the setting up of clinics for children under 5 years of age, linkage with other sections of the provincial hospital, improvement of the RHU/BHS referral system, RHU/BHS staff training under Project Technical Cooperation, etc.

Table 2-2-1 Patient Acceptance Performance at Each Provincial Hospital (1997; total persons)

	Bataan	Bulacan	Nueva Ecija	Pampanga	Zambales
Ob/Gy outpatient	10,430 (41.7)	9,610 (38.4)	N/A	3,450 (13.8)	7,277 (29.1)
Prenatal exam	8,900 (35.6)	8,359 (33.4)	5,795 (23.1)	2,755 (11.0)	6,720 (26.9)
Pediatric outpatient	8,450 (33.6)	9,832 (39.3)	4,351 (17.4)	9,522 (38.1)	15,996 (64.0)
Inoculation	2,574 (10.3)	2,082 (8.3)	1,518 (6.1)	855 + α	2,688 (10.8)
Family planning	702 (2.8)	529 (2.1)	N/A	2,121 (8.5)	471 (1.9)
Total	31,056 (124.2)	30,412 (121.7)	11,664 (46.7)	18,703 (74.8)	33,152 (132.6)

NOTE: ( ) indicate total numbers of patients received on average per day assuming facility is open 250 days in a year.
-- indicates unavailability of data.
The number of outpatients for obstetrics is assumed to include patients receiving prenatal examination (results of Survey data other than hospital statistics).

3) Frequency of Training, and Number of Participants

① Participation Performance at the Tarlac MCHC Training Section

The MCHC established in Tarlac province under the Project Technical Cooperation possesses a training section capable of accommodating 60 persons (divided among 3 small classrooms), and is currently utilized for various training programs targeted at doctors, nurses, midwives, BHWs (volunteers), etc. Training performance in 1996 and 1997 is as shown in Table 1. Training programs are held 30~40 times per year, with 1~3 daily sessions per program and number of participants ranging 10~60. In addition, the classrooms are used for small staff meetings, etc. Yearly utilization rate for the training facilities is around 60 days/year (60/250 days = 24%), equivalent to one out of four working days excluding Saturday.

Training topics include population/gender, family planning, maternal and child health, nutrition, proper use of medicines, botica binhi (village pharmacy), communication skills, health management, as well as specialized themes such as cancer treatment, etc. Rooms are also widely utilized for LLP coordinating meetings.

Table 2-2-2 Training Achievement by Each Provincial Health Office (FP/MCH only)

(1) Training Performance

	Bulacan		Bataan	Nueva Ecija	Pampanga
Period	1996	1997	April 1997 ~ Jan 1998	1996 (1997)	1994 ~1997 (only LLP performance)
Frequency	37 times	32 times	7 (10) times	20 times (23 times)	N/A
No. of days	1~3 days	1~3 days	1~5 days	1~5 days (2~34 days)	N/A
Total no. of days	58 days	61 days	20 days (29 days)	80 days (156 days)	N/A
Participants	Health administrators, doctors, nurses, midwives, hilot, BHWs, PWVs		Health administrators, doctors, nurses, midwives, BHWs,	Population/health administrators, doctors, nurses, midwives, PPWs, BSPOs	N/A
Participants/ Session	11~60 persons	10~60 persons	20~30 persons	5~40 persons (12~20 persons)	N/A
Total participants	1,091 persons	792 persons	N/A	356 persons (391 persons)	Family planning: 945 persons Child survival: 1,359 persons
Training topics	FP, nutrition, MCH, gender, appropriate medicine use, botica binhi, ICS, health management, specialized medicine, LLP, etc.		LPP workshop, FP, surveillance/epidemiology for communi -cable diseases, BHW training, staff meetings (program management)	Population, FP, nutrition, ICS (+ gender management, disease manage -ment)	FP, nutritional / micro nutrient measures, gender, disease management, ICS, IEC, EPI, health management, prog-ram management for LPP etc.
Remarks	Drop-off in number of trainees in 1997 was due to elections		Does not include small-scale training performance. ( ) includes training sessions held at hotels, etc.	1997 figures indicate planned performance (actual achievement unknown)	N/A

Note: Based on responses to questionnaire and interview survey. No response was received for Bulacan province; Zambales province responded that no training in the related area had been carried out in 1997.

(2) Training Plan

	Tarlac	Bataan	Bulacan	Nueva Ecija	Zambales
Period	1998~99 (LLP)	1 year period	1998~99 (LLP)	1998~99 (LLP)	1998~99 (LLP)
Frequency	15 times (plus numerous meetings)	around 35 times (plus meetings around 60 times)	5 times (+3 times) (plus meetings around 20 times)	20 times (23 times)	21 times (plus numerous meetings)
No. of days	1~3 days	1~3 days	1~5 days	1~5 days (2~34 days)	3~11 days
Total no. of days	51 days	93 days (including 14 days of meetings)	41 days (plus 20 days of meetings)	42 days (plus 36 days of meetings)	106 days
Participants	Health administrators, doctors, nurses, midwives, BHWs, PPO staff, etc.	Health administrators, doctors, nurses, midwives, BHWs, etc.	Health administrators, doctors, nurses, midwives, BHWs, etc.	Health administrators, doctors, nurses, midwives, population workers, NGO personnel, etc.	Health administrators, doctors, nurses, midwives, BHWs, population administrators, population workers, etc.
Participants/ Session	15~50 persons	10~25 persons	15~54 persons	25~50 persons	15~47 persons
Total participants	525 persons	1,230 persons	296 persons	N/A	720 persons
Training topics	Population/family planning, nutrition, disease management, ICS, health management, EPI, IEC, etc.	Family planning, nutrition, disease management, health management, EPI, LPP coordinator meetings, etc.	Population/ family planning, nutrition, program management, LPP coordinator meetings, etc.	Population/family planning, gender, nutrition, disease management, ICS, EPI, health management, LPP coordinator meetings	Population/family planning, nutrition, disease management, ICS, health management, EPI, IEC, etc.
Remarks	Others including staff meetings, program coordinator meetings, etc. are frequently carried out	Response indicates that the envisioned training plan will use the MCHC training section to be established under the Project	( ) indicates training sessions including overnight stay	( ) indicates training sessions including overnight stay	Training requirement: Population: 22 sessions (1,559 persons) Family planning: 3 sessions (197 persons) Child survival: 5 sessions (199 persons)

Note: Based on responses to questionnaire and interview survey. No response was received for Pampanga province.
LPP: Component of FP/MCH program supported by USAID.

