

A.I.D. EVALUATION SUMMARY - PART I

PD-ABA-157
XD 15 13A 64008

1. BEFORE FILLING OUT THIS FORM, READ THE ATTACHED INSTRUCTIONS.
2. USE LETTER QUALITY TYPE, NOT "DOT MATRIX" TYPE.

IDENTIFICATION DATA

A. Reporting A.I.D. Unit: Mission or AID/W Office <u>USAID/Indonesia</u> (ES# _____)		B. Was Evaluation Scheduled in Current FY Annual Evaluation Plan? Yes <input checked="" type="checkbox"/> Slip: <input type="checkbox"/> Ad Hoc <input type="checkbox"/> Evaluation Plan Submission Date: FY <u>9</u>		C. Evaluation Timing Interim <input type="checkbox"/> Final <input checked="" type="checkbox"/> Ex Post <input type="checkbox"/> Other <input type="checkbox"/>	
D. Activity or Activities Evaluated (List the following information for project(s) or program(s) evaluated; if not applicable, list title and date of the evaluation report.)					

Project No.	Project /Program Title	First PROAG or Equivalent (FY)	Most Recent PACD (Mo/Yr)	Planned LOP Cost (000)	Amount Obligated to Date (000)
497-0325	Comprehensive Health Improvement Program-Province Specific (CHIPPS), 1989	FY 81	9/89	\$11	\$11

ACTIONS

E. Action Decisions Approved By Mission or AID/W Office Director	Name of Officer Responsible for Action	Date Action to be Completed
Action(s) Required		
1. Prepare final meeting to present findings to Echelon I decision makers.	Dr. Kumara Rai	9/30/89
2. Produce videotape that stresses the important role of sub-district level doctors.	Dr. R. Soebekti	9/30/89
3. Prepare data base summary that lists all CHIPPS activities, costs and reports.	ALT (American Language Training)	-"-
4. Prepare abstract for all reports produced by CHIPPS for reference at AID OPH library and MOH Planning Bureau.	Debby Ellickson-Brown	9/30/89
	Johan Arief	9/30/89

(Attach extra sheet if necessary)

APPROVALS

F. Date Of Mission Or AID/W Office Review Of Evaluation: (Month) (Day) (Year)

G. Approvals of Evaluation Summary And Action Decisions:				
Name (Typed)	Project/Program Officer	Representative of Borrower/Grantee	Evaluation Officer	Mission or AID/W Office Director
	JOY RIGGS-PERLA	DR. N. KUMARA-RAI	EDWARD GREELEY	LEE TWENTYMAN
Signature	<i>Joy Riggs-Perla</i>	<i>Dr. N. Kumara-Rai</i>	<i>Edward Greeley</i>	<i>Lee Twentyman</i>
Date	10/25/89	11/6/89	11/8/89	11/1/89

1-0

ABSTRACT

H. Evaluation Abstract (Do not exceed the space provided)

The CHIPPS project (1981-1989) assisted the development of decentralized health planning and programming capabilities and supported the implementation of province-determined program activities in three provinces: Aceh, West Sumatra, and Nusa Tenggara Timur (NTT). The project emphasized a "problem-solving" approach, that assist provincial and district officials in identifying and solving their own problems. Activities which these officials implemented with CHIPPS assistance included: community-based training for medical students and nurses, data management and epidemiological training, other management training, and innovative approaches to disease control.

This final evaluation (1/89-6/89) was designed to overcome the lack of knowledge of project activities at the national level of the Ministry of Health by encouraging active involvement of key officials in all aspects of the evaluation. It was hoped that this involvement would result in serious consideration of the evaluation recommendations for future policy and projects.

Based on evaluation studies (survey of participants in selected CHIPPS activities, financial analysis of historic and prospective costs of activities, and inter-province comparisons of potential impact), key health officials and teams of external and internal consultants recommended that the following selected CHIPPS activities be implemented on a national scale: (a) the innovative health information system for health posts (MONEV posyandu) be appended to the national integrated health information system after gaining the coordinated support of other community level agencies; (b) Data Management Training and other CHIPPS management training activities be integrated into current in-service training programs; (c) drug management training activities of CHIPPS be incorporated into a more systematic effort that would include I.E.C., revised reporting forms, and assistant pharmacists; (d) The National Nursing Field Practice program be extended and reoriented to follow the CHIPPS model; (e) the placement of unemployed recent nursing graduates in remote communities (Relawan Posyandu) be adopted nationally, with the communities expected to provide funding through social insurance schemes; and (f) alternative project implementing units be designed and block grant financing mechanisms be created to replicate the benefits of the CHIPPS experience in achieving decentralization.

The evaluation process, which emphasized participation of key national level officials, was an effective means of gaining a greater awareness by national officials of the successful components of the province-based project. It allowed these officials to draw policy and program implications from the findings of the evaluation studies and provided a means of gaining broad support for national level recommendations.

C O S T S

I. Evaluation Costs

1. Evaluation Team		Contract Number OR TDY Person Days	Contract Cost OR TDY Cost (U.S. \$)	Source of Funds
Name	Affiliation			
URC's Contract		-	129,000	CHIPPS Grant
YIS Contract	- CHIPPS	-	49,000	CHIPPS Grant
	- HSF	-	51,000	HSF

2. Mission/Office Professional Staff
Person-Days (Estimate) _____

3. Borrower/Grantee Professional
Staff Person-Days (Estimate) _____

A.I.D. EVALUATION SUMMARY - PART II

SUMMARY

J. Summary of Evaluation Findings, Conclusions and Recommendations (Try not to exceed the three (3) pages provided)

Address the following items:

- | | |
|--|--|
| <ul style="list-style-type: none"> • Purpose of evaluation and methodology used • Purpose of activity(ies) evaluated • Findings and conclusions (relate to questions) | <ul style="list-style-type: none"> • Principal recommendations • Lessons learned |
|--|--|

Mission or Office:

Date This Summary Prepared:

Title And Date Of Full Evaluation Report:

1. The USAID/Indonesia Comprehensive Health Improvement Program-Province Specific (CHIPPS) was a broad-ranging primary health program designed to promote decentralized health planning and programming in three provinces - Aceh, West Sumatra and Nusa Tenggara Timur (NTT). Using a "problem solving approach," the project provided funding and technical assistance to assist provincial and district health officers in developing their own capacity for identifying problems, implementing solutions and monitoring and evaluating these activities. Through this process, provincial and district officials developed dozens of CHIPPS-supported activities, including community-based training for medical students and nurses, data management and epidemiological training and studies, other management training, and innovative approaches to control of diseases such as neo-natal tetanus, malaria and tuberculosis.

2. One of the central problems earlier evaluations of CHIPPS identified was that the activities that were being developed in the provinces were generally unknown or poorly understood at the national level and in other provinces.

The final evaluation was designed to overcome this central constraint by involving health officials from the national level in all stages of the evaluation over a six-month period.

Specifically, the objectives of the final evaluation were to: 1) determine the effectiveness of selected CHIPPS program innovations and consider whether they should be sustained and replicated in other provinces, 2) calculate the true costs of sustaining and replicating these innovations, 3) increase awareness at the national level of what had been learned from the CHIPPS program about project implementation and about program innovations that could be applied elsewhere, 4) gain participation of key health officials in the review of evaluation results and the formulation of recommendations so as to enhance prospects for eventual implementation of evaluation recommendations.

Three process workshops over a six-month period were used to involve many key health officials from the national level, along with external and domestic consultants, in the selection of priority areas for evaluation, design of evaluation methodologies, review of findings and data analysis, and development of appropriate recommendations to present to top-level policy makers in the Ministry of Health.

The activities that were chosen for evaluation were:

1. data management and epidemiological training;
2. health information system - health post level (MONEV Posyandu);
3. nursing school field training;
4. use of recent nursing graduates in remote areas (Relawan Posyandu)

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5. drug management training;
6. organizational effectiveness training; and
7. report writing training.

The three study methodologies used in this evaluation were:

- a. Survey of participants: 21 questionnaire instruments were developed to assess respondent's judgments of the 7 activity areas. A total of 486 interviews were conducted at the province, district, health center and health post levels. The sample was chosen to observe the maximum effect of CHIPPS training activities. Data was collected over a two-month period in all three provinces by teams of consultants and provincial interviewers.
- b. Financial analysis: A team of consultants and health officials reviewed health budgets to develop analyses of historic costs for each of the seven activity areas evaluated by the survey. The historic costs were used as a basis for projections of future costs to sustain these activities in the CHIPPS provinces or to replicate them in other provinces or nationally.
- c. Inter-province comparisons. Using nationally available data, the CHIPPS provinces were compared along a variety of dimensions with control provinces. This analysis attempted to evaluate the rates of improvements of the provinces in health planning, service delivery performance, and drug ordering.
3. Findings and conclusions: The survey of participants and the financial analysis showed that the activities supported by CHIPPS in each of the three provinces have been generally important and effective contributions to improving health services in these provinces. Respondents tended to find the training activities to be effectively implemented, that they were using the training in their day-to-day work, and that planning, management and information systems had improved as a result. Each of the seven major activities that were evaluated merited consideration or both continuation in these provinces and replication in other provinces or on a national scale.

The financial analysis found that the costs of some programs that were perceived to be expensive, such as MONEV, were at a level that could reasonably be absorbed by national or provincial budgets. The costs of sustaining the existing MONEV programs or replicating them in other provinces were estimated to be only Rp.3,900 (US\$2.21) per posyandu per month. In-service training programs (data management, drug management, organizational effectiveness) were generally around Rp.50,000 (US\$28.33) per person per day. Nursing field training was around Rp.67,000 (US\$37.96) per student per month and relawan programs were around Rp.40,000 (US\$22.66) per person per month.

4. Recommendations: In general, the recommendations of the final seminar (Process Documentation Seminar) supported implementation of CHIPPS activities on a national scale. The MONEV program was used as a basis for recommending that the existing integrated health information system be extended to the posyandu level using the MONEV approach -- after gaining the coordinated support of other community level agencies (PKK and BKKBN). Data Management Training was recommended for a national program to develop decentralized planning and management, especially at the district level, in line with the policy directives of the current Five Year Plan. Other management training activities for organizational effectiveness and development were recommended to be integrated into current in-service training programs.

Drug management activities of CHIPPS were seen as addressing only part of the problem. The seminar recommended that they be incorporated into a more systematic effort that would include I.E.C., revised reporting forms, and assistant pharmacists.

While Nursing Field Practice was already a national policy, it had been shortened and the emphasis shifted from a community approach to a family orientation. The seminar recommended that the policy be more in line with the CHIPPS experience. The relawan program was to be adopted nationally, and the communities expected to provide funding through social insurance schemes.

Finally, the seminar recommended that alternative project implementing units be designed and that block grant financing mechanisms be designed to replicate the benefits of the CHIPPS experience for decentralization.

5. Lessons Learned: The unusual CHIPPS approach to developing provincial capabilities through a problem solving approach resulted in a wide variety of useful activities that were effective at the province, district, and lower levels. The approach's major weakness was the lack of involvement of national level officials who would be able to replicate the successful efforts of the project in other provinces.

The unusual evaluation process was useful for gaining a greater awareness at the national level of a relatively successful province-based project and to encourage policy makers and high officials of the health ministry to become interested in using the evaluation results to recommend policy, strategy and program changes necessary to implement useful lessons from CHIPPS on a wider scale.

XD-ABA-157-A

and 64009

**IMPACT ANALYSIS
COMPREHENSIVE HEALTH
IMPROVEMENT PROJECT
PROVINCE SPECIFIC
(CHIPPS)**



FINAL EVALUATION OF CHIPPS

JUNE 1989

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EXECUTIVE SUMMARY

1. The USAID/Indonesia Comprehensive Health Improvement Program - Province Specific (CHIPPS) was a broad-ranging primary health program designed to promote decentralized health planning and programming in three provinces - Aceh, West Sumatra and Nusa Tenggara Timur (NTT). Using a "problem solving approach", the project provided funding and technical assistance to assist provincial and district health officers develop their own capacity for identifying problems, implementing solutions and monitoring and evaluating these activities. Through this process provincial and district officials developed dozens of CHIPPS supported activities that included community - based training for medical students and nurses, data management and epidemiological training and studies, other management training, and innovative approaches to disease control such as neo-natal tetanus, malaria and tuberculosis.
2. One of the central problems earlier evaluations of CHIPPS identified was that the activities that were being developed in the provinces were generally unknown or poorly understood at the national level and in other provinces.

The final evaluation was designed to overcome this central constraint by involving health officials from the national level in all stages of the evaluation over a six month period.

Specifically, the objectives of the final evaluation were to: 1.) determine the effectiveness of selected CHIPPS program innovations and consider whether they should be sustained and replicated in other provinces, 2) calculate the true costs of sustaining and replicating these innovations, 3) increase awareness at the national level of what had been learned from the CHIPPS program about project implementation and about program innovations that could be applied elsewhere, 4) gain participation of key health officials in the review of evaluation results and the formulation of recommendations so as to enhance potential implementation of evaluation recommendations."

Three process workshops over a six month period were used to involve many key health officials from the national level, along with external and domestic consultants, in the selection of priority areas for evaluation, design of evaluation methodologies, review of findings and data analysis, and development of appropriate recommendations to present to top level policy makers in the Ministry of Health.

The activities that were chosen for evaluation were:

- 1) data management and epidemiological training,
- 2) health information system for health post level (MONEV Posyandu),
- 3) nursing school field training,
- 4) use of recent nursing graduates in remote areas (Relawan Posyandu),

existing integrated health information system be extended to the posyandu level with the MONEV approach -- after gaining the coordinated support of other community level agencies (PKK and BKKBN). Data Management Training was recommended for a national program to develop decentralized planning and management especially at the district level -- in line with the policy directives of the current Five Year Plan. Other management training activities for organizational effectiveness and development were recommended to be integrated into current in-service training programs.

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Finally, the seminar recommended that alternative project implementing units be designed and that block grant financing mechanisms be designed to replicate the benefits of the CHIPPS experience for decentralization.

5. Lessons Learned:

The unusual CHIPPS approach to developing provincial capabilities through a problem solving approach resulted in a wide variety of useful activities that were effective at the province, district, and lower levels. The approach's major weakness was the lack of involvement of national level officials who would be able to replicate the successful efforts of the project in other provinces.

The unusual evaluation process was useful for gaining a greater awareness at the national level of a relatively successful province-based project and to encourage policy makers and high officials of the health ministry to become interested in using the evaluation results to recommend policy, strategy and program changes necessary to implement useful lessons from CHIPPS on a wider scale.

GLOSSARY

BKKBN	Indonesian Family Planning Agency
CHIPPS	Comprehensive Health Improvement Program--Province Specific
DEPKES	Ministry of Health
Dinas	Provincial or District Government Health Office
DIS	Charts for Village Health Coverage
Formasi	Official Postings
Kabupaten	District Administrative Unit
Kader	Village Volunteer Health Workers
Kandep	District Level Office of Ministry of Health
Kanwil	Provincial Level Office of Ministry of Health
LBS	Health Center Reporting Form for Ministry Health Information System
MONEV Posyandu	Health Post Monitoring and Evaluation Information System
OD/OE	Organizational Development/Organizational Effectiveness Training
PKK	Indonesian Women's Organization
Posyandu	Village level Health Post
Pusdiklat	Training Unit of Ministry of Health
Puskesmas	Health Center
Pusat	National level of Ministry of Health
Relawan	"Volunteer" Nurses Assigned to Communities
Repelita V	Fifth Five Year Health Plan (1989-93)
SPK	Provincial Nursing School
Sumbar	West Sumatra
NTT	Nusa Tenggara Timur
US\$ =	Rp. 1,765

III. EVALUATION PROCESS AND METHODOLOGIES

A. Background

The USAID/Indonesia Comprehensive Health Improvement Program - Province Specific (CHIPPS), which began in 1981 and ended in 1989, was a broad-ranging primary health program designed to promote decentralized health planning in three provinces - Aceh, West Sumatra and Nusa Tenggara Timur (NTT). During its eight year history CHIPPS supported dozens of activities that included community - based training for medical students and nurses, epidemiological training and studies, and innovative approaches to disease control such as neo-natal tetanus, malaria and tuberculosis. CHIPPS funding also provided substantial support for academic training for nurses, nursing school instructors, para-medics and other health personnel.

From the beginning, the CHIPPS program was unusual for large-scale foreign-assisted health programs. Rather than beginning with clearly defined aims to deal with a specific health problem, CHIPPS was designed to promote innovative solutions to locally defined problems in three under-served provinces, each with very different histories, cultural back-grounds, health problems, and health management capabilities.

In all three provinces the program began with epidemiological studies to determine the major health problems of the province. Based upon the findings of these studies interventions were designed to deal with priority problems. This approach was unique for Indonesia where most health programs had been planned by the central ministry of health and carried out by provincial health officials. These centrally planned programs often failed to meet local needs or wasted resources on non-existent problems and inappropriate implementation approaches.

The CHIPPS program included two main elements, 1) manpower development through local training and study fellowships, and 2) service delivery improvement in a wide variety of health programs. These programs varied from province to province based upon the needs of the provinces but often programs -- such as drug management training to encourage more rational prescribing practices and improve supplies & inventories -- were carried out in all three provinces with minor variations. Through the years the specific approaches and priorities of the CHIPPS program have changed due to changing priorities of the Ministry of Health, changing program personnel and changing perception of the health problems in the three provinces.

Prior to this final evaluation three previous program evaluations had documented the impacts of the CHIPPS program and recommended solutions to implementation problems. The last evaluation assessed the extent to which CHIPPS had contributed to decentralized planning and decision-making in the three provinces. This evaluation found that indeed these provinces were more active in initiating ideas for new programs and were more successful in convincing Pusat (Central MOH) to support and fund those initiatives. During his work with Pusat and the provinces the evaluator also discovered that many program innovations developed in the CHIPPS program were largely unknown in Pusat and non-CHIPPS provinces. He also found that project

activities had not addressed the costs of continuing these program innovations or replicating them in new areas of the country.

After discussion of these issues with officials in the MOH and USAID it was decided to carry out a final evaluation, not with the aim of looking back at the overall impact of CHIPPS or determining its strengths and weaknesses, but with the objective of looking forward to how the lessons learned during the CHIPPS experience could be applied to improving policies at the MOH and USAID.

Specifically, the objectives of the final evaluation were to:

- Determine the effectiveness of selected CHIPPS program innovations and consider whether they should be sustained and replicated in other provinces.
- Calculate the true costs of sustaining and replicating these innovations.
- Increase awareness at Pusat of what had been learned from the CHIPPS program about project implementation and about program innovations that could be applied elsewhere.
- Gain participation of key health officials in the review of evaluation results and the formulation of recommendations so as to enhance potential implementation of evaluation recommendations.

B. Evaluation Approach

In designing the final evaluation it was apparent that traditional approaches to evaluation were not appropriate. First, CHIPPS was not a single definable program with a clearly measurable objective but was a broad mix of sub-projects which differed from place-to-place and also changed over time. It was not a single dish which evaluators could measure but a moveable feast. Secondly, very little base data were available to compare conditions before CHIPPS with conditions after the CHIPPS interventions. Thirdly, it was not possible to identify control groups in the three provinces that were not 'contaminated' with contact from CHIPPS or that were comparable with those who were involved with CHIPPS programs. Therefore, the most basic conditions needed to meet the assumptions of 'quasi-experimental' field evaluation were not available for this post-hoc final evaluation. It might be noted, however, that this situation is not unusual for A.I.D. projects and that the methodology utilized here may have broad applicability.

Since the purpose of this evaluation was to increase awareness at all levels of the MOH about the CHIPPS experience, the fact that traditional evaluation approaches were not feasible for this evaluation were not viewed as a major difficulty by the evaluators. As stated by Donald Michaels:

There is a question of whether the purpose of Social Experimentation-including evaluation should be to gather data and test hypotheses, or whether it should be to provide a means by which "evaluators" and

"subjects" alike learn new ways to improve their work effectiveness. To my mind, our work should lean toward the latter". (On Learning to Plan - and Planning to Learn, Jossey-Bass, 1978).

A more appropriate methodology for this final evaluation was the "utilization-focused evaluation" approach described by Michael Quinn Patton (Utilization-Focused Evaluation, Sage Publication, 1978). In this approach the evaluators collaborate closely with the eventual users of the evaluation findings in defining the evaluation questions, collecting data and most importantly, drawing conclusions from the data and formulating the recommendations that come out of the evaluation.

The utilization-focused approach gathers data from a wide variety of sources, including data on program impact as well as the observations of program participants and program managers to help decision makers find answer to their questions about the program. In contrasting the traditional "hypothetico-deductive" approach to the utilization based approach, Patton states, "what fundamentally distinguishes the utilization-focused approach to evaluation from other approaches is that the evaluator does not alone carry the burden for making choices about the nature, purpose, content and methods of evaluation. These decisions are shared by an identifiable and organized group of decision makers and information users" (pg. 72).

Table I summarizes some of the differences between the hypothesize - deductive and utilization - focused paradigms of evaluation.

