

# PROJECT CONCERN INTERNATIONAL

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**Child Survival VII:**  
Improving Immunization Coverage and Village Health Post (**Posyandu**) Implementation  
**Maluku**, Province, Indonesia  
September 1, 1991-August 31, 1994

COOPERATIVE AGREEMENT NO. **PDC-0500-A-00-1042-00**

MID-TERM EVALUATION  
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Evaluation Team  
Partoedoyo Soetaryo, **MD**, MPH  
Nicolet Hutter, MD, **MSc**  
Alice **M.** Levisay, MPH

Project Director  
J. Stephen Robinson, MD, PhD, MPH

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Project **Concern** International  
3550 **Afton** Road, San Diego, California 92123  
Telephone: (619) **279-9690** Fax: (619) **694-0294**

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## LIST OF TERMS

<b>Arisan</b>	Informal savings group
<b>Kaders</b>	Community health workers
PKK	National women's movement
PMT	Posyandu Management Team
<b>Posyandu</b>	Integrated health post
Puskesmas	Public health center
TBA	Traditional Birth Attendant

## 1. INTRODUCTION

Project Concern International (PCI) has been involved in health and development activities in Indonesia for over twenty years. In the Fall of 1991, PCI began working in the Province of Maluku with support from a USAID Child Survival VII (CSVII) grant. This area was chosen by request of the Ministry of Health (MOH) Director General for Community Health, Dr. Leimena, due to its delayed health development, and as the province had the lowest immunization coverage in all of Indonesia. The overall Child Survival project design supports activities to enhance Posyandu implementation and attendance focussing on improving immunization coverage while promoting the identification of high-risk births and appropriate diarrheal disease management.

As part of routine project implementation, PCI is required to undertake a mid-term evaluation. Unlike a final evaluation, this evaluation is not intended to focus on the quantitative accomplishments of the project, nor its impact. Rather, it is to be used to look at qualitative aspects of project implementation, and to review the strengths and weaknesses of on-going activities. The purpose of this report is to summarize the mid-term evaluation findings, and it is hoped that the strengths, weaknesses and recommendations noted by the evaluation team will be used to enhance future project activities.

Project Concern International's mid-term evaluation for its CSVII Project in Maluku Province was undertaken from April 4 to April 17, 1993. The evaluation team consisted of three members: Dr. Soetaryo, representing the Ministry of Health, Indonesia; Dr. Hutter, an external evaluator from PATH; and Ms. Levisay, representing PCI's US-based headquarters office. Representatives from USAID Jakarta were expected to participate for the last several days of the evaluation, but due to unforeseen constraints were unable to attend. It should be noted that the purpose of this evaluation is to review Project Concern International's CSVII program and not to review any Indonesian Ministry of Health program. The itinerary for the evaluation team members is attached as Appendix 1.

## 2 ASSESSMENT OF ACCOMPLISHMENTS/ASSESSMENT OF **EFFECTIVENESS**

The evaluation team was pleased with the overall progress and achievements of the PCI CSVII project. In this project, PCI is not a direct implementor, but assists the Indonesian Ministry of Health in key aspects of immunization program management, and in the promotion of Posyandu implementation and community participation. The team felt that this mechanism of working closely with the government is a key strength of the project as it allows for the institutionalization of improved systems and enhances the potential for sustainability of the project's achievements. In general, the provincial, district and sub-district Ministry of Health officials are very supportive of PCI's work and note that they would like to see PCI continue its work and expand its activities in the region over the coming years. Support of this kind is imperative in allowing project achievements to be sustainable.

A listing of activities and the inputs and outputs achieved to date are included in Appendix 2 - CSVII Project Activities. Due to the nature of the program and the implementation strategy, it is difficult to accurately define the number of potential beneficiaries to date. However, the evaluation team felt that the implementation strategy is on track and that by the end of the project the entire beneficiary population will have been reached.

While the evaluation team felt that certain original project objectives were in line with the combined Area I and II baseline survey results and could be realistically achieved within the three year span of the project, several objectives needed revision. For those objectives where the targets seem to be too high, the evaluation team recommended that the targets be lowered or the objective reworded. The original objectives and the suggested changes are as follows:

#### ORIGINAL OBJECTIVES:

1. Increase to 65% the proportion of children between 12 and 24 months who were fully immunized by twelve months of age.
2. Increase to 45% the proportion of mothers of children under two years of age whose most recent delivery was fully protected from tetanus.
3. Increase to 80% the proportion of children under two who possess a Road-to-Health Card (KMS).
4. Increase to 60% the proportion of children under two who attend the Posyandu each month during three previous months.
5. Increase to 60% the proportion of mothers of children under two with episodes of diarrhea occurring during the last two weeks treated with ORS (Oralit or SSS).
6. Increase to 60% the proportion of mothers of children under two who know how to properly provide Oral Rehydration Therapy (ORT) to their child with episodes of diarrhea during the last two weeks.
7. Increase to 30% the proportion of mothers who have at least one packet of **Oralit** in the home.
8. Increase to 80% the proportion of pregnant women who deliver assisted by a trained TBA out of all the women assisted by **TBAs**.

#### REVISED OBJECTIVES:

1. No change.
2. No change.
3. Increase to 65% the proportion of children under two who possess a Road-to-Health Card (KMS).
4. Increase to 45% the average proportion of children under two who attend the Posyandu per month.
5. Increase to 40% the proportion of mothers of children under two with episodes of diarrhea occurring during the last two weeks who were treated with ORS (Oralit or SSS).
6. Increase to 50% the proportion of mothers of children under two who knew to give increased fluids or increased breastmilk to their child with an episode of diarrhea during the last two weeks.
7. Increase to 25% the proportion of mothers who have at least one packet of **Oralit** in the home.
8. Increase to 65% the proportion of pregnant women who deliver assisted by a trained TBA of all women assisted by **TBAs**.

#### REVIEW OF **PROJECT** COMPONENTS AND SPECIFIC FINDINGS:

To facilitate systematic review of the project's activities, the evaluators divided the project into several key components: Immunization Program Management, Immunization Innovations, Posyandu

Management Team implementation at the Provincial, District and Sub-District Levels, and Community Participation.

### **IMMUNIZATION PROGRAM MANAGEMENT:**

The province of Maluku has one of the lowest rates of immunization coverage in all of Indonesia, with more than 25% of the population not currently receiving routine immunization services due to cold-chain inadequacies and transportation problems. From the findings of a cold-chain and immunization program survey conducted by PCI of 101 health centers, information was made available to the MOH about the strengths and weaknesses of the program. Recommendations were made for steps to be taken to correct and improve immunization management and cold-chain integrity. A computerized database was developed and shared with the MOH. This database included an inventory of facilities, cold-chain equipment, transport, staff, and village coverage. Provincial and District MOH staff have been instructed in the use of this database. The data are updated as supervisory visits are conducted so that improvements can be assessed. It is important to note that the computerized system has recently been introduced to the MOH at the provincial and district levels, and that training is on-going.

#### **STRENGTHS:**

Through collaboration with the government's immunization program, PCI's opinion is now respected and valued by government authorities. PCI's project is seen to contribute to increasing immunization coverage in the province.

The Cold-Chain Survey improves awareness of the system's strengths and weaknesses through identification of:

- \* missed opportunities;
- \* recurrent costs;
- \* equipment and support needs, especially supplies, communication and transport;
- \* supervisory/training needs;
- \* availability of services;
- \* adequacy of vaccine handling.

The Cold-Chain Survey is an easy tool for the District to monitor and evaluate the management system at the Sub-District level during supervisory visits, and to provide feedback to the Health Centers. Improvements have already been seen in temperature recording and in maintaining appropriate refrigerator temperatures.

The use of the Cold-Chain Survey has initiated improvements in immunization program management through improved on-the-job training and a vaccinator exchange program as well as in the writing of a governmental letter of reinforcement concerning immunization guidelines.

The computerized Cold-Chain Survey System can facilitate the use and update of data and immunization systems.

- E S :

Commitment, by the MOH at both the Provincial and District levels, to maintain and update the cold-chain data base is not yet evident.

The Cold-Chain Data Base System is not yet optimally used by the MOH at both the Provincial and District levels.

Frequency of supervisory visits by MOH District officials is less than optimal.

Not all identified problems have been adequately solved to date.

The computerized Cold-Chain Data System can not yet be used effectively due to equipment limitations, a limited number of computer literate personnel and the newness of the overall system.

Data collected by the Cold-Chain Survey are not optimally used for planning and budgeting.

#### RECOMMENDATIONS:

In an effort to improve immunization program management, PC1 should assist the MOH in promoting the greater use of existing quarterly meetings for continuing education of health service providers from the health centers. Other possible mechanisms for providing continuing education may include: supervision, on-the-job training and continuation and expansion of the vaccinator exchange program.

PC1 should discuss with the MOH possibilities for improving the use of Cold Chain Survey data for planning and budgeting.

In an effort to improve immunization program management, PC1 should discuss with the MOH the implementation of increased, semi-annual, supervisory visits.

PC1 should assist the MOH in reinforcing the policy of bringing stock books when collecting new vaccine.

PC1 should assist the MOH in pursuing the possibility of using one combined, simplified checklist (PC1 Cold Chain Survey + Supervisory Checklist).

PC1 should work with the MOH in reviewing the appropriateness of a computerized cold-chain data system, given the current resource constraints and the less than optimal use of the overall system.

## IMMUNIZATION INNOVATIONS:

PCI is actively working with the Indonesian Ministry of Health on several innovative, pilot projects in the field of immunizations. These projects include a Tetanus Toxoid immunization program for Women of Reproductive Age (TTWRA), an improved Neonatal Tetanus Surveillance System, and the creation of a computer software program to facilitate the management and analysis of data used in the MOH Local Area Monitoring System (LAM). It should be noted that at this point in the project, the Neonatal Surveillance System and the LAM computer system are just beginning to be utilized. While many people say the systems are simple and useful, it will be difficult to fully evaluate the systems until they have been used for some time.

## **STRENGTHS:**

A government letter of decision to support implementation of the TIWRA program was written at the Provincial level and is supported at the national level.

The Tetanus Toxoid vaccination policy for Women of Reproductive Age has the potential to increase the percentage of women and newborns adequately protected against tetanus.

The Neonatal Tetanus (NT) surveillance efforts and TIWRA recording efforts support the national goal to eliminate neonatal tetanus.

The lifetime **TT** history card for women will:

- \* increase awareness of the need for **TT** vaccination;
- \* improve recording of **TT** vaccinations and improve monitoring of coverage;
- \* allow service providers to accurately vaccinate women with 'IT.

The use of the NT surveillance form in conjunction with the PC1 **TBA** birth reporting form allows service providers to better trace, report and act on cases of NT.

While TIWRA was a pilot project in two specific districts, a third district asked to be included as they saw the usefulness of the program.

The computerized LAM data system can facilitate the analysis of LAM data and can accelerate and provide useful forms for feedback.

## **WEAKNESSES:**

The implementation of the **TTWRA** program has been hampered by the dissemination of a limited amount of program information. Not all service providers seem to thoroughly understand the program.



As of yet, the use of the NT surveillance form and the TBA birth reporting form, as it is used for NT surveillance, do not seem to be adequately understood by all involved health workers.

The computerized LAM data system can not yet be used effectively due to limited equipment and a limited number of computer literate personnel.

#### RECOMMENDATIONS:

PC1 should assist the MOH in reviewing the possible expansion of the **TTWRA** system as well as the lifetime **TT** history card after a reasonable trial period.

PC1 should discuss with the MOH possibilities of improving the implementation of the **TTWRA** program. Possibilities could include sending a second governmental letter of decision to reinforce key aspects of the project including an explanation of the optimal vaccination schedule.

PC1 should discuss with the MOH the possibilities for better utilizing regular meetings of service providers at the district and sub-district levels to further discuss the details of the program.

PC1 should discuss with the MOH options for reinforcing the appropriate use of the TBA reporting form and the NT surveillance form.

PC1 should discuss with the MOH the possibility of using routine supervisory visits to monitor the NT surveillance system.

PC1 should assist the MOH in reviewing possible expansion of the model computerized PWS system, taking into account the given constraints, after a reasonable trial period.

#### POSYANDU MANAGEMENT TEAMS: (GENERAL)

By Ministry of Home Affairs decree, each Province has been instructed to increase **Posyandu** (**Pos Pelayanan Terpadu**) implementation through the formation of multi-sectoral Posyandu Management Teams (PMT) from provincial to village level. It has been found in other provinces that the participation of the local government, especially the district head, **bupati**, the sub-district head, **camat**, and the village head, **kepala desa**, in Posyandu implementation is a key to its success. Of particular importance is the development and use of a monitoring scheme for Posyandu implementation. This has been institutionalized in the Province of Maluku using components of the immunization Local Area Monitoring system and a measure of attendance. Essentially it is a data-based management system. Using the Posyandu indicators in a simple scoring system, local government officials can see the areas that need attention and assistance and can better target their resources to improve the overall health status in their areas. Supervision and feed-back from higher levels is an important component of this program. It should be noted that at this point in the project, the scoring system is just

beginning to be utilized. While many people say the system is simple and useful, it will be difficult to fully evaluate the system until it has been used for some time.

#### **STRENGTHS:**

The teams are legislated at the provincial, district and sub-district levels.

The team system has the potential to be a simple, useful monitoring mechanism for Posyandu implementation. The team concept has the ability to improve intersectoral awareness and collaboration in support of Posyandu implementation.

The role of PC1 in strengthening and catalyzing the development of Posyandu Management Teams is obvious and recognized.

The team system is valued and commitment to it exists at all levels.

#### **WEAKNESSES:**

The delay in developing a curriculum for training Posyandu Management Teams at the village level hinders full utilization of the Posyandu Management Team system.

Team activities, including supervisory visits, are not yet fully integrated with or seen to be part of on-going intersectoral activities.

Timely feedback to team members after supervisory visits is not yet standard practice.

#### **RECOMMENDATIONS:**

PC1 should discuss with the Provincial PMT the importance of initiating the development of village level Posyandu Management Teams as they are the closest link to Posyandu implementation.

PCI should discuss with the teams the importance of fully integrating team activities, including supervisory visits, with on-going intersectoral activities.

PC1 should discuss with the teams the importance of providing timely feedback to team members following supervisory visits.

#### **PROVINCIAL POSYANDU MANAGEMENT TEAMS:**

##### **STRENGTHS:**

A strategy exists for defining responsibilities within the team.

There is recognition of the need to cover team costs through local government.

The computerized scoring system can facilitate the use and update of monitoring data.

## WEAKNESSES:

The responsibility for operation of the system is deemed to be at the district, sub-district and village levels.

Specific intersectoral agreements for operations and financing, including individual responsibilities of team members, are not yet clearly defined.

The team does not yet meet regularly for problem solving.

The time lag between data collection and utilization for monitoring inhibits timely problem solving.

An appropriate system for collecting and responding to data from the district level is not yet developed.

The computerized monitoring and feedback system is not yet utilized due to equipment limitations, a limited number of computer literate personnel, and the newness of the overall system.

## RECOMMENDATIONS:

PC1 should discuss with the Provincial PMT the benefits of the team's taking operational responsibility for the function of the whole PMT system.

PC1 should discuss with the team the importance of meeting regularly for problem solving, and the possible option of having a core group meet every month with the full group meeting once per quarter.

PC1 should assist the Provincial PMT in clarifying individual roles for team members and promote the integration of supervisory visits with ongoing, intersectoral activities. In this activity, the Provincial Planning Board might be able to take a leading role.

PC1 should assist the Provincial PMT in reviewing mechanisms for reducing time lag in providing feedback to the district level. Options for review might include:

- \* having monthly rather than quarterly reviews of data for monitoring and feedback;
- \* defining a new method for quick data review and responsibility for reporting back to the district level;
- \* utilizing PCI's computerized data analysis system.

In order to enhance sustainability, PC1 should discuss with the Provincial team the possibility of sending a letter of decision to the district and sub-district levels instructing them to provide for the teams within their planning and budgets, especially for 1994/1995 and onwards.

The appropriateness of a computerized scoring system should be reviewed, given the current resource constraints and the less than optimal use of the overall system.

**DISTRICT POSYANDU MANAGEMENT TEAMS:**

**STRENGTHS:**

The teams are operational at the district level.

The teams appreciate the value of the monitoring system.

There is political will within the administrative structure for continuation of the program.

**WEAKNESSES:**

The team is not optimally using data as a monitoring tool for supervision.

The team does not yet clearly understand the conglomerate responsibility for the program. For example, coordination in terms of openness for intersectoral budgeting for supporting the program has not yet happened.

Appropriate data is not yet being received from all sub-districts.

Although improvements have been seen, there are still some time lags in receiving and evaluating sub-district level data, and the scoring system for monitoring and feedback is not yet optimally used.

**RECOMMENDATIONS:**

In order to reduce the time lag in monitoring, PC1 should discuss with the District PMT the possibility of using available data, e.g. PWS and nutrition data, to calculate the scores and produce recommended forms.

PC1 should review with the District PMTs different methods for improving and evaluating sub-district activities, such as visiting only the weakest sub-districts or using regular meetings to review problems.

PC1 should discuss with the Provincial PMT possibilities for re-instructing District PMTs on the use of the reporting system based on PCI/MOH forms A and B (see Appendix 5).

## **SUB-DISTRICT POSYANDU MANAGEMENT TEAMS:**

### ***STRENGTHS:***

The team system has increased *Camat* and intersectoral awareness of Posyandu activities, and sectoral roles and responsibilities for Posyandu implementation are being reviewed.

### ***WEAKNESSES:***

All teams are not yet fully operational in terms of meetings, usage of scoring system, supervision, evaluation and feedback.

There is confusion over the individual/intersectoral roles within the team, and the conglomerate responsibility for the team.

### **RECOMMENDATIONS:**

PC1 should discuss with the Provincial and District **PMTs** possibilities for re-informing Sub-District **PMTs** about the function of the team, and the reporting system based on **PCI/MOH** forms A and B. Possibilities might include:

- \* having the District Level PMT send a second letter of decision re-enforcing the function of the Sub-District Level Team;
- \* using supervisory visits by **PCI/District** level teams to reinforce the reporting mechanism.

PC1 should re-inform the Sub-District **PMTs** about their initial support for meetings.

PC1 should assist the Sub-District PMT in clarifying individual roles and responsibilities within the team.

PC1 should discuss with the Sub-District **PMTs** different methods for improving and evaluating activities in the field, such as visiting only the weakest villages or using regular meetings between village and sub-district officials to review problems.

## **COMMUNITY PARTICIPATION:**

In Indonesia, apart from the health center, most basic health services for women and children are provided at the Posyandu. As **PCI's** project focusses on improving the health of both women and children, utilization of Posyandu services remains an important issue. PC1 has had significant positive experience in other provinces utilizing trained **TBA**s to motivate mothers to attend Posyandu. **TBA**s deliver most of the babies in the village and usually maintain some kind of relationship with the family and child thereafter. They are in a good position to know the immunization status of the children and their mothers along with the nutritional status. They likewise are able to motivate the mothers to bring their children to the Posyandu. During their training the **TBA**s are given a TBA kit and receive instruction in improved delivery techniques and how to recognize high-risk pregnancies, as well as how

to teach mothers about immunizations and the use of **Oralit** for diarrhea. It is hoped that this training will increase demand and community respect for TBA services as well as increase the income **TBA**s receive from these activities. The usual duties of the TBA are being enhanced by the introduction of the KMS (Growth Monitoring) card distribution and Vitamin A administration to mothers at the birth of their babies. Furthermore, **TBA**s are key in neonatal tetanus surveillance using pictorial birth recording forms. Coupled with increased midwife training and supervision capabilities, a closer link has been forged between the health center and the village.