② Training Performance and Plan for other Provinces

Results of survey on actual training performance and future training plan in the areas of population / family planning, and maternal child and health are as indicated in table (2) above. With the exception of Bataan province, the LPP (population · family planning / child survival program, etc.) training is also included. The frequency of LLP training is high, and this training is currently

being carried out at facilities rented from the private sector. There is thus an expressed desire to actively utilize the training sections to be established at the MCHCs under the Project for this training. Also, it is pointed out that wide-scale BHW training would be possible at the said center training facilities.

The training plan under the Project Type Technical Cooperation (phase II) for each province has not yet been formulated. Nevertheless, based on actual performance in Tarlac province and the related LLP training plan, it is expected that training scale and frequency would be roughly at the same level for each of the provinces (in the case of Nueva Ecija province, continuation of the LPP is currently being negotiated).

③ Training Budget and Hiring Instructors

The working budget for each province makes almost no allocation to the training sector. Typical training funding is mainly either squeezed out of the program budget, or covered by donor assistance. At present, training budget for population / family planning, and maternal and child health programs is obtained by the following routes.

Table 2-2-3 Funding Agency for Training Programe

Program	Funding Agencies
LPP (population / FP, child survival, program management)	USAID
Maternal and child health / botica binhi (village pharmacy)	JICA
Clinics for children under 5 years old	UNICEF, JIC
National level programs	RHO/DOH budget
Provincial level programs	PHO/DOH budget

Usually, participation allowance (per diem, transportation cost) for training at the provincial and local level is borne by the municipality/town. Nevertheless, funding in this regard has become difficult following regional devolution of authority, and a portion of this allowance is covered by donor funding in the case of the LPP and other donor financed programs. Even in the case of training which is not donor supported, however, participants continue to actively participate, managing to come up with their own sources for transportation cost. At the PHO level, training costs comprise mainly facility use fee, and preparatory costs including snacks, meals and printing of educational materials for training participants.

With regard to instructor hiring and training, this is being done at the central government level along with educational material and manual development under cooperation by UNICEF/UNFPA, etc., and human resources have already been readied for the planning and execution of training at the DOH, RHO and PHO levels. Accordingly, no problems are seen in this regard. Although UNICEF/UNFPA provide no direct cooperation at the provincial level in Region III, indirect support is forthcoming in the form of instructor training (TOT) and educational material / manual preparation at the central level.

(2) RHU (Rural Health Unit) and BHS (Barangay Health Station) Service

1) Role of RHU/BHS

The RHUs comprise primary level health facilities operated by each local municipality/town, and have been established at a rate of one location per 10,000 population. Physicians are permanently assigned to the RHUs as Municipal Health Officers (MHO), and carry out health and medical service as well as forensic medical duties within each municipality/town. In addition, health workers (public hygiene nurses), midwives, dentists (full time, part time), clinical exam technicians, hygiene supervisors (support for prevention, monitoring, surveys, etc.) are also deployed to the RHUs.

The RHUs are clinical units at the local grass-roots level, and serve as well as a center for public hygiene related activities (prevention, environmental hygiene guidance, hygiene education, and forensic medicine). Also, they constitute the only medical facility in villages otherwise without private clinics or pharmacies.

The BHSs (Barangay Health Unit) are the smallest health facilities, established at a rate of one location per 1,500 population. Midwives (RHM) are permanently assigned to these, and with the assistance of health workers (BHW), make the rounds of 2~3 local barangay providing guidance, diagnosis and treatment in the areas of public hygiene, and maternal and child health. The community BHS is the most proximate medical facility to the patient, and is the facility of first access at the primary level. Patients for which examination or treatment would be difficult by the doctor at the RHU are referred to the district / provincial hospital. Under the RHU's role in supervising and guiding activities by the BHS, midwives are obligated to visit the

RHU once weekly for meeting, training and activity report (submittal of diagnosis and treatment records, and health statistics)

Since RHU facilities and equipment are incomplete at present, there are some areas where a portion of envisioned services cannot be performed (IUD insertion, gynecological examination, biopsy of vagina and uterus discharge, dental check-up, IEC activities). Also, facilities cannot provide adequate privacy for family planning counseling, etc., and space constraints prevent suitable health education and guidance.

There are also numerous areas where activities closely integrated with the local community are not possible due to the fact that the BHSs are not equipped to provide an effective base of operations for the midwives in the barangay.

Accordingly, it is considered highly warranted to provide the necessary facilities and equipment to the RHUs and BHSs to enable these to fully perform their originally intended community activities and diagnostic/treatment programs in the area of health and hygiene, while at the same time providing an environment within which the health workers trained under the Project Technical Cooperation, etc. can effectively utilize there acquired knowledge and skills.

Choice of target facilities under the Project was made as indicated in the request document according to selection criteria determined by the Philippine side. These criteria include poor financial status of the local government unit (municipality/town) making difficult initial investment in facility construction, general lack of health facilities in the area, whether health workers are already deployed and active, etc. Although the targeted sites represent only a small portion overall, the providing these facilities with the necessary structures and equipment currently lacking will improve a significant part of the health and medical service supply structure.

2) Activities of RHU and BHS

From the replies given in the survey forms, as in the case of RHUs, there are wide disparities in the frequency of service use. First, the number of cases of assistance in normal childbirth are considered to generally reflect the target service population of each BHS and range from 30 cases to 150 cases per year. Since the number of pre-

natal examinations is 1.5 to four times higher than the number of births, it is thought that expectant mothers receive pre-natal examinations a number of times. However, as for post-natal examinations, since these range from less than one to around three, the number of mothers visiting for post-natal examinations is less.