Table I

Comparison of Hypothesize-deductive and Utilization-focused Paradigms of Evaluation

	Hypothesize deductive	Utilization focused
Focus of Evaluator	Methodology	Needs of decision-makers
Data	Quantitative	Quantitative & Qualitative
Statistics	Comparative	Descriptive
Evaluator Stance	Outsider	Involved
Dissemination	Written Report	Discussion w/Decision-makers
Evaluation Question	Narrow	Broad
Time focus	Past	Future
Purpose	Summative	Formative

Although it was not intentionally based upon the Patton model, the CHIPPS final evaluation design was very similar to the five steps outlined by Michael Quinn Patton as typical of the utilization-focused evaluation. These steps are:

1. Identify relevant decision-makers.
2. Identify and focus evaluation questions in collaboration between the evaluators and decision-makers.
3. Select evaluation methods that generate useful information for identified decision-makers.
4. Decision-makers and evaluators participate in data analysis and data interpretation.
5. Evaluators and decision makers cooperate in making recommendations and in dissemination efforts.

C. Evaluation Design

1. Identification and Organization of Relevant Decision-makers.

To guide the design and planning of the evaluation a high level steering committee was formed, consisting of six director level (Echelon 2) officials from the MOH and USAID. The purpose of this committee was to decide on the basic frame-work of the evaluation and to approve the overall design:

A mid-level group of 12 Pusat and provincial officials were chosen to form three working groups to participate actively in the design of the evaluation. The three working groups were to guide the evaluation in three areas: cost analysis (Working Group I), training (Working Group II), and service delivery (Working Group III). As the work began it became apparent that the areas covered by working groups II and III were very similar so they were combined into one working group. In addition to these MOH officials, each working group included the long term consultant (LTC) from each CHIPPS province.

The day-to-day technical work of the evaluation was carried out by four domestic (Indonesian) consultants who worked full time on the project for six months. Their activities included writing evaluation instruments, collecting and analyzing data and presenting the results of the evaluation to decision-makers. Three part-time external consultants also provided technical assistance to the evaluation. These outside advisors included a health policy analyst, a financial analyst and a training specialist.

2. Identification of the Relevant Evaluation Questions

The overall evaluation design and relevant evaluation questions were identified during a three day workshop held in Ciloto on January 12 - 14, 1989. During this workshop,

attended by the working groups and the domestic and external consultants, it was determined that the evaluation would focus on seven CHIPPS components:

- 1) Drug Management,
- 2) MONEV Posyandu -- an innovative management information at the posyandu level
- 3) Data management and Epidemiological Training
- 4) Relawan Posyandu -- the placement of recent nurse graduates directly in under-served communities
- 5) Nursing School (SPK) Field Training,
- 6) Management Training -- both Organizational Development and Organizational Effectiveness (OD/OE),
- 7) Training in Report Writing,

Of the many projects implemented in the CHIPPS program, these seven components were selected for study because they were viewed as offering the most potential for adoption elsewhere, they had been implemented in more than one CHIPPS province, and they had not been satisfactorily evaluated previously.

For each of the seven components chosen for study the working groups discussed and agreed upon the essential evaluation questions that should be answered, the sources of data (e.g. relevant documents, interviews) and the data collection methodologies to be used (e.g. questionnaires, interviews, focus groups). The working group also approved the data collection schedule that should be followed. One important suggestion made by the working groups was that the evaluators should locate and train interviewers in each province to help the researchers understand local conditions:

3. Evaluation Methods

Three different methodologies were used for evaluation of the CHIPPS project:

- 1) survey of participants in CHIPPS activities;
- 2) financial analysis
- 3) inter-province comparisons

a. Survey of Participants

Following the design workshop one team of evaluators (external and domestic consultants and working group members) met for several days in Jakarta to develop specific interview guides and questionnaires for use in survey data collection. These instruments were based upon the evaluation questions identified by the working groups

during the Ciloto workshop. In all, twenty-one instruments were developed for gathering data on the seven program components.

This large number of instruments were needed because interviews were conducted at the provincial level, the Kabupaten (district) and Puskesmas (sub-district) levels. Interviews regarding the programs were also done with community leaders, volunteers (Kader) in community clinics (Posyandu) and with officials of nursing schools (S.P.K.).

Drafts of these instruments were taken by the evaluators to the province of Aceh for field testing. Based upon these field tests the instruments were modified and several minor changes were made in the evaluation plan.

After returning from the field testing the evaluators wrote a final draft of the evaluation instruments and designed a plan for selecting and training data collection assistants in each of the three provinces. It was decided to select four interviewers in each province and to conduct the interviews in two teams, each team consisting of one evaluator (domestic consultant) and two local interviewers.

The actual data collection was carried out in the three CHIPPS provinces during the months of March and April 1989. A total of 486 individuals were interviewed during this data collection effort.

b. Financial Analysis

A team of economists, financial analysts and public health officials (external and domestic consultants and working group members) designed and pretested a methodology for providing historical cost data for each of the seven intervention areas and also to estimate prospective costs of sustaining current program activities in the CHIPPS provinces or replicating those activities in other provinces or on a national scale.

This team visited each of the provinces and reviewed available project budgets and expenditure data during the period of February through April, 1989.

The team established activity definitions for each of the seven intervention areas, collected cost data, developed analysis of unit costs for each intervention and explored assumptions necessary for sustaining or replicating the project activities.

One central assumption for historical cost analysis was that it was only necessary to determine the additional (marginal) cost of project activities and not include the routine salary costs of officials who would have been paid, or services that would have been expensed, regardless of CHIPPS activities.

c. Inter-province Comparisons

In order to provide some indication of over-all impact of CHIPPS on the provinces, three analyses were designed to compare CHIPPS provinces to similar control provinces. These comparisons reviewed specific indicators of health planning, service

delivery performance and drug ordering for the three CHIPPS provinces and selected control provinces.

4. Data Analysis

The evaluators conducted a preliminary analysis of the evaluation data during the months of April and May and wrote first drafts describing the results of the evaluation, including a description of each component, its objectives, variations in implementation in each province, data on the effectiveness of the program component, difficulties in implementing the component and data on the historical and prospective costs of each component. These preliminary drafts were distributed to working group members in early May.

On May 16-18 a "pre-seminar" was held with working group members and selected policy makers such as key Pusat directors. The purpose of this pre-seminar was to obtain guidance and feedback on the reports. The working groups had several suggestions for improving the quality of the reports.

Unlike traditional evaluation reports, these reports specifically avoided making recommendations or drawing conclusions. This was to be the central activity of the final "Process Documentation Seminar" in which health officials themselves would be expected to review the evaluation findings and make their own recommendations.

5. Final "Process Documentation" Seminar

A final evaluation seminar was held on June 12-14 in Wisma Kenasih, in Caringin outside of Jakarta for the purpose of reviewing the evaluation results and developing recommendations to the Ministry of Health. A total of 74 people were invited to the seminar including representative of key MOH directorates and departments (Community Health, Food and Drug, Communicable Disease Control, Planning Bureau, and the Pre-service and In-service Training Units), officials from the Provinces of Aceh, West Sumatra and NTT who had participated in the implementation of the CHIPPS program, representatives from other provinces of Indonesia and representatives of international funding agencies.

Plans for the seminar were developed jointly by the evaluators and members of the working groups and steering committee. The seminar was a "Process Documentation Seminar" designed to involve high level policy makers in review of the findings of the various evaluation studies to allow them to explore the implications of these findings for future policy and to make recommendations to the Eschelon 1 officials (Directors General, Inspector General, and Minister).

The first day of the seminar involved a brief presentation of the unusual design of the seminar and the expectations of full participation of the health officials of all levels in the review of findings and development of recommendations. A brief overview of the findings was presented and the full reports of the findings of the evaluation studies were distributed. The health officials were then divided into five discussion groups to focus on specific interventions.

The five discussion groups included :

1. Information System (studying the components of MONEV and Data Management and Epidemiology Training).
2. Management Improvement (OD/OE training and Report Writing).
3. Drug Management.
4. SPK Training and Relawan Posyandu.
5. Overall Project Design and Implementation.

Special care had gone into selecting appropriate officials with experience and decision-making roles in the issues of their respective discussion groups. In addition, an effort was made to have officials from each of the CHIPPS provinces who had worked directly in the respective CHIPPS activity in each discussion group. To broaden the perspective, several provincial and kabupaten officials from non-CHIPPS provinces also participated in discussion groups.

Discussion guidelines led the groups to analyze: 1) the problems that were being addressed by the CHIPPS intervention, 2) the nature of the CHIPPS intervention to solve those problems, 3) the effectiveness of that intervention based on the findings of the evaluation studies, 4) the costs of the intervention, 5) obstacles and constraints to implementation, 6) recommendation to sustain or replicate, 7) suggestions to improve the intervention beyond what CHIPPS had done, 8) conditions necessary for replication, 9) consideration of alternative solutions (interventions) that might solve the problems more effectively.

The discussion groups spent the afternoon and evening of the first day reviewing the findings of the evaluation studies and developing preliminary recommendations which were presented to a plenary session on the afternoon of the second day. In most cases the recommendations suggested that the activities that had been developed under CHIPPS be sustained and replicated as national programs. The plenary made suggestions for revisions and changes, usually calling for more specific recommendations which were then developed by the leaders of the discussion groups that evening.

The morning of the third day the recommendations that had been developed by the discussion group leaders were submitted to a session of "reality testing" using "force field analysis" -- a methodology developed by sociologist Kuth Lewin -- to determine the positive and negative factors involved in implementing proposed recommendations. This discussion was designed to sensitize the participants to the obstacles that would have to be overcome and helping forces that could be enlisted to achieve the implementation of their recommendations. It was hoped that this discussion would help refine the recommendations and would assist officials to define an action plan for getting their recommendations adopted.

In general the recommendations sought to implement CHIPPS activities on a national scale. The MONEV program was used as a basis for recommending that the existing integrated health information system be extended to the posyandu level with the MONEV approach after gaining the coordinated support of other community level agencies (PKK and BKKBN). Data Management Training was recommended for a national program to develop decentralized planning and management especially at the Kabupaten level in line with Repelita V policy. Other management training for organizational effectiveness and development was recommended to be integrated into current in-service training programs.

Drug management activities of CHIPPS were seen as addressing only part of the problem. The seminar recommended that they be incorporated into a more systematic effort that would include I.E.C., revised reporting forms, and assistant pharmacists.

The Nursing Field Practice was already a national policy, however it had been shortened and its emphasis shifted from community to family orientation. The seminar recommended that the policy be more in line with the CHIPPS experience. The relawan program was to be adopted nationally, and the communities expected to provide funding through social insurance schemes.

Finally, the seminar recommended that alternative project implementing units be designed and that block grant financing mechanisms be designed to replicate the benefits of the CHIPPS experience for decentralization.

For each recommendation the conditions necessary for implementation were discussed as the initial basis for a future effort to develop a plan of action for implementation, should the policy makers move to adopt them.

The afternoon of the final day was devoted to the brief presentation of the recommendations and the conditions necessary for implementation. This presentation was received by the Inspector General who invited the organizers of the seminar to prepare a presentation to a future routine policy meeting of Eschelon 1 officials.

6. Conclusion

This unusual evaluation process was designed to gain a greater awareness at the national level of a relatively successful province-based project and to encourage policy makers and high officials of the health ministry to use the evaluation results to recommend policy, strategy and program changes necessary to implement useful lessons from CHIPPS on a wider scale.

It was hoped that with greater involvement of many health officials in the evaluation itself, knowledge of the CHIPPS activities would be widely spread and the many positive aspects of a province program would not be lost once the project funding stopped.

It was also hoped that a more involved process would result in greater commitment by health officials to implementing recommendations. This participation involved not only

the usual process of having officials review the actual findings of the evaluation, but also expecting them, rather than the evaluators, to formulate the implied recommendations. In this process, these officials were able to go beyond the actual findings and consider their own and other experiences that were relevant for each type of intervention. In addition, since they were involved in the formulation of the recommendations, they may also be more committed to seeking ways to implement these recommendations than they would have been had they only received the report and recommendations of consultant expert evaluators. It will be interesting to evaluate this impact in the next few years to see if, indeed, the recommendations are adopted.

Not surprisingly, the recommendations followed the thrust of the findings of the evaluation studies which tended to find each intervention worthy of continuation and replication. As such the evaluation was a testament to the effectiveness and utility of the CHIPPS approach. The recommendations, however, also went beyond the CHIPPS experiences and made appropriate suggestions for additional activities to solve the problems that CHIPPS had addressed.

APPENDIX A

The schedule of the final "Process Documentation Seminar" was as follows:

Day 1:

- Introduction-purpose of the seminar, objectives and agenda.
- History and overview of the CHIPPS program.
- Evaluation Approaches and Design of Evaluation.
- Major Findings of the Evaluation.
- Discussion groups discuss findings and prepare draft recommendations. The five discussion groups included :
 1. Information System (studying the components of MONEV and Data Management and Epidemiology Training).
 2. Management Improvement (OD/OE training and Report Writing).
 3. Drug Management.
 4. SPK Training and Relawan Posyandu.
 5. Overall Project Design and Implementation.

Day 2:

Each discussion group prepared and presented the findings and recommendations developed by their group.

Preparation of findings and recommendations by a sub-committee comprised of members of each discussion group.

Day 3:

Report to Plenary of Draft Recommendations.

Reality Testing of Draft Recommendations in 2 groups Using Method of Force Field Analysis.

Report of Final Recommendations and Adoption by Plenary.

IV. SUMMARY FINDINGS OF EVALUATION STUDIES

A. Survey of Participants and Financial Analysis

1. Overview

The survey of participants and the financial analysis show that the activities supported by CHIPPS in each of the three provinces have been generally important and effective contributions to improving health services in these provinces. Each of the seven major activities that we evaluated merits consideration for both continuation in these provinces and replication in other provinces or on a national scale.

We found that the costs some programs that were perceived to be expensive, such as MONEV, were at a level that could reasonably be absorbed by national or provincial budgets. The costs of sustaining the existing MONEV programs or replicating them in other provinces were estimated to be only Rp. 3,900 per posyandu per month. In service training programs (data management, drug management, organizational effectiveness) were generally around Rp. 50,000 per person per day. Nursing field training was around Rp. 67,000 per student per month and relawan programs were around Rp. 40,000 per person per month.

The following discussion reviews the methodology and major findings and discusses some of the implications and programmatic options that emerged from these two evaluation studies.

2. Methodology

The survey of participants in CHIPPS programs involved 21 separate questionnaire instruments for officials at all levels and for each of the seven areas of investigation. Interview teams made up of consultants and hired interviewers from the provinces interviewed:

- 1) the Provincial Doctor and Kanwil/Dinas staffs in each province
- 2) 3 District (Kabupaten) Doctors and their Kandep/Dinas staffs in each province
- 3) 3 Health Center (Puskesmas) Doctors and their staffs for each District (total of 9 Puskesmas per province)
- 4) group interviews with Kader for one Posyandu in each Puskesmas
- 5) Directors, staff and Graduates of two of the Nursing Schools (SPK) in each province

These interviews totaled 486.

Since the evaluation was designed to provide the most information possible within a restricted budget and time frame, the sample was not randomly selected and makes no

claims to scientific rigor. The sample was selected for research convenience to evaluate the maximum impact of CHIPPS. Facilities were selected on basis of interview team schedules and the location of officials who had had CHIPPS training programs.

Interviews were designed mainly to tap respondents' judgements about the effectiveness of training programs. However, these judgements were often checked by reviewing documents and by some hard data evidence, as available.

The financial analysis was based on the financial team's field visit to each province to gain historical cost data by reviewing both the original budgeted funding and the expenditures for receipts. This study found that usually official expenditures were the same as original budgets regardless of the actual implementation of project activities. The historic costs were determined for the marginal increase in routine costs implied by the project and assumed the recurring availability of funds for current salaries and other routine expenses that would have been incurred regardless of CHIPPS activities.

The historic cost estimates were then used as a basis for projecting future costs for sustaining the activities in the CHIPPS provinces after the end of the project, and for replicating these activities in other provinces or on a national scale. These projections were based on a variety of assumptions that are specified in the financial study reports.

The following sections give details of the findings from the survey and financial evaluation for each of the seven activities reviewed.

3. Information Systems, Data Management and Epidemiological Training

Central to the CHIPPS program was the development of provincial and local level capabilities to identify problems, initiate specific activities to resolve those problems and monitor and evaluate the implementation of those activities. This process was initially called the "epidemiological approach", or more recently the "problem solving approach". This approach assisted in the development of provincial, kabupaten and puskesmas skills for identifying problems, selecting priority areas for interventions, developing activities to resolve those problems, and monitoring and evaluating the interventions. Using these skills provincial and local officials implemented many of the other interventions that are evaluated in this report, as well as numerous other activities that we were not able to evaluate here.

Two of the major activities evaluated in this final evaluation were directly related to this central CHIPPS approach: the MONEV Posyandu system and the training programs in data management and epidemiology. These activities helped develop skills in problem identification and in monitoring and evaluation. Both activities emerged themselves from the problem solving approach. MONEV was initiated in part as a response to the inconsistent reporting from the posyandu levels. The data management and epidemiological training programs were means to enhance problem solving skills at various levels after the initial epidemiological studies implemented in the early years of the project.

a. Data Management and Epidemiological Training

Central to the CHIPPS approach was the emphasis on the use of data for problem identification, problem solving and program monitoring and evaluation. In all three provinces, CHIPPS sponsored special training programs to strengthen the capacity of health officials to utilize data in their daily work. In all provinces skills in routine data management were emphasized. In Aceh and NTT this training also involved skills in survey methods.

The core of the training emphasized the "epidemiological" approach which focused on techniques necessary for:

- the collection, recording, reporting of data;
- means of analyzing data to identify problems and develop solutions; and
- using data to monitor and evaluate program implementation.

Training was normally two weeks in duration and began as early as 1983 (in Aceh). Most of the training involved the use of the participants' own data.

In all provinces over 80 % felt that the training was useful for the utilization of data in their health units and that the epidemiological approach was being used in decision-making. It was specifically used for problem identification, and problem solving in routine meetings (with the exception of Aceh where only 48% were using data for problem solving).

Overall the participants were satisfied with the content, material and methodology of the training itself. Those who had had other epidemiological training tended to find that CHIPPS training to have better material and methodology and that the techniques for data collection, problem identification and data analysis were more appropriate than the other courses.

In open-ended questions in which respondents were asked to give specific examples of the uses they had made of the training all were able to give appropriate responses showing that they were using methods from the training for planning, target setting, supervision and monitoring, as well as for task analysis and description. These responses were generally well supported by a review of available documents.

Suggestions for improvement included providing simple statistical analysis in the course, training for other levels of health officials, and refresher training.

Overall, this training was seen as having been extremely effective.

Costs: Our prospective cost analysis estimated that sustaining or replicating data management training programs would cost approximately Rp. 45 - 50,000 per person per day.

b. MONEV Posyandu

MONEV is a health information system designed to improve reporting at the Posyandu level so as to give kader and community more accurate and useful ways of identifying community health status, motivating outreach activities to assure coverage of specific target groups (children under 5, pregnant women, eligible couples). It also provides monitoring information for health officials at the puskesmas, kabupaten and provincial levels so that planning and supervision can be more effectively implemented. It is based on the PKK kader reporting forms and also assists in reporting through the DEPKES Integrated Health Information System -- the LBS form that is filled in at the Puskesmas level. It uses two basic forms: the three colorful coverage posters (DIS) which list each child, pregnant woman and eligible couple and notes appropriate data (immunizations, weighing, prenatal visits, contraceptive use) and prominently displays them on posyandu walls; and the reporting form to the Puskesmas which provides a means of calculating monthly coverage.

Unusual features that make this system potentially more effective than most other information systems in the country include: 1) coverage based (or status based) data; 2) rapid means of analyzing problems; 3) rapid feedback mechanisms to all levels. The system provides an easy means for kader to identify actual coverage levels in the community, rather than the traditional output measures of the health services. The use of coverage data shows clearly how many children must be immunized, etc. in any given month. It is based on a relatively accurate house to house census (which the kader in theory are responsible for in their PKK activities) rather than the DEPKES population estimates based on national inter-census reporting.

Because the data is based on actual month-to-month coverage, the system allows supervisors to determine the effectiveness of monthly activities in reaching target groups. The existing system reports cumulative process toward target estimates over the year, but does not measure monthly achievement of actual target groups.

The system allows provincial and kabupaten officials to compare coverage from each puskesmas to assist in identifying problem areas and to develop responsive plans of action. Through supervision, routine meetings and reports each level receives monthly feedback on how well they are doing in respect to targets and in comparison to other units.

The MONEV activities involved 1) design and provision of the two forms (DIS and Reporting Forms); 2) training of kabupaten and puskesmas doctors and some staff who in turn were responsible for training kader; 3) in Sumbar, the provision of computers at kabupaten level.

MONEV was initiated in two of the three provinces: Sumbar and Aceh. In Aceh the program was only recently initiated and therefore many of our findings reflect the start-up situation. In Sumbar, where the program was implemented for over a year and a half, we have clearer evidence of the impact and effectiveness of the program.