A social marketing program to “sell” the Posyandu to the community is also a part of the PC1 project. The backbone of this strategy will involve the use of primary school teachers to implement a child-to-mother approach for informing mothers about the value of the Posyandu. Apart from using the school health program, mass media will also be used to improve community awareness and promote community participation. The social marketing committee, a sub-committee of the Provincial PMT, was just formed in March, 1993 and the first activities will start in June.

### **STRENGTHS:**

Training of **TBA**s can be beneficial as it:

- \* motivates **TBA**s, increases their skills, and can improve their recognition and status in the community;
- \* promotes closer relationships with health service personnel through the introduction of systems for monitoring, surveillance and feedback;
- \* increases identification of high-risk births which can contribute to the reduction of infant and maternal mortality;
- \* increases their ability to act as community based health promoters which can improve the community’s awareness of basic preventive measures and curative services;
- \* has increased involvement of **TBA**s as kaders in the Posyandu.

The training of midwives as trainers appears to improve the quality of TBA training and can improve the relationship between the midwives and **TBA**s.

The pre- and post-training testing of **TBA**s provides valuable information that allows for accurate review and modification of the training program.

As a result of the training, regular monthly meetings of **TBA**s, incorporated with traditional monthly “lottery” sessions, have been initiated in certain areas. These meetings provide an excellent opportunity for reinforcement of health messages and supervision.

The pilot project utilizing **TBA**s as distributors of KMS cards appears to enhance the role of the TBA as a community motivator.

The national program for Vitamin A distribution to post-partum women is strengthened through this program’s use of **TBA**s as distributors.

The PC1 TBA birth reporting form has the potential to be an effective monitoring tool and to increase neonatal tetanus surveillance.

Early identification of newborns and post-partum women through the PC1 TBA birth reporting form can be a valuable asset for future programming efforts aimed at these vulnerable groups.

PCI's supervision improves quality of the training (TBA and midwife).

The social marketing program has the potential to increase community awareness through the use of mass media and children to motivate and educate the community about basic preventive health measures.

#### **WEAKNESSES:**

Certain aspects of TBA training do not seem to be adequately understood, especially topics not relating to birthing practices. Such problems may be due to the size of the training group, the language capabilities or literacy of the training participants, or the content and use of the curriculum.

The purpose and correct use of the PC1 TBA birth reporting form is not yet clear to all TBAs and midwives.

As only the month and not the day is recorded on the PC1 TBA birth reporting form, correct monitoring is hampered.

Delay in initiating the social marketing program may hinder the development of community participation and awareness of basic preventive measures.

#### **RECOMMENDATIONS:**

In areas where meetings are not yet occurring, PC1 should discuss with the MOH the importance of using regular monthly meetings of TBAs and midwives for discussion of problematic issues and refresher training. Guidelines could be developed for covering the necessary topics during these refresher training sessions.

PC1 should use TBA post-training test results to determine the causes of the perceived problems and weaknesses. These results should be used to make appropriate modifications in the training program.

PC1 should discuss with the MOH the possibility of expanding the pilot project using TBAs as Vitamin A distributors if it is seen to be successful after a reasonable trial period. The possibility of using TBAs to distribute iron tablets to post-partum women, in support of the national program, should also be discussed.

PC1 should discuss with the MOH and the PMTs the possibility of universally using trained TBAs as kaders at the Posyandu.

To improve monitoring, PC1 should include the exact date of birth on their TBA Birth Reporting Form.

In order to meet project objectives, PC1 should give high priority to the initiation and implementation of the social marketing program.

### **3. ASSESSMENT OF RELEVANCE TO CHILD SURVIVAL PROBLEMS**

When PC1 first started to work in Maluku, most of the basic health indicators for the region were worse than those for the whole nation, and immunization coverage was also noted to be the lowest reported for any province in Indonesia. The province of Maluku is spread over a large geographic area, 851,000 sq. kilometers, and consists of over 1000 islands. This makes any work in the region very challenging and many of the regions health problems can be directly related to the difficulties encountered by the MOH in the delivery of services. This is particularly true for the Expanded Program on Immunizations, where there is great dependence on the cold-chain system.

PC1 was asked to work in the province by Dr. Leimena, the MOH Director General for Community Health, because of the region's delayed health development and its low immunization rate. The program PC1 has implemented focusses on improving immunization coverage through designing and implementing improved health information systems related to cold-chain management and immunization coverage, and promoting Posyandu attendance. In addition, PC1 also strives to improve identification and case management of high risk births and to promote the appropriate use of ORT through the training of midwives and TBAs. The provincial government is very supportive of PCI's focus on immunizations and progress has been seen, since PCI's arrival, in moving towards Universal Childhood Immunization (UCI). The PC1 program addresses critical health care needs in the region. With the three year program that PC1 is now implementing, the scope of activities appears to be realistic and appropriate.

### **4. ASSESSMENT OF RELEVANCE TO DEVELOPMENT**

The community based delivery of health care services for infants, children and pregnant women in Indonesia revolves around the successful implementation of the Posyandu. The community is responsible for providing space and volunteer *kaders* for the Posyandu sessions as well as for motivating pregnant women and women with children under five years of age to come to the sessions. In most areas, Posyandus proceed smoothly and are widely supported by the community, but this is not always the case. Many factors inhibit optimal implementation of the Posyandu sessions including seasonal movements of families, logistical constraints at the health centers and inclement weather conditions. In this project, PC1 focusses on improving Posyandu implementation and attendance. To do this, PC1 has worked to strengthen the Posyandu Management Teams in an effort to promote and reinforce intersectoral responsibility for the Posyandu at the provincial, district and sub-district levels, and to promote community ownership and responsibility for the Posyandu at the village level. Work with the PMTs has already occurred at all levels except the village, and this has been seen to have increased intersectoral awareness and collaboration in relation to the Posyandu. It is hoped that work at the village level will increase awareness of the importance of Posyandu and the community's responsibilities for implementation. Subsequent work at the sub-district, district and provincial levels will also improve the support given to the village in this process.



## 5. ASSESSMENT OF COMPETENCE IN CARRYING OUT PROJECT

### 5.1 ASSESSMENT OF DESIGN

In undertaking this project, PCI has implemented activities in a step-wise fashion. As the province of Maluku is spread over a large geographic area, PCI decided to initially collect baseline data in the more reasonably accessible areas (Phase I areas). In the second phase PCI surveyed the more geographically isolated areas (Phase II areas). Also, training of midwives and TBAs started in the Phase I areas and will move on to Phase II areas in the second half of the project. Some innovative project activities, such as the distribution of vitamin A capsules to post-partum women by TBAs and the vaccination and distribution of a life time history card for TT vaccinations to women of reproductive age at the posyandu, will be carefully observed in pilot areas before large scale expansion to other project areas will be considered. With respect to PMT training and support, PCI began at the provincial level and has worked down through the districts and sub-districts, taking into account that the PMT at each level will only be institutionalized and be able to fully operationalize when full support is given by their superiors in the different (intersectoral) government departments. In the second half of the project, PCI will focus on PMT formation and support at the village level.

In the earlier section on Assessment of Accomplishments and Effectiveness, each intervention is described and a review of the objectives and outputs was undertaken. While outputs were seen to be in accordance with expectations, several objectives were modified. These new objectives are seen to be more realistic given the new information recently provided by the Phase II baseline survey and the time frame of the project.

### 5.2 ASSESSMENT OF MANAGEMENT AND USE OF DATA

In PCI's program there is great emphasis on health information systems, and as a matter of course, several devices have been created for regular information collection and utilization. Several of these devices have been developed for primary use by the MOH, PMTs or communities, but the project also collects information directly. Examples of the project's direct collection of data are the Phase I and Phase II baseline surveys, and pre- and post-training surveys of TBAs. The baseline surveys have been actively used by the project to develop appropriate objectives and the TBA survey will be used to assess the effectiveness of the TBA training and to determine appropriate ways to make improvements.

As mentioned, PCI has also developed health information systems that will primarily be used by other organizations. These include a cold-chain survey and a complimentary computerized data monitoring system, a computerized data monitoring system for immunization coverage, a simplified scoring system for immunization coverage able to be utilized by the PMTs, a pictorial birth reporting form able to be used by TBAs and midwives for reviewing birth outcome and to be used for neonatal tetanus surveillance, and a maternal TT card. While these systems are designed to be utilized by other organizations and individuals, PCI has been instrumental in their creation and implementation, and has provided follow-up support. As an example, in addition to installing the computerized systems in the MOH offices, PCI has also installed the computerized systems in its own offices and project staff have been trained

to review and monitor the data. The sharing of data between the MOH, PMTs and PC1 has become a regular part of project activity in the region.

As mentioned in section 2, the computerized systems and other innovative data collecting systems developed by the project have great potential. It is however too early to adequately evaluate the usefulness and sustainability of the health information systems developed by the project, as they are not yet fully operationalized at all levels to date. Please see section 2 for specific comments and recommendations made by the midterm evaluators. Only after the systems have been in place and used for some time will it be possible to adequately evaluate their simplicity, usefulness and sustainability.

### 5.3 ASSESSMENT OF COMMUNITY EDUCATION AND SOCIAL PROMOTION

PCI's project stresses improving immunization coverage while also promoting identification of high risk births and appropriate diarrheal disease management. The majority of activities to date have centered around the development and implementation of health information systems, the formation of PMTs and the training of midwives and TBAs. Through utilizing TBAs as health promoters, PC1 hopes to increase community based awareness of certain health message and promote attendance at the Posyandu. However, this is not the only component of the project that intends to accomplish this. The program also contains a significant social marketing component scheduled to begin in June 1993. This component consists of a School Posyandu Program and health messages disseminated through mass media. The School Posyandu Program has been successfully used by PC1 in its Child Survival Project in Riau and it is an innovative strategy using a child-to-mother approach to inform women about the value of the Posyandu. The midterm evaluation team recommended that PC1 give high priority to the implementation of this program, which is expected to improve community awareness concerning the importance of preventive health services, promote community participation and improve Posyandu attendance. See section 2 for specific comments and recommendations regarding community participation.

Through supporting and strengthening the development of PMTs at the provincial, district, and subdistrict levels, intersectoral awareness and collaboration in support of Posyandu implementation have improved. Moreover, the village level PMTs, which will be formed, supported and strengthened during the second half of the project, are expected to have a positive impact on community awareness and community ownership and responsibility of the Posyandu.

### 5.4 ASSESSMENT OF HUMAN RESOURCES FOR CHILD SURVIVAL

The evaluation team feels that, at present, the number and mix of PC1 staff are appropriate, and that the staff are adequately trained to perform their duties. Also, the utilization of a management by objective system in the Ambon office appears to effectively utilize available staff while promoting staff morale.

In this project PC1 is not a direct implementor, but assists the MOH and local government at provincial, district and sub-district level in improving immunization program management, Posyandu management and community participation. One project manager is based in

Ambon, while for two project managers the MOH provided office space in two other districts. Moreover, project staff regularly travel to the project sites to provide direct on-site managerial, operational and technical assistance whenever needed.

PCI does not directly employ or train community health workers, but rather the organization trains MOH midwives to train TBAs. During these trainings, midwives are trained in appropriate adult education techniques, and TBAs are trained in improved delivery techniques and trained to play an integral role in promoting attendance at the Posyandu and in the delivery of a variety of basic health messages at the community level. The initial TBA training lasts for 6 days and includes many demonstrations and interactive sessions. The evaluation team's comments in relation to these trainings can be found in Section 2. PCI is conducting pre- and post-training testing of TBAs to review the effectiveness and appropriateness of this training process, which will provide valuable information that allows for accurate review and modification of the training program.

For the listing of PCI-Maluku project staff, please refer to Appendix 3.

#### 5.5 ASSESSMENT OF SUPPLIES AND MATERIALS FOR LOCAL **STAFF**

During training, PC1 supplies TBAs with an initial TBA kit including a picture book on appropriate birthing techniques and a supply of pictorial birth reporting forms, and the MOH supplies them with an initial supply of Growth Monitoring Cards (KMS). In addition, in one district Vitamin A is being provided to TBAs by PC1 through a pilot initiative with the assistance of Helen Keller International. The in-depth interviews conducted by the mid-term evaluation team revealed that TBAs highly value these items, and that they are actively used. Questions were also asked about the TBAs' ability to replenish basic supplies such as alcohol or cotton, and in most cases TBAs found that this was not a problem as they were able to do this through local shops with the earnings from their deliveries, or were receiving new supplies during their regular monthly meetings at the health center.

#### 5.6 ASSESSMENT OF QUALITY

The evaluation team felt that the child survival project staff are adequately trained to perform their current duties. PCI's local staff were recruited with backgrounds in management, training, and IEC. To improve their knowledge and skills, they were provided with training in adult education techniques and survey methods. These skills complement and support the technically oriented counterpart staff at the MOH.

Improving the skills of the Provincial and District MOH staff has also been a priority for PCI. Key personnel have been trained to operate the cold chain management database, which will increase their ability to implement the immunization program. In addition, PMT members at the provincial and district levels have received training in monitoring techniques for Posyandu improvement, and midwives have been trained as TBA trainers.

As this project focusses on strengthening and supporting the government's health care delivery system, PC1 staff advise, support and work with government staff rather than working directly with mothers.

## 5.7 ASSESSMENT OF SUPERVISION AND MONITORING

Field based supervision and monitoring of ongoing activities and previously trained individuals are a routine part of project work. Trained midwives are monitored during TBA trainings, PMTs are monitored once formed, and PC1 field based staff provide support and monitoring for government health personnel involved with immunization and maintenance of the cold chain. It is anticipated that these types of monitoring and supervisory activities will continue for the duration of the project. However, monitoring, supervision and provision of technical support is done in collaboration with the MOH and/or PMT members at different levels. Upon project completion monitoring and supervision of field activities are planned to be fully institutionalized and to be part of their routine activities.

## 5.8 ASSESSMENT OF USE OF CENTRAL FUNJXNG

Support from the PVO HQ office has been limited but effective. AID has provided \$84,950 worth of central funding for direct technical and administrative support of the project. These funds support administrative and technical staff at the HQ office for the purposes of: financial management of the grant, grant reporting, and general support of the program. While these funds are not extensive for the 3 years of the project, they are crucial in supporting the necessary supervisory activities for the grant at the HQ office.

## 5.9 ASSESSMENT OF PVO USE OF **TECHNICAL** SUPPORT

The Project Director, Dr. Steve Robinson, is also the Asia Regional Technical Advisor for Project Concern International, and he is primarily responsible for the technical quality of the project. Dr. Robinson has also been instrumental in defining and soliciting necessary and appropriate technical support for the project. The following technical support has been, or is planned to be, received by the project:

1) UNICEF: Dr. Rod Hatfield (EPI Officer) worked with PC1 in the planning stages of the Cold-Chain Survey. Dr. Pirkko Heinonen (EPI Officer) visited the project site in April, 1992 and again in May 1993 and continues to work with PC1 in developing innovative strategies for immunization coverage.

2) REACH: Dr. Robert Steinglass, Technical Director, visited the project site in Ambon October 20-23, 1992 to review the strategies being developed and provide further technical input. He met with several MOH/Maluku officials and together with PC1 developed some strategies for improving immunization coverage in the province. Specifically, he provided input on streamlining the cold-chain supervision process, accelerating TT administration in schools, and sweeping strategies. Some of the suggested strategies are currently being implemented or considered.

3) USAID/Jakarta: Dr. Michael Linnan, (CDC) has provided informal assistance to the Project Director in sharing survey literature, results of experiences in other areas in Indonesia, and software. He was expected to visit the project site in May 1993.

4) Helen Keller International: Dr. Toy Tjiong, VITAP Technical Advisor, visited Ambon in December, 1992, to design and plan the pilot project involving the distribution of Vitamin A

to recently delivered mothers by PCI-trained TBAs. HKI continues to follow the project and provide consultation concerning evaluation of results.

5) Harry Kurniawan: Private computer programmer trained in the U.S. currently living in Ambon, Mr. Kurniawan, an Indonesian citizen, has been contracted to design and develop the LAM software for PC1 and the MOH. It is hoped this software will be adopted by the National CDC for use in other provinces. Mr. Kurniawan is currently being considered for the design of a new financial reporting system for PCI/Indonesia.

6) Center for Disease Control: Dr. Robert Bernstein (CDC consultant for the Maluku World Bank Health Project) will provide informal consultation to the project concerning epidemiology and disease surveillance. He also has provided a copy of EPIMAP with Maluku maps for computer surveillance. He was expected to visit the project site in May, 1993.

7) Dr. Sandra Pannell: Anthropologist with James Cook University, Queensland, Australia plans to come to Maluku in October to assist with the development of a Village Drug Post Kader scheme. Dr. Pannell has conducted anthropological research in Maluku in the past.

8) Dr. Nicolet Hutter: Dr. Hutter, Counterpart Project Officer for the PATH Child Survival Plus Two Project in Lombok, served on the Mid-Term Evaluation Team in April, 1993.

9) Dr. Soetatyo: Representing the MOH/Jakarta, Dr. Soetaryo served on the Mid-Term Evaluation Team in April, 1993.

10) PC1 Headquarters: Ms. Alice Levisay, Program Officer/Technical Support Officer, served on the Mid-Term Evaluation Team in April, 1993. She continues to provide back-up support in San Diego.

#### 5.10 **ASSESSMENT OF COUNTEFWART RELATIONSHIPS**

In this CSVII project, PC1 works very closely with the Ministry of Health, particularly in the areas of immunization program management, and in the promotion of Posyandu implementation and community participation. The government at all levels seems to be supportive of PCI's work and would like to see PC1 continue its work in the region over the next few years. It is clear that the government must also continue to incorporate advancements for long-term sustainability of the project benefits to be realized. At present, it appears that the government is in a good position to eventually take over complete responsibility for program activities.

#### 5.11 **ASSESSMENT OF REFERRAL RELATIONSHIPS**

As the project is not a direct service provider, this question is really not relevant. However, in PC1 supervised TBA training, appropriate referral of high-risk women is encouraged and the TBAs are encouraged to report back to the midwives on a monthly basis so that there can be continued supervision, training and monitoring.