Preventive inoculations also range between one and three times more than the number of births, but this is an insufficient frequency for EPI. Newborn infant examinations outnumber births by one to five times, indicating that mothers ensure that their children are examined at least once.

Large disparities were also observed in responses concerning treatment, with the number of basic treatment cases ranging from 500 to a few thousand per year. Minor surgery is not conducted by BHSs except for at a few sites, and no specific responses could be obtained concerning the frequency of nutritional guidance and malaria prevention. Concerning tuberculosis prevention, the early identification of carriers and sputum sampling are carried out anything from a few times up to 100 times per year.

Midwives are the only permanently assigned health staff at BHSs and they provide guidance to assistant volunteers (BHWs) and Hilots . Therefore, the content of health services provided by each BHS is greatly influenced by the capacity of its assigned midwife. Accordingly, in order to provide sustained basic public sanitation and maternal and child health services at BHSs, which are inextricably linked to the daily lives of local inhabitants, it is extremely important to carry out the training and retraining of midwives.

Table 2-2-4 Health Service Delivery of RHUs (Year)

	Name of RHU	Name of Municipality	MCH SERVICES						CURATIVE / PRIVENTIVE CARE					
			Prenatal care	Postnatal care	Immuniz ation	Child growth monitoring	Delivery - normal	Delivery complicid – referred	Curative care total	Basic treatment	Minor surgery	Nutrition supplemen t	Malaria control	TB control
BATAAN														
1.2.1	Cabcaben	Cabcaben	797	634	744	744	420	226	4,503	N/A	N/A	0	N/A	N/A
1.2.2	Bagac	Bagac	614	574	645	2,598	396	177	3,759	5,012	0	3,363	76	29
1.2.3	Orion RHU II	Orion	758	942	979	5,694	485	335	5,000	N/A	N/A	N/A	N/A	N/A
BULACAN														
2.2.1	Poblacion	Obando	1,488	1,019	1,558	5,486	833	46	12,000	N/A	–	144	0	189
2.2.2	San Miguel RHU III	Salacot, San Miguel	909	789	828	2,390	909	87	8,402	9,419	65	445	15	N/A
2.2.3	San Rafael RHU II	Maguinao, San Rafael	918	789	830	3,842	789	N/A	N/A	25,827	2,798	5,343	1-2	653-700
NUEVA ECIJA														
3.2.1	Pantabanga	Pantabanga	83	79	80	80	81	2	2,560	2,560	70	55	10	120
3.2.2	Gabaldon	Gabaldon	465	254	>409	4,407	248	N/A	N/A	10,788	65	0	19	321
3.2.3	San Isidro RHU I	San Isidro	15/Day	8/Day	40/M	40-50/M	30(RHU)	5	25-30/Day	10-15/D	2-3/D	15-20/D	0	3-5/D
PAMPANGA														
4.2.1	Arayat RHU I	Arayat	1,276	1,094	1,094	1,094	1,075	19	N/A	N/A	N/A	N/A	N/A	N/A
4.2.2	San Ildefonso RHU II	Magalang	752	502	574	658	83	N/A	3,278	2,446	30	3,101	0	45
4.2.3	Mexico RHU I	Mexico	1,916	1,064	1,605	1,891	1,916	153	4,823	37	0	120	0	42
TARLAC														
5.1.1	San Clemente	San Clemente	241	241	263	1,271	124	23	2,900	N/A	N/A	N/A	4	15
5.1.2	Moncada RHU I	Moncada	642	596	674	6,074	585	57	2,490	11,783	–	29	–	66
5.1.4	Victoria RHU II	Victoria II	8-12/Day	3-5/M	20-25/M	15-20/W	20-25/M	2-3/M	11,900	N/A	N/A	N/A	0	N/A
ZAMBALES														
6.2.1	Sta.Cruz RHU I	Sta.Cruz	314	355	501	4,109	370	37	2,474	2,668	30	–	14	79
6.2.2	Botolan RHU II	San Juan, Botolan	416	648	500	714	N/A	N/A	1,782	20-30/D	N/A		N/A	N/A
6.2.3	San Antonio RHU	San Antonio	331	306	546	546	431	N/A	28/Day	20/D	5/D	–	10	37

NOTE: Sum up of Survey Sheets. N/A shows no-answer. Some answers seem numbers of BHS services.

Table 2-2-5 Health Service Delivery of BHS (per Year)