Comparing the situation in both provinces we see that 90% of the posyandu in Sumbar were using MONEV while only 30% in Aceh had initiated the system. While the system in Aceh did not have time to demonstrate impact on several key dimensions, we did see in Sumbar that the system was almost universally perceived as effective. One measure of success was that it appears to have assisted in improving the general LBS reporting. With kader providing MONEV information more consistently than they had been providing the data necessary for LBS, it appears that the Puskesmas were now more reliably sending in the LBS reports. The MONEV was also seen as producing useful feedback to the puskesmas and posyandu levels. Even though MONEV implied some extra work for kaders and for puskesmas staff, it was perceived by respondents as being worth the extra effort; in other words, in terms of their time it was seen as cost-effective. In addition, respondents in Sumbar felt that the kader had sufficient skills to fill in the coverage list (DIS), while in Aceh, where the kader were just learning how to use the forms, the respondents were more skeptical.

In both provinces, respondents were satisfied with the MONEV training and thought that MONEV was useful for achieving Posyandu goals. Respondents felt that MONEV was particularly effective for identifying outreach targets to increase coverage.

One difference was observed in the implementation of the program in the two provinces. In Aceh the tendency was for the kader to fill out the coverage posters (DIS) alone, while in Sumbar the puskesmas staff more often worked with the kader in filling out the forms. We have been informed that Aceh now is changing its procedures to encourage more combined efforts. This interaction will assist kader in properly filling in the forms and will likely encourage greater motivation in achieving targets. We find in other systems what frequent interactions between village volunteers and health staff encourages volunteer motivation as well as improving skills and accuracy of reporting.

We found also that the information used for filling out the forms tended to be the PKK activities involving the household census for the 10 household groups -- suggesting that MONEV is complementary to the other village activities of the kader.

General observations at all levels in Sumbar found high levels of motivation and very positive evaluation of the MONEV program. It seemed clear that those who used the system saw its utility for their own work as well as their supervisors -- an unusual situation for MIS systems in Indonesia in general. Kader found the system immediately useful for their own community work. It appears to have put the information that they were supposed to be gathering for PKK into a form that was immediately useful for their activities -- encouraging them to perform activities that previously had been left undone. The health officials also found that MONEV as a monitoring tool was useful for routine meetings and for identifying problems in a timely fashion. The feedback mechanism appears to also have been appreciated.

In Aceh there was more skepticism about the program. We think most of this skepticism is due to the normal process of initiating new activities and is likely to disappear as the program becomes fully implemented. However, observers suggested caution in two areas. The education levels of kader may be lower in Aceh than in Sumbar (although we have obtained no comparative evidence on this point) which

might make it more difficult for kader to fill out the DIS without assistance. Secondly, the Aceh MONEV forms may be slightly more complicated to fill out (since they list children's ages by month) suggesting a review of the forms might be useful after six months of implementation to see if the greater complexity is still a problem.

Costs: MONEV had a reputation as an extremely expensive program that would be difficult to sustain in Sumbar and Aceh, and impossible to replicate in provinces that did not have the benefit of CHIPPS funding. However, our cost analysis showed that MONEV was a reasonably priced program that could be sustained or replicated for approximately Rp. 3,900 per posyandu per year.

4. Nursing Field Training and Relawan

The second major CHIPPS focus was on nurses -- both field training activities and the use of graduates in an innovative program to promote posyandu activities, called Relawan.

a. Field Training

Field practice was introduced to Nursing School curriculum in the three CHIPPS provinces in order to provide a means of improving nurses' capabilities in community service. Prior to the field practice most of the curriculum had emphasized traditional curative practice. The program was initiated after several evaluations of the nursing curriculum had been implemented by Pusdiklat. In one province NTT, the field practice was actually started before CHIPPS but was maintained and strengthened by CHIPPS from 1983 to 1987, after which the program was supported by internal funding.

The center of the program was the establishment in 1982/3 of field practice component in the third year of the curriculum in SPK of all three provinces. This component was generally for two months, although it varied from 45 days to three months during some years. Throughout this period in the field nursing students would live in the communities. Usually their instructors would also live in the communities on a two week rotation, although shortage of staff in NTT meant that instructors rotated on a daily basis.

The students would begin the field practice with a house to house census to identify problems and select priorities to discuss with the community. They then would plan activities with the community and assist in implementation.

In all three provinces the field training was judged by SPK directors, teachers, students and Depkes staff to be an important experience which provided relevant skills for the nurses' future work in the community. Only in NTT where the field practice had been in operation before CHIPPS provided support did the respondents see no significant improvement from before the CHIPPS field training. Almost all the respondents thought that the experience was worth the extra expense and effort.

The respondents found the program particularly useful in developing skills for working in the community or puskesmas levels and for supplementing the curriculum with

practical real-life cases. They identified several constraints involving the interaction between the training program and the health officials at the Puskesmas level and with community leaders. Others noted transportation and funding problems.

Suggestions for improvements included: an exchange of information and students among different SPK schools in each province, better preparation before field practice, longer period in the field, and more involvement with local health staff.

Since field practice has been adopted as a national policy, observations on the sustainability of the program in the CHIPPS provinces is particularly pertinent.

In general the respondents thought that the program would have to be modified in three ways that might affect the impact and effectiveness of the program. Many thought that the period for field practice would have to be shortened from 60 days. Others were planning to select locations closer to the schools and to decrease supervisory visits by the field instructors. Most thought that such modifications would weaken the program. Shorter field practice would not allow sufficient time for the full process from data collection to implementation – especially in NTT where some respondents felt that there was insufficient time even in the current program. Choosing locations close to the school would make it easier for students to leave the communities during the training and would not give sufficient experience in remote areas where problems may be more acute. Supervision by field instructors was seen as crucial to the effectiveness of the program and better results were felt to come from continuous presence of instructors.

The financial plans for sustaining the program included charging additional fees from parents (either through direct fee or through transferring responsibility for food and transportation costs to the parents). Another option was gaining support from local governments. Indeed, during the evaluation two governors pledged to provide support in the next year's budget if no other sources could be found. Finally, support from other donors, in particular the Australian government, would be sought. While none expected to gain additional funding from the routine Depkes budgets, several respondents thought that funds for other SPK activities might be diverted to maintain this priority program.

Costs: We estimated that the costs to sustain or replicate the two month field training program would cost approximately Rp. 67,000 per student per month. If the program was shortened to 45 days, as some officials suggested was planned, our cost analysis suggested that little would be saved. The cost of a 45 day program would save less than Rp. 5,000 per student per month.

b. Relawan

The Relawan program grew out of two problems faced by the health officials in Sumbar and Aceh. First they were faced with a large number of nursing school graduates who were unable to find official government positions the first year after graduation. Secondly, there was a new national policy emphasis that had selected Sumbar as one of several provinces to accelerate the creation of Posyandu and called on all other provinces to improve posyandu performance. The relawan program was seen as a

means to address both problems. NTT did not develop a relawan program in part because they did not have a nursing student surplus.

In both provinces, the relawan program involved a short (five day) training period for graduate nurses to prepare them to work specifically at the posyandu level. It also provided Rp.45,000 per month to defray transportation costs. This incentive was, however, greater than the usual salary for nurses in the field. The relawan were promised priority selection for the following year staff openings in health facilities.

The particular innovation of this program is that it placed nurses primarily at the community level with responsibility for creating and/or supporting posyandu. Other nurses work primarily in the health facilities (puskesmas and puskesmas pembantu, or hospitals) and only secondarily participate in posyandu. Many relawan were assigned to work in the more remote areas where it was difficult for puskesmas staff to provide support for the communities.

There were two differences in the ways the two provinces implemented the program. Since Sumbar was an "accelerated" province, a major task for relawan was the creation of new posyandu, while Aceh emphasized the improvement of existing posyandu. Secondly, while Sumbar placed its relawan primarily directly in the villages (often remote villages far from puskesmas), Aceh tended to place them in puskesmas or puskesmas pembantu to serve the nearby communities.

Our sample of respondents found that, compared to other health staff with more experience in the field, relawan were more effective in performing their major tasks of community organizing and posyandu improvement, however, the relawan were not any better at diagnosis or treatment of illness.

We did find evidence that the posyandu that were created or supported by relawan in Sumbar were more effective than those without relawan in maintaining weight and immunization coverages.

On the negative side, some respondents expressed concern that jealousy over the higher income from the transportation stipend was creating a problem among other nurses. Others were concerned that relawan not be placed in hospitals after their service (as they were in the first year) since they were better trained for preventive and community activities.

In Pesisir Selatan, an innovative kabupaten in Sumbar, we found an unusual experiment in the use of relawan that allowed them to charge an additional Rp.700 to 1200 for providing treatment and drugs directly to the community (in addition to the usual Rp.300 charged at puskesmas for similar services).

These charges provided a relatively high income for each nurse and brought an additional 15% income to the puskesmas. Relawan were seeing approximately 2-3 patients a day, in addition to their primary activities at posyandu. Since there was no discernable change in attendance at the puskesmas, most of these patients probably would have been lost to the health system.

epidemiological approach displayed the most rational drug need based on reported disease patterns and the standard therapies for those diseases. The consumption approach showed how to better estimate actual utilization and to account for stock-outs and lead time in planning. Comparison of both methods would show how "irrational" the current utilization pattern was and provide a basis for incrementally shifting drug orders toward the more rational standards.

The training program also provided techniques to improve drug distribution, inventories and storage practices.

In general the participants in the drug management training programs felt that there was improvement in drug provisions in their units after the training program, although about one quarter of those at puskesmas level still thought that there had been no improvement. Those participants who had used their own data during training (87%) were particularly satisfied with the training. Some improvement in drug supplies was reported to have occurred after the training. In particular, we found that after the training provincial and kabupaten levels were less likely to provide unrequested drugs and more likely to provide the full drug order of the lower units than they were before the training. Almost all facilities had stock recording forms at the time of the interviews. Respondents had several suggestions for improving the training process by providing refresher training, greater use of own data, longer training sessions, and more follow-up by superiors.

In all provinces the respondents thought that planning methods had shifted from the traditional methods -- e.g. previous year's order plus 10% -- to the more complex methods that were taught in the training program: the epidemiological and consumption approach. We found that almost all our respondents were still involved in health planning and that the trained drug staff was not excluded from the process.

However, when we asked respondents to demonstrate how they use the two new methods (epidemiological and consumption approaches) to plan a drug order for chloroquine, we found some weakness in knowledge and skill. Many of the thirty one respondents did not attempt to answer the question, even though they had said that they used the methods in their own drug ordering processes. Of those officials who did attempt an answer, only three were able to give the correct answer.

We also found that the availability and utilization of standard therapy manuals and of guidelines for drug planning was limited. In general only half of the respondents had standard therapy manuals available in the health facility. The manuals and guidelines were least available at the puskesmas level where they are most needed to induce changes in prescribing practices.

In an attempt to determine whether there was significant improvement of prescribing practices, we examined records of the last 20 cases of diarrhea and common cold that were recorded at each puskesmas in the sample. We found little evidence that prescribing practices were following the standard therapies. In general antibiotics were still over-prescribed in both cases and oralite appears to have been under-prescribed for diarrhea.

Our evaluation shows that the participants felt that the training process had been effective and that there had been a perception of change toward better planning and management of drug supply. However, it is not clear that this training had a significant impact on actual planning techniques or prescribing practices. It is likely that drug management is such a complex process, dependent on changes that must occur at various levels and with various techniques that drug management training alone should not have been expected to demonstrate a significant impact in a short time period. Our study suggests that, as an initial step, additional efforts to provide manuals and guidance, especially at the puskesmas level, should be made and future training should involve a system of follow-up by superiors.

Costs: The drug management training program was implemented with considerable variability in each province. The amount of domestic and external consultant support, the numbers of officials trained, the amount of transportation necessary all varied considerably. Therefore, cost estimates ranged from Rp. 23,900 per person per day in NTT to 54,900 in Sumbar.

6. Organizational Effectiveness and Report Writing

Two separate training programs, one in organizational effectiveness and the other in report writing were initiated to strengthen administration of health programs in the CHIPPS provinces. Organizational effectiveness was implemented in Aceh and NTT, while report writing training occurred in all three provinces.

a. Organizational Effectiveness

The objective of this program was to improve management ability by developing skills of health officials in identifying problems of organizational effectiveness and developing strategies for resolving these problems. This program was designed especially to improve the management of programs that involved the Kanwil and Dinas or the Kandep and Dinas where both the Ministry of Health and the provincial or district governments shared responsibilities for implementing health programs. Central to the training was analysis of roles and tasks, improving superior-subordinate relations, enhancing inter-departmental cooperation.

In Aceh, the program trained 155 people from province and kabupaten levels in five separate five-day training sessions from 1987 to 1989. In NTT one session in 1986 trained 15 people from the province level only.

In general the respondents to our survey found the training to be useful. 80% in Aceh and 67% in NTT felt that they had been able to implement follow-up activities resulting from the training. Over 70% in both provinces felt that inter-program cooperation had been improved by the training. Almost all felt that the training would be useful for officials at lower levels.

In open-ended responses the respondents felt that the training had been particularly useful in developing clear task assignments for subordinates, strengthening work discipline, and developing better working relationships among implementing units --

especially between Dinas and Kanwil and between Dinas and Kandep. The respondents felt that major constraints that inhibited implementation of the skills they had learned were 1) misunderstanding and jealousy from officials and units that had not participated in the training, 2) lack of support from superiors, 3) lack of human resources, materials and funds to implement activities that were part of the training, and 4) low motivation of many staff members.

Suggestions for improving the course included: the use of more practical materials in problem-solving exercises, more capable facilitators, more suitable indicators for evaluation of the training, and greater follow-up and feed-back by superiors.

Costs. This program was estimated to cost between Rp. 40,900 and 55,600 per person per day to replicate or sustain

b. Report Writing

It was felt that improved skills in report writing would assist in the management of program activities and strengthen analytical skills in the use and presentation of data.

The program involved a five day workshop in each province in 1987. Participants learned general approaches to report writing (outlines, systematic presentation, brevity, timeliness) and practiced on examples of their own previous reports. In Aceh and Sumbar the training involved department heads at the province level, while in NTT only the staff was trained. A total of 30 people were trained.

Most of the respondents found that the training was useful in helping them write good reports -- systematic, clear, brief and logical -- they also felt that the quality of the reports of others had improved. In Aceh and NTT respondents tended to feel that the training had improved the frequency and timeliness of reports. (In Sumbar, frequency and timeliness was not emphasized in the training.)

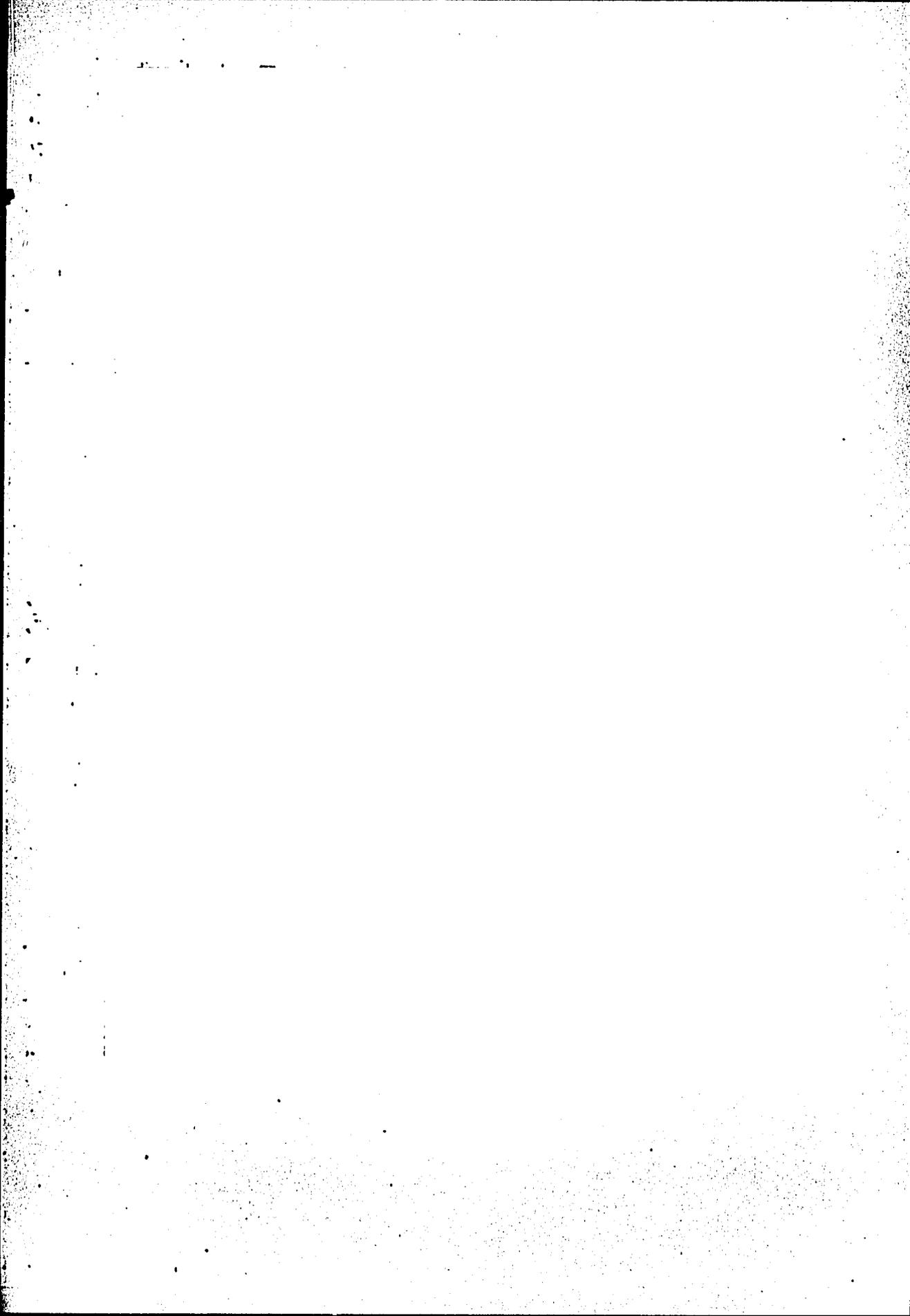
When asked to describe the key elements of good report writing, almost 70% could still identify this content of the course. Almost all reported constraints on effective report writing -- including lack of data, lack of motivation, delays from subordinates, and lack of understanding of superiors.

Suggestions for improvements emphasized the need to focus on practical cases and more follow-up and refresher courses. A key recommendation was that other levels be given similar training and that superiors be taught "How to Read a Report" and give feedback.

Costs: To sustain or replicate this program our estimates varied from Rp. 89,000 per person per day in Aceh to Rp. 106,000 in NTT.

B. Inter-Province Comparisons

To follow up on the survey and financial analysis we prepared three indicative evaluations of potential impact of CHIPPS on health planning, service delivery, and



showed a 100% improvement in attendance at deliveries over the five years, while the control provinces showed only a 31% to 48% improvement. For indicators of family planning and prenatal care, however, there was no clear trend.

We also evaluated the proportional use of oralite for diarrhea cases in 1987 (there were no figures for before CHIPPS) and found the CHIPPS provinces again to have higher rates of utilization than the control provinces.

3. Drug Ordering

We attempted to evaluate the rate of improvement of CHIPPS provinces in drug ordering, expecting that drug management training would result in a decline in the provincial drug orders for anti-biotics. Our data was incomplete, because only two of the three drug ordering lists are routinely collected at the national level. Our findings, with only 80% of the total estimated drug orders, did not find significant trends that would support or reject our hypothesis.

4. Conclusions of Inter-Province Comparisons

For the comparisons where we had sufficient data to compare CHIPPS provinces to control provinces, the general trends were suggestive of a greater improvement of health planning and service delivery performance in CHIPPS provinces. While there may be a variety of explanations for these findings, they suggest that CHIPPS was a major influence on these improvements.

V. RECOMMENDATIONS OF FINAL PROCESS DOCUMENTATION SEMINAR

This section is a translation of the final recommendations adopted by the Process Documentation Seminar -- June 1989.

A. Overview

Based on the review of the evaluation results of CHIPPS the seminar approved a set of recommendations for each of the areas of investigation. These recommendations

- the on-going problem,
- the recommended activities to resolve the problem,
- the current policies and needs for policy modification when necessary, and
- the conditions necessary for implementing the recommendations.

The following is a summary of these recommendations.

B. Recommendations for Improving Information Systems

Ongoing problems of the current information system (SP2TP) include:

- the lack of knowledge and skills in collecting, processing and utilization of data by health officials;
- lack of information on the real targets of Posyandu program, especially the information necessary for monitoring monthly status as a management tool at all levels.

1. The seminar recommends:

National program of epidemiological and data management training involving a program of regional training of provincial training teams, training of kabupaten training teams, and a curriculum for pre-service training.

Current policy favors this recommendation and does not need modification.

Conditions necessary for implementation:

- a) commitment of Echelon I
- b) development of training materials
- c) budget for training

- d) cooperation between DEPKES and Ministry of Education for Medical School curriculum

2. The Seminar Recommends:

National development of a new monitoring tool to be added to the current system (SP2TP) and integrated with PKK to monitor status and condition of the targets of Posyandu program.