## 5.12 ASSESSMENT OF **PVO/NGO** NETWORKING

The project networks quite extensively with other organizations, including **NGOs** and **PVOs** active in Indonesia. These organizations include the following:

- 1) **UNICEF**: The project received \$30,000 in funding in July, 1992, and was able to start activities three months early. There has been continuous **UNICEF collaboration** on strategies in immunization and PMT implementation. UNICEF paid for a portion of the training of 27 sub-district heads (camats) for two districts. An EPI officer has visited the project in 1992.
- 2) **Helen Keller International**: **HKI** developed a pilot for Vitamin A distribution using **TBA**s. **HKI** provided funding for Vitamin A stickers used on TBA pictorial birth reporting forms and evaluation visits to the field.
- 3) **SINTESA**: **PC1** hired a **SINTESA** staff member as a consultant for assistance in developing the **TBA** curriculum. This local NGO based in SE Sulawesi was formed by ex-**PCI/Indonesia** staff in that province. Collaboration continues with sharing of curricula for a pilot drug kaders project to be implemented at a later date.
- 4) **PARPEM**: Yayasan Partisipasi Pembangunan, a local Maluku NGO, trained 65 **TBA**s with **PC1** in SE and Central Maluku. **PC1** assisted them in the purchase of the **TBA** kit bags.
- 5) **YAYASAN LUKAS**: **PC1** arranged the initiation of immunization services by the Fatima Catholic Hospital in Saumlaki by defraying the expenses of training for the immunizer and assisting in the delivery of vaccine equipment supplied by the **MOH**.
- 6) **P.T. PRIMA LIRAN MINING**: This gold mining company (a subsidiary of Belgian Metals under Shell Oil) has agreed to work with **PC1** and the **MOH/Maluku** to assist with storage of vaccine and provision of services to local villagers.
- 7) **RADIO REPUBLIK INDONESIA**: A staff member from the government radio station is working with the Social Marketing Committee to create a health quiz program.
- 8) **IPVO Network**: **PC1** staff have attended and made presentations at conferences sponsored by World Vision International and **ADRA**, as part of the **IPVO** Network in Indonesia. **PC1** took a leading role in forming this network in early 1990 as a result of the Asia Regional CS Conference in Kendari.
- 9) **Volunteers in Service Overseas (VSO)**: The Sr. Project Manager, Martin Fitzpatrick, is a **VSO** who started with the project in October, 1991. His project experiences have been shared with other **VSOs** at their annual forums.
- 10) **P.T. Unilever**: **PC1** has been offered assistance by Unilever in its upcoming School Posyandu Program. In the past Unilever has provided soap samples, pads, pens, posters, and various health-related promotional items for distribution as prizes in contests.

11) University of Hawaii School of Public Health: **PCI/Maluku** has agreed to accept an intern from this International Health Program for three months (June-August, 1993). The intern will assist with documentation, project design and computer programming.

### 5.13 ASSESSMENT OF BUDGET **MANAGEMENT**

Budget control is located at PC1 headquarters, which disburses funds for this project in response to monthly requests for cash from the field office. The field office reports expenditures monthly by cost center, with the requisite documentation, to headquarters. **PCI/San Diego** then issues monthly income and expense statements which are shared with the field office. **PCI** conducts an annual audit. In 1992, Coopers and Lybrand, Inc. found PC1 in full compliance with **USAID's** A-133 requirements and issued an unqualified opinion.

A review of pipeline expenditures to date reveals that the project has spent \$750,264, of a total agreement budget of **\$1,038,010**. Of the total spent to date, **A.I.D.'s** portion is \$479,031. (These figures are for the field only and do not include headquarters costs.) At this rate, PC1 will likely expend the remaining funds by the end of the project.

## 6. **SUSTAINABILITY**

This project has two main strategies for insuring the sustainability of activities and achievements. The first is close and continuing collaboration with the Ministry of Health, the primary deliverer of health services in the region; and the second is fostering the formation of local **NGOs** that would be capable of providing continued support and training within the health care sector in the region. As mentioned, the government is very supportive of the project and appears to be able and eager to incorporate project instigated advances into its programming efforts. Indicators have been chosen to track the progress of the governments incorporation of project advances, and thus track ultimate progress towards government sustainability of project impact. A listing of these indicators and the progress made to date can be seen in Appendix 8.

**As** to NGO formation, individuals hired as **PCI-Maluku** staff were people interested in forming and working for a local NGO. As of the mid-term evaluation, these staff members continue to be committed to this prospect. However, as the project in Maluku only began in 1991, it is anticipated that the NGO will only be formed in the last segment of this CS project.

In general, the evaluators felt that three years is not long enough to fully operationalize all program interventions and institutionalize all changes and improvements accomplished with assistance from **PCI**. Extra time will probably be needed to fully develop the human resource potential and to solve logistical problems. It is therefore recommended that the project be extended for another three years so that project activities can become fully integrated into the provincial development plan.

## 7. **RECURRENT COSTS AND COST RECOVERY MECHANISMS**

For a complete listing of present recurrent costs per annum please refer to Appendix 4. The given costs are quite reasonable considering that the program attempts to cover the whole province, and the majority of costs seen are for supervisory visits for the PMT and immunization program

components. The total recurrent costs per annum are only \$29,156, but costs associated with supervisory visits make up \$22,331 of the total. In the design of the program, it is hoped that the government will be able to absorb these extra costs perhaps on an increasing scale over a period of years, and their strong support for the program suggest that this is a reasonable option.

## 8. RECOMMENDATIONS

For a listing of specific recommendations per project component please refer to Section 2. The evaluation team spent a great deal of time discussing and reviewing programmatic issues, and the resulting recommendations are felt to represent the consensus achieved amongst the evaluators. These recommendations were presented to PCI staff and a formal presentation was made to government officials at the conclusion of the evaluation period. These recommendations were accepted by all parties. It is hoped that changes are already being made by people in the field to respond to the recommendations seen in this report.

## 9. SUMMARY

PCI's Mid-Term Evaluation for its Maluku CSVII project was undertaken from April 4 to April 17, 1993. The evaluation team consisted of three members, Dr. Soetaryo from the Central MOH in Jakarta, Dr. Hutter from PATH's Child Survival Plus Two Project in Lombok and Ms. Levisay from PCI's headquarters office in San Diego. The team travelled as a group to a variety of randomly selected locations where key informant interviews, focus group discussions were conducted and health information systems and relevant data were reviewed. The total cost of the evaluation was \$4,579.

In order to facilitate review of the program, the evaluators divided the project into several key components: Immunization Program Management, Immunization Innovations, Posyandu Management Team implementation at the provincial, district and sub-district levels, and Community Participation. Each of these sections was then thoroughly reviewed and a summary of the findings in terms of Strengths, Weaknesses and Recommendations was written. This summary of the components is seen in Section 2 of this document.

Overall, the evaluation team was pleased with project's progress and achievements seen to date. They felt that inputs and outputs were in line with expectations, but that several of the objectives needed to be modified. The recommendations for the modifications were based on the additional information provided by the Phase II Baseline Survey and are included in Section 2 of this report. Prior to the departure of the evaluation team, a summary report of the evaluation findings was presented to both PCI staff and government officials. It is anticipated that actions are already being taken by relevant parties to comply with the recommendations. PCI's CSVII program in Maluku is quite unique in its approach and seems to be well liked and supported by the MOH at all levels. It is clear that PCI has been able to facilitate progress in the key child survival initiatives and it is felt that such a program has great potential for replication in other areas of the country.



APPENDrx1

MID-TERM EVALUATION SCHEDULE

DATES	ACTIVITIES	LOCATION
Sun April 4	Survey Team arrives in Ambon	Jakarta - Ambon
Mon April 5	Free in A.M. - Review Documents (1400) Meet PCI staff/Team (1430) Maluku Demographics (1500) Overview of Project (1600) Health/Immunization situation (Dr. Ris) Dinner at Robinson's (1900)	PCI/Ambon
Tues April 6	(0600) Review Evaluation Plan (0900) Meeting with MOH/Maluku (1100) Review of Baseline survey Lunch at Hotel (1330) Review of Cold Chain Survey/Database (1500) Review of PWS/software (H. Kurniawan) (1600) Review of Pokjanel Posyandu program Dinner (1930) Review of TBA training component	PCI/Ambon Kanwil/Maluku PCI/Ambon  PCI/Ambon PCI/Ambon PCI/Ambon Hotel PCI/Ambon
Wed April 7	(0900) Meet Provincial PMT Visit trained TBAs (by car)	Gov. office/Ambon Hlth. Ct. at Hitu
Thurs April 8	1. Charter plane trip to Ternate (2 hrs) 2. Meet N. Maluku MOH officials 3. (1200) Meet Kabupaten PMT 4. Meet Bupati/N. Maluku	Ambon → Ternate MOH/Ternate Bupati office/Ternate
Fri April 9	1. Boat trip to Halmahera Island (2 hr.) 2. Visit TBA training & H.C. Jailolo 3. Interview PMT Kec. Jailolo 4. Return to Ternate by boat (2 hr) Spend night in Ternate	Jailolo Jailolo
Sat Apr 10	Meet Kecamatan PMT for Ternate Isl.	Sulamadaha
Sun Apr 11	1. Flight to Ambon (0600) Rest (Easter Sunday) 2. (1900) Vehicle to Tolehu harbor (1 hr) 3. (2000) Boat trip to Amahei, Seram Isl. (4 hrs)	Ambon
Mon Apr 12	1. Arrive Amahei (2400) 2. Vehicle to Masohi (0.5 hr) 3. Sleep at Hotel Nusantara In Masohi 4. Charter taxi to Tehoru, (3 hr) 6. Visit Hlth. Ctr & observe TBA training 7. Interview PMT Kec. Tehoru 8. Travel to Amahei (3 hr) 9. (1600) Interview trained TBAs 10. Travel to Masohi (0.5 hr) Spend night in Masohi	Masohi, Seram  Tehuu Tehoru  Amahei Masohi
Tues Apr 13	1. (0630) Meet MOH officials 2. (1000) Meet Kabupaten PMT 3. (1400) Return to Ambon (boat/car = 3 hr)	Masohi Masohi
Wed Apr 14	Meet Secretary Provincial PMT Compose evaluation report.	PCI/Ambon PCI/Ambon
Thru Apr 15	1. (0630) Meet Kanwil CDC Head (Dr. Rivai) 2. (0930) Meet Dines CDC Head (Dr. Rlstianto) Compose evaluation report	MOH/Maluku MOH/Maluku PCI/Ambon
Fri Apr 16	Compose evaluation report	PCI/Ambon
Sat Apr 17	(0930) Presentation to MOH/Maluku & local govt. Evaluation team departs Ambon	MOH/Maluku Ambon →

## APPENDIX 2

## CSVII PROJECT ACHIEVEMENTS

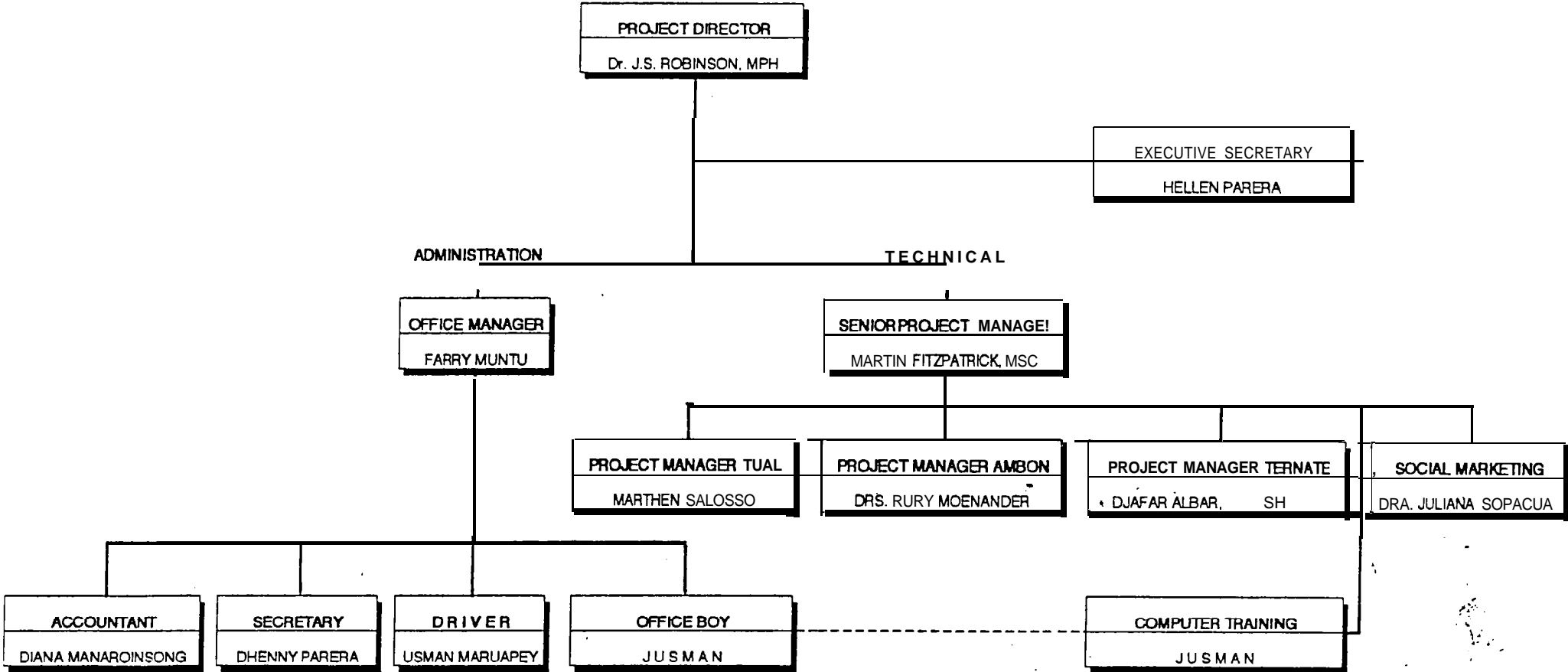
INPUTS	PLANNED		ACHIEVED		OUTPUTS	% OF TARGET
	NO.	DATE	NO.	DATE		
1. Baseline Surveys						
Area I (32 sub-districts)	X	IV/1991	X	11/91	Survey Report	100%
Area II (24 sub-districts)	X	III/1992	X	9/92	Analysis complete	100%
2. Cold-chain & immunization program survey (56 sub-dist.)	X	I/1992	X	1/92 - 5/92	Survey Rep-t Computer Database	100%
3. Orientation of Provincial Posyandu Pokjanal	1	I/1992	1	1/92	Governmental decree issued Provincial PMT formed	100%
4. Formation & Training of District Posyandu Pokjanals	1	II/1992	1	4/92	5 District PMTs formed 5 teams with 5 members each trained	100%
5. Posyandu Pokjanal Workshops for Camats	1 workshop	II/1992	3	5/92 - 8/92	All 56 camats oriented	100%
i. Formation and Training of Sub-district Posyandu Pokjanals	5 trainings	III/1992	5	7/92 - 11/92	All 56 Sub-district PMTs formed All 56 Sub-district PMTs trained (225 members)	100?? 100%
6. Establish computerized cold-chain database at MOH	X	IV/1992	X	11/92	Database functioning at MOH	100%
7. Develop PWS software & install at MOH	0	unplanned	X	11/92 - 3/93	PWS program completed without graphics PWS installed at MOH/Prov & in 2 districts	N/A N/A
8. Computer training for MOH Staff	0	unplanned	309 hrs of training	3/92 - 3/93	5 MOH/Mal staff & 1 BangDes staff trained	N/A
3. Management training for 5 immunizers (pilot)	0	unplanned	X	2/93 - 3/93	1 immunizer trained	N/A
1. Develop new TT immunization strategy	0	unplanned	X	1/93 - 3/93	New policy for immunization of all women at Posyandu started	N/A
2. Develop immunization card for all women TT (pilot for two districts)	0	unplanned	3 districts	1/93 - 3/93	Life-time TT cards designed New policy officially decreed 20,000 cards printed 10,000 cards circulated	N/A

## CSVII PROJECT ACHIEVEMENTS

INPUTS	PLANNED		ACHIEVED		OUTPUTS	% OF TARGET
	NO.	DATE	NO.	DATE		
13. Workshop for District Midwives	1	IIII1992	1	1 0/92	10 midwife TOTs oriented	100%
14. Develop TEA training curriculum	X	III/1992	X	1 0/92	TBA training curriculum finalized	100%
15. Trainings for Health Center Midwives (TOT) - 57 midwives (Phase I) - 33 midwives (Phase II)	5 trnings 4 trnings	IV11992 III/1993	5 ---	11/92 - 12192	78 H.C. midwives trained in 5 sessions	126%
16. Training for TBAs - 1000 TBAs (Phase I) - 500 TBAs (Phase II)	57 trnings 33 trnings	IV/92 - I/93 III/1993	26 ---	1/93 - 3/93	922 TBAs trained (303 villages)	92%
17. Pre-test TBA training - 120 pre-tests (Phase I) - 60 pre-tests (Phase II)	12 clusters 6 clusters	IV/92 - I/93 III/1993	7 clusters ---	1/93 - 3/93	70 TBAs evaluatgd	58%
18. Develop neonatal surveillance scheme (pilot for TBAs)	X	I/1993	X	1193-r 3193	TBA reporting form developed 460 TBAs reporting NNT tracing policy established	100%
9. Develop RTH card distribution scheme (pilot for TBAs)	X	I/ 993	X	1/93 - 3193	Policy established & trained TBAs distribute cards routinely	100%
10. Develop Vitamin A distribution scheme (pilot for 421 TBAs)	0	unplanned	X	12/92 - 3/93	TBA Vit. A distribution' plan finalized 146 TBAs distributing Vit. A	N/A N/A
11. Pilot study on Oralit distribution	X	III1993	---			
12. Develop School Posyandu prog. - Form Social Marketing Comm. - School Posyandu Pilot in 2 sub-districts	X X	I/1993 II/1993	X ---	3193	Social marketing body formed	100%
3. Posyandu Workshops for Village Chiefs (1,892 village heads)	56 wrkshps	III -IV/1 993	- - -			
4. Training of Village Posyandu Teams (1,892 teams)	5 6 t r n i n g s	III-IV/1993	- - -			

## **APPENDIX 3**

# PCI MALUKU ORGANIZATIONAL CHART



## **APPENDIX 4**



## RECURRENT COSTS FOR ONE YEAR

### 1. IMMUNIZATION PROGRAM MANAGEMENT

A. SUPERVISORY VISITS BY DISTRICT MOH OFFICIALS TO EACH ALL HEALTH CENTERS EVERY 6 MONTHS	R p <b>6,944,000</b>	\$3,355
B. FORMS FOR SUPERVISORY CHECK-LIST 5 PP x 250 VISITS x Rp50/P	Rp 62,500	\$30
C. COMPUTER PAPER AND DISKETTES	Rp 425,000	\$205
D. TTWRA CARDS (50,000/YR)	Rp 500,000	\$242
E. NEONATAL TRACING VISITS BY MIDWIVES (FORMS)	Rp 39,000	\$19

### 2. PMT PROGRAM

#### A. PROVINCIAL PMT

1. MEETINGS MONTHLY x 12/YR	Rp 480,000	\$232
2. SUPERVISORY VISITS JO DISTRICTS x 2/YR	Rp <b>8,094,000</b>	\$3,910

#### B. DISTRICT PMTs (5)

1. MONTHLY MEETINGS x 12/YR	Rp 264,000	\$128
2. SUPERVISORY VISITS TO SUB-DISTRICTS x 4/YR	Rp <b>21,105,000</b>	\$10,196

#### C. SUB-DISTRICT PMTs (56)

1. MONTHLY MEETINGS x 12/YR	Rp <b>3,360,000</b>	\$1,623
2. SUPERVISORY VISITS TO VILLAGES x 24/YR	Rp <b>10,080,000</b>	\$4,870