	Name of BHS	Municipality	MCH/FP SERVICES							CURATIVE/PRIVENTIVE CARE					
			Prenatal care	Postnatal care	Immunization	Child growth monitrng	Delivery -normal	Delivery complicatd - referred	FP counseling	Curative care total	Basic treatment	Minor surgery	Nutrition supplement	Malaria control	TB control
BATAAN															
1.3.1	Tipo	Hermosa	64	93	139	324	58	21	N/A	N/A	786	–	N/A	37	8
1.3.2	Mabiga	Hermosa	193	54	46	583	42	5	N/A	N/A	685	–	N/A	–	N/A
1.3.4	Roosevelt	Dinalupihan	206	156	186	233	110	10	109	N/A	N/A	–	0	56	7
1.3.5	Sabatan	Orion	78	81	84	N/A	81	1	N/A	1,897	N/A	–	N/A	–	4
1.3.6	Gen. Lim	Orion	23	22	20	60	18	3	37	325	N/A	–	N/A	0	22
1.3.7	Sapa	Samal	61	64	69	272	53	31	N/A	N/A	N/A	–	N/A	–	N/A
1.3.8	Omboy	Abucay	92	69	75	37	22	2	95	N/A	0	–	0	–	N/A
1.3.9	Tortugas	Balanga	175	73	66	397	33	41	148	N/A	N/A	–	N/A	–	N/A
1.3.10	Pita	Dinalupihan	180	140	160	180	30	0	65	170	N/A	–	N/A	0	5
1.3.11	Nagwaling	Pilar	28	35	40	59	35	8	N/A	0	N/A	–	N/A	–	52
BULACAN															
2.3.1	Bulubad	Bulacan	104	72	49	101	25	5	N/A	589	589	0	0	0	1
2.3.2	Buguion	Calumpit	44	37	72	69	32	5	47	996	1,016	0	22	0	1
2.3.3	San Pedro	San Jose del Monte	788	788	778	778	325	155	N/A	1,429	N/A	N/A	N/A	0	36
2.3.4	Pinalagpan	Paombong	64	39	59	251	39	18	79	436	N/A	>25	N/A	N/A	3
2.3.5	Dulong Malabon	Pulilan	80	96	98	96	68	2	N/A	385	521	0	50	0	7
2.3.6	Bubulong Munti	San Ildefonso	80	65	57	57	60	18	452	1,325	662	0	567	N/A	N/A
2.3.7	Muzon	San Jose del Monte	N/A	N/A	>362	N/A	N/A	N/A	124	12,582	16,390	>240	>100	0	5
2.3.8	Diliman I	San Rafael	86	86	77	431	86	N/A	1,759	N/A	1,865	249	493	0	56
2.3.9	Sta Cruz	Sta. Maria	70	80	82	379	80	10	22	696	772	19	19	0	15
2.3.10	Bagbaguin	Sta. Maria	1,279	893	1,023	1,349	893	20	551	5,183	6,192	0	74	0	68
NUEVA ECIJA															
3.3.1	Labi	Bongabon	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	–	N/A	N/A	N/A
3.3.2	San Felipe	Laur	60	60	180	180	150	N/A	25	N/A	N/A	–	N/A	N/A	N/A
3.3.3	Pinahan	Gen.M.Natividad	60	60	132	280	114	7	148	N/A	N/A	–	N/A	N/A	8
3.3.4	Paitan Sur	Cuyapo	164	164	164	1,092	100	N/A	110	N/A	3,823	–	N/A	N/A	10
3.3.5	Puncan	Carranglan	176	176	382	283	123	13	45	N/A	4,316	–	0	3	6
3.3.6	Aluta	Talugtug	43	34	35	145	34	0	88	N/A	N/A	N/A	N/A	0	6
3.3.7	San Nicolas	Llanera	28	15	19	48	N/A	N/A	N/A	N/A	N/A	–			N/A
3.3.8	Concepcion	Gen.Tinio	124	121	127	127	102	12	124	1,601	N/A	1	N/A	N/A	N/A
3.3.9	San Miguel	Quezon	35	35	35	35	30	5	50		60/M	–	6	–	2
3.3.10	Monic	Nampicuan	69	59	59	59	34	12	N/A	335	375	–	13	–	N/A
3.3.14	Inanama	Llanera	19	19	23	23	18	1	15	204	N/A	0	6	0	1

Continued

	Name of BHS	Municipality	MCH/FP SERVICES							CURATIVE/PRIVENTIVE CARE					
			Prenatal care	Postnatal care	Immunization	Child growth monitrng	Delivery -normal	Delivery complicatd - referred	FP counseling	Curative care total	Basic treatment	Minor surgery	Nutrition supplement	Malaria control	TB control
PAMPANGA															
4.3.1	Lauc Pao	Lubao	345	345	120	750	113	10	189	390	1,395	50	93	N/A	10
4.3.2	Malabo	Floridablanca	24	22	26	26	22	0	88	520	470	0	5	2	3
4.3.3	Tagulod	Candaba	84	84	54	48	48	0	95	N/A	N/A	N/A	N/A	N/A	4
4.3.4	Paligui	Apali	41	56	17	27	41	N/A	22	N/A	N/A	N/A	N/A	N/A	N/A
4.3.5	Pulungmasle	Guagua	181	181	323	612	108	73	62	2,609	4,311	–	30	N/A	33
4.3.6	San Isidro	San Luis	154	179	154	154	140	N/A	N/A	1,872	2,273	158	505	–	115
4.3.9	Pio	Porac	82	73	84	86	N/A	N/A	12	1,106	1,106	0	0	–	20
4.3.11	Parian	Mexico	1,916	1,064	1,605	1,891	1,916	153	225	4,823	5,248	0	120	0	42
TARLAC															
5.2.1	Manga	Capas	10	5	15	10	5	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5.2.2	Ventinilia	Paniqui	10	5	20	50	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1
5.2.3	Dela Paz	Tarlac	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5.2.4	Parang	Concepcion	10	8	15new	N/A	10	N/A	15/M	N/A	N/A	N/A	N/A	N/A	N/A
5.2.5	San Francisco	Sta.Ignacia	200	123	123	123	123	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5.2.7	Tancarang	Mayantoc	22	25	>30	N/A	26	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5.2.8	Quezon	Gerona	2-3/day	3/W	7-8/M	5/M	4-5/M	1-2/M	3-5/M	7/day	N/A				
5.2.9	Pacpaco	San Manuel	N/A	N/A	N/A	N/A	6	1	N/A	415	N/A				
5.2.10	Nilasin	Pura 1st.	7/W	5/W	12/W	N/A	N/A	0	N/A	30	18		5		2
5.2.11	San Juan	Ramos	12	12	12	79	12	1	27/M	N/A	N/A	0	0		
ZAMBALES															
6.3.1	Macarang	San Marcelino	152	77	44	84	24	0	1,035	860	860	0	60	N/A	N/A
6.3.2	San Isidro	Subic	83	48	88	82	48	0	177	787	1,920	0	N/A	0	7
6.3.3	Omaya	San Narciso	8	8	9	9	8	0	10	64	136	4	0	2	3
6.3.4	Sta.Barbara	Iba	64	48	62	48	48	N/A	43	117	110	0	18	0	12
6.3.5	Panglit	Masinloc	30	26	26	26	18	2	25	79	N/A	0	N/A	0	0
6.3.6	Babancal	Candelaria	535	453	553	581	150	376	N/A	5,461	N/A	N/A	N/A	N/A	N/A
6.3.8	Balincaging	San Felipe	9	9	12	12	9	0	15	184	N/A	N/A	0	2	2
6.3.10	Looc,	Castillejos	54	31	28	29	29	2	2	338	N/A	0	78	4	5
6.3.12	Sabang	Sta.Cruz	34	11	98	20	11	0	140	1,200	151	0	0	0	5
6.3.14	Tubo-tubo	North Sta.Cruz	28	30	85	10	30	0	600	1,680	1,680			5	1

NOTE: Summed up answers of Survey Sheets. N/A shows not clear or No-answer. Some number seems included delivery of RHU.