Current policy would have to be modified to focus on monitoring real status of target groups.

Conditions necessary for implementation:

- a) Director General of Community Medicine should issue new policy statement
- b) Development of agreement among DEPKES, PKK, BKKBN on forms
- c) Budgetary support for printing forms and for initial orientation in each province to be sought from local government.

C. Recommendations for Organizational Effectiveness and Organizational Development

Continuing need for management training integrated into current training system.

1. This Seminar Recommends:

Continue and expand the CHIPPS-developed Organizational Effectiveness/Organizational Development training activities and integrate them into the current in-service training programs of Pustiklat.

Make better use of existing Health Management Trainers already in provinces.

This recommendation requires no modification of current policy.

Conditions necessary for implementation:

- a) Commitment to improve kabupaten management
- b) Use of existing training modules
- c) use of existing Health Management Trainers

D. Recommendations for Drug Management

The CHIPPS drug management program had some effect on improving ability and motivation of drug managers but because it was narrowly focused it was insufficient for addressing the prescribing and supply problems.

1. This Seminar Recommends:

Sustain and replicate the drug management training, especially for Kabupaten level

Current policy need not be modified.

Conditions necessary for implementation:

- a) Publish Implementing Guidelines
- b) Develop drug management trainers at Pusat level
- c) Budgetary support for training

2. This Seminar Recommends:

Improved utilization of Standard Therapies

Standard Therapy is already national policy.

Conditions necessary for implementation:

- a) Implementing Guidelines
- b) Budget
- c) Compliance of Drug Prescribers

3. This Seminar Recommends:

I.E.C. for Rational Drug Use for Providers and Patients

Conditions necessary for implementation:

- a) Implementing Guidelines
- b) Facilitators
- c) Media

4. This Seminar Recommends:

Improvement of SP2TP forms for reporting drug use

Need policy to revise SP2TP forms

Conditions necessary for implementation:

- a) support of related programs
- b) trained human resources
- c) draft revisions

5. This Seminar Recommends:

Placement of Pharmacy Assistants at Puskesmas level

This is current policy.

Conditions necessary for implementation:

- a) need official positions (formasi)

E. Recommendations for SPK Field Practice and Use of Nurses in Remote Areas

Current problems:

Health system needs to emphasize the community diagnosis approach.

Health services in remote areas is insufficient

Recent nursing graduates remain unemployed for at least a year due to delay in hiring process and continued surplus production of nurses.

1. This Seminar Recommends:

National implementation of two month field practice that emphasizes community diagnosis approach:

- integrated with puskesmas and local government
- with active role of teachers in the field
- coordinated and evaluated by Kanwil

Current field practice policy is directed toward individual and family practice rather than community diagnosis and is only for one month.

Conditions necessary for implementation:

- a) Change national policy to emphasize community diagnosis and two months
- b) sufficient teachers with skills in community diagnosis
- c) Puskesmas doctors and staff need training in community diagnosis approach
- d) local government and parents assume part responsibility for funding program (@ Rp. 38,000 per student per two month period)
- e) Kanwil assume responsibility for coordination and evaluation

2. This Seminar Recommends:

National program to place recent nursing graduates in remote communities.

- the communities should support the nurses through a social financing mechanism, not fee for service.
- nurses should be permitted to provide simple treatment.

There is currently no national policy on unemployed recent nursing graduates. Current policy for community level positions is only for midwives.

Conditions necessary for implementation:

- a) Change in national policy through Implementing Guidelines to allow placement of graduates and practice of simple treatment
- b) community interest and active involvement
- c) sufficient resources and ability for social insurance

F. Recommendations for Management of Foreign Assistance Projects

CHIPPS experience suggests need to improve:

- a) program management at Pusat level
- b) decentralization of project to kabupaten level
- c) financing mechanisms
- d) flexibility in funding
- e) more responsiveness to province needs

Condition necessary for implementation:

a) need Implementing Guidelines

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CHIPPS BUDGETING STUDY

GROUP REPORT

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JAKARTA, JUNE 1989

Best Available Document

I. INTRODUCTION

I.1. Background of Project

Proyek Peningkatan Pembangunan Kesehatan Terpadu Propinsi I (P2KTPI) or better known as CHIPPS (Comprehensive Health Improvement Program Province Specific) provides funds to support various interventions especially in the fields of training, managerial development and disease prevention.

The proyek is a USAID Aid Project, which was officially started in 1981 and was planned to end in June 1989, at a value of US\$ 11 million consisting of loan amounting to US\$ 4.2 million and a grant of US\$ 6.8 million. Besides this, the government of Indonesia also provides a counter funds of US\$ 9 million.

As preliminary step towards evaluation, a workshop was held at Ciloto from 12 to 14 January 1989, when it was decided that the final evaluation on CHIPPS would be divided into 3 groups, i.e. the Budgeting Group, Education and Training and Health Information System/Management Information (HIS/MIS). The programs agreed to be evaluated were as follows:

1. STK Field Training
2. Comprehensive Health Service volunteers
3. Comprehensive Health Service (Posyandu) Monev.
4. Epidemiologic training
5. Drug Management Training
6. Organization Effectivity Training
7. Report Writing Training

It was also agreed that the consideration point of this evaluation would be more oriented to the future (prospective) rather than looking back (retrospective). The aim is not to look at what has happened in the past, but focussed more on what programs would be more appropriate to sustain or to replicate, how much funds would be needed to do so and where would the source of the funds be.

I.2. The purpose of the Evaluation, Methodology & Evaluation Team

A. The purpose of the Evaluation

As stated above, the principal purpose of the evaluation is

more prospective in nature. The principal emphasis for future CHIPPS projects is on sustainability and replicability. For this purpose that which should be sustained/replicated is none other than the basic concept of the program, because there are also specific inputs which will not be obtainable anymore when the project ends, for instance the existence of Long Term Consultants (LTD). In order to come to a decision whether a program is sustainable or replicable, the decision makers need to have adequate information to prove that the program is indeed sustainable/replicable and how much funds are needed for this purpose. Calculations of unit cost may assist the decision makers in deciding whether a program is sustainable/replicable, by comparing the cost of implementing the program with the benefits obtained from the program (which will be apparent from the evaluation results of Group 2 dan Group 3.) Besides this, information on future sources of funds will also be very useful for the decision makers.

The purpose of evaluation of the Budgeting Group, is described briefly as follows:

1. To calculate the historical unit cost.
2. To calculate prospective unit cost. for sustaining aswell as replicating the program.
3. Carrying out financing resources analysis, with the emphasis on future sources of funds.
4. Analysis of disbursement problems)

E. Methodology

1. Preparatory phase

In the Workshop at Ciloto in January 1989, a Terms of Reference which would become the starting point for future evaluations, was compiled. Also the workshop has succeeded in compiling the instruments needed for research.

After that a pretest was carried out from 17 to 21 January 1989 di the Province of Aceh, selecting the SPK Field Training Program as an example. After the pretest a meeting was held

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on 25 January 1989 to discuss the results of the pretest and to plan future steps.

On 7 February a meeting was held for the purpose of compiling the Guide to the Implementation of this study, which contained the framework of the report, the schedule of activities and the instruments. On 11 February a meeting was held between Group I and Groups II and III at the Directorate General of Community Health Development (DinkesMas). In the meeting which was attended among others by the Director General of DinkesMas, the USAID, the steering committee and dr. R. Soebekti as the Central LTD, a representation was made and a question and answer session held on the methods of the implementation of field surveys and the methodology of evaluation study as a whole

2. Implementation of Field Surveys

The schedule of field visit was as follows:

The Special District of Aceh	13 February - e March 1989
West Sumatera	13 March - 23 March 1989
East Nusatenggara (NTT)	28 March - 6 April 1989

At each province the Team reported to the local Head of the Regional Office, followed by a discussion about the programs existing in the province with those responsible for the programs and the local LTC.

Then followed by a meeting with the data collectors (the materials needed were already sent to them in advance). Based on the meetings, schedules of visit at Provincial, Kabupaten as well as direct to the locations, were compiled

Besides making field visits, the evaluation teams also held interviews with officials of the Department of Health, the USAID as well as with other parties connected with the programs evaluated.

3. Calculations of Unit Cost

Historical Unit Cost

The unit cost was obtained by dividing the total cost by the outputs.. Calculations of the program's implementation cost were based on direct cost contained in the realization of expenses,

which originated from the State Budget, the Regional Budget, PII as well as other sources (for instance contributions from parents of students in the SPK Field Training). Also included in the calculations were the indirect costs identified with a specific activity (for instance the fee for a consultant such as Annie Voight in the SPK Field Training, the cost of computer for MONEV and drug management). The data on the realization were taken from the SPJ (Surat Pertanggung Jawaban - Document of Accounting) if the funds originated from the project funds. For sources of funds from outside the project, the data used was based on interviews

Measuring of the outputs for each program was calculated as follows:

- SPK Field Training: in student-month trained.
 - Comprehensive Service volunteers: in volunteers per month.
 - Comprehensive service Monev: per Comprehensive Health Service (Posyandu).
4. Epidemiologic training, Drug Management, effectivity of organization and Report Writing: per participant per day.

Prospective Unit Cost.

Before coming to the prospective unit cost, redefinition of future activities were done by using the Reasoning by Analogy method, in which brain storming with those responsible was carried out, among others with the LTC of each province, the project Officers, and the members of Groups II and III carrying out the technical evaluation of the program.

Based on the brainstorming, definitions were made on what activities were to be carried out in the future, to sustain or to replicate, who was to be involved, how long and where would the activities be carried out. After that calculations of prospective costs were made by using the unit cost of official travelling expenses in country based on the Decision of the Minister of Finance No. S-217/MK.03/1989 and the unit cost of training used by the Department of Health in the compilation of DIP 1989/1990.

Measurement of inputs was the same as in the historical unit cost.

4. Assumptions Used

The basic assumptions used were that each program/activity could be considered a marginal addition to existing programs. For instance, the SPK Field Training was an additional activity to the nursing main educational activity or MONEV was a system of data collecting and evaluation besides existing systems. As a result of this approach, the concept of cost used was a concept of marginal cost, i.e. how much additional costs had occurred (for historical cost) or future additional costs (for sustaining cost) for carrying out certain activities with the assumption that the principal activities had been going on using existing systems.

This meant that we did not consider existing overhead, for example the use of the office buildings (which indeed already existed), and no additional costs occurred if the activity was carried out. The assumption not to include the civil servants' salaries in the cost analysis seemed quite reasonable considering that the activities of CHIPPS project could still be "lodged with" other routine activities. However, the assumption of not to include the LTC cost theoretically was rather weak because their existence constituted additional use of the funds especially allocated for this project. The assumption not to include the cost for procurement of LTC was based more on practical reasons. In practice, it would be difficult to include the LTC cost because: First, the ^{high} cost for procurement of LTC's was closely connected with the ability of the donors and for Indonesia this did not reflect the actual cost (it was difficult to estimate the "market price" of LTC). Second, it was difficult to allocate the LTC cost to a certain activity, because there was no record of the use of the LTC time for the implementation of the activities. For this reason, the cost for the procurement of LTC was considered an overhead which was not calculated in the unit cost calculations. This was more realistic when it was time to calculate prospective costs, when it was assumed that no LTC would be used.

Treatment of the capital cost was done by multiplying the capital cost with the Capital Recovery Factor to obtain annualised cost. The rate of interest used was the actual rate of interest,

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i.e. market interest rate less rate of inflation.

Treatment of inflation:

In theory, prices should be adjusted to the rate of inflation in order to obtain the actual price. However, in practice, the prices showed a tendency to decrease. For this reason, it was assumed not to make any adjustment to historical cost by using the rate of inflation. For prospective cost calculations, the basis was the 1988/89 prices and considering the future inflation factor (for instance by using the 1989/90 lumpsum standards).

Prices quoted in American Dollars were converted to rupiahs using the exchange rate used in the documents concerned, if any. If the exchange rate was not included, then half year average rate of exchange was used.

5. Notes on Historical Cost

At the beginning it was assumed that the most reliable and detailed information on the use of CHIPPS funds could be obtained from the SPJ. This matter was also discussed at Ciloto where it was decided to use SPJ as basis for calculating the unit cost. Compared to the Operational Guide (PO) it was assumed that SPJ would provide more details on the realization of expenditure compared to PO which was more in nature of Plan for expenditure. Besides this, SPJ would also provide further information on inputs by observing the proofs/receipts accompanying it.

However, after some observations in the field, a rather different picture emerged. First, if the physical activity carried out was according to plan, usually the SPJ was exactly the same as those contained in the PO

The SPJ and the PO will usually not be equal if the activities carried out are not according to plan. For example, after the announcement of the Development Budget Balance (SIP) cancellation regulation, resulted in the unused balance of the budget for Field Training in Aceh for the 1985/86 financial year, after the month of March 1986 was passed, being entered into the 1986/87 budget.

In this case, the SPJ was smaller than the PO. This also occurred in West Sumatra for the same activities; the balance of the funds was "finished" in the following year, with the result that the unit cost during that year was increased.

Secondly, PO as well as SPJ apparently did not reflect the actual amount of funds needed for each activity. There often occurred expenditures that were not included in the budget, covering "unforeseen" expenditures (such as expenditures for village heads, district heads, Puskesmas staff members etc.) whose assistance was directly useful for an activity. Thus the figures in the receipts very often did not reflect the actual inputs. However, if those non-budgeter expenditures had had to be, the amounts might come nearer to those actually needed for carrying out a certain activity.

Thirdly, the information on the physical inputs in the SPJ may not coincide with the actual situation. For example, in the SPJ a certain amount was included for a number of students from a certain school, while in actual fact, the number of students participating in field practice was higher than that mentioned in the SPJ. The opposite also occurred; for example, in the State Budget (APBN) - DIF as well as in the PIL budget, the ratio between field supervisors and students was 1 to 10. In actual fact, the input for supervision was below the budgeted amount (in other words, the ratio became higher). One of the SPK leaders stated that the funds saved by cutting down the period of field practice from 60 days to 56 days were adequate for covering the non-budgeter expenses.

Another source of potential error was the existence of more than one source of funds for the same program. For instance, in Kabupaten Solok the 1988 SPK graduates^{wlpo} were assigned to the Puskesmas before they obtained a formation did not get any official honorarium (called "volunteers"). What the doctors did was to "channel" Health Insurance (ASKES) funds or to get the funds from the increase in the cost of treatment to give some pocket money for the SPK graduates. Before the Volunteers program was started. in some regions SPK graduates obtained pocket money in the

amount of around Rp. 33,000 per month before they obtained a formation. Judging from these, there was the chance that we could get a complete picture of the costs.

Taking into consideration all these uncertainties in the reported figures, calculations of the unit cost here contained some inaccurateness. However, if possible, adjustments were also made to correct the distortions in the figures reported. The principle used followed the statement of an English economist, E.J. Mishan: "An approximate measurement of the correct concept is preferable to a precise measurement of the wrong concept".

The unit cost analysis was done according to the type of program, and also by comparing one province to another and periodic comparisons in one province. But we should also realize that we cannot make any conclusion just like that by comparing the figures of one province and those of another, because although the program is of one type, the activities carried out in one province might be different than those of the same program in another province.

C. Composition of the Evaluation Team

The evaluation team was led by Mark Wheeler, Ph.D, a health economist and USAID consultant, and Drs. Budi R. Harsono, consultant of Yayasan Indonesia Sejahtera. Members of the team consisted of Drs. Frijono Ashuri from the Directorate General of Public Health Development (Dinkesmas), dr. M. Hayatie Amal, MPH and Drs. Amak Rochmat of the Bureau of Planning and dr. T. Marwan Nusri, MPH, of the Department of Health Regional Office of Aceh. Participating as an observer was dr. Wistianto of the Health Sector Financing.

II. HISTORICAL COSTS.

II.1. SPK Field Training

The purpose of the field training was to enrich the SPK curriculum by providing practical experience at village level. The side purpose was to contribute to the provision of health service at village level by the founding/reactivating of the Posyandu.

The general form of the field training was level III students and their instructor lived in a selected village for 2 months. During that time they carried out a survey to identify problems that existed in the village, planned the intervention program (usually in the form of guidance/extension) and to implement the problem solving. It was in this form also that the field training was now included in the SPK curriculum nationally (curriculum 1987). Field practice had also been carried out before there was any assistance for the CHIPPS project, was even also carried out by grades I and II students. However, such activity was considered ineffective, because the grades I and II students did not as yet possess enough knowledge as yet to meet the expectations of the village people where they practiced.

The expected outputs were calculated in the student-month trained. The field training contributions to the health development in rural areas such as the founding of Posyandu or cadres could not be calculated because of lack of data.

There were some variations in the holding of field training. For example, in 1988/89 and 1983/84 in Aceh and in 1988/89 in East Nusatenggara, field training was held only for 45 days. Also before there was any assistance for the CHIPPS project, field training was held without living in the village continuously. From the results of interviews with the instructors in the field, it could be concluded that 2 months were the minimum time that should be spent in order to obtain an effective result (this is also reflected in the 1987 curriculum conditions), because communications with the villagers could practically be

done only at night, after they returned home from the ricefields.

The variations found in budgeting were among others the existence of non-budgeter costs and discrepancy in the number of students actually participating in the training, as mentioned above. In a larger scale, the variations that occurred in West Sumatra need to be noted, i.e. during the 1988/89 training year, the project's funds did not cover the students' meal allowance. This was borne by the parents of the students. Also in NTT in 1988/89, no funds were made available from the project, but the Kupang SPK (owned by the Department of Health) continued with the training by using the State Budget routine funds under item "practice"

Variations in the source of funds found in West Sumatra were explicitly prepared for post CHIPPS, in which this was essentially shifting the burden on financing to the parents of the students.

The amount of funds needed for carrying out field training and the unit cost per student per month may be seen in Table II. 1.1. In the table, the figures for the expenditures were obtained from the SFJ which reflected the source of funds to be the project's, and from other expenditures as contained in the table as well as from the results of interviews.