#### D. VILLAGE PMTs (not yet formed)

NO COST                      \$0

### 3. TBA TRAINING PROGRAM

#### A. TBA BIRTH RECORDING FORMS

25,000/YR FOR ALL TBA DELIVERIES	Rp <b>1,000,000</b>	\$483
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#### B. KMS DISTRIBUTION

40,000/YR FOR TBA DELIVERIES	Rp <b>8,000,000</b>	\$3,865
------------------------------	---------------------	---------

\$29,156

## **APPENDIX 5**

**PM Scoring System - Form A**

**KESIMPULAN INDIKATOR POSYANDU DI TINGKAT KECAMATAN**

KECAMATAN : \_\_\_\_\_

BULAN: \_\_\_\_\_

PUSKES MAS: \_\_\_\_\_

TAHUN: \_\_\_\_\_

INDIKATOR		DPT1			POLIO3			CAMPAK			D/S			NILAI		KETER- ANGAN
TARGET KUMULATIF BULAN INI		{   }			{   }			{   }			{   }			JUMLAH SKOR	YANG PALING RENDAH	
NO	DESA	CAKUPAN	SKOR T A R G E T	SKO.7 T R E N D	CAKUPAN	SKOR T A R G E T	SKOR T R E N D	CAKUPAN	SKOR T A R G E T	SKOR T R E N D	CAKUPAN	SKOR T A R G E T	SKOR T R E N D			
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

KECAMATAN \_\_\_\_\_

PM Scoring System - Form B

BULAN \_\_\_\_\_

HASIL DARI DESA-DESA DENGAN SKOR YANG RENDAH BULAN LALU ( \_\_\_\_\_ )

DESA/DUSUN	SKOR NAIK BULAN INI? (YA/TIDAK)	KETERANGAN
1		
2		
3		
4		

DAFTAR DESA-DESA DENGAN SKOR YANG PALING RENDAH BULAN \_\_\_\_\_

DESA /DUSUN	TIM PEL POSY. KE DESA?	PENYEBAB SKOR RENDAH	TINDAKAN BULAN INI
1			
2			
3			
4			

FORM B/TPPKEC

## **APPENDIX 6**

TBA Pictorial Birth Reporting Form  
**KARTU PERSALINAN**

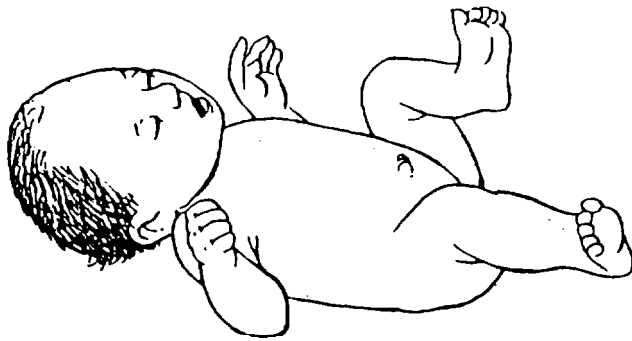
NAMA IBU / BAPAK : .....

DESA : .....

NAMA DUKUN : .....

BULAN : .....

BAYILAHIR SEHAT



BAYI SEHAT 1 BULAN



IBUSEHAT



KAPSUL VIT A



UNTUK IBU NIFAS

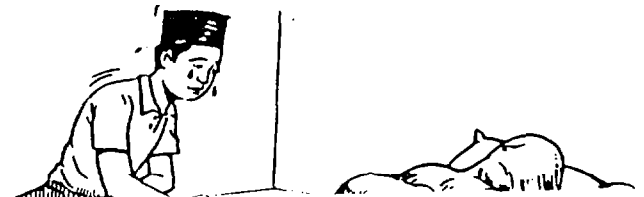
BIANGBERTANGGUNGJAWAB  
 ATAS K.M.S



BAYI MENINGGAL



IBU MENINGGAL



## **APPENDIX 7**

# Maternal TT Card

NO. : .....

## KARTU IMUNISASI WANITA USIA SUBUR



Nama Isteri: .....

Nama Suami: .....

Alamat: RT ..... RW/RK .....

DESA .....

KEC. ....

KAB. ....

PUSKESMAS : .....

tt/cap

( \_\_\_\_\_ )

## JADWAL IMUNISASI TETANUS TOKSOID (TT)

IMUNI-SASI	TANGGAL BLN/THN.	N A M A PUSKESMAS	PARAF *
TT.1			
TT.2			
TT.3			
TT.4			
TT.5			

\*) Paraf Dokter Puskesmas/Bidan/  
Petugas Imunisasi.

Atas Kerja sama PCI, Kanwil Dep.Kes. Maluku  
daa Din.Kes. Tkt. I Maluku.



## **APPENDIX 8**

**Indicators to track progress toward sustainability:**

- 1) **Quarterly reports generated by MOH from Cold-chain data base in their computer system.**

**Reports have been compiled for December, 1992 and March, 1993 by PCI/Maluku. MOH has just learned how to use the database program March, 1993.**

- 2) **Quarterly reports generated by MOH/Maluku giving feedback to districts on immunization coverage and Posyandu implementation status based on computerized HIS**

**PWS program just finished in March, 1993 capable of generating reports to districts. Lotus program completed in March, 1993 but not yet installed on BangDes computer due to computer virus damage. BangDes staff is currently attending computer lessons at PCI.**

- 3) **Regular monthly Local Area Monitoring reports from 80% of the health centers.**

**LAM (or PWS) reports are being generated by each health center monthly. In May, 1992 73 % (74/101) were submitting monthly reports. In March, 1993 72 % (79/110) are submitting reports; however, not all of these health centers have been re-surveyed and the number of new health centers has increased. Out of the original 35 re-surveyed, 86 % (30/35) are reporting PWS data (up from 77 % (27/35) in early 1992.**

- 4) **Designation of representative from the National Posyandu Management Team (PMT) responsible for Maluku**

**This has been requested by the, Provincial PMT, but the National Pokjanal did not have funds for travel to Maluku in Fiscal year 1992-93. PCI has offered to help with this and has asked UNICEF to intercede in the process.**

- 5) **Issuance of governmental letters of decision for the formation and function of Posyandu Management Teams from Provincial to Village levels.**

**Letters of Decision (S.K.) have been issued for the formation of teams from the Provicnial to Sub-district levels.**

- 6) **Regular monthly Posyandu indicator reports from 80% of the Sub-District Posyandu Management Teams**

**Not yet as the monitoring system was only officially launched in January, 1993.**

- 7) **Regular quarterly Posyandu indicator reports from 100% of District Posyandu Management Teams**

**Reports have been submitted from two of the five districts. One of the districts has sent data ~~from~~ starting from April, 1992.**

- 8) **Official allocation of funds for Posyandu Management Team activities in 1993-94 Maluku Provincial and District budgets.**

**Not yet.**

- 9) **Completion of training for 1,500 TBAs with demonstration in post-tests that knowledge was significantly enhanced.**

**460 TBAs trained to March 31, 1993. No post-tests performed to date.**

## **APPENDIX 9**

# MALUKU. PROVINCE

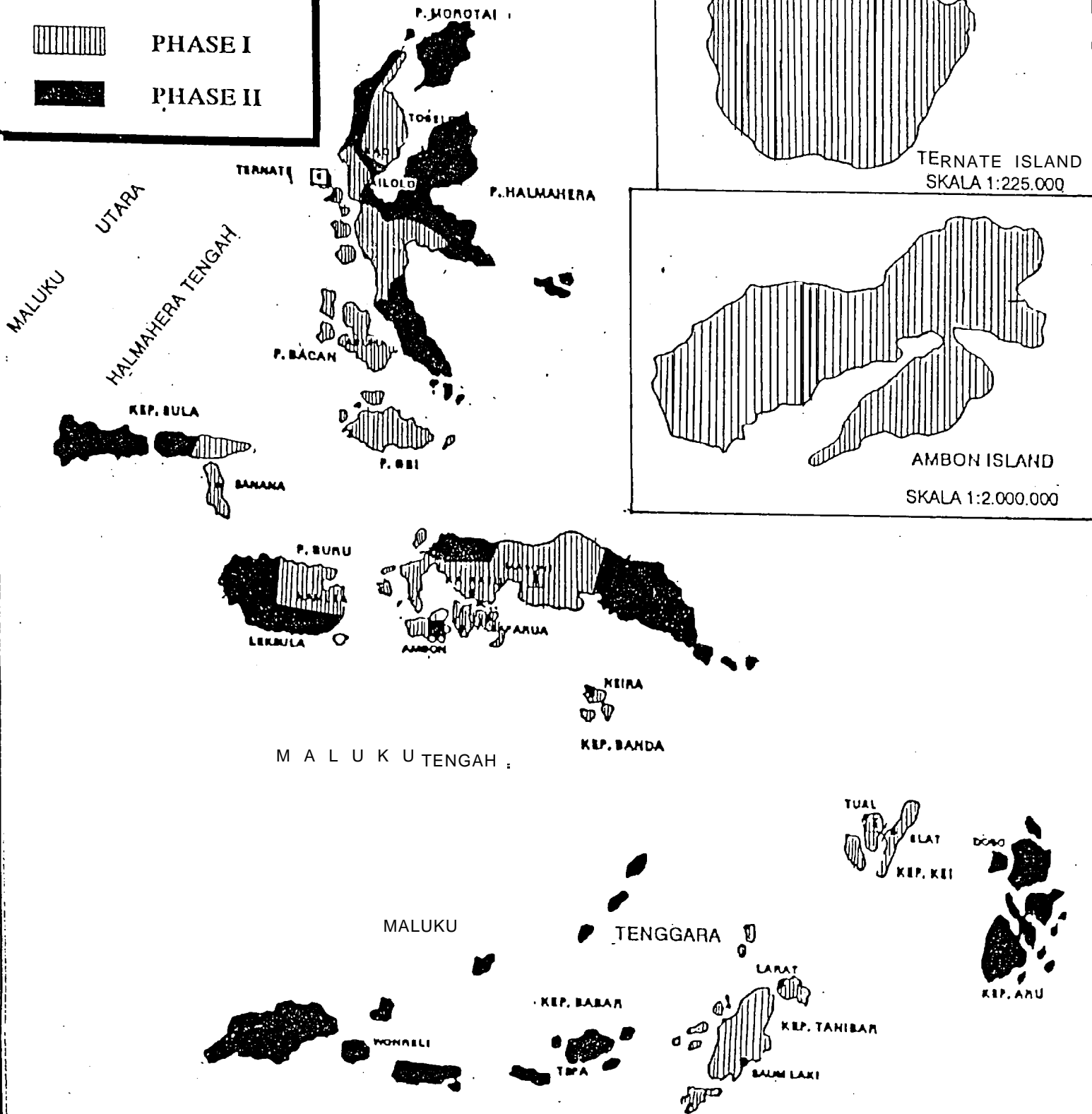
## LEGEND:



PHASE I



PHASE II



**APPENDIX 10**

R E P O R T  
T R A D I T I O N A L B I R T H A T T E N D A N T  
P R E - - T E S T S U R V E Y  
P H A S E I A R E A  
P R O V I N G - E O F M A L U K U



JANUARY - MAY, 1993

Written by:

Ministry of Health, Province of Maluku

and

Project Concern International/Indonesia

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EXECUTIVE SUMMARY

This report presents the results of a provincial pre-training survey of 120 Traditional Birth Attendants (TBAs) in order to provide baseline data on pre-training knowledge and behavior. This survey was conducted by Project Concern International/Indonesia in collaboration with the Indonesian Ministry of Health. The survey was conducted in 12 Puskesmas (Sub-District Health Centers) where training occurred between January through May of 1993.

- The illiteracy rate for the TBAs surveyed was 34 % (as compared to a 9 % illiteracy rate for all women of child-bearing age in the Maluku Province).
- Fifty-five percent of the TBAs correctly answered that a minimum of two immunizations are necessary for pregnant women: yet, only 29 % knew the name of the vaccine (Tetanus Toxoid).
- The majority of TBAs used scissors to cut the umbilical cord: however, a high percentage still used traditional means, i.e., a bamboo sliver (30 %).
- One-third of the TBAs used traditional methods when treating the umbilical cord. These materials consisted mainly of leaves, oils and ash.
- Only 23 % of the TBAs adequately sterilized their equipment used for cutting the umbilical cord.
- Immediate, colostrum, breast feeding was not observed by 63 % of the TBAs.
- During a baby's diarrhea, only 11 % knew to advise increasing feeding of both breast milk and other foods.
- Only 46 % of the TBAs reported to the health center and only 9 % produced a written report.
- Just 4 out of 120 TBAs knew three food sources which contain Vitamin A.
- A large percentage knew neither the lower nor upper age limit at which birth becomes a high risk factor (89 % / 90 %).
- Previously trained TBAs responded correctly more often than untrained TBAs in certain areas of antenatal care, immunization, high risk factors, assisting deliveries, feeding and diarrhea management, and reporting.
- Literate TBAs responded correctly more often than illiterate TBAs in certain areas of antenatal care, immunization, feeding and diarrhea management, and Vitamin A.

-- A **highly** significant 'proportion of younger **TBAS** were literate, Yet because this younger group of **TBAS** did not respond significantly differently from **their** older counterparts, it **suggests** that older **TBAS**, although less educated, benefit through experience-

## INTRODUCTION

The Province of Maluku consists of over a thousand islands with a diversity of landscapes varying from coral atolls to densely covered forest. The total area of Maluku is vast and covers approximately 328,000 **square miles**; however, only 10 % of this area is landmass. As a result, **especially** in rural areas, access and availability of health care is a major problem for this population.

A primary concern of health efforts in Maluku is focused on maternal and child health. Throughout Maluku it is estimated that **TBAS** assist with 70 % of all child births. Only forty percent of these **TBAS** received any type of **training**. The majority of **TBAS** derive their skills from ~~other~~, more experienced, **TBAS**, usually a family member. As a **consequence**, groups of **TBAS** are trained annually by the Ministry of Health in the areas of antenatal care, child deliveries, and health education. These women are selected from the village where they usually live, and as a result are highly effective in gaining the trust and confidence of the local community.

In collaboration with the Ministry of Health, Project Concern International/Indonesia planned to train **approximately 1,500 TBAS** in two phases throughout the province. A pre-training survey of 120 **TBAS** out of the first phase group of 922 **TBAS** was conducted in order to derive baseline data on pre-training knowledge and behavior. In this way the impact of training could be better evaluated so adjustments could be made to the second training phase. Also, a comparison of post-training results from a similar sample size six months after training will provide information about areas of weakness in the training program. Factors that **may** influence the effectiveness of the training are age of **TBAS**, education, prior training experience, size of training groups, religious beliefs, literacy levels, and problems in the delivery of the curriculum itself. Steps will be taken **to** strengthen areas found to be weak on post-testing.

This pre-training survey sought information on TBA knowledge and practice in 9 main areas. These areas were:

- TBA Demography
- Antenatal Care
- Immunization Knowledge
- High Risk Factors Associated With Maternity
- Assisting With Deliveries
- Infant Feeding Practices
- Diarrhea Management
- Birth Reporting
- Vitamin A Knowledge

## METHODOLOGY

### Survey Sample:

This survey was designed to provide information representative of the TBAs selected for training in the 50 Puskesmas- within which Phase I Training of 922 TBAs was scheduled. The data analysis was conducted using EpiInfo 5.1, created by WHO and The Centers For Disease Control in Atlanta, Georgia. Because surveys were conducted at health centers just prior to TBA training, random clusters (health centers) were chosen as the method of sampling. An arbitrary target of 13 % (1 out of 8) determined the sample size of 120 and insured a  $\pm 10$  % standard deviation and a confidence interval of  $\pm 5$  % using the standard formula for calculating population survey samples and correcting for cluster sampling. This number was divided into 12 random clusters of 10 randomly selected TBAs within each cluster (see Appendix A).

### Survey Design and Interview Teams:

The survey was constructed focusing on the 9 areas of TBA knowledge and practice mentioned earlier. Questions for the survey were pre-tested using local TBAs. Feedback from the surveyors, TBAs surveyed, and staff observations lent to modifications for the final survey (see Appendix B).

The surveys were conducted via teams which consisted of a female university student and a PC1 project manager. Surveys were conducted at the health center and each lasted for approximately 20 minutes. Surveyors were trained over several days in the use of the instrument prior to actual data selection.

### Data entry and Analysis:

Survey data was entered into EpiInfo using double data entry to screen input errors. Analysis included frequency and percentile statistics, cross-tabulations, graphs and tables.

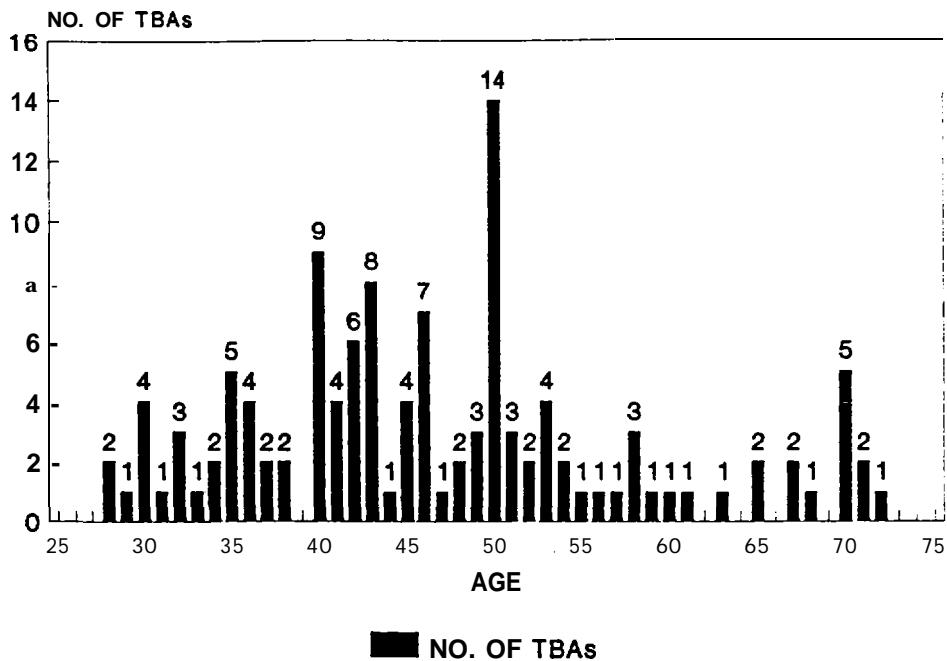
## RESULTS

### TBA DEMOGRAPHY:

Forty-four percent of the TBAs surveyed were Muslim and 56 % were Christian, which is the same proportion for religion in women of child-bearing age in Maluku.

Only 10 % of the TBAs surveyed were less than 34 years of age, while over 50 % were older than 45 years of age. The mean age of the TBAs surveyed was 48±1 year with a median age of 46 years (see Figure 1).

FIGURE 1: AGES OF TBAs



of the 120 TBAs surveyed, 34 % did not complete the 3rd grade of primary school. The remaining 66 % had an education level of 3rd grade primary school or higher. Completion of 3rd grade primary school, is the criteria used to designate TBAs as literate or illiterate. According to the Ministry of Education and Culture, those who have not completed 3rd grade are considered illiterate (see Table 1).