2-3 Basic Design

2-3-1 Design Concept

Through constructing facilities and supplying necessary equipment, the Project aims to qualitatively improve and secure better access to maternal and child health services in Central Luzon, which are being aimed for in project technical assistance currently under implementation (the Family Planning and Maternal and Child Health Project (Phase II). In doing this, the Project will widely contribute to improving the health and nutrition of women and children. The conditions required of the Project are summarized in the following sections.

(1) Concept Regarding Natural Conditions

- Ventilation and Insulation
  The area targeted by the Project, Central Luzon (Region 3), is subject to a tropical monsoon climate; there is high humidity throughout the year and the average temperature of 27℃ remains more or less the same all year round. Accordingly, in order to create a pleasant and sanitary environment, ample consideration shall be given to ventilation and insulation.

- Typhoon and Flood Countermeasures
  The target area is subject to typhoons throughout the year, and there are many districts which suffer from flooding caused by torrential rains that fall between August and October. Moreover, in parts of the target area, due to the raising of riverbeds caused by the accumulation of volcanic ash that was discharged during the eruption of Mt. Pinatubo, there are river basins where flooding is a frequent occurrence. In order to counter flooding in such areas, floor levels shall be raised (by approximately 1 m).

- Termite Countermeasures
  Many of the existing facilities have experienced termite damage. In order to prevent this, wooden materials shall be coated and surrounding soil sprinkled with anti-termite insecticide. Moreover, since securing good ventilation beneath floors is an effective means of preventing termite breeding, examination shall be carried out into the setting of appropriate floor levels.

(2) Concept Regarding Social Conditions

- Facilities Planning that is Clean and Kind to Women and Children
  Since the Project facilities are health facilities designed to provide health services to mothers and children, they will mainly be used by women and children. If women understand the necessity of health control, this will have a beneficial effect on the health of family members and also reduce the social cost burden. Moreover, maintaining the health of children will have an important beneficial influence on socioeconomic development in future generations.
  The Project facilities shall be designed to ensure cleanliness and easy cleaning and be accommodating to the weaker members of society such as women and children.

- Facilities Planning Compliant with Contents of Activities
  In deference to related plans of the Department of Health and with consideration given to the results of discussions conducted during the site surveys, facilities shall be planned in a manner that complies with the contents of activities conducted at each facility level. In the case of MCHCs, upon giving consideration to the current conditions of use and problems at existing facilities in Tarlac Province, the contents of facilities shall be designed to match with activities conducted at the provincial hospitals. In the case of RHU/BHS facilities, upon examining target populations, current activities and local government budgets, etc. based on returned survey forms, standard plans and alternative plans shall be prepared in consideration of the conditions found on each site in the site surveys.

(3) Concept Regarding Maintenance

- Use of Locally Procurable Materials
  Locally procured building materials shall be adopted as much as possible. Priority shall be given to building materials that are robust and present no problems in terms of maintenance, and facilities shall be planned so that few maintenance and repair costs are incurred after handing over.

- Facilities that Offer Easy Operation and Maintenance
  Equipment shall be kept to a minimum in order to keep light and heating expenses and operation and maintenance costs down. In some of the existing facilities, despite the fact that lighting equipment has been installed, building interiors were found to be

dark and to give an unclean impression. In the Project, building interiors that are bright and clean shall be aimed for through indirectly incorporating natural light through ceiling reflection, and so on.

(4) Concept Regarding the Works Period

- Schedule and Quality Control through Works Division
  The Project will involve the construction of 83 health facilities scattered throughout Central Luzon (approximately 150 square kilometers) in a short works period. Judging from the findings of the site surveys, it is realistic to conduct materials management and schedule and quality control through dividing works into three areas. Moreover, it is important that all facilities be completed within the works period through maintaining a thorough execution plan.

(5) Items for Examination in Each Facility

① MCHC Facilities

- The necessary room contents of facilities shall be examined in accordance with current activities at the existing provincial hospitals, to which the MCHCs will be attached.
- Since the provincial health offices (PHO) have requested the provision of examination rooms for infants of less than five years old and sterilization and recovery rooms, these requests shall be examined when planning the contents of facilities.
- Concerning rooms for training and enlightenment activities, judging from conditions of use in Tarlac Province, rooms possessing enough capacity to accommodate around 60 people are considered to be appropriate. The scale of rooms shall be set in a manner that enables effective utilization to be achieved.
- In addition to the above, facilities plans shall include obstetrics/gynecology outpatients rooms, pediatric outpatients rooms, family planning clinics, waiting rooms, offices, toilets and store rooms, etc.
- Concerning linkage with existing provincial hospitals, in consideration of movement and stretcher carrying during rainy weather, corridors shall be constructed and these shall be given slopes to equalize levels.

② RHU Facilities

- The scale of facilities shall be set in accordance with the standard plan of the Department of Health, and rooms judged to be necessary based on the survey results shall be planned.
- Necessary rooms contained in the plans shall be waiting rooms, midwives and nurses rooms, examination rooms (MHO rooms), investigation laboratories, sanitary inspector (SI) rooms, kitchens, toilets and store rooms.
- Dental examination rooms shall be included in plans because dental care is an important aspect of health protection.
- Delivery rooms were requested, however, since priority is basically given to deliveries at home or in hospital, these shall not be included in the plans.
- Depending on target population, current activities and staff levels, and size and form of sites, two standard plans (large and small) shall be prepared together with special plans for sites with unusual conditions.

③ BHS Facilities

- In accordance with the standard plan of the Department of Health, BHS facilities shall consist of one room, but a partitioned internal examination room shall be secured to secure privacy during examinations of expectant mothers and counseling for unmarried women.
- Existing facilities make effective use of outdoor terraces for meetings and enlightenment activities. Similar spaces shall be secured and notice boards, etc. provided at the Project facilities.
- Clean toilets and wash basins shall be provided with small sinks.