Special District of Aceh

From the table we can see that the unit cost per student per month was high in 1982/83 (Rp. 93.000). This was because of the short time of training (only 45 days) and the process of planning was not yet perfect. If we go on further with the unit cost (see Table II.1.2.), the cost of the students' meals (Rp.56, 250) was high compared to the following years. This was because the living expenses of the instructor were charged to the students' meals item. "Other" costs contained in the SFJ were lodgings, but in actual fact the students (and their instructor) were accommodated in the homes of the villagers without having to pay. Thus the "others" item also contained a supervisory component which was not apparent. In the second year, planning seemed to

Tabel II.1.1. Realisasi Pengeluaran & Volume Kegiatan Praktek Lapangan

Prop./th	Realisasi Pengeluaran	Jumlah Siswa	Jumlah Siswa-Hari	Biaya Satuan/ Siswa/Hari	Biaya Satuan/ Siswa/Bulan	Keterangan
I. ACEH						
1982/83	11.140,000	80	3,600	3,100.00	93,000.00	B.Aceh, Meulaboh
1983/84	11,192,000	80	4,800	2,331.67	69,950.00	B.Aceh, Meulaboh
1984/85 1)	25,149,970	194	9,930	2,532.73	75,991.78	B.Aceh, Meulaboh
1985/86 2)	42,393,993	275	16,560	2,922.34	87,670.26	B.Aceh, Lhotseuawe, Langsa
1986/87 3)	29,249,970	150	9,000	3,250.00	97,499.90	Kesdas, Langsa, Meulaboh, Sigli
1987/88 4)	66,457,120	394	23,640	2,811.21	84,336.45	B.Aceh, Sigli, Langsa, Meulaboh, Muhammadiyah, Kesdas, Lhotseuawe
1988/89 5)	64,381,490	348	20,880	3,083.40	92,502.14	B.Aceh, Kesdas, bastanul Ulue, A.Barat, A.Utara, A.Timur, Pidie Muhammadiyah
II. SUM-BAR						
1982/83	7,139,600	51	3,060	2,333.20	69,996.08	Padang, B.Tinggi
1983/84	15,213,000	80	4,800	3,169.39	95,081.25	Padang, B.Tinggi
1984/85 6)	23,776,630	160	9,600	2,476.73	74,301.57	Padang, B.Tinggi, Kesdas, Yarsi
1985/86 7)	30,859,048	187	11,220	2,750.36	82,510.52	Padang, B.Tinggi, Yarsi
1986/87 8)	70,572,397	400	24,000	2,940.77	88,223.00	Padang, Ranah Kinang, Solot, Yarsi, Kesdas, B.Tinggi
1987/88 9)	45,351,206	300	18,000	2,742.29	62,268.68	Padang, Ranah Kinang, Aisyiah, Kesdas, Solot, Yarsi, B.Tinggi
1988/89 10)	55,982,490	272	16,320	3,430.30	102,906.99	Padang, B.Tinggi, Solot, Yarsi, Kesdas, Ranah Kinang
III. NTT						
1982/83	3,743,000	40	1,800	2,079.44	62,383.33	Kupang
1983/84	4,295,090	45	2,700	2,331.46	69,944.44	Kupang
1984/85 11)	12,427,570	57	4,230	2,937.91	88,137.38	Kucang, Lela
1985/86 12)	20,535,690	100	6,000	3,422.62	102,678.49	Kupang, Ende
1986/87 13)	22,116,130	101	4,545	4,866.04	145,981.06	Larantuka, Mauwera, Wailabusal, Atambua, Waingapu, Kupang
1987/88 14)	15,823,440	176	7,920	2,005.48	60,164.55	Kupang, Atambua, Ende, Mauwera, Larantuka, Wailabusal

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Keterangan:

- 1) Termasuk alokasi biaya konsultan Annie Voight Rp. 1,376,320
 - 2) Termasuk alokasi biaya konsultan Annie Voight Rp. 2,330,198
 - 3) Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan pertemuan guru Rp. 628,980
 - 4) Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490
 - 5) Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan evaluasi Lat.Lap cap Rp. 5.000.000
 - 6) Termasuk alokasi biaya konsultan Annie Voight Rp. 1,376,320
 - 7) Termasuk alokasi biaya konsultan Annie Voight Rp. 2,330,198
 - 8) Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan pertemuan guru Rp. 3,144,900 dan latihan Epi guru SPC Rp. 3,293,007
- Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan konsultan Mary Johnston (YIS) Rp. 1,670,716
- Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan uang saku siswa Rp. 24,480,000
- Termasuk alokasi biaya konsultan Annie Voight Rp. 1,376,320
- Termasuk alokasi biaya konsultan Annie Voight Rp. 2,330,198
- Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490 dan pertemuan guru Rp. 638,640
- Termasuk alokasi biaya konsultan Annie Voight Rp. 3,155,490

Prop./Komponen	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	1987/88	
I. ACEH														
Biaya Makan Siswa	54.250.00	60.18%	45.000.00	64.33%	45.000.00	59.22%	45.000.00	51.33%	45.000.00	46.15%	45.000.00	53.35%	45.000.00	48.65%
Transportasi Siswa	17.500.00	20.97%	17.700.00	25.36%	14.762.89	19.43%	17.753.62	20.25%	20.166.67	20.60%	15.185.28	18.01%	15.000.00	16.22%
Harasuster					4.158.07	5.47%	4.221.37	4.82%	12.614.90	12.94%	4.004.43	4.75%	11.717.66	12.67%
Supervisi	0.00	0.00%	0.00	0.00%	5.763.75	7.59%	12.507.25	14.27%	11.955.00	12.29%	12.441.62	14.75%	13.024.43	14.08%
Lain-lain	17.250.00	10.55%	7.250.00	10.36%	6.297.69	8.29%	8.188.02	9.34%	7.733.33	7.93%	7.705.11	9.14%	7.750.06	8.39%
	93.000.00	100.00%	69.950.00	100.00%	75.981.79	100.00%	87.670.26	100.00%	97.499.90	100.00%	84.336.45	100.00%	92.502.14	100.00%
II. SUN-PAR														
Biaya Makan Siswa	45.000.00	64.29%	7.500.00	7.89%	0.00	0.00%	45.000.00	54.54%	45.000.00	51.01%	45.000.00	54.70%	45.000.00	43.73%
Transportasi Siswa	3.215.69	4.59%	70.000.00	73.62%	70.000.00	94.21%	15.000.00	18.18%	12.000.00	13.60%	15.000.00	18.23%	5.000.00	4.86%
Harasuster					4.301.00	5.79%	6.230.40	7.55%	11.991.75	13.59%	8.043.68	9.70%	5.800.53	5.64%
Supervisi	17.607.84	25.16%	10.705.25	11.26%	0.00	0.00%	11.002.14	14.30%	12.250.00	13.89%	12.250.00	14.89%	28.259.19	27.46%
Lain-lain	4.172.55	5.96%	6.875.00	7.23%	0.00	0.00%	4.478.21	5.43%	6.981.25	7.91%	1.975.00	2.40%	18.819.26	18.32%
	69.996.08	100.00%	95.081.25	100.00%	74.301.00	100.00%	82.510.82	100.00%	88.223.00	100.00%	82.268.68	100.00%	102.908.99	100.00%
III. HIT														
Biaya Makan Siswa	25.500.00	40.08%	46.166.67	66.00%	35.638.30	40.43%	45.000.00	43.83%	39.100.91	61.04%	30.000.00	49.86%		
Transportasi Siswa	0.00	0.00%	0.00	0.00%	0.00	0.00%	21.947.50	21.37%	13.333.33	9.13%	2.907.20	4.83%		
Harasuster					9.761.15	11.07%	11.650.99	11.35%	26.363.69	18.06%	11.952.61	19.07%		
Supervisi	21.600.00	34.62%	12.000.00	17.12%	18.152.48	20.60%	17.000.00	16.63%	2.970.30	2.03%	3.477.27	5.78%		
Lain-lain	15.783.33	24.50%	11.777.78	16.84%	21.585.16	27.89%	7.000.00	6.82%	14.204.62	9.73%	11.077.46	19.66%		
	62.323.33	100.00%	69.944.44	100.00%	88.137.38	100.00%	102.678.49	100.00%	145.981.06	100.00%	60.164.55	100.00%		

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Rekapitulasi Anggaran Biaya Sekolah Per Siswa Per Tahun
 Departemen Pendidikan dan Kebudayaan
 Direktorat Jenderal Pendidikan Dasar dan Menengah
 Direktorat Pembinaan Sekolah Dasar

Pos./Kecamatan	1982/83	%	1983/84	%	1984/85	%	1985/86	%	1986/87	%	1987/88	%	1988/89	%
I. ACES														
Biaya Tetap					1.376.320,00	100,00	2.330.198,00	100,00	3.752.470,00	100,00	3.155.490,00	100,00	2.155.490,00	100,00
Karasuher					1.376.320,00	100,00	2.330.198,00	100,00	3.752.470,00	100,00	3.155.490,00	100,00	2.155.490,00	100,00
Biaya Variabel/Su/Su	53.000,00	100,00	59.750,00	100,00	71.823,72	100,00	83.442,67	100,00	54.985,00	100,00	29.332,02	100,00	59.754,48	100,00
Biaya Makan Siswa	25.250,00	47,55	23.000,00	38,50	25.000,00	34,68	25.000,00	29,97	45.000,00	81,86	25.000,00	85,12	25.000,00	41,85
Transportasi Siswa	8.000,00	15,10	7.750,00	12,97	14.723,72	20,49	17.723,72	21,24	20.000,00	36,38	10.000,00	33,99	15.000,00	25,14
Supervisi	0,00	0,00	0,00	0,00	5.753,75	8,01	12.507,25	15,00	11.765,00	21,23	12.441,62	42,42	13.024,43	21,81
Lain-lain	17.750,00	33,25	7.250,00	12,13	6.223,00	8,65	8.122,00	9,74	7.220,00	13,13	7.765,40	26,45	7.765,05	12,99
Biaya Tetap					1.376.320,00	100,00	2.330.198,00	100,00	3.572.270,00	100,00	4.271.781,00	100,00	3.155.490,00	100,00
Karasuher					1.376.320,00	100,00	2.330.198,00	100,00	3.572.270,00	100,00	4.271.781,00	100,00	3.155.490,00	100,00
Biaya Variabel/Su/Su	49.334,08	100,00	55.051,25	100,00	70.640,00	100,00	78.730,25	100,00	52.531,25	100,00	24.225,00	100,00	57.102,46	100,00
Biaya Makan Siswa	45.000,00	91,24	3.500,00	6,36	0,00	0,00	45.000,00	57,17	45.000,00	85,66	45.000,00	185,53	45.000,00	78,81
Transportasi Siswa	3.000,00	6,08	70.000,00	127,14	70.000,00	100,00	15.000,00	19,01	12.000,00	22,84	15.000,00	61,51	5.000,00	8,76
Supervisi	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Lain-lain	4.334,08	8,72	4.551,25	8,25	0,00	0,00	4.730,25	6,01	5.531,25	10,62	4.225,00	17,44	7.102,46	12,45
Biaya Tetap					1.376.320,00	100,00	2.330.198,00	100,00	3.572.270,00	100,00	4.271.781,00	100,00	3.155.490,00	100,00
Karasuher					1.376.320,00	100,00	2.330.198,00	100,00	3.572.270,00	100,00	4.271.781,00	100,00	3.155.490,00	100,00
Biaya Variabel/Su/Su	62.150,00	100,00	67.000,00	100,00	78.000,00	100,00	91.000,00	100,00	115.000,00	100,00	45.000,00	100,00	55.000,00	100,00
Biaya Makan Siswa	25.000,00	40,23	25.000,00	37,31	25.000,00	32,05	25.000,00	27,47	25.000,00	21,74	25.000,00	55,56	25.000,00	45,45
Transportasi Siswa	0,00	0,00	0,00	0,00	0,00	0,00	21.000,00	23,08	17.000,00	14,78	2.000,00	4,44	5.000,00	9,09
Supervisi	21.000,00	33,80	12.000,00	17,91	15.000,00	19,23	17.000,00	18,68	2.000,00	1,74	3.477,27	7,73	7.211,11	13,10
Lain-lain	16.150,00	26,07	30.000,00	44,78	38.000,00	48,72	49.000,00	53,85	71.000,00	61,73	15.522,73	34,49	19.788,89	35,99

be improving in which we can see that the unit cost per student per month was reduced to Rp. 69,950. During this year, the cost for instructors was still charged to the cost for students. The duration of training became 60 days. In the third year, 1984/85, there was an increase in the unit cost because of the allocation of the cost of short term consultancy of Annie Voight amounting to Rp. 1,376,200 (detailed information about this can be seen in enclosure 1). Here supervision was begun to be separated. During the following years, the supervision increased to between Rp. 12,000 to Rp. 14,000 or from 12% to 14%. The students' meal allowance item, the largest item, increased from 46% to 50% although the nominal amount remained that of the 1983/84 i.e. Rp. 45,000 per student per month. The students' transport amounted to between Rp. 20,000 to 15,000, with the tendency to decrease. Percentage wise, the students' transport amounted to between 18% to 20%. The resource person item constituted the item that had greater variations, because besides the input for Annie Voight, other inputs such as the Yayasan Indonesia Sejahtera consultant, the cost of SPK teachers' meeting and the cost of evaluation of SPA training were also included here.

West Sumatra

At the beginning of the year, as opposed to Aceh, the cost of supervision was already apparent. The students' transport cost was also low because the vehicle belonged to the SPK. But in the second year, 1983/84, there was a drastic change in the cost item, in which Rp. 70,000 per student per month was allocated for transportation (this actually also covered the cost of reporting and training). On the other hand, the students' meals allowance allocation was only Rp. 500 per student per day. The meal allowance for the leader was Rp. 5,000 per day, cost of transport Rp. 40,000 and a lumpsum of Rp. 17,000 per day. Besides there was also the cost for village meetings with a unit cost of Rp. 1,000 per man-day.

By way of interviews it was found out that actual expenditures did not follow the items of expenditure contained in FO/SPJ. The funds were usually handed over to the school principal and accounted for in accordance with existing FO. The data on the amount of actual expenditures and for what items was the money expended could not be obtained because there was no information about this. The pattern occurred again in the following year, 1984/85. Here the details of actual expenditure became more unclear, because in the FO/SPJ it was stated only as "local transport, reports and discussions etc." amounting to Rp. 70,000 per student per month.

The problem was made more complex by the discrepancy in the number of students trained according to the SPJ and the actual number of students participating in the field training. This occurred on the students coming from private schools. From interviews it was found out that the CHIPPS project only provided funds for 50% of the private school participating in the training. This was also not always exactly 50%, for instance which happened to the Kesdam SPK in 1984/85 who only received the cost of training for 20 students while those actually trained totalled 80 students (including the parallel class). This occurred until 1987/88.

In 1988/89 there was a change in the pattern in which the whole number of students was financed by the project, except for the students' meal allowance of Rp. 1,500 per student per day (or Rp. 90,000 during the training period). Although there occurred the shifting of burden to the parents of students, nevertheless the unit cost increased to Rp. 102,908 per student per month, compared to Rp. 32,266 in 1987/88 or Rp. 88,223 in 1986/87. The increase in the unit cost in 1988/89 compared to 1986/87 was caused by the increase in the cost of supervision and other costs. The increase in the cost of supervision was caused among others by the increase in the cost of transport of the leader from Rp. 15,000 to Rp. 80,000, and the increase in the meal allowance for the leader from Rp. 3,000 per day to Rp. 4,000 per day. The increase in other costs was caused among others by the purchase of such materials as stationery, medicines for the students, procurement of flashlights, raincoats etc

East Nusa Tenggara (NTT)

In 1982/83 the SPK field training in NTT was held for 45 days by the Kupang SPK (owned by the Department of Health). In that year, the project did not budget the meal allowance, so that the students meal allowance was taken from the meals budget of the State Budget in the amount of Rp.850,- per student per day. Besides this, there was actually also an additional meal allowance that was taken from the school fee, so that the students meal allowance amounted to about Rp. 1,000 per student per day. In 1983/84, the same pattern occurred, i.e. the students meal allowance was taken from the State Budget (APBN) for the amount of Rp. 850.-, although there was an allocation of students meal allowance of Rp. 1,860,000 (or Rp. 689.- per student per day), so that the students meal allowance reached Rp. 1,539 per student per day. Up to the third year, no cost of transport came up because for transportation the SPK vehicle was used on routine allocation. In the third year (1984/85), the students meal allowance amounted to Rp. 750 per student per day (for SPK Kupang) and Rp. 1,512 for SPK Lela (private). It was not clear whether during this year the SPK Kupang also took the students meal allowance from the State Budget. It should also be noted that during this year SPK Kupang held field training for 60 days while the SPK held it for 90 days.

In 1985/86 the unit cost increased to Rp. 102,678 because of the increase in the students meal allowance (to Rp. 1,500/student/day), increased transportation cost (which was non-existent previously) and the increase in the cost of resource persons. The period of training remained 80 days.

In 1986/87, the period of training returned to 45 days. The students meal allowance allocation was Rp. 3,000/student/day (increased 100% from previous year); the allocation for transportation was Rp. 20,000/student. The cost of resource persons increased to Rp. 26,000 (from Rp. 11,000 during the previous year) because of the allocation for the cost of consultant Annic Voight and the cost of the SPK teachers meetings (see enclosure 2 for details). All this caused the increase in the

unit cost to Rp. 145,981/student/month. It should be noted that for the Atambua SPK training, although 23 students were recorded to be following the training, the students meal allowance was allocated for only 22 students.

1987/88 was the peak for the SPK field training funded by the project, in which 176 students participated. There was a change in the pattern of unit cost. The students meal allowance which previously amounted to Rp. 3,000.- was only Rp. 1,000/student/day this year, the transport allowance was reduced from Rp. 20,000/student/day to Rp. 5,000/student, the cost of resource person was also reduced to Rp. 11.952/student/month. All this caused a reduction of the unit cost to Rp. 60,164/student/month.

In 1988/89 no more funds were available anymore from CHIPPS project. For the Kupang SPK (owned by the Department of Health) the funds for field training were taken from the State Budget and partly from the students' school fee. For a private school there was only one choice, i.e. to shift the burden on the shoulders of the parents of the students. SPK Lela calculated a fee of Rp. 70,000 per student, which was mostly used for the students' meal allowance while for location, the training took place not far from the school so that it could be reached by the school's vehicle using the routine budget.

From above descriptions it could be concluded as follows:

1. The unit cost was between Rp. 60,000 to 102,000 per student per month. The result/output obtained with the Rp. 60,000 unit cost was not different than that obtained with a unit cost of Rp. 102,000, because the SPK field training already had a curriculum
2. The students meal allowance constituted the largest item absorbing about 50% of the cost, followed by transport (about 20%), supervision (15%), resource person (10%) and others (5%). However, this may be varied depending on the distance to the training location, the price level in the region and particularly depends on the discretion of the PO maker.
3. The largest item, the students meal allowance could be shifted

to the parents of students, but this does not automatically mean that unit cost will be reduced as a whole.

4. The inclusion of items not in keeping with facts on the field causes the tendency to use money which is not according to plan.
4. The preparation of PO in a rational manner constitutes an effective control of budgeting because there is a tendency to equalize the expenditures with existing PO.

II.2. Posyandu Volunteers

The objective of the Posyandu Volunteer program was to place the SMK graduates not yet appointed (as civil servants) in villages having no health facilities.

The volunteer program was started in West Sumatera in 1987/1988 with the following details of activity:

- training of volunteers.
- placing the volunteers in the village and providing transport money of Rp. 45,000 per month.
- supervising the volunteers (integrated with other programs).

In Aceh the details of the posyandu volunteer program's activities for December 1987 were as follows:

- training of trainers at Kabupaten level.
- the trainers trained the volunteers.
- placing volunteers in the village and providing transport money amounting to Rp. 45,000 per month.
- supervision at Kabupaten/Kecamatan levels.
- training at provincial level.

Following is the ^{cost} analysis per province using as reference Tables II.2.1. and II.2.2.

Aceh

There was not too much difference in unit cost between 1987/88 and 1988/89. The difference occurred only in the Kabupaten supervision item (increased from Rp. 256 to Rp. 1636 per volunteer per month); there was no expenditure for kecamatan

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11.2.1. Realisasi Pengeluaran & Volume Kegiatan Program Kelawan Poyangou

Prop./th	Realisasi Pengeluaran	Jumlah Kelawan	Jumlah Kelawan-Hari	Biaya Satuan/ (Kelawan/Hari)	Biaya Satuan/ (Kelawan/Bulan)	Keterangan
I. ACEH						
1987/88	10,000,000	151	34,000	1,456.72	50,000.00	Pida, A.Utara, A.Ticur,
1988/89	65,839,000	125	41,000	1,605.55	50,457.45	A.Utara, A.Sistat, A.Sarati A.Ticur
II. SUM-BAR						
1987/88 II	119,852,492	300	72,000	1,547.75	47,438.54	14 Kabupaten/Kodya
1988/89	47,650,000	188	45,120	1,500.00	45,000.00	14 Kabupaten/Kodya

Keterangan:

1. Termasuk biaya training of trainers sebesar Rp.1.491.776 yang dikembalikan melalui VIS dan alokasi biaya konsultan Mary Johnston (VIS) 50% sebesar Rp. 1,670,716

Best Available Document

19. 11.2.2 Komponen Biaya Satuan Pelawan Fosyandu Per Pelawan Per Bulan

Prog./Komponen	1987/88	%	1988/89	100%
I. KEM-				
Biaya Transport Pelawan	45,000.00	90.00%	45,000.00	90.00%
Supervisi Kabupaten	252.57	0.51%	1,638.36	3.28%
Supervisi Kecamatan	1,000.00	2.00%	0.00	0.00%
Lain-lain Pelawan	3,125.00	6.25%	3,105.91	6.21%
Lain-lain	430.00	0.86%	314.18	0.63%
	50,007.57	100.00%	50,058.45	100.00%
II. SUM-BAN-				
Biaya Transport Pelawan	45,000.00	91.02%	45,000.00	91.02%
Supervisi Kabupaten	0.00	0.00%	0.00	0.00%
Supervisi Kecamatan	0.00	0.00%	0.00	0.00%
Lain-lain Pelawan	7,221.10	7.73%	0.00	0.00%
Lain-lain	917.41	1.25%	0.00	0.00%
	53,138.51	100.00%	45,000.00	100.00%

Best Available Document

1961 D.D.C. Biaya Satuan Relawan Paspandu Per Relawan Per Bulan

Prop./Kecamatan	1957/58	X	1958/59	X
BIAYA VARIABEL/ALY/BLN	50,000.00	100.00	50,000.00	100.00
Biaya Transport Relawan	45,000.00	90.00	45,000.00	90.00
Supervisi Kabupaten	355.67	0.51	1,655.35	3.27
Supervisi Kecamatan	1,000.00	2.00	0.00	0.00
Latihan Relawan	3,325.00	6.25	3,105.91	6.21
Lain-lain	620.00	1.24	314.15	0.63
ITR SUM-SAR				
BIAYA VARIABEL/ALY/BLN	45,475.54	100.00	45,000.00	100.00
Biaya Transport Relawan	45,000.00	91.02	45,000.00	100.00
Supervisi Kabupaten	0.00	0.00	0.00	0.00
Supervisi Kecamatan	0.00	0.00	0.00	0.00
Latihan Relawan	3,325.54	7.75	0.00	0.00
Lain-lain	117.41	1.25	0.00	0.00

supervision in 1988/89, and volunteers training was reduced from Rp. 3,125 to Rp. 3,106 per volunteer per month.

West Sumatra

The unit cost of volunteer program in West Sumatra also did not change significantly. Difference occurred only in the training of volunteers held in 1987/88 but not (not yet) carried out in 1988/89.

II.3. Money POSYANDU

The objective of the Posyandu Monitoring Evaluation (Money) was to improve the Posyandu management through the development of management information system which prepared the data on vital events, the number of targets and service coverage of 5 Posyandu programs and providing a feedback in the form of data analysis at Kabupaten/Kecamatan/Puskemas levels.