**TABLE 1: THE HIGHEST LEVEL OF EDUCATION YOU HAVE ACHIEVED?**

LEVEL OF EDUCATION	FREQUENCY	PERCENTAGE
ILLITERATE:		
NO SCHOOLING	23	19.2 %
DID NOT COMPLETE 3RD GRADE PRIMARY SCHOOL	18	15.0 %
LITERATE:		
COMPLETED 3RD GRADE PRIMARY SCHOOL	21	17.5 %
COMPLETED PRIMARY SCHOOL	35	29.2 %
COMPLETED JUNIOR HIGH SCHOOL	16	13.3 %
COMPLETED SENIOR HIGH SCHOOL	7	5.8 %
TOTAL	120	100.0 %

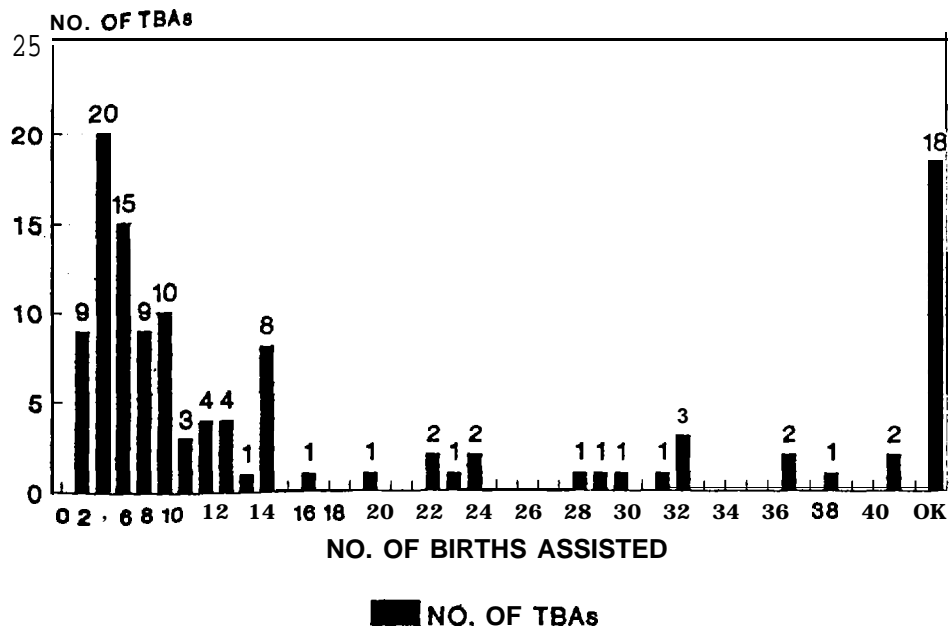
Over 40 % of the TBAs surveyed had more than 10 years of experience (see Table 2). Thirty percent received training at some point in their career. Ninety-four percent of those who received training were trained by health center staff. Ten of the 36 trained TBAs had a TBA kit at home, but all were incomplete.

**TABLE 2: EXPERIENCE LEVEL OF TBAs**

YEARS OF EXPERIENCE AS A TBA	FREQUENCY	PERCENTAGE
0 - 5 YEARS	47	39.2 %
6 - 10 YEARS	24	20.0 %
>10 YEARS	49	40.8 %
TOTAL	120	100.0 %

During the previous 12 months, 44 % of the TBAs surveyed assisted in less than 5 births, with 15 % assisting in 13 or more births. The average number of deliveries per TBA was 8 with a median number of 4 (see Figure 2).

FIGURE 2: NO. OF BIRTHS ASSISTED  
WITHIN PAST 12 MONTHS



NOTE: OK= DON'T KNOW

**ANTENATAL CARE:**

Sixty-eight percent of the TBAs surveyed indicated prenatal examination should be sought within the first three months of pregnancy. The remaining 32 % answered after the first trimester or did not know (see Table 3).

TABLE 3: WHEN SHOULD PREGNANT MOTHERS FIRST SEEK EXAMINATION?

TIME PERIOD	FREQUENCY	PERCENTAGE
1-3 MONTHS, 1ST TRIMESTER	82	68.3 %
4-6 MONTHS	19	15.8 %
7-9 MONTHS	3	2.3 %
JUST BEFORE GIVING BIRTH	0	0.0 %
DON'T KNOW	16	13.3 %
TOTAL	120	100.0 %

Sixty-three percent of the TBAs cited a minimum of 4 health center visits as the minimum number necessary for pregnant mothers. Thirty-seven Percent did not know or answered less than 4 visits (see Table 4).

TABLE 4: HOW MANY TIMES MUST A PREGNANT MOTHER BE CHECKED AT THE HEALTH CENTER?

# OF VISITS	FREQUENCY	PERCENTAGE
1-3 TIMES	25	20.8 %
4 TIMES	24	20.0 %
5-10 TIMES	46	38.3 %
>10 TIMES	5	4.2 %
DON'T KNOW	20	16.7 %
TOTAL	120	100.0 %

IMMUNIZATION:

Fifty-five percent of the TBAs surveyed correctly answered that a minimum of two immunizations are necessary for a pregnant woman. However only 29 % knew the name of the immunization needed (Tetanus Toxoid). The remaining 45 % either, stated only one immunization was necessary, "did not know" or "had forgotten" (see Table 5).

TABLE 5: HOW MANY TIMES MUST A PREGNANT MOTHER BE IMMUNIZED?

# OF IMMUNIZATIONS	FREQUENCY	PERCENTAGE
2 OR MORE TIMES	66	55.0 %
OTHER	54	45.0 %
TOTAL	120	100.0 %

One-half of the TBAs surveyed indicated immunizations were necessary for, both, mother and child. The remaining either did not know who needed immunizations, or answered only the mother or only the child. When asked, "how many visits are needed to complete a child's immunizations?," only 13 % of the TBAs surveyed stated the minimum number (5) in order to be fully covered. When asked, "What is the purpose of immunizations?," 53 % answered disease prevention, 40 % did not know, and the remaining 7 % gave a wrong answer.

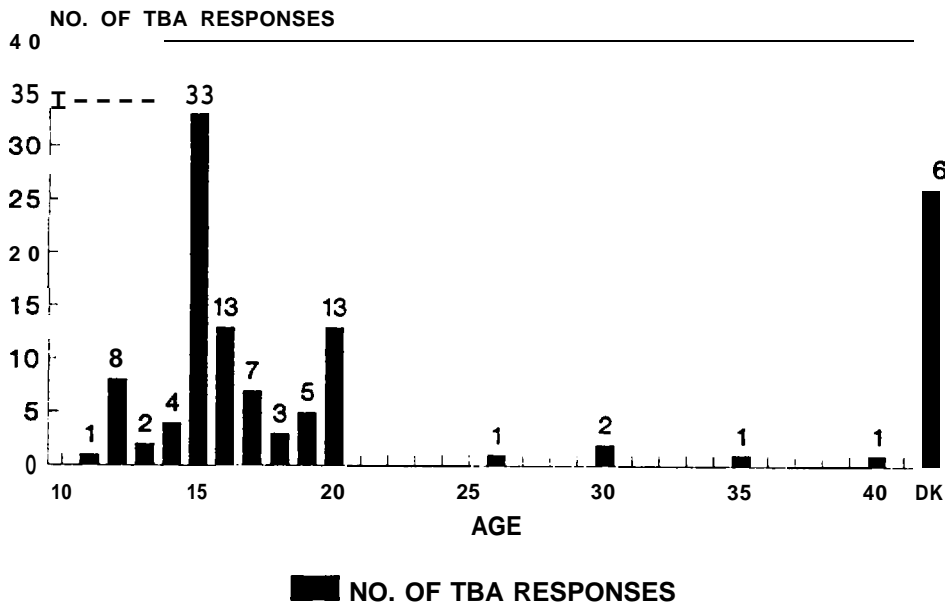
Less than 30 % of the TBAs surveyed answered that a child could receive an immunization when suffering from a fever. The rest either answered "no" or did not know. Likewise just 38 % of the TBAs answered that a child could be immunized when suffering from a cold, and only 32 % responded as such for diarrhea.



**HIGH RISK FACTOR! 3**

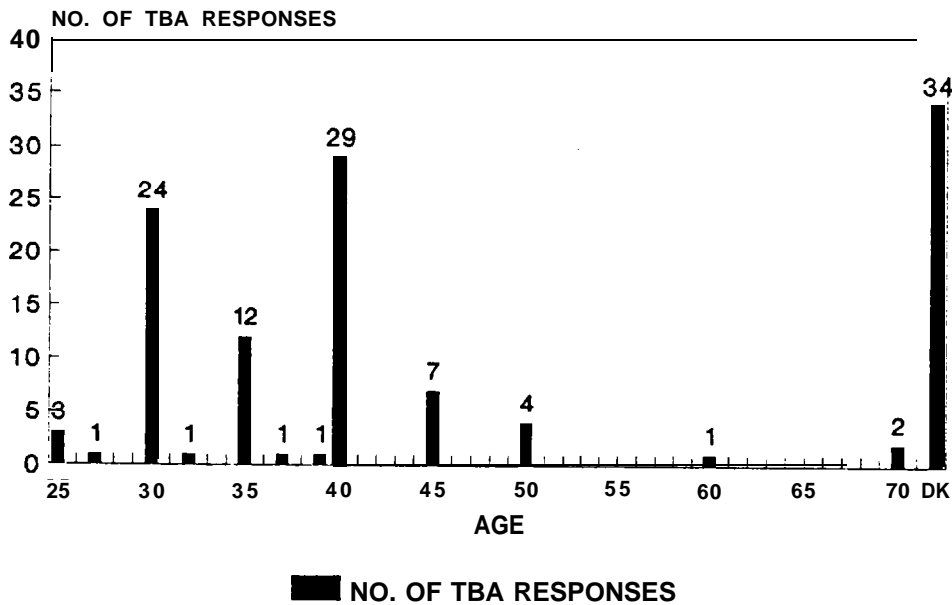
According to MOH Standards, delivery before twenty years of age is considered high risk as it is associated with increased maternal and child mortality. Only 11 % of the TBAs answered 20 years. In addition, 57 % gave an age of 17 years or less. Twenty-two percent of the TBAs did not know (see Figure 3).

**FIGURE 3: BELOW WHAT AGE IS IT CONSIDERED DANGEROUS FOR A WOMAN TO GIVE BIRTH?**



NOTE: DK• DON'T KNOW

FIGURE 4: ABOVE WHAT AGE IS IT CONSIDERED DANGEROUS FOR A WOMAN TO GIVE BIRTH?,



NOTE: DK= DON'T KNOW

In addition to age, there are various other high risk factors of which a TBA must be aware of. It is important that a TBA refer all women at risk to a health center, especially when the following high risk factors are present:

- A mother with a height of less than 140 cm.
- Having given birth 4 or more times
- Continuous vomiting
- Bleeding
- A high fever
- Facial swelling
- Swollen feet
- Headache
- Blurred vision

Approximately 36 % of the TBAs surveyed could not name one high risk factor. High risk factors which were mentioned, however, included bleeding (46), breech position (14), swollen feet (16), and a high fever (12). Of the TBAs surveyed, 69 % would refer a woman with high risk to a health center.

**ASSISTING WITH DELI-Y:**

Over sixty percent of the TBAs surveyed claimed to use scissors when cutting the umbilical cord. A large number (30 %) still used the traditional bamboo sliver to cut the cord (see Table 6).

**TABLE 6: WHAT DO YOU USUALLY USE TO CUT THE UMBILICAL CORD?**

EQUIPMENT	FREQUENCY	PERCENTAGE
SCISSORS	73	60.8 %
BAMBOO	36	30.0 %
RAZOR BLADE	3	2.5 %
KNIFE	6	5.0 %
OTHER	2	1.7 %
DON'T KNOW	0	0.0 %
TOTAL	120	100.0 %

Forty-two percent of the TBAs surveyed used boiling water to sterilize equipment used to cut the umbilical cord. However, 44 % of these, did not boil their instruments for 15 or more minutes. As a result, less than one-fourth (23 %I of all the TBAs surveyed, adeauately. sterilized their equipment. The other 58 % used only hot water with soap, hot water alone, wiping the instrument with alcohol or nothing at all.

Sixty-three percent of the TBAs surveyed used acceptable means (alcohol, iodine, or spirit (methyl) alcohol) for treating the umbilical cord after delivery. Traditional methods were listed as the second most frequent means for treating the umbilical cord. Some of the traditional methods commonly cited involved the application of ash, leaves, and oils (see Table 7).

**TABLE 7: WHAT DID YOU USE TO TREAT THE UMBILICAL CORD?**

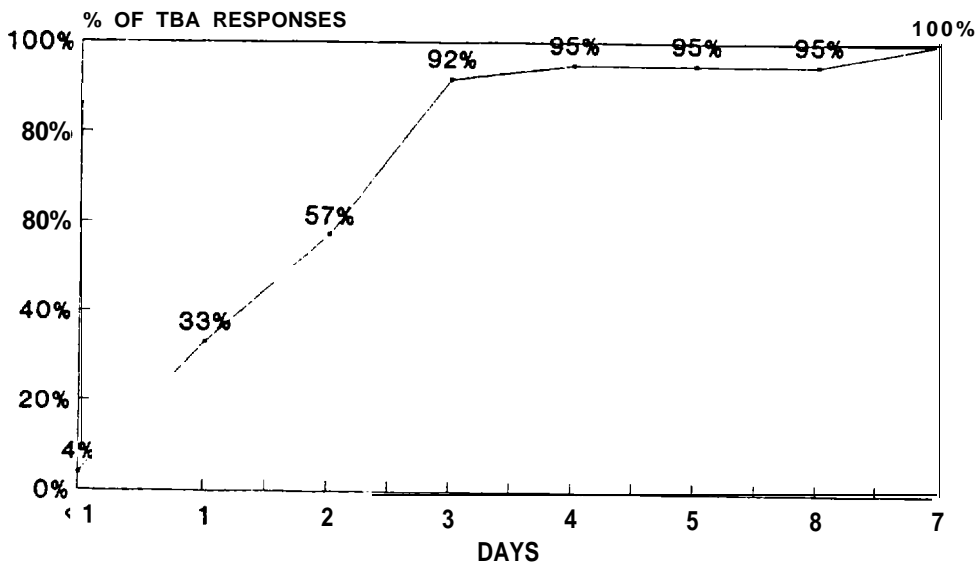
AGENT	FREQUENCY	PERCENTAGE
ALCOHOL	51	42.5 %
IODINE	1	0.9 %
SPIRIT ALCOHOL	24	20.0 %
TRADITIONAL	40	33.3 %
DON'T KNOW	4	3.3 %
TOTAL	120	100.0 %

All but 1 of the 120 TBAs re-visited the mother and child last delivered, and 83 % of the TBAs re-visited daily for a week or more (usually until the cord dropped off).

FEEDING AND DIARRHEA MANAGEMENT :

Approximately two-thirds of the surveyed **TBAs** stated that they observed mothers did not offer the breast immediately after birth, thus losing the opportunity for colostrum administration (see Figure 5). When immediate breast feeding did not occur, honey, coffee, water, or tea were commonly fed. Forty-three percent of the **TBAs** who did not observe immediate breast feeding, stated mothers waited 2 or more days before giving the breast. One-half of the **TBAs** surveyed indicated mothers should give their babies supplementary foods before 4 months of age.

**FIGURE 5: OBSERVED TIME PERIOD BEFORE AN INFANT IS BREAST FED**



-- % OF TBA RESPONSES

N=76

Administration of oral rehydration solution (ORS) was the preferred first aid treatment for diarrhea for **TBAs**. However, over one-fourth of the **TBAs** preferred traditional means. These consisted mainly of leaves, tree bark, roots and tea (see Table 8).

**TABLE 8: IF A BABY HAS DIARRHEA, WHAT SHOULD YOU GIVE FIRST?**

FOOD/LIQUID	FREQUENCY	PERCENTAGE
ORS <sup>1</sup>	67	55.8 %
RICE WATER	4	3.3 %
MEDICINE <sup>2</sup>	7	5.8 %
OTHER: Boiled water with rose apple leaves (11) Strong tea (5) Other (15)	31	25.8 %
DON'T KNOW	11	9.2 %
TOTAL	120	100.0 %

During a baby's episode of diarrhea, only 11 % of the TBAs surveyed indicated that they would recommend increasing a baby's breast milk as well as fluid or food consumption. Thirty-three percent of the TBAs would either decrease or stop feeding breast milk during a baby's episode of diarrhea, likewise 32 % said they would decrease or stop feeding other foods during a baby's diarrhea.

When asked to name three signs of dehydration due to diarrhea, only 11% of the TBAs answered correctly. Twenty-eight percent did not know of a single sign associated with dehydration, and the others answered incorrectly or provided less than three signs.

#### **REPORTING:**

The majority of the TBAs surveyed did not report newborn deliveries to a health center (54 %). Of the TBAs who did report (55), most (60 %) reported verbally (see Table 9).

**TABLE 9: HOW DO YOU REPORT TO THE HEALTH CENTER?**

METHOD	FREQUENCY	PERCENTAGE
VERBALLY	33	60.0 %
LETTER	11	20.0 %
BIRTH REPORT FORM	11	20.0 %
DON'T KNOW	0	0.0 %
TOTAL	55	100.0 %

<sup>1</sup> Oralit or home prepared Sugar-Salt Solutions (SSS)

<sup>2</sup> Antidiarrheals/antibiotics

Within the previous six months, 58 % of the surveyed TBAs were neither visited, nor supervised by health center staff.

VITAMIN A:

When asked which foods contain Vitamin A, only 3 % of the TBAs surveyed cited all three major sources, ie., vegetables, pulses and fruits. More than a third could not name a single source (see Table 10).

TABLE 10: WHICH FOODS CONTAIN VITAMIN A?

# CORRECT	FREQUENCY	PERCENTAGE
ALL 3 CORRECT: VEGETABLES PULSES FRUITS	4	3.3 %
2	28	23.3 %
1	44	36.7 %
NONE	44	36.7 %
TOTAL	120	100.0 %

Sixty-one percent of the TBAs surveyed had heard about Vitamin A: however, only 37 % knew that Vitamin A benefitted either vision or growth. Also, when asked who needed Vitamin A, none of the TBAs answered all three- infants, children and lactating mothers. Of the correct answers, infant was the most frequent response and this by only 25 % of the TBAs. Forty-two percent did not know who Vitamin A supplements were given to, and 22 % said Vitamin A supplements were given to pregnant mothers (possible adverse effects).

Thirty-eight percent could not name at least one type of health personnel from which one could receive Vitamin A supplements. Until recently, TBAs had not been used for Vitamin A distribution. TBA distribution of Vitamin A is now being promoted in the current training of TBAs, and will provide for a useful post-training comparison in this area of Vitamin A knowledge.

## DISCUSSION

Specific factors which were thought to influence TBA knowledge and practice were cross-tabulated and tested for significance against the survey responses. The following results are cross-tabulations for age, religion, literacy and training (see Table 11).