(6) Common Items

Since all the facilities target women, consideration shall be given to the following common items.

- Securing of privacy in internal examination rooms and family planning clinics
- Installation of partition walls and doors for sound proofing to secure the privacy
- Installation in appropriate areas of hand wash basins for disinfecting and washing
- Ample water supply to ensure that toilets are kept clean
- Securing of bright and pleasant interior spaces through the indirect incorporation of natural ventilation and light

(7) Selection of Equipment and Setting of Equipment Grades

Requested equipment for this Project are basic or general purpose for Maternal Child Health Care, there are necessity to re-new of existing equipment caused by shortage or depreciation.

- Equipment to be replaced with the existing deteriorated equipment.
- Equipment to be utilized for basic activities with no difficulty on the operation.
- Equipment which produce high cost effectiveness.
- Equipment to be operated and maintained with no difficulty for spare parts and consumables supplies in local market.
- Equipment suitable social and environmental background conditions.

2-3-2 Size of Major Rooms

(1) Size of Necessary Rooms

1) Maternal and Child Health Centers (MCHC)

MCHC functions can be divided into two areas: outpatients examination and treatment in the fields of obstetrics/gynecology and pediatrics, and training and IEC activities for provincial health and medical care staff. A brief description of the functions served by each room is given below.

A. Outpatients Examination and Treatment Unit

① Obstetrics and Gynecology Examination and Clinic (O/G Clinic)

By transferring the obstetrics/gynecology outpatients functions from each provincial hospital and conducting integrated management, qualitative improvement in maternal and child health service will be aimed for. The outpatient examination and treatment activities conducted in this room will include expectant mother examinations, high risk expectant mother management, pre-natal and post-natal examinations, nutritional management and guidance, and so on.

② Family Planning Clinic

Wide-ranging family planning activities including general enlightenment and

education, counseling, explanation of natural and artificial methods of contraception, IUD insertion, and sterilization are implemented. Activities are currently mainly directed at women with experience of childbirth, however, the scope is being widened through implementation of counseling in clubs for unmarried women and fathers, etc. Guidance that is also linked to the prevention of sexually transmitted diseases is provided.

Sterilization is often performed in the delivery room at birth, however, ligation is also performed in the operating room for those who desire it. At the provincial hospital in Bataan, a temporary obstetrics/gynecology outpatients building has been established and sterilization surgery is performed here due to restricted space in the operating room. Therefore, provision of a sterilization and recovery room has been requested, and this shall be examined with a view to securing inclusion in the Project.

In Nueva Ecija province, since a Family Planning and Sterilization Center run by the Provincial Population Office already exists on the grounds of the provincial hospital, and a further facility is being constructed under the provincial budget, a family planning clinic shall not be included in the Project.

③ Pediatric Outpatients Room

Since none of the provincial hospitals possess specialist departments for pediatric outpatients, qualitative improvement of services and greater efficiency shall be aimed for by transferring these functions from main hospital buildings and conducting integrated management in the same way as with the obstetrics/gynecology outpatients departments. This room at each MCHC shall target children of 15 years or under, mainly infants.

Activities shall include general examination and treatment, preventive inoculations, nutritional management and guidance, and growth measurement and recording. Moreover, functions shall be linked with those of the clinic for infants of less than five years old.

④ Clinic for Infants of Under Five

Since the pediatric outpatients department will target children up to 15 years old, it is recommended.that a clinic targeting infants of less than five years old be provided to carry out intensive health management for infants and small children. Activities,

centering around growth monitoring, will include height and weight measurements, nutritional tests, guidance and evaluation, preventive inoculations, and so on.

⑤ Sterilization and Recovery Room

As was mentioned above, a temporary maternal and child health center, which also conducts sterilization surgery, has been set up at Bataan Provincial Hospital, and a request has been made to include this in the Project facilities. Accordingly, a small operating room and recovery room (post-surgical recovery for a few hours) shall be provided.

⑥ Patient Reception and Records Room

The existing Tarlac MCHC is next to the outpatients department of the provincial hospital, and the main hospital building is used to house the patient reception and records room, etc. Moreover, the Zambales MCHC is located next to the provincial hospital in the same manner and the reception of the hospital can be used for the purposes of the Project. In the remaining four provinces, however, since the construction sites are separated from the outpatients departments of the provincial hospitals and traffic lines for patients may become complicated, the patient receptions and histories rooms, etc. shall be included in the Project.

⑦ Waiting Room

Since the outpatients clinics do not use an appointment system, many patients converge on the clinics at general examination and treatment start times. For this reason, a broad entrance lobby and waiting room shall be provided, and health education videos produced under the project technical cooperation shall be shown as a means of providing education and enlightenment concerning maternal and child care and family planning.

Moreover, space shall be secured for conducting preliminary examinations such as physical and temperature measurements, etc.

B. Seminar/Training Unit

① Training Room

MCHCs also act as centers for training provincial health and medical care staff in topics concerned mainly with maternal and child health and family planning. In 1996 and 1997, the Tarlac MCHC conducted roughly 30 training sessions per year

(approximately 60 days per day) and also staged national health insurance (NHI) and nutritional guidance meetings, medical seminars, and regular conferences for provincial health office staff, etc.

Judging from past training experience in each province, although the number of participants is determined by accommodation capacity, the existing facility in Tarlac province can accommodate around 60, and a similar capacity shall be adopted in the Project facilities. Moreover, since the training room in Tarlac province uses seat-tables and is cramped, appropriate space shall be considered through introducing desks (this will also enhance the effectiveness of training). Preparation rooms shall be provided for preparing classes and storing equipment, and store rooms shall be provided for storing chairs and desks, etc.

② IEC Room

In the project technical cooperation, Information, education and Communication (IEC) activities in the fields of maternal and child health and family planning are also important, and the teaching materials and videos, etc. used in these activities are prepared in the Media Center within the Department of Health in Manila. Moreover, each PHO possesses two or three staff in charge of human resources development and IEC activities, and they conduct training and dissemination activities using these teaching materials and also prepare their own teaching materials and data.

The IEC room shall be used by these staff to plan and prepare training and dissemination activities and prepare the teaching materials and data, etc. that are required for conducting IEC activities in the Barangay.