The program was first developed in West Sumatera in 1987/88 without special funds. The details of the activity of the Posyandu Money in West Sumatera were as follows:

- printing forms
- training, at first it was included in the epidemiology trainings in 1987 and March 1988 and training at Kabupaten level in March 1988
- procurement of forms & calculators
- training for the Kabupaten doctors (Dokabu) at Provincial level.
- training for the Puskesmas doctors & staff members at Kabupaten level
- training of Puskesmas staff members
- procurement of computers at 14 Kabupatens
- training at Provincial level
- training at Kabupaten level
- Money supervision
- computer supervision

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- meetings at Provincial, Kabupaten, Puskesmas levels.

The Posyandu Money program in Aceh was started by making West Sumatera as model with some modifications. The details of the Aceh's Posyandu Money program were as follows:

- the study team went to West Sumatera to study the system there.
- meeting with the Dokabu doctors, the Posyandu coordinators to introduce the Money idea.
- the Dokabu doctors introduced the idea in the Kabupaten.
- The provincial team came to each kabupaten to train the Puskesmas doctors.
- the system began to be applied (January 1989).

One of the main differences in the implementation of Money in Aceh and West Sumatera was the Aceh system did not use a computer, while the West Sumatran System used a computer at each Kabupaten. Allocation for the cost of computer per year may be seen in enclosure 3. Another thing that has to be considered in comparing the unit cost between Aceh and West Sumatera is the difference in the number of kabupatens, Puskesmas as well as Posyandu.

Below we present the cost analysis using as reference table II.3.1., Table II.3.2a, Table II.3.2b and Table II.3.2c. The outputs were calculated per Kabupaten, Puskesmas and Posyandu.

Money in Aceh was started by involving 8 Kabupatens for the start. The largest item was for the printing of forms, amounting to Rp. 7,600,000 or 31% of the total cost. Actually the cost for the printing of the forms could be ^{even} higher if we included the cost of form printing done in Kabupaten Aceh Utara which amounted to Rp. 7.5 million. But as this case was considered "special" (because Kabupaten Aceh Utara is the richest Kabupaten in Aceh), in order not to distort the cost item, this was presented just as a record. The second largest item was transportation of participants which reached 27.4% of the total cost. This was understandable considering existing geographical constraints, in which the distance between one kabupaten and another was far. The third largest item was the cost of implementation which came to 19.8%.

Revisi 11.0.1. Realisasi Pengeluaran & Volume Kegiatan Konev Poyandu

Kode	Jenis	Realisasi			Volume Kegiatan			Keterangan	
		Pengeluaran	Fosyandu	Puskesmas	Kabupaten	Fosyandu	Puskesmas		Kabupaten
1. KONEV									
1000/09	111	31,415,354	2,511	149	10	5,753.44	165,580.75	12,441,555.40	B. Aceh, B. Besar, Pidie, A. Utara, A. Tengah, K. Timur, A. Selatan, B. Barat
000	000-000								
1000/09	111	22,476,533	7,039	153	14	4,045.01	155,777.52	12,040,775.00	
1000/09	211	9,173,759	7,122	156	14	3,934.29	22,475.01	12,212,415.50	Sudah termasuk alokasi biaya komputer Rp. 2.200.000

- 1) Tersusun sesuai dari FIS sebesar Rp. 3,175,154
- 2) Tersusun alokasi biaya komputer sebesar Rp. 4,520,029

100) 12.5.24 Komponen Biaya Satuan Persewa Pesanggrahan Per Kabupaten

Prop./Komponen	1987/88	%	1988/89	%
I. ACEP				
Transportasi Peserta			665,050.00	27.33%
Pondok Peserta			28,250.00	3.55%
Sahan			65,440.00	3.42%
Merasuabur			313,515.40	13.07%
Pemeliharaan			455,500.00	19.82%
Cetak Formulir			760,000.00	31.15%
Komputer			0	0.00%
Lain-lain			40,500.00	1.66%
TOTAL			2,441,555.40	100.00%
II. SUM-200				
Transportasi Peserta	112,757.14	3.51%	142,500.00	5.84%
Pondok Peserta	38,000.00	4.31%	154,500.00	6.32%
Sahan	165,453.57	9.77%	73,733.71	3.02%
Merasuabur			0.00	
Pemeliharaan	553,922.57	22.61%	322,944.27	13.26%
Cetak Formulir	1,157,073.71	31.25%	1,376,000.00	56.35%
Komputer	0.00	0.00%	322,833.50	13.22%
Lain-lain	0.00	0.00%	0.00	0.00%
TOTAL	2,046,775.00	100.00%	2,512,413.50	100.00%

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Tabel 11.3.25 Komponen Biaya Satuan Manu Pasyandu Per Perusahaan

Grup/Keperluan	1957/58	%	1958/59	%
I. KEM				
Transportasi Peserta			44,833.57	27.38%
Pencina Peserta			3,755.37	3.53%
Bahan			5,600.00	3.42%
Honorarium			21,443.99	13.07%
Penyelenggaraan			32,457.30	19.82%
Cetak Persepsi			51,065.71	31.17%
Konputer			0	0.00%
Lain-lain			2,715.12	1.65%
TOTAL			163,869.76	100.00%
II. GURU-GURU				
Transportasi Peserta	10,021.25	5.51%	12,770.51	5.45%
Pencina Peserta	5,032.09	4.31%	14,942.31	6.63%
Bahan	15,230.25	9.77%	5,655.35	3.73%
Penyelenggaraan	53,471.37	32.61%	34,637.22	18.76%
Cetak Persepsi	25,735.22	15.83%	122,252.25	75.23%
Honorarium	0.00	0.00%	25,974.63	15.85%
Lain-lain	0.00	0.00%	0.00	0.00%
TOTAL	109,459.88	100.00%	226,979.01	100.00%

Tabel 11.3.2. Rincunan Biaya Estasi Tona Pelayaran Per Posyandu

Spes./Kategori	1987/88	%	1988/89	%
1. ACEH				
Transportasi Peserta			2.450.49	27.74%
Persediaan Peserta			345.47	3.89%
Bahan			332.30	3.72%
Perakusutan			1.272.46	14.37%
Penyelenggaraan			1.526.72	17.32%
Sasar Peraculir			3.025.65	34.13%
Komputer			0	0.00%
Lain-lain			161.25	1.82%
TOTAL			9.725.44	100.00%
22. SUM-BAB				
Transportasi Peserta	222.27	2.32%	275.45	2.82%
Persediaan Peserta	174.35	1.81%	329.77	3.41%
Bahan	395.85	4.17%	354.00	3.65%
Penyelenggaraan	1.155.24	12.61%	787.90	8.10%
Sasar Peraculir	2,095.70	22.50%	2,741.45	28.34%
Komputer	0.00	0.00%	254.04	2.61%
Lain-lain	0.00	0.00%	0.00	0.00%
TOTAL	4,045.21	100.00%	4,657.60	100.00%

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 Biaya Tetap dan Biaya Variabel Per Penyandi

Prog./Kondisi	1987/88	%	1988/89	%
I. ACEH				
BIAYA TETAP			3.395.184,00	100,00
Kapal			3.395.184,00	100,00
Landak				
BIAYA VARIABEL/PELAYANAN			6.450,59	100,00
Transportasi Peserta			2.440,49	37,83
Pendidikan Peserta			343,49	5,33
Bahan			352,30	5,46
Pemeliharaan			1.926,72	29,85
Cetak Perculia			3.026,68	46,92
Lain-lain			161,25	2,50
II. SUKSES				
BIAYA TETAP			4.520.085,00	100,00
Kapal			4.520.085,00	100,00
BIAYA VARIABEL/PELAYANAN	4.048,01	100,00	4.295,28	100,00
Transportasi Peserta	222,87	5,51	275,45	6,43
Pendidikan Peserta	174,35	4,31	222,57	5,20
Bahan	395,67	9,77	174,00	4,05
Pemeliharaan	2.188,28	54,08	757,98	17,65
Cetak Perculia	2.068,76	51,11	2.741,48	63,82
Lain-lain	0,00	0,00	0,00	0,00

This was considered still within the appropriate limit.

The Money program in West Sumatera lasted for 2 years. During the first year (1987/88) no computers were used as yet, while in the second year (1988/89) computers were used. The use of computers apparently did not increase the unit cost that much. The cost of using computers in the second year was only 12.8% of the total cost. If we compared the data on the unit cost in Aceh per kabupaten which amounted to Rp. 2,441,555 with the cost unit per kabupaten in West Sumatera which was Rp. 2,512,413, it was apparent that there was no great difference between the unit cost in the computer system and the unit cost in the non-computer system. This was because the number of kabupatens in West Sumatera was 40% higher than that in kabupaten Aceh.

However, if we compared the data on unit cost per Puskesmas, in which the number of Puskesmas in both provinces was almost the same, there was a great difference between the unit cost per Puskesmas in Aceh (Rp. 163,662) and the unit cost per Puskesmas in West Sumatera (Rp. 225,473).

From above description it could be concluded that the use of computer constituted only 12.8% of the total cost. Compared to the benefits obtained from its use, such a cost was quite insignificant.

II.4. Epidemiologic Training

The objective of the epidemiologic training (further called "epi") was to improve the ability of the staff members of the Kabupaten and the Puskesmas in collecting, managing, analyzing and using the data on health programs and surveys by applying the epidemiologic approach.

The epi training was held in three provinces and in West Sumatera the title used as Data Utilization Training.

The details of the activities carried out in Aceh were as follows:

The first training, with the epidemiologic method as a starting point, was primarily aimed at how to carry out surveys. Participants: the Dokabu doctors, the staff

Daftar: Pengeluaran / Volume Register Kantor Eksterior

No.	Kategori	Salinan Pengeluaran	Jumlah Asesori	Jumlah Penasihat-mas	Biaya Satuan / (Penasihat/mas)	Keterangan
0000						
0001		10,781,000	30	300	145,174.00	Rida
0002		7,000,000	40	500	70,000.00	S.Acar
0003		20,000,000	30	300	66,666.67	Unsurucave
0004		21,000,000	140	500	30,000.00	S.Acar, Terangan
0005		21,000,000	100	500	37,500.00	S.Acar
0006		64,000,000	270	572	74,029.51	
0007		22,000,000	1,000	3,000	21,000.00	Lubuk Alung, Tkt. Pussasan
0008		44,000,000	30	300	146,666.67	Alor, Tte. Plo-Tan, Sunda Barat, Kumbang
0009		20,000,000	30	300	33,333.33	Kumbang
0010		20,000,000	100	1,000	20,000.00	Kumbang, Tte. Alor, Pangpang, Sunda Barat, Plo-Tan

Terdapat dalam file register 001 10.000 nilai Rp. 10.781,000
 Terdapat dalam file register 002 10.000 nilai Rp. 7.000,000
 Terdapat dalam file register 003 10.000 nilai Rp. 20.000,000
 Terdapat dalam file register 004 10.000 nilai Rp. 21.000,000
 Terdapat dalam file register 005 10.000 nilai Rp. 21.000,000
 Terdapat dalam file register 006 10.000 nilai Rp. 64.000,000
 Terdapat dalam file register 007 10.000 nilai Rp. 22.000,000
 Terdapat dalam file register 008 10.000 nilai Rp. 44.000,000
 Terdapat dalam file register 009 10.000 nilai Rp. 20.000,000
 Terdapat dalam file register 010 10.000 nilai Rp. 20.000,000

Sumber: ...
 - ...
 - ...
 - ...
 - ...

I. ACPI										
Transportasi Peserta	11,707.60	17.34%	11,074.05	16.76%	2,119.75	2.45%	13,504.80	34.72%	7,514.55	25.45%
Pendian Peserta	0	0.00%	2,595.24	3.55%	21,079.15	28.72%	15,375.17	37.50%	17,965.15	47.76%
Hara Sumber	116,817.77	86.57%	46,657.57	63.80%	52,498.05	60.60%	4,619.72	11.05%	4,476.71	11.50%
Penyelenggaraan	10,272.01	7.07%	11,146.76	15.24%	7,137.54	8.24%	5,384.15	13.84%	4,715.24	13.07%
Lain-lain	0.00	0.00%	833.33	1.14%	0.00	0.00%	0.00	0.00%	601.82	1.61%
TOTAL	145,074.07	100.00%	73,128.75	100.00%	86,634.29	100.00%	38,895.07	100.00%	37,413.76	100.00%
II. SUBSID										
Transportasi Peserta				4,675.16	6.32%		1,476.71	6.84%		
Pendian Peserta				36,761.47	47.66%		17,199.23	78.13%		
Hara Sumber				27,111.10	36.62%		1,711.03	7.61%		
Penyelenggaraan				4,740.41	6.67%		1,137.34	5.20%		
Lain-lain				541.07	0.73%		440.43	2.01%		
TOTAL				74,029.51	100.00%		21,075.74	100.00%		
III. III										
Transportasi Peserta			20,575.76	18.31%	7,454.30	15.40%	163.51	2.04%		
Pendian Peserta			17,416.97	17.35%	21,128.71	55.27%	17,500.60	55.05%		
Hara Sumber			56,614.76	50.56%	3,587.39	10.42%	7,602.78	33.45%		
Penyelenggaraan			14,145.05	12.61%	4,342.97	11.87%	1,215.77	5.36%		
Lain-lain			1,351.52	1.20%	1,147.66	3.00%	972.92	4.05%		
TOTAL			112,144.05	100.00%	38,761.13	100.00%	22,705.21	100.00%		

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	1953/54	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60
I. AGEN							
Transportasi Peserta	17.502,00	12.241	11.554,05	14.263	2.475	2.452	13.564,60
Percobaan Peserta	0	6.001	2.555,24	5.551	24.615	22.722	15.355,12
Sara Suster	116.673,55	50.572	44.455,57	63.502	57.295	60.602	4.610,32
Penyelenggaraan	10.732,31	7.672	11.144,24	15.242	7.274	8.242	5.354,15
Lain-lain	0,00	0,00	233,22	1.142	3,60	0,00	0,00
TOTAL	145.974,09	100,00	73.152,58	100,00	94.129	100,00	38.555,07
II. SUBSAR							
Transportasi Peserta			4.675,46	5,32			1.456,71
Percobaan Peserta			26.761,47	49,62			17.109,23
Sara Suster			27.111,10	36,62			1.711,03
Penyelenggaraan			4.940,41	6,67			1.139,34
Lain-lain			541,07	0,73			440,43
TOTAL			74.029,51	100,00			21.575,74
III. AIT							
Transportasi Peserta			20.575,76	19,24			2.022
Percobaan Peserta			14.444,57	17,24			12.466,00
Sara Suster			53.644,74	50,50			7.467,78
Penyelenggaraan			14.145,25	15,01			1.248,27
Lain-lain			1.251,52	1,27			6,72
TOTAL			104.061,84	100,00			23.205,77

10 Transport. Peserta dan Suster

Tabel II.4.3. Biaya Saran Latihan Epidemiologi Dicerinci menurut Biaya Tetap dan Biaya Variabel Per Peserta Per Hari

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Prog./Fonomen	1953/54	I	1954/55	I	1955/56	I	1956/57	I	1957/58	I	1958/59	I
I. AGRI												
BIAYA TETAP	33.661.437,00	100,00	25.516.425,00	100,00								
Baru Gedung	13.437,00	100,00	25.516.425,00	100,00			12.474.725,00	100,00	1.760.557,00	100,00	2.452.300,00	100,00
Bantu Bangunan/Bahan	29.224,10	100,00	25.516.425,00	100,00			12.474.725,00	100,00	1.760.557,00	100,00	2.452.300,00	100,00
Tegangan-bekal Listrik	17.609,60	100,00					34.125,00	100,00	24.224,15	100,00	33.137,05	100,00
Ferdien Peserta	0,00	0,00	2.595,24	5,20			2.595,24	5,20	2.595,24	5,20	2.595,24	5,20
Penyelenggaraan	19.272,01	36,50	11.146,76	42,11			24.276,15	72,89	15.355,12	44,90	17.985,45	54,22
Lain-lain	0,00	0,00	55,33	3,15			7.137,54	20,91	5.324,15	15,70	4.915,24	14,83
							0,00	0,00	0,00	0,00	681,82	2,06
II. SUMER												
BIAYA TETAP												
Baru Gedung					23.420.000,00	100,00			2.416.757,10	100,00		
Bantu Bangunan/Bahan					23.420.000,00	100,00			2.416.757,10	100,00		
BIAYA VARIABEL/PEST/PA												
Transportasi Peserta					4.675,46	9,97			1.496,71	7,42		
Ferdien Peserta					36.741,47	78,35			17.108,23	24,76		
Penyelenggaraan					4.940,41	10,53			1.159,34	5,64		
Lain-lain												
III. HIT												
BIAYA TETAP			22.431.325,00	100,00			2.641.500,00	100,00	2.948.000,00	100,00		
Baru Gedung			22.431.325,00	100,00			2.641.500,00	100,00	2.948.000,00	100,00		
BIAYA VARIABEL/PEST/PA					55.520,69	100,00			34.275,23	100,00	15.192,43	100,00
Transportasi Peserta					3.575,76	7,70			1.450,00	4,70		
Ferdien Peserta					19.226,97	38,65			12.500,00	37,77		
Penyelenggaraan					14.145,85	28,48			1.215,77	8,05		
Lain-lain					1.571,92	3,45			921,92	6,11		

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members of the province and several Puskesmas doctors.

The second training, with the same material; the participants were the kabupaten's staff members, the provincial staff members, and the SPM teachers.

The third training, the emphasis was on data analysis and utilization. Participants: Puskesmas doctors and staff members.

Development of studies in small scales.

The fourth training was held in 2 phases and the participants were the Puskesmas doctors and the paramedics. The emphasis of the training was on the philosophy and mechanism of the program.

The fifth training, was held in 2 phases, and the participants were the Puskesmas doctors and staff members. The material was similar to the previous training.

The sixth training; also held in 2 phases and the participants were the Puskesmas doctors and staff members. The material: the principles of epi and graphics using the Fosyan du Lonev data. The participants were asked to collect data, to analyze them and to write a proposal.

Some small studies at kabupaten level were carried out by the Puskesmas doctors.

The details of the training activities in West Sumatra were as follows:

First training for the Kabupaten doctors and the kabupaten's staff members.

The second training for the kabupaten's staff members.

The third training for the Puskesmas doctors and staff members, held in 4 phases.

The fourth training for the Puskesmas doctors and staff members held in 4 phases.

The fifth training; the participants: the midwives.

It should be noted that the emphasis of the activities in West Sumatra was more on the data utilization.

The details of the epi activities in NTT were as follows:

The first training, with participants consisting of Dokabu's and the provincial staff members. Material: how to carry out sample surveys.

Development of mini proposals.

The second training, for the kabupaten and Puskesmas levels.

The third training, in the form of epi seminars in the Province. The participants were the Dokabu's, the Puskesmas doctors and the Puskesmas staff members. The topic discussed: activities in epi information system.

The fourth training, carried out each month for 6 months in 6 kabupatens. Participants: the Puskesmas and kabupaten's staff members. The results achieved: activity plan for each Puskesmas (Local Area Monitoring)

The fifth training; the participants, the Puskesmas doctors/paramedics, the topic: utilization of data for observing epi trend.

It should be noted that the training activity in West Sumatra was inter-connected with the principal focus of Posyandu development. For instance in the fourth training (December 1987 March 1988) Posyandu Money training was inserted. It is difficult to know exactly the cost that need to be allocated from the epi training to Money training. But if possible, in the drugs management training for instance, which took 2 days of the total 5 days of epi training in 1987/88, allocation of cost could be made from epi training to the drugs management training.

Below is presented the cost analysis of epi training using as reference Tables II.4.1. and II.4.2.

Aceh

The unit cost for the first year was quite high (Rp. 145,074 per participant per day) which was caused by the high cost of

YIS resource person item (80.5%). The high cost of the resource person was caused by the need for preliminary work which had to be done by 2 persons and at the time of the training itself, with the assistance of 5 consultants for 2 weeks. In 1984/85 the unit cost was reduced because of the reduction in the cost of the resource person. The reduction was the result of the preliminary work being not needed anymore. Starting from 1987/88, the unit cost was drastically reduced because of the reduction in the cost of the resource person. The high cost of the resource person in the first year could be considered as the cost of preparation of the program (start-up cost) which is usually needed to start a program.

West Sumatera

The largest item in the epi training in West Sumatera in 1985/86 as well as in 1987/88 was the participants' per diem, because most of them belonged to level III (doctors). The second largest item was the resource person (YIS) whose activities included epi training for SPK teachers, epi & management data training, meetings for Puskosmas data utilization and data processing workshop. In 1987/88 there was a decrease in the unit cost, which was the result of the allocation of part of epi training cost to the drugs management cost. As the drugs management training of that year took 2 of the total 5 days used for management training, the cost to cost allocations of the drugs management training was as follows:

<u>Cost Item</u>	<u>% of total cost allocated</u>
Participants' transport	40%
Per diem	40%
Material	40%
Resource persons	40%
Others	40%

The resource person item allocated here was the provincial resource persons covering both activities, while for outside resource persons the cost was charged to respective programs. Based on this formula, Rp. 55,171,979 were allocated to the drugs management training.