TABLE 11: CORRELATIONS (P-VALUES)

<u>NO.</u>	<u>QUESTION</u>	<u>AGE<sup>1</sup></u>	<u>REL.<sup>4</sup></u>	<u>LIT.</u>	<u>TRNG.</u>
1	AGE	--	NS	--	NS
3	RELIGION	NS	--	NS	NS
5	LITERACY	0.0041	NS	--	NS
7	# OF DELIVERIES (12 MO.)	NS	NS	NS	NS
8	PRIOR TRAINING	NS	NS	NS	--
12	FIRST H.C. VISIT	<b>0.0325</b>	NS	<b>0.0037</b>	<b>0.0003</b>
13	# OF H.C. VISITS	NS	<b>0.0200</b>	NS	<b>0.0020</b>
14	USE OF IMMUNIZATION	NS	NS	<b>0.0332</b>	0.0419
15	WHO NEEDS IMMUNIZATION	NS	NS	<b>0.0123</b>	<b>0.0168</b>
16	KNOWS TT NAME	NS	NS	NS	<b>0.0486</b>
17	KNOWS # OF TT	NS	NS	<b>0.0113</b>	<b>0.0039</b>
18	KNOWS # FOR COMP. IMMUN.	NS	NS	NS	<b>0.0489</b>
20	LOWER AGE RISK FOR BIRTH	NS	NS	NS	NS
21	UPPER AGE RISK FOR BIRTH	NS	NS	<b>0-0148</b>	NS
22	HIGH RISK SIGNS	NS	NS	NS	<b>0.0168</b>
24	CORD CUTTING TOOL	NS	NS	NS	<b>0.0038</b>
26	CORD RX	NS	<b>0.0337</b>	<b>0.0170</b>	<b>0.0029</b>
29	GIVE COLOSTRUM	NS	NS	NS	NS
32	SUPPL. FOOD >3 MO.	NS	NS	NS	NS
34	ORS FOR DIARRHEA	MS	NS	<b>0.0022</b>	0.00001
35	INC. BREAST MILK FOR DIA.	NS	NS	NS	NS
36	INC. SOLIDS FOR DIARR.	NS	<b>0.0250</b>	NS	<b>0.0235</b>
37	SIGNS OF DEHYDRATION	NS	NS	NS	<b>0.0053</b>
41	HEARD OF VIT A	<b>0.0032</b>	NS	<b>0.0017</b>	<b>0.0281</b>
42	PURPOSE OF VIT A	NS	NS	<b>0.0444</b>	<b>0.0472</b>
43	KNOW A SOURCE OF VIT A	NS	NS	<b>0.0172</b>	<b>0.0104</b>

KEY: BOLD VALUES = P < 0.0200

NS (Not Significant) = P > 0.0500

There is a strong relationship between age and literacy. It was found that **TBA**s less than 40 years of age were more likely to have completed an education level of 3rd grade primary school or higher. Also, younger **TBA**s were more likely to have heard of Vitamin A before. Interestingly, the high correlation between age and literacy, would suggest younger **TBA**s were more knowledgeable in many of the survey areas. Yet, there were generally no significant differences between

<sup>3</sup> Less than 40 years vs. 40 years or older.

<sup>4</sup> Christian vs. Muslim.

the responses of older-and younger **TBAS**, which may suggest older **TBAS**, though less -educated, benefit from experience.

Although there were certain correlations attributed to religion, none were highly significant ( $P < 0.02$ ). There was no significant difference between literacy and religion; however, **TBAS** who have never attended school were more likely to be Muslim ( $P = 0.0014$ ).

In the area of antenatal care, more of the literate **TBAS** knew when a pregnant woman should first seek antenatal services. Literate **TBAS** responded significantly better in areas of immunization knowledge, specifically, knowing the purpose of immunizations, who should receive immunizations, and the number of tetanus toxoid immunizations necessary for pregnant mothers. Significantly more of the literate **TBAS** practiced acceptable umbilical cord treatment practices. A highly significant proportion of literate **TBAS** knew ORS was the best initial treatment for a baby's diarrhea. In all areas of Vitamin A knowledge, proportionately more literate **TBAS** responded correctly than their illiterate counterparts.

Trained **TBAS** responded significantly better in 16 of the 23 survey questions listed below. These results reinforce training efforts of **TBAS** as worthwhile, and shows training to be highly effective in influencing the knowledge and practice of **TBAS**, more so than age, religion or literacy. Alternatively, there was an indication that prior training efforts were not effective in influencing the following areas: Lower and upper age at which birth becomes a risk factor, colostrum feeding, supplementing solid foods before 4 months of age, and increasing breast milk during a baby's diarrhea.

There were a few areas where neither age, religion, literacy nor prior training had contributed significantly towards TBA responses. An important example is with colostrum feeding. The fact that none of these 4 factors influenced colostrum administration might lend consideration for future training efforts.



## Typical TBA Profile

### Demography:

- Sex: Female
- Age : 47 Years old
- Education: Completion of 3rd grade primary school
- Average TBA experience: 6-10 Years
- Prior training: None

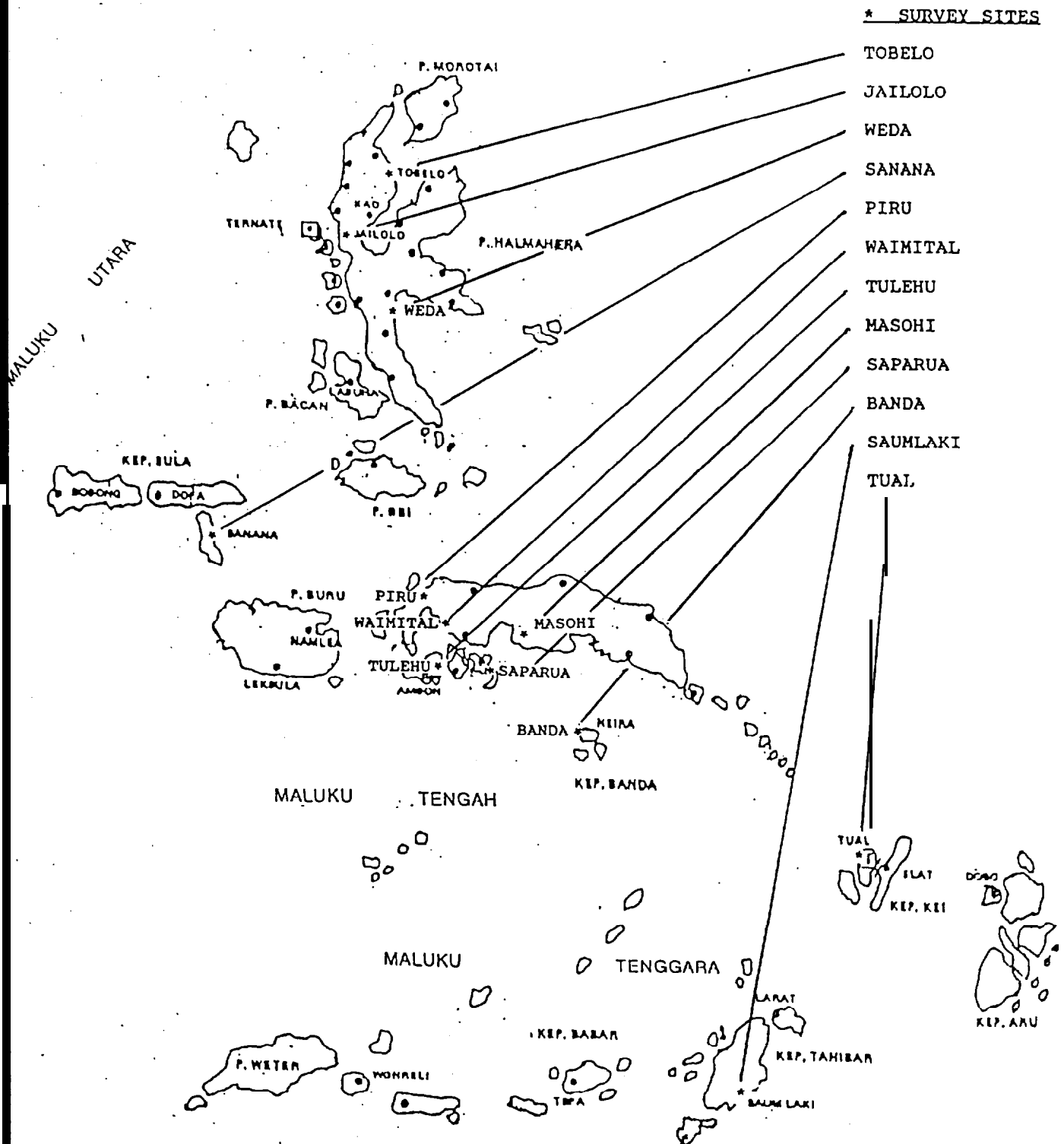
### Knowledge and Practice:

DOES:	DOES NOT:
Know when and how many times a pregnant mother should visit a health center.	Know TT immunization is necessary for pregnant women.
	Know the # of childhood immunizations needed for full coverage.
	Know a child can receive an immunization when suffering from a fever, cold or diarrhea.
Know one or more risk factors associated w/pregnancy.	Know the upper and lower age limit at which birth becomes a high risk factor.
Use a scissors to cut the umbilical cord.	Adequately sterilize equipment used to cut the umbilical cord.
Treat the umbilical cord using adequate means.	
Revisit the mother and child after delivery for 14 days.	
Know breast milk is the best food a baby.	Observe colostrum feeding immediately after birth.
Know ORS is the first treatment of choice for a baby's diarrhea.	Observe breast feeding until 2-3 days after a child is born.
Know at least one sign of dehydration associated with diarrhea.	Observe an increase of breast milk or other foods during a baby's episode of diarrhea.
	Observe feeding of other foods until a child is 8-9 months old.
	Report to a health center.
	Receive supervision from health center personnel.

DOES:	DOES NOT:
Know of Vitamin A.	know what Vitamin A is for.
Know of a source of Vitamin A.	
Know one type of health personnel who can distribute Vitamin A.	

**APPENDIX A**

**MALUKU PROVINCE SURVEY SITES**



**SUMMARY OF T B A P O S T - - T E S T  
S U R V E Y R E S U L T S  
(PRELIMINARY)(NOT FOR DISTRIBUTION)**

---

**ANC**

	<u>PRE TEST</u> N = 120	<u>POST TEST</u> N = 50
WHEN SHOULD PREGNANT MOTHERS FIRST SEEK EXAMINATION?		
1 - 3 MONTHS	68%	88%
HOW MANY TIMES MUST A PREGNANT MOTHER BE CHECKED AT THE HEALTH CENTER?		
4 TIMES OR MORE	62.5%	80%
DON'T KNOW	16.7%	

**IMMUNIZATION**

WHAT IS THE PURPOSE OF  
IMMUNIZATION?

PREVENTS DISEASES	53%	98%
-------------------	-----	-----

WHO NEEDS IMMUNIZATION?

MOTHER AND CHILD	50%	74%
------------------	-----	-----

WHAT IMMUNIZATION IS NECESSARY  
FOR A PREGNANT WOMAN?

TETANUS TOXOID	29%	76%
----------------	-----	-----

HOW MANY TIMES MUST A PREGNANT  
MOTHER BE IMMUNIZED?

2 TIMES OR MORE	55%	96%
-----------------	-----	-----

HOW MANY TIMES MUST A CHILD BE  
IMMUNIZED?

5 TIMES OR MORE	13%	46%
-----------------	-----	-----

PRE TEST  
N = 120

POST TEST  
N = 50

CAN A CHILD RECEIVE AN IMMUNIZATION  
IF THEY HAVE THE FOLLOWING MEDICAL  
CONDITION? . . % ANSWERING YES :

FEVER?	30%	42%
COLD?	38%	62%
DIARRHEA?	32%	48%

### H I G H R I S K

BELOW WHAT AGE IS IT CONSIDERED  
DANGEROUS FOR A WOMAN TO GIVE BIRTH?

BELOW 20 YEARS	11%	28%
----------------	-----	-----

ABOVE WHAT AGE IS IT CONSIDERED  
DANGEROUS FOR A WOMAN TO GIVE BIRTH?

35 YEARS	10%	60%
----------	-----	-----

HIGH RISK FACTORS

DON'T KNOW AT ALL	36%	4%
-------------------	-----	----

IF THE MOTHER-HAS HIGH RISK FACTORS  
WHAT ACTION SHOULD THE TBA TAKE?

REFER TO HEALTH CENTER	69%	90%
------------------------	-----	-----

### A S S I S T I N G W I T H D E L I V E R Y

WHAT DO YOU USUALLY USE FOR CUTTING  
THE UMBILICAL CORD?

SCISSORS	61%	98%
BAMBOO	30%	2%
OTHERS	9%	

	<u>PRE TEST</u> N = 120	<u>POST TEST</u> N = 50
<b>HOW DO YOU STERILIZE THE SCISSORS TO CUT THE UMBILICAL CORD?</b>		
BOILING WATER	42%	90%
HOT WATER	31%	6%
OTHERS (ALCOHOL, SOAP & WATER)	16%	4%
<b>FOR HOW MANY MINUTES DO YOU BOIL THE SCISSORS?</b>		
15 MINUTES OR MORE	23%	78%
<b>WHAT DID YOU USE TO TREAT THE UMBILICAL CORD?</b>		
ALCOHOL	43%	76%
IODINE	1%	18%
SPIRIT ALCOHOL	20%	2%
TRADITIONAL MEANS	33%	2%
<b>AFTER THE LAST DELIVERY WITH WHICH YOU ASSISTED, DID YOU REVISIT THE MOTHER AND CHILD?</b>		
7 DAYS OR MORE	83%	94%
<b>WAS THE BABY BREAST FED IMMEDIATELY AFTER BIRTH?</b>		
YES	33%	92%
<b>AT WHAT AGE DO YOU RECOMMEND STARTING SOLID FOODS?</b>		
BEFORE 4 MONTHS	50%	30%
<b>IF THE BABY HAS DIARRHEA, WHAT DO YOU GIVE FIRST?</b>		
ORS	56%	84%
RICEWATER	3%	4%
MEDICINE	6%	6%
DON'T KNOW	35%	

PRE TEST  
N = 120

POST TEST  
N = 50

DURING THE BABY'S DIARRHEA, HOW  
MUCH BREAST MILK SHOULD THE MOTHER  
GIVE?

MORE THAN USUAL	21%	56%
USUAL AMOUNT	37%	38%
LESS THAN USUAL	18%	6%
STOPPED FEEDING	14%	
DON'T KNOW	10%	

DURING THE BABY'S DIARRHEA, HOW MUCH  
OF OTHER FOODS SHOULD THE MOTHER GIVE?

MORE THAN USUAL	18%	46%
USUAL AMOUNT	41%	46%
LESS THAN USUAL	22%	8%
STOPPED FEEDING	10%	
DON'T KNOW	9%	

### R E P O R T I N G

DO YOU REPORT TO THE HEALTH CENTER  
AFTER ASSISTING IN DELIVERY?

YES	46%	98%
-----	-----	-----

HOW DO YOU REPORT?

VERBALLY	60%	15%
HEALTH REPORT FORM	20%	75%

WERE YOU VISITED BY A MIDWIFE IN THE  
PAST SIX MONTHS?

YES	42%	88%
-----	-----	-----

**APPENDIX 11**



C O L D C H A I N U P D A T E S U R V E Y R E P O R T

J U N E 1 9 9 2 - J U N E 1 9 9 3

M A L U K U P R O V I N C E



*P R O J E C T C O N C E R N I N T E R N A T I O N A L / I N D O N E S I A*

*A N D*

*H E A L T H D E P A R T M E N T , M A L V K U P R O V I N C E*

*R E P U B L I C O F I N D O N E S I A*

I  
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## COLD CHAIN UPDATE REPORT

## I. INTRODUCTION

During the months of January - May 1992 PC1 in cooperation with the MOH undertook a Cold Chain Survey in 101 health centers in Maluku. From the Survey Results gathered, PC1 and the MOH agreed to update the survey data over the following year to June, 1993 with repeat visits to the health centers.

The aims of this Cold Chain Update Survey were to identify and to record the cold chain status and vaccine maintenance at health centers in the Maluku province, and compare the data with that basic Cold Chain Survey of January - May 1992.

Beyond updating the initial survey data, the update survey should improve data accuracy with the addition of new health center data.

The Cold Chain Update Survey was conducted at all health centers that possessed cold chain equipment and that had already implemented immunization services. These health centers included those surveyed in the initial cold chain survey during January - May 1992 and also included some new health centers with new immunization equipment.

From this Update Survey, it was possible to acquire better information on the cold chain conditions at health centers.

## II. METHODOLOGY

This survey incorporated the Check List Questionnaire used for the Survey in January - May, 1992 with some minor modification. During the months of June, 1992 until June, 1993, PCI and the MOH conducted an update survey with the following results :

### 1. Number of Updated Health Centers

From a total of one hundred and one (101) Health Centers in Maluku, PCI/MOH had the opportunity to update a total of 69 health centers plus 9 new health centers giving a total of 78 health centers surveyed in the time period of June 1992 - June 1993.

#### Total Health Centers Surveyed in each Districts

DISTRICT	MAY 1992	JUNE 1992	NEW HEALTH CENTERS
Central Halmahera	11	6	1
Northern Maluku	24	14	1
Central Maluku	35	28	2
Ambon Municipality	15	15	1
Southeast Maluku	16	6	4
T O T A L	101	69	9

### 2. Goals

The goals of this survey were to visit all the health centers with an immunization program that had been surveyed during the months of January - May 1992, and new ones which had opened during the interim period.

For this survey, PCI interviewed the health center head and immunizers, inspected the coldchain equipment and vaccine stocks, and checked the administration System (PWS) and the management of immunization activity at the health center.

### 3. Update Survey Preparation

Preparation for the Cold Chain Update Survey was conducted by the Project Managers of PCI.

#### 4. Organization

A MOH staff accompanied each cold chain update survey visit, in conjunction with routine health center supervision.

#### 5. Analyzing the Survey Results

Results of the baseline survey of May, 1992 were compared with the June, 1993 update survey results. Of the health centers surveyed, 69 were repeats from the previous baseline survey. Cold chain survey data are compiled and stored in the computer using the program Professional File System (PFS). This software was used for the analysis and comparison, as well.

### III. DISCUSSION OF RESULTS

Significant results obtained from the analysis of the coldchain update survey (N=69) are as follows (refer to Table 1 on following page):

#### 1. Health Center Services

From the Cold Chain Update Survey, the number of villages served have increased by 35 % from the basic cold chain survey (N=69). Also the total number of villages lacking an Integrated Health Service Posts (Posyandu) has decreased. The proportion decreased from 19.5% to 3.7%.

#### 2. Health Center Staff

Changes in staff were minimal. Although there was a decrease in the number of mid-wives and immunizers, this did not seem to affect the performance of duties and delivery of services.

#### 3. Vehicle and Communication

Reaching the target areas has become easier because of an increase of available transport. These vehicles are vital in order to execute the immunization tasks in each sub-district health center. The proportion of health centers without transport dropped dramatically.

The status of communication equipment has not changed since the basic survey in the January - May 1992.