③ PHO Office

Maternal and child health and family planning staff of the PHO shall permanently man the office and carry out planning and operation of the overall Project and statistical analysis, etc. Regarding statistical processing, at the existing facility in Tarlac province, a multi-purpose room is used as an epidemiological survey and statistics room, and the personal computer that was provided under the project technical cooperation is used to carry out the processing. In the Project, this room shall be used to carry out statistical processing in the fields of maternal and child health, family planning and epidemiology.

As incidental facilities, connecting corridors shall be planned to link with the existing hospitals. However, in Bataan province, due to the long distance between the MCHC and the provincial hospital, a connecting corridor shall not be included in the Project.

Table 2-3-1 MCHC Room Areas Calculation Sheet

Room	Assigned Staff	Activities and Basis for Calculation	Design Area (m^2)
<Outpatients Exam. and Treatment Unit>			
Obstetrics and gynecology examination and treatment room	Physician: 1 Nurse: 1	Install one examining table and one office desk. Activities will include expectant mother examinations, high risk expectant mother management, pre-natal and post-natal examinations, nutritional management and guidance, and so on.	18
Internal examination and counseling room (family planning clinic)	Physician: 1 Nurse: 1 Midwife: 1	Install one examining table and one office desk. Activities will include internal examinations involving undressing, family planning counseling requiring privacy, IUD insertion, and so on.	18 Excluding Nueva Ecija
Pediatric examination and treatment room	Physician: 1 Nurse: 1	Install one examining table and one office desk. Activities will include general examinations and treatment, and nutritional management and guidance for children aged up to 15 years.	18
Clinic for infants of less than five years old	Midwife: 1	Install one child examining table, one office desk and measurement apparatus, etc. Activities will include growth measurements, preventive inoculations, nutritional tests and guidance, and so on, for infants and children aged less than five years.	18
Sterilization and recovery room	Doctor: 1 Nurse: 1	Install one operating table and two recovery beds. Sterilization (ligation) will be performed.	(18) Bataan only
PHO office	Staff: 3	Install three office desks. Maternal and child health staff from the PHO will plan and operate the overall Project and conduct statistical analysis, etc.	18
Patient reception and histories room	Clerks: 2	Install two office desks. Incoming patients will be registered and patuient histories managed.	18 Excluding Zambales
Waiting room	-	Install built-in benches. A notice board and videos will be shown in order to educate and enlighten waiting patients about public sanitation, maternal and child health and family planning, etc.	60
< Seminar / Training Unit >			
Training room	60 persons capacity (1.4 m^2/seat)	Training will be provided for maternal and child health and family planning staff (60 persons maximum) sitting on chairs at desks.	84
Preparation room and store room	-	Install one work bench. Teaching materials and data for use in training will be prepared, and materials and furniture not being used will be kept in the store room.	10
IEC Room	Staff: 2	Install two office desks and one work bench. IEC-related teaching materials, data and items for handing out will be prepared.	18
Training lobby	-	Install built-in benches. A notice board and videos will be shown in order to give related information to trainees during recesses.	30
Other	-	Store room, toilets (four booths), corridor, etc.	
Total		(differ every province)	370 to 410

Table 2-3-2 MCHCs Design Floor Areas

Room	TARLAC (Existing)	BATAAN	BULACAN	NUEVA ECIJA	PAMPANGA	ZAMBALES
Out-patients Unit						
O/G exam. And Clinic	18	18	18	18	18	18
Counseling and Internal Exam. (FP clinic)	18	18	18	-	18	18
Pediatric Clinic	18	18	18	18	18	18
Under 5 Clinic	-	18	18	18	18	18
Ligation/Recovery	-	18	-	-	-	-
PHO office	21	20	20	20	20	20
Reception / Records	-	18	18	18	18	-
Waiting Room	57	60	60	60	60	60
Seminar / Training Unit						
Seminar Room	71	84	84	84	84	84
Prep. And Store	-	10	10	10	10	10
IEC Room	18 (Multi-Room)	18	18	18	18	18
Lobby	20	30	30	30	30	30
Comfort Room	19	20	20	20	20	20
Store	5	10	10	10	10	10
Corridor, etc.	42	50	48	46	48	46
Sub-total	307	410	390	370	390	370
Covered Walk Way	19	-	15	15	30	30
Total	326	410	405	385	420	400

(2) Rural Health Units (RHU)

RHUs, under the supervision of municipal and town governments, not only provide accessible examination and treatment services to citizens as primary medical care service agencies, they also act as centers for local public sanitary activities (prevention, environmental sanitary guidance, sanitary education, forensic medical duties, etc.). RHUs are established at a ratio of one per 10,000 of the population and are staffed by physicians also acting as municipal health officers (MHO), nurses (Public Health Nurses), clinical exam technicians, midwives, dentists (full-time or part-time), sanitary inspectors, and so on.

The size of existing facilities differs depending on the budget situation in each town or municipality, however, using the standard plan given by the Department of Health for reference, the functions and sizes of rooms that were confirmed in the surveys shall be planned.

① Nurse and Midwive's Room

In addition to conducting reception duties, this shall contain space for the nurse and midwives to perform their clerical duties.

② Examination Room

Simple examinations (not involving undressing) shall be conducted by the physician or nurse.

③ Internal Examination and Counseling Room

This room, to be used for diagnosing the progress of expectant mothers and counseling unmarried women, etc., shall be isolated for the sake of securing privacy. Existing facilities use only single-leaf screens and curtains, and this has been raised as an item for improvement in the World Bank project.

④ Physician's Room

The physician (MHO) belonging to the town or municipal health office shall be permanently assigned here and shall conduct the public health and medical care duties for the local area. Depending on the RHU, a large number of doctors were seen conducting treatment and examinations on examining tables.

⑤ Dental Clinic

Dental checkups are an important aspect of health management and preventive health, and the Department of Health instructs that a dentist be permanently stationed at each RHU. Dental clinics are provided in existing RHUs, however, there are some remote RHUs where only a dental assistant is permanently on hand and the dentist visits around once per week.