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East Nusa Tenggara (NTT)
unit

In 1984/85 the/cost looked high because of the YIS resource person item. The epi management training was held during this year with participants consisting of the Kabupaten's staff members, the Puskesmas doctors, and material consisting of epi management, surveys and statistics. The unit cost decreased drastically from Rp. 112,164 in 1984/85 to Rp. 38,261 and to Rp. 22,705 in 1986/87 and 1987/88. In 1986/87 there were expenditures for cost of transportation for 7 persons and pocket money for 11 persons expended by the P2M budget of NTT.

From above descriptions it could be concluded that:

1. The cost of epi training amounted to between Rp. 22,705 and Rp. 145,074 per participant per day. It is difficult to compare those figures because the types of activity carried out were not the same. The high unit costs, especially during the first years, were caused by the use of consultants. The costs for these consultants were considered a start-up cost which was usually needed at the beginning of a program.
2. In West Sumatera, where various activities were carried out at the same time, the unit costs could be reduced.

II.5. Drugs Management Training

The objective of the training was:

1. To improve the knowledge and ability of the Provincial, Kabupaten and Puskesmas staff members in drugs management covering the planning, safekeeping and distribution of drugs.
2. To develop therapeutic standards which can be applied by the Puskesmas doctors and paramedics.
3. Improve drugs data reporting.

The details of the activity of drugs management in Aceh were:

Holding Puskesmas, household and dispensaries surveys.

Holding workshops attended by Dokabu's, the Kabupaten's drugs managers, and several Puskesmas doctors.

Seminars for Puskesmas doctors in each Kabupaten.

Research on the use of antibiotics.

Meetings between the Dokabu's and the drugs managers to discuss requests for drugs.

Meetings at Kabupaten level for all Puskesmas in connection with the 1983/89 drug requests.

Meetings of Puskesmas doctors.

The details of drugs management training in West Sumatera were as follows

Workshops attended by the Dokabu's and the Kabupaten staff members, representatives of Hospitals and Universities.

Training for Puskesmas doctors and staff members.

Workshop of drugs planning at Provincial and Kabupaten levels.

The details of drugs management training in NTT:

Surveys on drugs use in Hospitals, Puskesmas, Kabupaten and the Province, with participants: the Dokabu's, the Puskesmas staff members/doctors, the provincial staff members.

Workshop on drugs management attended by the Dokabu's, the Kabupaten staff members and the Provincial staff members.

Kabupaten drugs management staff training

Workshop for Puskesmas doctors with the objective of planning the standards of therapy.

Standard of therapy and drugs management training with the Kabupaten drugs managers as participants.

The difference between the West Sumatera, Aceh and NTT programs was that in West Sumatera no surveys on the use of drugs were carried out. On the other hand, the implementation of the program in Aceh did not involve the hospitals.

Below we present the cost analysis based on the reference Table II.5.1 and Table II.5.2.

Aceh.

The drugs management program in Aceh was started with Puskesmas, household and dispensary surveys in 1984/85 to find out the pattern of drugs consumption. The survey involved 25 people for 10 days at a cost of Rp. 1,550,000. In the same year, training was also held attended by 28 people and a unit cost of Rp. 45,458 per person per day. In the following year, many trainings/workshops were carried out in 10 kabupatens which cost Rp. 16,543,935. In that year too, MSH and YIS costs amounting to Rp. 2,826,463 and Rp. 3,641,824 respectively were also included, making the total cost of that year reaching Rp. 23,012,222. Details of the allocation of the MSH may be seen in enclosure 4. The largest cost item was the participants' cost of transportation, which came to 50.8%, followed by the cost of resource persons (MSH and YIS) amounting to 28.3% and the cost of implementation 20.3%. The unit cost in 1987/88 (Rp. 26,244) was a little bit lower compared to the unit cost in 1985/86 (Rp. 31,523), although there were MSH and YIS inputs in 1987/88 of Rp. 8,168,887 and Rp. 3,241,004 respectively. The decrease was caused by the reduction in the transport cost of the participants and the increase in the number of participants. In 1988/89 the unit cost increased sharply because of the resource person's item and the small number of participants (only 62 persons). During that year a pilot project of drugs management was carried out in Central Aceh and Banda Aceh.

West Sumatera

In 1985/86 the unit cost in West Sumatera reached Rp. 40,046 with the largest item the per diem of participants (59.1%), followed by the resource persons (18.1%) and the implementation (12%). That year the allocation of MSH cost was Rp. 2,826,463. In 1987/88 the drugs management training was included in the epi training, so that allocation of epi training cost was made into the drugs management amounting to Rp. 55,171,979. Besides this, there were MSH and YIS inputs of Rp. 8,168,887 and Rp. 14,561,621 respectively. Although the unit cost during that year was reduced

to Rp. 24,598 as the result of the decrease in the participants transport, the per diem, the large number of participants and the training which was integrated with other trainings.

N.T.T.

During the first year of the implementation of the drugs management program, a survey was carried out in 4 Kabupatens by the Regional Office staff members at a cost of Rp. 1,917,000. The survey covered the Hospitals, Puskesmas, the Regional Office and the Departmental Office which involved 8 officers for 8 days. The cost of the survey, as in the case of the cost of survey in Aceh, was considered a "sunk cost", and was not combined with the cost of trainings carried out in the same year. During the same year, a consuotative meeting for drug management was held in Kupang attended by 20 participants, for 5 days. The cost of the meeting amounted to Rp. 2,342,700 so that the unit cost per participant per day was Rp. 28,427. There were 3 activities in 1986/87, i.e. training of pharmaceutical officers, evaluation of the results of the implementation of the drugs management and the training of the Puskesmas drug management. In the evaluation it was found out that the cost of transportation for 13 participants was charged to P2M. As the amount was unknown, an estimate was made i.e. amounting to Rp. 1,120,718 (based on the estimate of the cost of transport for 11 participants which amounted to Rp. 948,300). Besides this, during the same year there was an input from MSH in the amount of Rp. 8,168,887 and a YIS input of Rp. 12,294,545. In 1988/89 the unit cost increased sharply so that it reached Rp. 168,148 which was caused by the MSH input amounting to Rp. 8,168,887.

From above description it could be concluded that:

1. The unit cost per participant per day was highly varied, starting from Rp. 28,427 to Rp. 168,148. The increase in the unit cost was primarily caused by the resource person item.
2. The cost of the survey was considered a 'sunk cost' and was not calculated in the unit cost.

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Tabel II.5.2. Komponen Biaya Sistem Manajemen Obat Per Peserta Per Hari

Prog./Komponen	1981/81	I	1981/85	I	1985/86	I	1986/87	I	1987/88	I	1988/89	I
I. ALEN												
Survey			1,550,600.00									
Transport Peserta			33,490.04	73.17%	16,075.21	50.81%			3,570.27	13.41%	9,112.90	0.46%
Perdara Peserta			0.60	0.00%	0.00	0.00%			5,131.14	19.56%	0.00	0.00%
Pengelolaan			9,707.14	20.42%	4,410.54	20.31%			3,400.26	11.05%	26,700.16	24.41%
Mara Sumber			2,678.57	5.87%	0,917.04	28.37%			13,107.91	50.25%	77,249.29	67.13%
Lain-lain			0.00	0.00%	135.79	0.43%			714.29	2.72%	0.00	0.00%
			45,458.75	100.00%	31,527.59	100.00%			26,244.87	100.00%	107,662.35	100.00%
II. SIM-026												
Transport Peserta					3,493.23	9.75%			997.01	1.63%		
Perdara Peserta					23,470.31	59.13%			11,077.14	41.03%		
Pengelolaan					4,019.54	12.03%			367.04	1.47%		
Mara Sumber					7,247.55	18.15%			11,910.86	48.45%		
Lain-lain					375.76	0.94%			293.62	1.19%		
					40,616.41	100.00%			24,599.48	100.00%		
III. III												
Survey	1,917,600.00											
Transport Peserta			11,147.00	39.71%			6,503.36	11.39%			1,590.00	0.90%
Perdara Peserta			11,200.00	50.23%			17,110.69	29.61%			15,033.33	9.53%
Pengelolaan			3,600.00	10.55%			4,932.01	12.00%			3,033.33	3.51%
Mara Sumber			0.00	0.00%			26,000.00	48.55%			142,140.12	85.54%
Lain-lain			0.00	0.00%			767.39	0.45%			833.33	0.50%
	1,917,600.00		20,477.00	100.00%			57,770.32	100.00%			164,140.12	100.00%

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No. / 75	Sal. 1955 Pengeluaran	Jumlah Rupiah	Jumlah Pembayaran	Sal. 1955 Pembayaran	Isi/ Keterangan
100/55	1.000.000				Survei Pagar Sempit
100/55	1.000.000	100	100	10.000.000	S. Aceh
100/55	20.000.000	300	700	20.000.000	Sabang, A. Besar, A. Tapani, A. Barat, A. Selatar, A. Tenggara, A. Utara, A. Tengah, A. Liris, A. Liris
100/55	20.000.000	300	700	20.000.000	Jember, S. Aceh, A. Besar, A. Barat, A. Selatar, A. Tapani, A. Utara, A. Tengah, A. Liris, A. Liris, Sabang
100/55	10.000.000	60	120	107.000.000	Takengon, A. Tengah, S. Aceh
.....					
100/55	10.000.000	300	1000	40.000.000	
100/55	10.000.000	1000	1000	20.000.000	Survei 2 hari di bagian dari Lecoran Sur
100/55	10.000.000				Alasan biaya konstruksi, sebagai KOR dan LK
.....					
100/55	1.000.000				Survei 2 hari
100/55	1.000.000	100	100	10.000.000	Survei
100/55	10.000.000	100	700	20.000.000	Survei
100/55	1.000.000	100	100	100.000.000	Survei

- 1. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000
- 2. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000
- 3. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000
- 4. Terbilang: RUP. 100.000.000
- 5. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000 DAN RUP. 100.000.000
- 6. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000
- 7. RUP. 100.000.000
- 8. Terbilang: RUP. 100.000.000 DAN RUP. 100.000.000 DAN RUP. 100.000.000
- 9. RUP. 100.000.000 DAN RUP. 100.000.000 DAN RUP. 100.000.000
- 10. Terbilang: RUP. 100.000.000

II.6. Organization Effectivity Training

The objective of the organization effectivity training could be explained as follows:

1. To assist the participants in recognizing their own motivation in cooperating with other people.
2. To encourage participants to achieve better performance
3. To assist the participants to recognize their organizational weaknesses and strengths so that they will be able to achieve the expected mission.
4. To assist the participants in recognizing their roles in the organization considered from the aspect of organizational effectivity.
5. To assist participants to review their goals in life and their motivations in their job.

This training was carried out in Aceh and East Nusa Tenggara (NTT).

The details of the activities in Aceh were as follows:

The first training held in Ihoksemmawe for the provincial staff members and the Dokabu's with the topic of improving cooperation and working relations between the Offices and the Regional Office.

The second training, in Banda Aceh, also for the Regional Office and Offices at lower levels staff members.

The third training at Langsa, for 3 Kabupatens, East Aceh, Central Aceh and Southeast Aceh, and the participants were the Offices and Regional Office staff members.

The fourth training, held in Sigli, for 3 Kabupatens, Middle, North Aceh and Great Aceh and the participants were the Offices and Regional Office staff members.

The fifth training, held in Tapaktuan, for 4 Kabupatens, Southern Aceh, Western Aceh, Sabang and Banda Aceh.

Tabel II.2.2. Anggaran Biaya Kerja Manpower Saat dan Selama Perencanaan

Kategori	1953/54		1954/55		1955/56		1956/57		1957/58	
	Y	X	Y	X	Y	X	Y	X	Y	X
Transport Peserta		30.492,04	75,57%	14.322,21	50,54%		3.520,22	15,41%	9.122,50	8,54%
Perdian Peserta		0,00	0,00%	0,00	0,00%		5.177,14	19,53%	0,00	0,00%
Penyelenggaraan		9.252,14	20,42%	6.915,54	20,26%		3.622,25	14,75%	26.280,16	24,42%
Bara Susah		2.676,57	5,89%	8.942,25	26,37%		13.157,91	50,25%	72.249,29	67,17%
Lain-lain		0,00	0,00%	136,99	0,47%		174,29	2,72%	0,00	0,00%
II. SGM-344		45.452,75	100,00%	31.523,59	100,00%		26.584,82	100,00%	107.662,35	100,00%
Transport Peserta				3.901,23	9,75%		11.477,61	4,06%		
Perdian Peserta				25.676,34	57,13%		11.523,14	44,52%		
Penyelenggaraan				4.819,56	12,03%		1.222,04	-1,47%		
Bara Susah				7.269,55	18,15%		11.718,84	48,45%		
Lain-lain				375,76	0,94%		1.153,62	1,19%		
III. NTI				40.046,44	100,00%		24.579,48	100,00%		
Survey	11.917.000,00									
Transport Peserta		11.147,00	39,21%		6.523,36	11,39%		1.500,00	0,50%	
Perdian Peserta		14.280,00	50,23%		17.110,49	29,61%		15.833,33	9,53%	
Penyelenggara		3.000,00	10,55%		6.933,84	12,00%		5.833,33	3,51%	
Bara Susah		0,00	0,00%		25.900,94	46,55%		1142.148,12	65,56%	
Lain-lain		0,00	0,00%		262,39	0,45%		833,33	0,50%	
11.917.000,00		28.427,00	190,60%		57.790,32	100,00%		1165.148,12	100,00%	

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	1970-71	1971-72	1972-73	1973-74	1974-75			
Biaya	1.550.000,00	57,37						
Kara Suasar	750.000,00	31,81	6.525.227,00	100,00				
Biaya Variabel/PST/HR	42.760,18	100,00	21.550,77	100,00	12.534.571,00	100,00	2.561.571,00	100,00
Transport Peserta	33.492,04	78,29	11.025,21	70,57	13.152,71	100,00	33.575,02	100,00
Peserta Peserta	0,00		0,00		3.520,22	22,76	9.112,50	25,75
Penyelenggaraan	9.268,14	21,71	1.493,56	25,42	3.477,17	37,02	0,00	
Lain-lain	0,00		136,97	0,51	7.022,76	25,75	26.262,15	74,25
II. SURVEY					714,29	5,47	0,00	
Biaya Tetap								
Kara Suasar			7.000.000,00	100,00	22.731.000,00	100,00		
Biaya Variabel/PST/HR								
Transport Peserta			3.007,37	11,51	12.000,00	100,00		
Peserta Peserta			23.576,34	72,24	4.557,81	7,57		
Penyelenggaraan			4.219,55	14,70	11.327,14	86,95		
Lain-lain					762,06	2,64		
III. WT								
Biaya Tetap	1.917.000,00	100,00						
Survey	1.917.000,00	100,00					8.522.557,00	100,00
Kara Suasar					21.143.472,00	100,00		
Biaya Variabel/PST/HR			28.427,00	100,00	30.959,28	100,00	21.529.297,00	100,00
Transport Peserta			11.147,00	39,21	6.523,36	21,31	21.050,00	100,00
Peserta Peserta			1.000,00	10,00	1.000,00	10,00	1.500,00	2,25
Penyelenggaraan			0,00	0,00	6.433,92	22,85	5.335,33	21,31
Lain-lain			0,00	0,00	262,39	0,85	833,33	3,47

The details of the organization effectivity training activities in NTT were as follows:

The first training, held in Kupang, and the participants were the Provincial staff members (of the Regional Office and Offices), the Dokabu's, the inter-sectoral staff covering the PKK social workers, BKKBN and Agriculture.

The second training, held at SoE, and the participants were the section heads of the Regional Office/Offices, the Puskesmas doctors/paramedics, and the Hospital staff members.

The following unit cost analysis was based on Tables II.6.1 and II.6.2.

A c e h .

In 1987/88 the organization effectivity training was held in Banda Aceh and Lhokseumawe at a cost of Rp. 28,796,284, including the cost of the short term consultant, Udai Pareek, of Rp. 12,738,422 and the fee for YIS consultant of Rp. 1,826,477. Details of the cost for Udai Pareek may be seen in enclosure 5. The unit cost during that year reached Rp. 85,959, in which most of the cost was absorbed into the resource person item (57%). The other quite large items were the participants' per diem (27%). In 1988/89 the unit cost was increased to Rp. 119,753 among others as the result of the training being held only for 3 days (it was 5 days previously) so that nominally the unit cost became quite high (Rp. 119.753 per participant per day).

N.T.T.

In 1986/87 the unit cost reached Rp. 42,588, in which the largest item was the resource persons (56%), and the participants' per diem (34%). In the following year, 1987/88, the cost increased drastically because training was held for only 8 days (previously it was for 13 days), so that the fixed cost per unit, such as the cost of the resource person increased.

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From above description it could be concluded that the unit cost was highly influenced by the number of participants and the number of training days. The number of training days was of course dependent on the material and the target of the training. However, this did not mean that more training days would be more effective.

II.7.1. Report Writing Training

The objective of the report writing training was to improve the ability of the Provincial staff members in report writing to be used as input for the decision makers.

If we compare the unit cost in the three provinces, we can see that the unit cost in West Sumatera was the highest (Rp.102,747) followed by NTT (Rp. 62,332) and Aceh (Rp. 53,739). This was because the training in West Sumatera was held for 3 days while in Aceh and NTT the training was held for 5 days. This resulted in the average costs, such as the cost of the resource persons becoming high. In Aceh the largest item was the implementation (48%) followed by the resource person (33%) and the participants' transport (18%). In West Sumatera, the largest item was the resource person (55%) followed by the participants' per diem (30%) and the implementation (10%). While in NTT, the participants' per diem and the cost of the resource persons were almost the same (48%), followed by the implementation (9%). The cost of the resource person in West Sumatera was higher than in Aceh or NTT because in West Sumatera 2 consultants (Omay Sutrisno and Emma Wibowo) were employed while in Aceh as well as in NTT only one consultant (Omay Sutrisno).

1951 H.B.C. Realisasi Pengeluaran & Volume Pekerjaan Latihan Efektivitas Organisasi

Prop./M	Realisasi Pengeluaran	Jumlah Peserta	Jumlah Peserta-Hari	Biaya Satuan/ (Peserta/hari)	Keterangan
1957/55	28,774,259	47	372	28,774.259	Kepp Utra, S.Aceh
1958/56	22,540,747	51	373	22,540.747	Langsa, Sigli, Tapaktuan
1959/57	17,145,153	31	403	17,145.153	Caspiang
1957/55	10,551,393	20	100	10,551.393	

- 21) Tersebut biaya STC Udal Parak Rp. 12,735,422 dan asupaan YIS sebesar Rp. 1,224,477
- 22) Tersebut biaya STC Udal Parak Rp. 12,735,422 dan asupaan YIS sebesar Rp. Rp. 1.561.020
- 23) Tersebut biaya STC Udal Parak Rp. 7,438,553 dan asupaan NRE (dr.Gany) yang dicantirkan sebesar Rp. 1,445,300
- 24) Tersebut biaya STC Udal Parak Rp. 7,438,553

1991 21.2.2. Anggaran Biaya Satuan Latihan Staf/Officer Organisasi Per Peserta Per Hari

Prop./Kecamatan	1985/87	%	1987/88	%	1988/89	%
I. ACEH						
Transportasi Peserta			384.03	0.45%	2.352.00	1.92%
Pondasi Peserta			22.285.07	27.07%	31.537.00	26.24%
Biaya Sumbat			49.274.33	57.32%	68.142.14	58.91%
Penyelenggaraan			13.003.63	15.15%	12.958.47	10.94%
Lain-lain			0.00	0.00%	0.00	0.00%
TOTAL			85.659.03	100.00%	115.753.61	100.00%
II. NTT						
Transportasi Peserta	1.328.50	3.32%	1.520.00	1.35%		
Pondasi Peserta	14.639.27	74.33%	14.175.00	12.54%		
Biaya Sumbat	34,077.83	58.34%	33,512.50	20.10%		
Penyelenggaraan	3,490.80	5.25%	3,300.00	4.57%		
Lain-lain	0.00	0.00%	0.00	0.00%		
TOTAL	42,536.40	100.00%	199,513.50	100.00%		

Tabel 22.3.7. Biaya Satuan Latihan Stabilitas Organisasi Per Peserta Per Hari
 Dibedakan menurut Biaya Tetap dan Biaya Variabel

Prop./Konschen	1955/57	X	1957/58	X	1958/59	X
PL. NEE						
BIAYA TETAP			114,501,575.00	100.00	112,204,442.00	100.00
Sumber			114,501,575.00	100.00	112,204,442.00	100.00
BIAYA VARIABEL/PEWARA			74,284.75	100.00	71,115.51	100.00
Transportasi Peserta			354.63	1.07	2,221.95	4.42
Pondok Peserta			23,225.67	31.47	24,337.00	70.41
Pembelenggaraan			15,005.83	35.45	14,352.47	25.14
Lain-lain			0.30	0.00	0.30	0.00
PL. NTT						
BIAYA TETAP	9,703,223.00	100.00	8,221,223.00	100.00		
Sumber	9,703,223.00	100.00	8,221,223.00	100.00		
BIAYA VARIABEL/PEWARA	12,510.72	100.00	20,422.00	100.00		
Transportasi Peserta	1,221.25	7.45	1,520.00	7.34		
Pondok Peserta	11,230.27	75.04	14,175.00	65.45		
Pembelenggaraan	2,459.20	17.47	2,000.00	24.14		
Lain-lain	0.00	0.00	0.00	0.00		