#### 4. Cold Chain Management at Health Centers

Cold Chain management system seemed to improve remarkably in the re-surveyed health centers compared with the initial cold chain survey findings in January - May, 1992. One indicator is the on-the-spot assessment of vaccine storage temperatures. The proportion of health centers whose vaccine storage refrigerators had the optimal temperature (2°-8° C) had increased from 61 % to 88 % (see Figure 1).

Twice daily refrigerator temperature recording increased from 49 % to 66 %, but is still well below the ideal. Health centers with a complete set of spare parts for the RCW42EK refrigerators were still extremely low.

TABLE 1 -COLD-CHAIN SURVEY RESULTS

JUNE, 1993					
	<u>1992</u>		<u>1993</u>		INCREASE
1. NO. HEALTH CENTERS	101		110		8.9%
SURVEYED TWICE	69		69		
2. NEW HEALTH CENTERS			9		
3. VILLAGES SERVICED	1670		1907		14.2%
<u>OUT OF THESE 69 HEALTH CENTERS:</u>					
4. VILLAGES SERVICED	670		907		35.4%
5. VILLAGES WITHOUT POSYANDU	162		36		-77.8%
% VILLAGES WITHOUT POSYANDU	19.5 %		3.7 %		
6. MEDICAL STAFF					
DOCTORS	81		85		4.9%
MIDWIVES	172		163		-5.2%
VACCINATORS	128		124		-3.1%
7. HEALTH CENTER TRANSPORT					
AUTOMOBILES	35		44		25.7%
SPEED BOATS	9		13		44.4%
MOTORCYCLES	11		28		154.5%
8. HEALTH CENTERS WITHOUT TRANSPORTATION	24		11		-75.0%
9. COMMUNICATIONS					
TELEPHONES	12		13		8.3%
SSB RADIOS	29		30		3.4%
10. VACCINE STORAGE					
REFRIGERATORS	69		69		
WORKING	68		69		1.5%
BROKEN	1		0		
11. REFRIGERATOR TEMPERATURES					
CORRECT (2 - 8 C)	42	60.9%	61	88.4%	45.2%
INCORRECT	23		8		
NOT MEASURABLE	4		0		
12. TEMPERATURE RECORDED DAILY	34	49.3%	46	66.7%	35.3%
13. COMPLETE SPARE PARTS FOR RCW42EK IN STOCK	1				
<u>IMMUNIZER KNOWLEDGE</u>					
14. TRAINING COMPLETE	42		62		45.2%
15. IMMUNIZERS WITH EXTRA DUTY	47		40		-14.9%
16. WOULD GIVE IMMUNIZATION IF:					
CHILD > 1 YR OLD	37		55		48.6%
HAS FEVER	11		42		281.8%
HAS DIARRHEA	16		41		156.3%
HAS A COLD	36		49		36.1%
17. WOULD OPEN VIAL AND GIVE VACCINE IF ONLY ONE CHILD PRESENT, AND DISCARD REMAINING VACCINE:					
ANSWERED INCORRECTLY:	40		62		55.0%
	29		7		-75.9%
18. IMMUNIZATION LAM USED	55		61		10.9%

**COLD CHAIN MANAGEMENT AT HEALTH CENTERS**

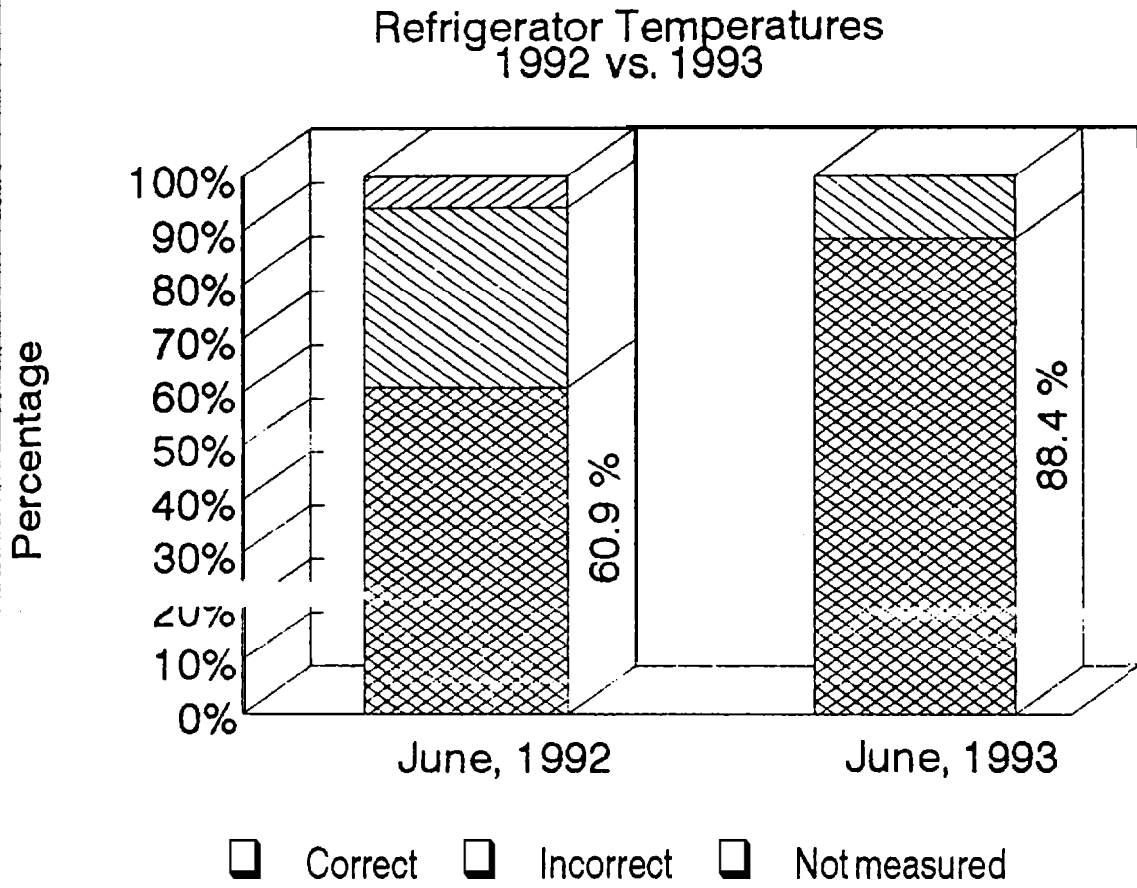


Figure 1



**Immunizer Knowledge**

The initial Survey indicated only 61 % of the immunizers had completed training while the update survey showed an increase to 90 % (N=69). Immunizer knowledge and practice in giving immunizations to a child was significantly better than the previous year (see Figure 2).

**Reporting System**

Monthly reporting via the Local Area Monitoring (LAM) program has increased from 55 to a total of 61 health centers (increase of 10.9 %).

**IMMUNIZER KNOWLEDGE**

PERCENTAGE OF IMMUNIZERS WHO WOULD  
GIVE VACCINE IF CHILD:

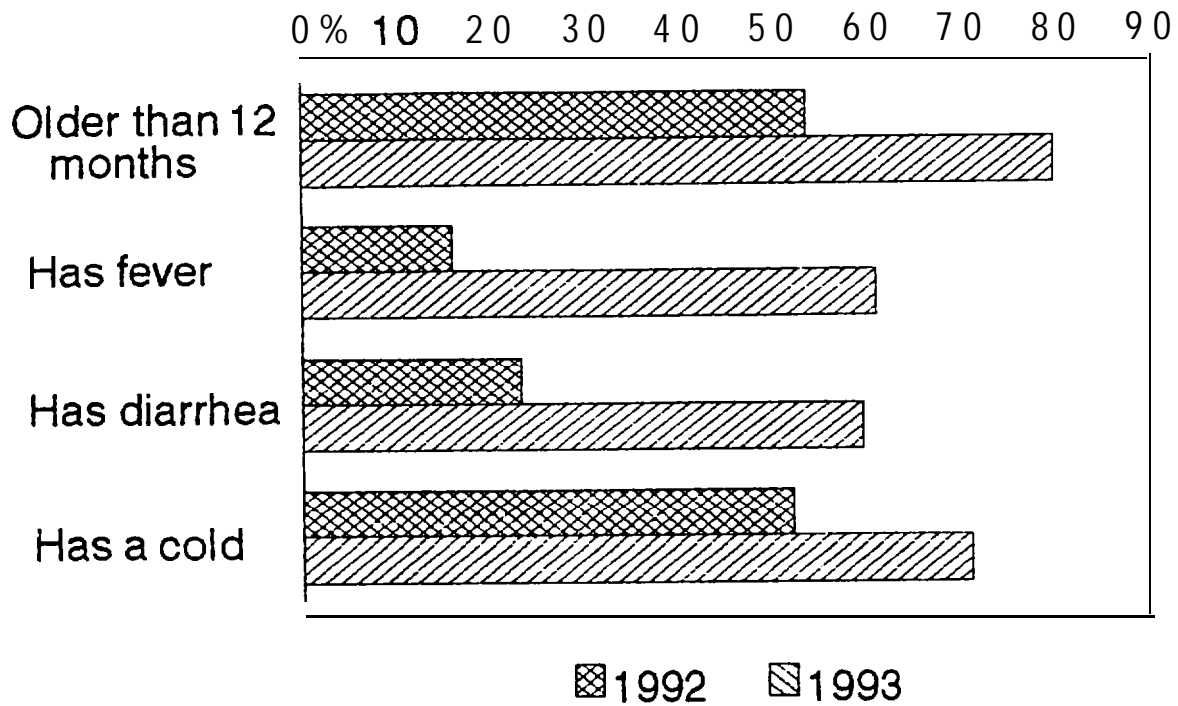


Figure 2

#### IV. CONCLUSIONS

Using a simple survey, cold chain and immunization management were monitored over a year in Maluku Province. Out of the original 101 health centers surveyed, 69 were visited a year later. A comparison of parameters of cold chain status and immunization program services revealed a significant **improvement** over the one year period:

1. The proportion of villages served increased 35%.
2. The proportion of villages without a Posyandu decreased by 78%.
3. Health centers with transport increased dramatically.
4. The proportion of health centers found to have vaccine storage at the proper temperature rose from 61 to 88%.
5. The proportion of health centers routinely recording refrigerator temperature rose from 49 to 67%.
6. There has been a 45% increase in immunizers who have received complete training.
7. "Missed opportunities\*" should decrease significantly since immunizer knowledge about the proper contra-indications for immunization has markedly improved.
8. Almost 90% of the health centers are using the LAM program for reporting immunization achievements compared to 80% last year.

It has been suggested that the process of conducting regular supervisory and monitoring visits will improve the quality of the program in the health centers. Increased attention to the local problems and periodic feedback are key components in this process.

**APPENDIX 12**

**TEACHER'S MANUAL FOR THE POSYANDU SCHOOL PROGRAM (PPAS)**

**PROVINCIAL SOCIAL MARKETING TEAM-MALUKU  
IN COOPERATION WITH  
PROJECT CONCERN INTERNATIONAL AND  
THE DEPARTMENT OF EDUCATION AND CULTURE**

# PROGRAM MANUAL FOR THE POSYANDU SCHOOL PROGRAM

## FOR PRIMARY SCHOOL GRADES IV AND V

### I. INTRODUCTION

This manual has been prepared to help teachers in the learning and teaching process. This manual provides activities which focus on child education while also promoting the POSYANDU Program (Integrated village health post). As a result, knowledge and skills are transferred to the students in the areas of POSYANDU Service, and maternal and child health. This approach also enhances the level of health education in children of primary school age, many of whom have child care responsibilities themselves.

### II. OBJECTIVES AND TARGET GROUP

- Objectives:
- Increase the role of students as active community members who support public well-being through POSYANDU.
  - To improve public support for the POSYANDU Program
  - To improve public well-being through POSYANDU
  - To gain community acceptance for the services of POSYANDU

Target Group: Children in primary school grades IV and V.

### III. TIME AND PLACE

- Time:
- Implementation of the POSYANDU School Program (PPAS) is a test program in Maluku; therefore, the timeframe will be one year of lessons starting from 1993 to 1994.
  - The time period allotted for each lesson is 90 to 135 minutes. Each lesson will require 2 to 3 sessions.
  - The following lessons will be conducted once a week during the physical education and health class.

Place: - The PPAS activities will be implemented in 4 different primary schools in the Province of Central Maluku in 2 separate districts: Leihitu District for primary schools Hila and Wakasih, and in the Kairatu District for primary schools Kairatu and Kamariang.

#### IV. PARTICIPANTS

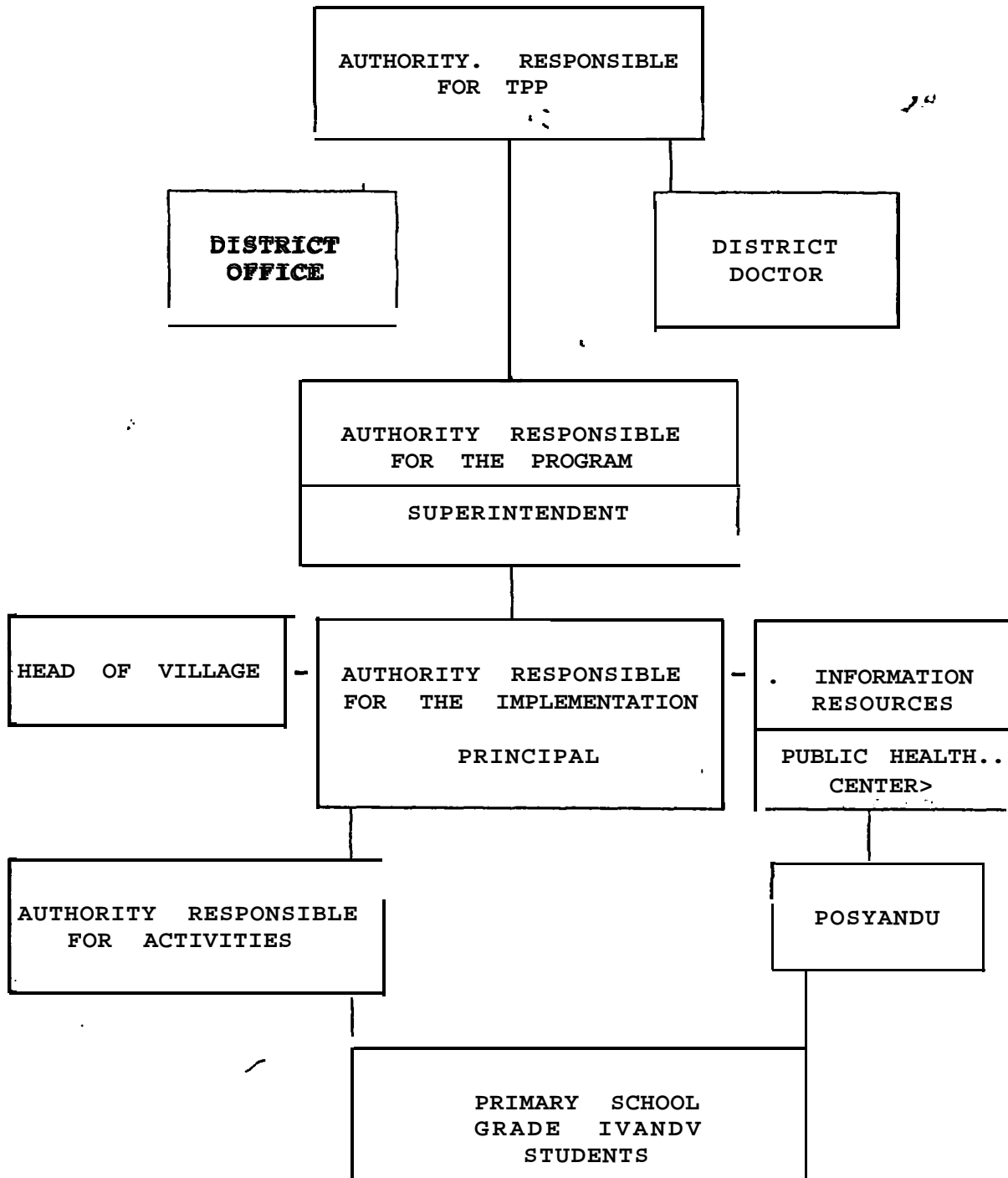
Participants of this program, aside from the students, also include members from the community [especially pregnant mothers, babies, children under five, and women of child-bearing age) who will be assigned, through homework, as participants of the PPAS.

#### V. IMPLEMENTATION

In order for success, this program must involve:

- District POSYANDU Work Group Teams (TPP) who will be responsible for the organization
- The Superintendent of pre-school/primary schools who will be responsible for the Program
- The school principal who will be responsible for the program's implementation
- Physical education and health teachers who will be responsible for program activities
- Students
- The POSYANDU Cadre
- Collaboration with the public health centers
- The village heads
- District Head of Education who will be responsible for the administration.

ORGANIZATIONAL CHART OF THE PPAS PROGRAM AT THE DISTRICT LEVEL



NOTE : \_\_\_\_\_ COORDINATIVE  
 - - - - - CONSULTATIVE



VI. PROGRAM MATERIALS AND METHODS

A. Topics that will be covered through the 5 POSYANDU Services:

1. POSYANDU
2. Growth weighing and Health Cards (KMS)
3. Nutrition and healthy eating habits
4. Immunizations
5. POSYANDU visits
6. Diarrhea
7. Family Planning

B. This program uses learning/teaching methods which include techniques such as:

1. Communicative Teaching methods
2. Communication techniques
3. Questions and answers
4. Community surveys
5. Group discussions
6. Practical/field activities

## LESSON #1

Subject : Physical education and Health  
Main emphasis : PPAS  
Topic of discussion : POSYANDU  
Grade/quarter : IV and V/ Ist  
Time : 135 Minutes (3 sessions)

### I. INSTRUCTIONAL OBJECTIVES

After completing this lesson, the student will be able to:

- Know and understand the meaning of POSYANDU
- Know and understand the objectives of POSYANDU
- Recall the activities and services provided at POSYANDU
- Organize the 5 POSYANDU Services and list their activities

### II. ACTIVITIES

#### A. Steps

##### First Session

#### 1. Pre-lesson knowledge (10 minutes)

The teacher will ask:

- Who know what POSYANDU stands for?
- What does POSYANDU do?
- Who has ever visited the POSYANDU?
- Do you know the name of a POSYANDU?

#### 2. Information (25 minutes)

- Sing the song, "I am a healthy child"
- Explain/the meaning of POSYANDU
- Explain who works at the POSYANDU
- Explain POSYANDU's objectives
- Explain the role of the POSYANDU cadre

3. Questions and answers/tasks (10 minutes)

The teacher will pose the following questions:

- What is the meaning of POSYANDU?
- Who works at the POSYANDU?
- What are the goals of a POSYANDU?

The teacher will assign the following homework:

- The child will be given the task of looking for and listing the names of the pregnant women and children who are living near their house, and to explaining to them that they will be enrolled in the PPAS Program.

Note : Each child will be responsible for their own list, and names should not be shared between students.

Second Session

1. Pre-lesson knowledge (5 minutes)

Repeat the first lesson

- What does Posyandu stand for?
- What is the goal of POSYANDU?
- Who works at the POSYANDU?
- What is the role of the POSYANDU Cadre?