Since there are no private dental clinics in the regions and there is a great need for dental checkups among residents, dental clinics shall be provided and basic dental equipment supplied under the Project.

⑥ Investigation Laboratory

Exam technicians, who are either permanently stationed or make regular visits, implement malaria tests, blood tests, urine tests, TB sputum tests, and so on.

⑦ Sanitary Inspector's Room

One or two sanitary inspectors are permanently stationed at each RHU with the aim of assisting local public sanitation activities including preventive activities and surveillance, etc. Although these inspectors do not possess any formal medical or health education, they are knowledgeable of local conditions and also gather statistical data and epidemiological data for each BHS.

⑧ Waiting Room and Meeting Corner

In the same way as with MCHCs, there is no appointment system, which means that many patients crowd to each RHU at the start of examination and treatment every morning at 8:00.

By showing educational videos and providing pamphlets to read, the waiting room and outdoor terrace shall be made into an area for aiding education and enlightenment activities.

Moreover, midwives from each BHS gather once per week to report and collate the weekly health, epidemiology and forensic data gathered in the BHSs. This meeting space is also used to plan and report on new campaigns and programs and implement simple training. In view of this, the waiting room and meeting corner shall be combined so that waiting patients can use this area in the morning and staff meetings and work can be conducted during non-examination hours in the afternoon.

⑨ Kitchen

A simple kitchen that can be used for preparing staff lunches, providing guidance on cooking nutritional meals and holding nutritional food contests, etc. shall be planned.

Table 2-3-3 RHU Room Areas Calculation (Total: 18 RHUs)

Room	Assigned Staff	Activities and Basis for Calculation	Design Area (m^2)	
			A type	B type
Nurse and Midwives room	Nurse: 1 Midwives: 2	Install three office desks. Activities will include patient reception, histories management, preventive inoculations, forensic records management, and so on.	13	13
Examination room	Same as above (1 member)	Install an examining table and measurement apparatus. Activities will include general examinations (without undressing), preventive inoculations, nutritional guidance, and so on	10	10
Internal examination and counseling room	Same as above (1 member)	Install an examining table and related equipment. Activities will include expectant mother examinations (undressed), family planning counseling in privacy, IUD insertions, and so on.	13	13
Physician's room	Physician: 1	Install one office desk. The local physician (MHO) will conduct health and medical care-related duties for the town or municipality. Many physicians have an examining table and conduct examinations in this room.	10	10
Dental clinic	Dentist: 1 (assistant)	Install one dental chair. The dentist (assistant) will perform checkups, treatment and tooth extractions, etc.	10	10
Laboratory	Exam technician: 1	Install a built-in laboratory counter. The exam technician will perform blood, urine and sputum tests, etc.	7	7
Sanitary inspector's room	Sanitary inspector: 1	Install one office desk. The sanitary inspector will visit and provide guidance to local BHSs and prepare statistics and reports, etc.	7	7
Waiting Room	-	Install benches. Display panels and videos will be shown with a view to providing information to waiting patients about public health care, maternal and child health and family planning.	25	20
Meeting corner	-	Install one work bench. This space will be used for holding regular BHS midwife and health worker meetings, compiling health statistics, planning and coordinating campaigns and programs, and so on.	20	15
Kitchen	-	Install a convenient kitchen work-top. This will be used for preparing staff lunches, providing nutritional guidance and holding nutritional food contests, etc.	4	2
Other	-	Store room, toilet (one booth), corridor, etc.	38	23
Total (Nos. of facilities)			160 (4)	130 (14)

(3) Barangay Health Unit (BHS)

BHSs are on the forefront of public health care and maternal and child health, operating as the health facilities that are most accessible to local residents in the barangay. The activities and scale of each facility differ according to the thinking of each local government regarding health and medical care, the target population, budget capacity, staff technical levels, and so on. Having said that, in the Project, based on the standard plan given by the Department of Health and with consideration given to the functions deemed to be necessary or unnecessary during the survey, the following contents shall be planned.

① Midwife's Office Corner

The midwife shall use this space to carry out clerical processing of examination records, patient histories and preventive inoculation records, etc.

② Examination Corner

This space shall be used for conducting physical and temperature measurements, and simple examinations and treatment.

③ Internal Examination and Counseling Room

This shall basically be a single room, but an isolated internal examination room shall be secured to ensure the privacy of expectant mothers.

④ Waiting Corner

In addition to acting as a waiting area for patients, this space shall contain displays and a mini library, etc. to aid health education and provide information on public sanitation, etc. Moreover, since this forms a large room in combination with the examination corner, it shall be used as a gathering space for educating and providing guidance to expectant mothers and teaching about child nutrition, etc.

⑤ Outdoor Terrace

Walls shall be used to publicly display information, and space for small group gatherings shall be secured. Moreover, the terrace shall be used for waiting at times when the midwife or volunteer staff are unavailable.

Table 2-3-4 BHS Room Areas Calculation Sheet (Total: 60 BHSs)

Room	Assigned Staff	Activities and Basis for Calculation	Design Area (m^2)		
			A type	B type	C type
Midwifefs office corner	Midwife: 1 Volunteers: 2	Install one office desk. The midwife or volunteers will perform clerical duties such as registering patients, managing patient histories, maintaining examination/treatment and preventive inoculation records, and so on.	10	7	10
Examination corner	Same as above	Install a simple examining table and one office desk. The midwife or volunteers will perform physical measurements, checkups and treatment, etc.	16	10	
Internal exam.and counseling room	Same as above	Install an examining table and one office desk. Activities will include expectant mother examinations (undressed), family planning counseling, and so on.	13	10	10
Waiting corner	-	Install benches. Displays and a mini library will be provided with a view to imparting information to waiting patients about public health care, maternal and child health and family planning.	13	13	-
Outdoor terrace	-	Install benches. Information will be publicly displayed on walls, and the terrace will also be used as a gathering space for holding classes for expectant mothers and fathers, etc.	18	12	8
Other	-	Store room, kitchen, toilet (one booth), etc.	10	8	7
Total (Nos. of Facilities)			80 (5)	60 (51)	35 (4)