2. Information (20 minutes)

The teacher will explain the following subject matter:

- Activities that are carried out at the POSYANDU
- The 5 services of POSYANDU

3. Work Group (20 minutes)

The teacher will separate the class into 3 groups :

- The first group should prepare a list of the 5 POSYANDU Services and-prepare a description of each one's function
- The second group will act as POSYANDU Cadres who will be assigned to each service
- The third group will act as a member of the community seeking a service from POSYANDU:
  - As a pregnant woman suffering from malnutrition
  - As a child under five years of age suffering from malnutrition
  - As an infant who is in need of immunizations
- The teacher will collect last weeks homework from those who have already completed it. For those who have not done it, the teacher will remind them to complete it by next week.

Third Session

1. Pre-lesson knowledge (5 minutes)

The teacher will ask questions about last weeks subject matter.

How many services should be provided at the POSYANDU?

- What are the functions of each service?  
Name the services that are carried out by your POSYANDU?

2. Completion of Task (25 minutes)

Together, the teacher and students will check the homework results and categorize the information into groups such as:

- Pregnant mothers
- Children under 5 years of age

Note : Be sure to divide students into groups which allow them to participate in each of the previously identified categories

3. Test Format (15 minutes)

A. Questions:

1. What does POSYANDU stand for?
2. What is the goal of POSYANDU?
3. What is the name of the POSYANDU in your village?
4. What services are provided by your POSYANDU?
5. How many services does POSYANDU provide? Name them.
6. What does the POSYANDU Cadre do?

B. Answers:

1. POSYANDU is a community based health post focusing on maternal and child health, nutrition, immunizations, diarrhea and family planning
2. To increase public health
3. .... (Depends on local situation)
4. - Infant registration  
- Infant weighing/growth monitoring  
- Health card (KMS) registration/monitoring  
- Immunization services/family planning  
- Health education
5. 5 services are provided. They are:  
- Registration  
- Weighing/growth monitoring  
- Health card (KMS) registration/monitoring  
- Immunizations/family planning  
- Health education
6. The duties of the POSYANDU Cadre are:  
- To promote public well-being through POSYANDU Services  
- To open the POSYANDU, daily, for services  
- To promote and advocate POSYANDU Services to nonusers  
- To oversee all POSYANDU activities

B. Promotional Activities

1. Method : Verbal, questions/answers, work groups, field trips, data collection
2. Visual Aids : POSYANDU pictures, demonstration objects
3. Sources : PPAS Manual, PPAS Training Materials

POSYANDU Song: I'm a Healthy Child

"I'm a health child, my body is strong because my mother is diligent, and precise. When I was a baby I always got breast milk, nutritious food and immunizations for a healthy body. MY weight was monitored regularly at POSYANDU, and on time. If I had diarrhea, my mother was careful and always had Oralit (ORS) ready."

## LESSON #2

Subject : Physical education and Health  
Main Emphasis : PPAS  
Topic of Discussion : POSYANDU Health Cards  
Grade/Quarter\` : IV and V/I  
T i m e . : 90 minutes (2 sessions)

### I. INSTRUCTIONAL OBJECTIVES

After the following lesson, the student will be able to:

1. Know and understand the growth process of a child
2. Understand how to conduct weighing
3. Read and fill-in Road to Health Cards (KMS)

### II. ACTIVITIES

#### A. Steps

##### First Session

#### 1. Pre-lesson knowledge (5 minutes)

The teacher will give a question about:

- Who has seen the KMS Card before?
- What is the function of the KMS Card?

#### 2. Information (30 minutes)

The teacher explains:

- Child growth
- Weighing procedures
- How to read and fill-in the KMS Card

Ask the children to sing the "I'm a Healthy Child" Song

### 3. Workgroups (10 minutes)

The teacher separates the class into 2 groups

- Group I does the weighing and announces weights
- Group II reads and fills-in the KMS with the readings from Group I

Note: - This activity can be carried out in turns  
- The teacher will select 2 children under 5, one who is thin, and one who is chubby

The teacher will give the following homework assignment to the students. The students are asked to contact the pregnant mothers and children under 5 years (through mothers) who were list while conducting the homework from lesson I, and to inquire on the following questions:

#### A. Questions for the mother

- Mother's name?
- Age?
- How many children does she have?
- Has the mother been to POSYANDU before?
- Did she go to the POSYANDU within the last month?  
Has the mother received an injection in her shoulder yet?
- If the mother has not yet visited the POSYANDU, ask her to visit by the end of the month.

#### B. Questions for the child, through the mother

- Write down their (mother and child) names and ages
- Does the child have a KMS Card? If yes, verify.
  - If the answer is no., ask the mother to visit the POSYANDU with her child by the end of the month.

### Second Session

#### 1. Pre-lesson knowledge (5 minutes)

The teacher will ask the following questions:

- Why does a child need to be weighed?  
What does the light green color on the KMS Card stand for?
- What does the dark green color on the KMS Card stand for?



2. Information (20 minutes)

- The teacher will repeat last weeks lesson, if it is observed that the child does not understand the lesson.
- The teacher will draw the KMS Card at the blackboard and ask the children, one by one, to fill-in the above drawing according to the teacher's questions,

Example :

Fill in the following information: A child who's age is 2 years with a weight of 30 Kg...

Note :

Check the student's answer. If wrong, fill-in and explain the correct answer.

3. Homework collection (20 minutes)

- The teacher will prepare a list of pregnant mothers and children under five who have been registered from lesson I.
- The teacher will ask each student to read their survey results while the teacher fills-in the data as such:

Name of the student who is responsible : .....

a. - Mother's Name : ..... Age : .....  
- POSYANDU Participant?: a. Yes b. No

b. - Child's Name : ..... Age : .....  
- POSYANDU Participant?: a. Yes b. NO

- Child's Name : ..... Age : .....  
- POSYANDU Participant?: a. Yes b. No

- The teacher will tally the results to see how many mothers and their children are active and how many are not active in POSYANDU.

Note :

If the student lists a new pregnant mother and child, the teacher is excepted to register and list the mother and child through the student's name (see Table I & II).





B. Promotional Activities

1. Method : Verbal, questions/answers, work groups, field trips, mini surveys
2. Visual Aids : KMS Cards, demonstration visuals, scale, children under five
3. Sources : PPAS Manual, PPAS Training Materials

III. EVALUATION QUARTER I

Question :

1. Meaning of POSYANDU?
2. What is the Scope of POSYANDU Services?
3. What are the goals of the POSYANDU?
4. Name 5 POSYANDU Programs?
5. Name the function of a KMS Card?
6. Normal child growth is indicated by what?
7. On the graph in the KMS Card, there are some colors. What does the dark green color symbolize?
8. On the KMS Card you can enter the weight of a child. What else can be written on the KMS Card?

### LESSON #3

Subject : Physical education and Health  
Main Emphasis : PPAS  
Topic of Discussion : Nutrition and Healthy Food  
Grade/Quarter : IV and V/II  
Time : 135 minutes (3 sessions)

#### I. INSTRUCTIONAL OBJECTIVES

After the following lesson, the student will be able to:

1. Understand which foods are good for people
2. Understand different types of foods and their benefits
3. Know which kinds of foods are best for children under five, pregnant mothers and lactating mothers
4. Understand the benefits of breast milk
5. Make use of the student's family yard to better supplement nutritional needs

#### II. ACTIVITIES

##### A. Steps

###### First Session

##### 1. Pre-lesson knowledge (5 minutes)

- How does food benefit people?
- Name foods you know and identify their benefits?
- What foods are best for children, pregnant mothers and lactating mothers?

##### 2. Information (25 minutes)

The teacher explains:

- The benefits of different foods?
- Vitamins that certain foods contains which are beneficial to people
- Those foods that are important for children, pregnant mothers and lactating mothers

3. Work Distribution (15 minutes)

- a. The teacher will ask questions about last weeks subject matter

Name the nutritional benefit of different foods  
Observe what children, pregnant mothers and lactating mothers eat?

Note :

Together, the teacher and students will check the homework results by exchanging their paperwork.

- b. The teacher, will assign the following homework:

Have the students fill-in the food tables (Table III & IV), below, according to what they eat for the next 3 days.

TABLE III : 3 DAY MEAL LIST

DAY	BREAKFAST	LUNCH	DINNER
I			
II			
III			

TABLE IV : VARIOUS FOOD AND THEIR VITAMINS

NO.	CARBOHYDRATES	PROTEIN	VEGETABLES	FRUITS
1.				
2.				
3.				
4.				
5.				
6.				
7 .				
	VITAMINS :	VITAMINS :	VITAMINS :	VITAMINS :
	.....	.....	.....	.....
	FUNCTION :	FUNCTION :	FUNCTION :	FUNCTION :
	.....	.....	.....	.....

Second Session

I. Pre-lesson knowledge (5 minutes)

The teacher will ask questions about last weeks lessons.

- The nutritional benefits of different foods.
- Observe what foods children, pregnant mothers and lactating mothers are eating?
- Who knows what breast milk is?
- What are benefits of breast milk?

II. Information (25 minutes)

- The teacher reviews the subject matter again, if the students do not understand it clearly.
- Explain the new material in "Instructional objectives" No. 4 and 5
- The benefits of breast milk for infants, and the negative aspects of bottle-feeding
- Use of the home yard (garden)

III. Work Distribution (15 minutes)

a. The teacher reviews questions about the material that has been presented above :

- What does the acronym for breast milk stand for (ASI)?
- What is the benefit of breast milk for an infant?
- What are the drawbacks of bottle-feeding?

b. The teacher will assign the following homework:

1. The children should make use of their home yards in order to plant items that can be eaten at home such as tomatoes and vegetables.
2. The teacher asks the students to prepare a small survey for mothers with a child less than 2 year old with the following questions:
  1. Child's Name : .....
  2. Does the child drink only breastmilk?
  3. Is the child only bottle-fed (store bought milk)?
  4. Does the child drink both bottled milk (store bought) and breastmilk?

Note :

This assignment will be given to a student who knows of an infant who is still breast feeding (0-2 years).



### Third Session

#### 1. Prelesson knowledge (5 minutes)

The teacher will ask review questions about last weeks subject.

- Name the benefit of breast milk?
- What are the drawbacks of bottle-feeding?

#### 2. Completion of Task (25 minutes)

1. The teacher will ask the students to look back at the work from the first session (the meal table), and correct any mistakes.
2. The teacher then asks 'for the survey results from the second session. The teacher can then fill-in the following list:



**B.** Promotional Activities

1. Method : Verbal, questionsyanswers, work **groups,** homeworks, data collection
2. Visual Aids : Demonstration objects, pictures of nutritious foods
3. Sources : PPAS Manual, PPAS Training Materials

## LESSON #4

Subject : Physical education and Health  
Main emphasis : PPAS  
Topic of discussion : IMMUNIZATION  
Grade/quarter : IV and V/II  
Time : 135 Minutes (3 sessions)

### I. INSTRUCTIONAL OBJECTIVES

After completing this lesson, the student will be able to:

- Know and understand what an immunization is
- Know and understand the different types of immunizations
- Know to whom immunizations are to be given
- Know the different types of childhood diseases a child can get if not immunized

### II. ACTIVITIES

#### A. Steps

##### First Session

#### 1. Pre-lesson knowledge (5 minutes)

The teacher will ask:

- What are immunizations?
- Who should receive immunizations?
- Where can mothers and infants receive immunizations?

#### 2. Information (30 minutes)

- Sing the song, "**I am a Healthy Child**"
- Explain what immunizations are
- Explain who gets immunizations
- Explain where immunizations are provided

3. Questions and answers/tasks (15 minutes)

a. The teacher will repeat some questions about:

- What immunizations are
- Who should receive immunizations
- Name the different kinds of immunization

b. The teacher will assign the following homework:

The student will check with the pregnant mothers and children with whom they had contacted previously, and inquire about their immunization status with the following questions :

If the child possesses a KMS Card, the information can be copied directly.'

Questions for the child

Name : ..... Age : .....

B C G : a. Yes b. No

D P T : a. Yes b. No

Polio : a. Yes b. No

Measles: a. Yes b. No

Questions for the Mother

Name : ..... Stage of  
Pregnancy : .....

T T I : a. Yes b. No

T T I I : a. Yes b. No

Note :

- If the student interviews a pregnant mother who is not yet immunized or the mother of a child under five who has not been immunized yet, the student is expected to ask them to visit the POSYANDU by the next month.
- These questions are only to be put to the mothers of infants less than a year old.

## Second Session

### 1. Pre-lesson knowledge (5 minutes)

The teacher will ask the following questions:

- Name the different types of immunizations?
- At what age should children receive immunizations for BCG, DPT, Polio and Measles?

### 2. Information (25 minutes)

The teacher will explain the following topics:

- First, review the material which students have difficulty with
- The different childhood diseases
- Childhood diseases that can be prevented with immunizations

### 3. Work Group (15 minutes)

- The teacher will separate the class into 4 groups
- These 4 groups will be given material to construct a story related to the material topic:

Group I : TB  
Group II : Diphtheria  
Group III : Polio  
Group IV : Measles

Note :

They may ask for help from their parents on their assigned disease or on formulating a story.

## Third Session

### I.A. Completion of Task I (15 minutes)

The teacher will ask the eldest student from each group to present their homework.

### B. Completion Of Task II (15 minutes)

The teacher and student will review the first task together. The teacher will prepare the data while having the student read the survey result and fill-in the data below (Table VI & VII).







II. Test Format (15 minutes)

1. Questions:

1. What is an immunization?
2. a. Name the different types of immunizations?  
b. Of the above immunizations, what diseases do they prevent?
3. What immunizations should a pregnant mother receive?
4. At what age can an infant receive an immunization for measles?
5. How many times should a pregnant mother receive immunizations?

B. Promotional Activities

1. Method : Verbal, questions/answers, work groups, homework, mini surveys
2. Visual Aids : KMS Card, demonstration objects, pictures of sick children

III. Evaluation Quarter II

1. How does food benefit people?
2. Name a few foods and their benefits?
3. State the use of ASI (breastmilk) and the drawbacks of bottle-feeding?
4. What can a home yard be used for?
5. What are immunizations?
6. Name the different types of immunizations and their function?
7. To whom are immunizations given?
8. What is the name of immunization a pregnant mother get's, and how many times should she receive it?
9. Full immunization coverage should be completed by the time an infant is how old?
10. Name the first immunization that a child gets?

LESSON #5

Subject : Physical education and Health  
Main emphasis : PPAS  
Topic of discussion : Visiting the POSYANDU  
Grade/quarter : IV and V/II  
Time : 45 Minutes (1 session)

I. INSTRUCTIONAL OBJECTIVES

After completing this lesson, the student will better understand POSYANDU.

II. ACTIVITIES

A. Steps

- The teacher will separate the students into 4 groups as follows :

Group I : Service I  
Group II : Service II  
Group III : Service III  
Group IV : Service IV

- At the POSYANDU, the students will act as POSYANDU Cadre while being assisted by the POSYANDU Cadres.

Note :

Vitamin A is distributed by the Posyandu during the months of February & August. This visit should take place during September, so that the records of all children who record Vitamin A supplements can be examined.

LESSON #6

Subject : Physical education and Health  
Main emphasis : PPAS  
Topic of discussion : DIARRHEA  
Grade/quarter : IV and V/II  
Time : 90 Minutes (2 sessions)

I. INSTRUCTIONAL OBJECTIVES

After completing this lesson, the student will be able to:

- Know and understand what diarrhea is
- Know the dangers of diarrhea, and how to prevent it
- Prepare SSS (sugar-salt solution)

II. ACTIVITIES

A. Steps

First Session

1. Pre-lesson knowledge (5 minutes)  
The teacher will ask:

- Who knows about diarrhea?
- What are the causes of diarrhea?
- How can diarrhea be prevented?

2. Information (25 minutes)

- Sing the song, "I am a Healthy Child"
- Explain what diarrhea is
- The causes of diarrhea, and how to prevent it
- Practice preparing SSS (sugar-salt solution)

3. Questions and answers/tasks (15 minutes)

a. Class Work

The teacher will pose the following questions:

- What is diarrhea?
- What causes diarrhea?
- Ask the children one by one to practice preparing SSS.

b. Homework

The student will ask mothers about their children on the following:

- If the child has an episode of diarrhea, what does the mother give her child?

If the mother answers traditional medicine, the student should introduce the use of a sugar-salt solution, and demonstrate the method for preparing SSS.

Note :

- For this homework, the student is not only responsible for those mothers the student has listed, but also for his own mother at home.
- For this homework session, the student will receive 2 packs of Oralit (SSS), one for practicing and one for home use.

Second Session

1. Completion of Task (25 minutes)

The student will-prepare the homework results with the teacher, filling-in the data.

TABLE VII : DATA FOR DIARRHEA

NO.	ORALIT	TRADITIONAL MEDICINE
TOTAL		

2. Evaluation (20 minutes)

1. What is Diarrhea?
2. What are the causes of diarrhea?
3. How do you prevent Diarrhea?
4. What signs are associated with diarrhea, and when should you bring a child to a health center?
5. Write down the recipe for SSS.
6. Create a short story about diarrhea.

B. Promotional Activities

1. Method : Verbal, questions/answers demonstrations
2. Visual Aids : Demonstration objects, picture: of children with diarrhea  
Oralit, Salt, Sugar, 1 Glass, spoon
3. Sources : Manual PPAS, PPAS Training Materials

Note :

ATTENTION TEACHER'S:

FOR THE STUDENT'S HOMEWORK, IT IS DESIRED THAT THE  
STUDENT'S WORKBOOK BE SIGNED BY  
THE PARENT AS A PERSON RESPONSIBLE FOR THE STUDENT

MOTTO :

"PURSUE KNOWLEDGE WHILE THERE IS STILL TIME"

## LESSON #7

Subject : Physical education and Health  
Main emphasis . : PPAS  
Topic of discussion,! : FAMILY PLANNING  
Grade/quarter : IV and V/III  
Time : 45 minutes (2 sessions)

### I. INSTRUCTIONAL OBJECTIVES

After completing this lesson, the student will be able to:

- Know and understand what the Family Planning Program is about
- Understand the goal of the Family Planning Program
- Understand the benefits of family planning for the health of a mother and child

### II. ACTIVITIES

#### A. Steps

##### First Session

##### 1. Pre-training knowledge (5 minutes)

The teacher will ask:

- Who knows what Family Planning is?
- What are the goals of the Family Planning Program?

##### 2. Information (20 minutes)

- Explain the objectives and goals of the Family Planning Program?
- Explain the benefits of Family Planning for the health of a mother and child

3. Task (20 minutes)

a. Class Work

The teacher will separate the children into 2 groups. Each group will prepare a story and present it in front of the class.

Group I : **Will present** a small family  
Group II : Will present a big family (many children)

b. Homework

Ask each student to describe the meaning of the family planning pictures given by the teacher?

III. Evaluation Quarter III

1. What is Diarrhea?
2. What is the cause of diarrhea?
3. What are the signs of a child with diarrhea, and when should you bring him to the health center?
4. What is the first treatment for diarrhea?
5. How do you prepare SSS?
6. What is the Family Planning Program "and what is their goal?
7. **Why** is the Family Planning beneficial for a mother?