11.7.2. Realisasi Pengeluaran & Volume Kegiatan Latihan Perbaikan Laporan

No. Pro./An	Realisasi Pengeluaran	Jumlah Peserta	Jumlah Peserta-Hari	Biaya Satuan/ Peserta/Hari	Keterangan
11. 004					
1987/82	6,446,751	24	120	53,722,59	S. Aceh
11. 004-005					
1987/85	7,706,031	25	75	102,747,02	Padang
11. 011					
1987/85	7,471,852	24	120	62,265,47	

1) Terjadi anggaran YIS sebesar Rp.4,705,201

2) Terjadi anggaran YIS sebesar Rp.4,165,031

3) Terjadi anggaran YIS sebesar Rp.3,224,617

121. 11.7.2. Komponen Biaya Satuan Penulisan Laporan Per Peserta Per

Temp./Kecamatan	1997/98	%
Desa. 402H		
Transportasi Peserta	10,000.00	19.61%
Pengin. Peserta	0.00	0.00%
Masa Suster	17,740.01	33.81%
Pembelian/pengadaan	25,699.55	49.35%
Lain-lain	9.00	0.00%
TOTAL	53,739.57	100.00%
Desa. 403		
Transportasi Peserta	400.00	0.39%
Pengin. Peserta	31,000.00	30.17%
Masa Suster	57,050.41	55.55%
Pembelian/pengadaan	10,166.67	10.35%
Lain-lain	3,500.00	3.50%
TOTAL	102,717.08	100.00%
Des. 404		
Transportasi Peserta	0	0.00%
Pengin. Peserta	25,375.00	45.55%
Masa Suster	25,300.75	45.40%
Pembelian/pengadaan	5,455.75	9.85%
Lain-lain	15.75	0.03%
TOTAL	56,147.25	100.00%

1001 10.7.3. Biaya Bahan Pembelian Langsung Per Peserta Per Hari
 Dibebani Menurut Biaya Tetap dan Biaya Variabel

Procs./Kondision	1987/88	%
I. ACEH		
BIAYA TETAP	2,128,501.00	100.00
Dari Sumber	2,128,501.00	100.00
BIAYA VARIABEL/PST/PA	75,777.52	100.00
Transportasi Peserta	10,000.00	37.75
Persediaan Peserta	0.00	0.00
Penyalenggaraan	25,777.52	72.22
Lain-lain	0.00	0.00
II. SUM-BPP		
BIAYA TETAP	4,251,031.00	100.00
Dari Sumber	4,251,031.00	100.00
BIAYA VARIABEL/PST/PA	45,444.67	100.00
Transportasi Peserta	400.00	0.88
Persediaan Peserta	21,300.00	47.33
Penyalenggaraan	10,444.67	23.34
Lain-lain	2,100.00	4.62
III. NTT		
BIAYA TETAP	5,774,417.00	100.00
Dari Sumber	5,774,417.00	100.00
BIAYA VARIABEL/PST/PA	24,031.42	100.00
Transportasi Peserta	0.00	0.00
Persediaan Peserta	21,075.00	88.35
Penyalenggaraan	2,636.75	11.57
Lain-lain	17.71	0.07

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III. PROSPECTIVE COSTS

There are several steps that can be taken to calculate the prospective costs, for sustaining costs as well as replicability costs.

First, calculate the average cost based on the historical cost then doing an extrapolation by using the estimated rate of inflation in future. This method has indeed been applied and could meet the principles of economy. However, if this method is applied, a figure which is far from realistic would be obtained. Basically, most of the existing items such as the lumpsum, the transport cost, the pocket money are based on the Decision of the Minister of Finance, which do not necessarily follow existing rate of inflation. Another weakness of the method is that the historical cost items from year to year, even though within the same province, do not show any definite pattern so that the use of average figures tends to produce unrealistic figures. As mentioned in previous Chapter, the expenditures tend to be adjusted to existing PO, while the items in the PO very often do not indicate specifications.

The second way is to apply the Reasoning by Analogy (RBA) method, in which redefinition of future activities are made by brainstorming able parties such as the Long Term Consultants of each province, the Project Officers, groups II and III appointed to evaluate the programs and other parties considered to be knowledgeable about the program.

From the results of the brainstorming redefinition of future activities could be made; what activities are to be carried out in future, who is going to be involved, how long the activities will last and where. Based on above reasonings, it is hoped that the amount of the unit cost for carrying out a program in future could be obtained. It seems that this second method that will give a realistic picture. For this purpose it is also necessary to use the unit cost of the official trip expenses (in country) newly stipulated according to the Decision of the Minister of Finance No.9 217/MK.OJ/1989 effective from 1 April 1989. While for the calculations of training unit cost the list of unit costs used by the Department of Health to compile the 1989/90 DIP will

be used.

Discussions about the prospective unit costs will not produce the same figures for one type of program in the three provinces, because it is quite clear that the activities carried out in each province, although they are within the scope of the same program, are not the same. Besides this, from the historical cost discussions we can see the variations in the amount as well as item of costs in the ^{same} program in different provinces, can be very great.

For this reason, it is better that discussions of the prospective costs of each program be carried out in each province, because each province is unique in the type of activity as well as type of cost. Except for some programs such as the SPK Field Training and the Posyandu Volunteers, which have many similarities from one province to another.

III. 1 SPK Field Training

The definitions of the activities to be carried out in future are:

1. Grade III students will train for 2 months by way of living in the selected village continuously.
2. The village selected should be reachable by public transportation.
3. The leaders should stay with the students at least 75% of the period of training (or 1.5 months) considering that the leaders still need to be teaching at their respective schools.
4. The students as well as the leaders will stay in the homes of the villagers without having to pay for the accommodation. The students/leaders may take their meals by cooking themselves or by giving some money to their host in keeping with the allocation of funds received.
5. During the field training no interventions which require special expenses will be made. Any curative actions will be coordinated with local Puskesmas.

6. No consultants are needed for the purpose of continuing as well as extending the program to other places.

Based on the definitions of the activity mentioned above, estimate of the unit cost is as follows:

Table III.1.1: Prospective Unit Costs for the SPK
Field Training. (in student/month)

Students' meals	Rp.	45,000 (66.7%)
Transportation	Rp.	2,500 (3.7%)
Resource person	Rp.	500 (0.7%)
Supervision	Rp.	14,250 (21.1%)
Others	Rp.	5,225 (7.8%)
Total	Rp.	67,475 (100.0%)

There are several assumptions to be made in order to come to the figures, among others:

1. It is assumed that the students' meal allowance is Rp. 1,500 per day per student. It was true that in the past the students allowance was Rp. 1,000 (in NTT), but it is felt that the figure is still too low considering the high cost of living at present and in future.
2. The students transportation covers transportation from school to the location and transportation at the location. Transportation at the location is practically not needed because there usually is not transportation facilities in a village. Transportation to and from the location by public transport is estimated to cost Rp. 5,000 per student during the period of training or Rp. 2,500 per student per month.
3. The resource persons here cover local resource persons such as the Puskesmas doctors/staff, the village chiefs, the district heads etc. who provide guidance/orientation during the students' stay. The number of local resource persons is usually 4 to 5 persons with an honorarium of about Rp. 20,000 per person. This means that the estimated cost is

Rp. 100,000.- The number of students trained may be varied from one province to another. For this reason, a denominator of 100 students is used. Thus the cost of resource person per student comes to Rp. 1,000 or Rp. 500 per student per month.

4. The cost of supervision consists of the costs of transportation, meal allowance, pocket money. In keeping with the stipulation of the Minister of Finance effective from 1 April 1989, assuming that the leader is of echelon II, then the unit cost for meal allowance is Rp. 3,000, transport allowance Rp. 3,000 and pocket money Rp. 3,000. Assuming that each leader stays for 45 days and for each training 5 trips will be required, then the cost of supervision is estimated to amount to Rp. 285,000 per leader. If the ratio of 1 teacher to 10 students is used, 10 leaders for 100 students are needed, so that the cost of supervision will come to Rp. 2,850,000 and the unit cost of supervision per student per month will come to Rp. 14,250.-
5. Other costs consist of the printing of working papers, the cost of group meetings, stationery, provision of mementoes to village heads etc. The cost of compiling papers is estimated to be Rp. 10,000 per title with the note that each group (10 students) produces 1 title. Thus the cost of compiling the working papers will come to Rp. 100,000. Group meetings are usually held twice during the period of training, where the cost is Rp. 15,000 for each meeting for each group (10 students). Thus the cost of the group meetings is estimated to amount to Rp. 300,000 for 10 groups. Very often the group meeting takes the form of a mini workshop. The cost of stationery is estimated at Rp. 500,000 per 100 students. Mementoes for the village head are estimated to reach Rp. 50,000 per training. While the reserve for other costs is estimated to reach 10% of the cost mentioned above or will amount to Rp. 95,000. Thus other costs will total Rp. 1,045,000 or the unit cost per student per month will be Rp. 5,225.

We present below the alternative unit costs with modified assumptions:

1. Duration of the training is 45 days.
2. The leaders do not stay continuously but come to the location once every 3 days.

With the modified assumptions, and still guided by other assumptions, the following alternative unit costs are obtained:

Table III.1.2. Alternative Unit Costs of SPK Field Training
(in student/month)

Meal allowance	Rp. 45,000	(71.7%)
Transportation	Rp. 2,500	(3.9%)
Resource persons	Rp. 500	(0.8%)
Supervision	Rp. 9,500	(15.1%)
Others	Rp. 5,225	(8.5%)
Total	Rp. 62,725	(100.0%)

It proves that by using above assumptions, the unit cost per month is only reduced by Rp. 4,750 or 7%.

III.2. Posyandu Volunteers

The concept of posyandu volunteers program in future is no different than past concept, i.e. the placement of health officers in rural areas having no health facilities. The unit cost here may be used in the continuation as well as extension efforts, because basically the program is not dependent on the start-up cost.

There are 3 scenarios to be discussed:

Scenario I:

1. Volunteers are placed in the village with transport allowance of Rp. 45,000 per month.
2. Training is continued for the volunteers
3. S

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Using above assumption, the following unit costs are compiled:

Table III.2.1.: Unit Costs of Posyandu Volunteers
(Volunteer/month)

Volunteers Transport Allowance	Rp. 45,000	(92.7%)
Volunteers training	Rp. 3,500	(7.3%)
	<hr/>	<hr/>
Total	Rp. 48,500	(100.0%)

Scenario II:

1. The transport allowance for volunteers Rp. 36,000. The transport allowance of Rp. 45,000 is actually an honorarium given to volunteers based on the civil servants Grade IIa salary standard. It is not quite fair if someone who is not officially appointed yet already receives a "salary" in the same amount he is going to receive after being officially appointed. On the other hand, his responsibility has not as yet been formally announced. For this reason, it is assumed that he is given an honorarium of Rp. 36,000 per month (80% of Rp. 45,000). —
2. Training of volunteers will be continued.
3. No special supervision is applied.

Based on above assumptions, the following unit costs are compiled:

Table III.2.2. Unit Costs of Posyandu Volunteers
(Volunteer/month)

Volunteer transport allowance	Rp. 36,000	(91.1%)
Volunteer Training	Rp. 3,500	(8.9%)
	<hr/>	<hr/>
Total	Rp. 39,500	(100.0%)

Scenario III:

Use of Pesisir Selatan's system, in which the community participates in financing the volunteers by "buying" the curative services provided by the volunteers at a higher "price" than the Puskesmas's. However, training for the volunteers is still needed and the cost for the training is Rp. 3,500 per volunteer per month.

III.3. Pesyandu Money

One of the differences between the implementation of Money program in Aceh and West Sumatra is that in West Sumatra computers are used. By comparing both patterns we will be able to know the amount of cost required for extending the program with or without computers. However, the activities in West Sumatra and in Aceh have their own characteristics, so that the pattern of activity in both provinces in future will also differ. The Aceh and West Sumatra patterns constitute a package so that ⁱⁿthe calculations for replication geographic, social and economic conditions of each province need to be taken into account.

The Aceh Pattern

The Aceh pattern has its own characteristics: the region is extensive and the density of its population is low, transportation is rather difficult but telephone communications are quite smooth. Money activities are carried out without computerization; the participants' transport allowance, because of its geographical conditions, absorbs more than 25% of the total cost.

The unit cost to sustain the program is calculated on the basis of the assumption that future activities will need no training. With the cancellation of the training, only the cost for the printing of forms is left (10,000 money forms and 60,000 money activities forms). The unit cost for money forms in 1988/89 is Rp. 400 and for money activities forms Rp. 600. Taking into consideration the price increase of 10%, it is estimated that the total amount of the printing of forms will come to Rp.8,360,000.

Thus the units costs can be calculated as follows:

Table III.2.1. Unit Cost for Posyandu Money Sustaining
Aceh Pattern

Unit cost per Posyandu = Rp. 3,329

Calculations of replication unit cost in Aceh is based on the assumption of 1988/89 unit cost with the following adjustments:

1. Participants' per diem, based on the new per diem regulation is assumed to increase by 30%.
2. The cost of resource person is assumed to increase by 30% because of the increase in per diem.
3. The cost for printing the forms is assumed to increase by 10%.

Table III.3.2.: Unit Cost of Posyandu Money Replication
Aceh Pattern

Unit cost per Posyandu = Rp. 10,349

West Sumatera pattern

The assumption for the Posyandu Money sustaining program in West Sumatera is that no training is needed; what is needed only the cost of printing the forms and the maintenance of the computers.

The total of forms needed in 1988/89 at a unit cost assumed to increase by 10%. Thus for the sustaining program 409,000 forms at a unit cost of Rp. 53 are needed, so that the total cost of the forms is Rp. 5000,000 per computer (per kabupaten) so that the cost of maintenance for the computers will come to Rp.6,000,000. Thus the total cost of sustaining program is Rp. 27,677,000. The unit cost for the Posyandu Money sustaining program can be calculated as follows:

Table III.3.3. Unit Cost for Posyandu Money Sustaining Program, West Sumatra Pattern.

Unit cost per Posyandu = Rp. 3,832.

To calculate the cost of replication, 2 alternatives are used:

1. The activities such as in West Sumatra in 1988/89 using computers and the new per diem standard.
2. The activities such as in West Sumatra in 1988/89 without computers and using the new per diem standard.

Based on above assumptions, the following unit costs are compiled:

Table III.3.4. Unit Cost for the Posyandu Money Replication

Alternative 1: Without Computers
West Sumatera Pattern

Unit cost per Posyandu = Rp. 3,904

Table III.3.5. Unit Cost for the Posyandu Money Replication

Alternative 2: With Computers
West Sumatra Pattern

Unit cost per Posyandu = Rp. 5,380

III.4. Epidemiology Training

Loeh Pattern

The activities to be carried out in the course of epi training sustaining program Loeh Pattern are as follows:

1. Training for 30 new Puskesmas doctors for 6 days.
2. Training for 30 paramedics for 6 days.
3. Training for 2 staff members per kabupaten for 6 days.

While for the financing, the new per diem standard will be applied. Thus the unit cost for epi training is Rp. 46,500 per participant per day (see Appendix).

For replication, it is assumed that the activities are as follows:

1. Training of 10 Dokabu's and 15 provincial staffs (doctors) for 6 days. The material: how to carry out a survey, principles of epi. Domestic consultants are needed for this purpose.
2. Training of 149 Puskesmas doctors, 149 paramedics, 20 dokabu's for 7 days. The material: principles of epi, use of routine data for decision making by using epi approach. Domestic consultants are needed for this purpose.

Using above assumptions the calculated unit cost per participant per day is Rp. 45,385 (see Appendix).

West Sumatera Pattern

The activities carried out to sustain the West Sumatera Pattern are assumed in the same way as the Aceh Pattern, so that the unit cost obtained is Rp. 46,000 per participant per day (see Appendix).

While the activities needed to replicate the pattern are assumed in the same way except the duration becomes 12 days and the transport allowance becomes one half because the training is combined with other trainings. Thus the figure of Rp. 33,303 is obtained (see Appendix).

NTT Pattern

To sustain the pattern, it is necessary to re-train 120 paramedics for 5 days so that the unit cost amounts to Rp. 55,333 per participant per day (see Appendix).

To replicate the NTT pattern it is necessary to train 120 paramedics for 12 days (6 days in class, 4 days in the field and 3 days of presentation) so that the unit cost amounts to Rp. 37,611 per participant per day (see Appendix).

III.5. Drugs Management Training

In order to sustain the drugs management program in Aceh, the following activities are needed:

1. Workshop for 10 Dokabu's, 40 Puskesmas doctors and 2 drugs managers from each kabupaten, for 1 day.
2. Workshop on standard therapy for 10 Dokabu's and 40 Puskesmas doctors.

The activities produce a unit cost of Rp. 64,750 per participant per day (see Appendix).

To replicate the program, the same activities are needed plus a survey so that the unit cost amounts to Rp. 89,639 (see Appendix).

West Sumatera Pattern

The activities needed to sustain the program with the West Sumatera pattern are as follows:

1. Annual workshops at provincial level attended by the Dokabu's and the kabupaten drugs managers, for 1 day.
2. Annual meetings for each kabupaten and puskesmas.
3. Use of computers with 25% allocation of funds.
4. Standard therapy training for one day for 2 paramedics from each kabupaten.

Above activities produce a unit cost or Rp. 54,920 (see Appendix)

The activities needed to replicate the West Sumatera pattern are as follows:

1. 4 day training to develop the standard therapy attended by participants from the hospitals, the Regional Office, the School of Medicine, and the Dokabu's employing outside trainers.
2. 1 week drugs management training attended by participants from the Regional Office, the Dokabu's, the drugs managers, employing outside trainers.

3. 1 week standard therapy training attended by Puskesmas doctors, and paramedics, employing outside trainers.
4. 1 week drugs management training at kabupaten level attended by the Dokabu's, Puskesmas doctors, with

Based on above schedule of activities a unit cost of Rp. 45,240 per participant per day is obtained. (see appendix).

NTT Pattern

The activities required to replicate the program are as follows:

- Drugs management and standard therapy training at provincial level attended by 2 kabupaten staff members from each kabupaten and the provincial staff, for 7 days, employing outside trainers.
2. Training for Puskesmas and hospital doctors and paramedics at kabupaten level, for 5 days and the material: standard therapy, employing provincial trainers.
3. Workshop on standard therapy at provincial level and the participants are the Dokabu's, the hospital doctors, staff members of the Regional Office/Offices for 5 days employing outside trainers.

The unit cost per participant per day is Rp. 37,306 (see Appendix).

While for sustaining the drugs management training the following activities need to be carried out:

Annual meetings at kabupaten level lasting for 4 days and attended by the Puskesmas staff members, the kabupaten staff members and the main material being evaluation, planning and refreshing of drugs management.

The unit cost for such activities is Rp. 23,875 per participant per day (see Appendix).

III.6. Organization Effectivity Training

Aceh Pattern

In order to sustain/replicate the program, it is necessary to train 67 provincial staff members, 10 kabupaten staff members and 3 staff members from each Puskesmas. The training is held for 5 days and no outside trainers will be needed. Based on the activities, a unit cost of Rp. 40,857 per participant per day is obtained. (see Appendix).

NTT Pattern

The same as the Aceh pattern except in the number of participants consisting of 30 Provincial staff members, 15 kabupaten staff members and 2 staff members from each Puskesmas. Based on the planned activities, a unit cost of Rp. 55,568 is obtained. (see Appendix).

III.7. Report Writing Training

3 (three) days are needed for this training. The activities carried out are similar in all three provinces, outside resource persons are required. The number of participants is assumed to be 24 for the Aceh pattern, 24 for the West Sumatera pattern and 25 for the NTT pattern. Training will be held in the provincial capital attended by kabupaten staff members consisting of 20% of grade III and 80% of grade II.

From above assumptions, the unit costs are obtained, i.e. Rp.90,444 for the Aceh pattern, Rp. 88,042 for the West Sumatera pattern and Rp. 93,233. Differences occur particularly as the result of transport allowance item. (see Appendix).

IV. SOURCES OF FUNDING.

With the completion of the CHIPPS project, a new and often talked about problem is how to get the funding for programs which are worth to continue. It is very often said that the sustaining of the programs should be supported by the community. This is indeed possible for some activities such as the SPK field training and the Fosyandu volunteers, but basically this project's aim is to develop the human resources by training the provincial, abupaten and the lower level officials. So it will be rather difficult to expect the community to finance such a training program. It is quite possible to expect private supports for health services which provide direct benefits to them or other people. However, it would be difficult to expect them to finance such activities as management training which is not directly beneficial to them. This also applies to contributions from private sectors (companies); they generally prefer to sponsor activities with high public relations value.

Based on above facts, the only realistic source of funding for the development of management and the trainings is the Government. The next question is what level of government is expected to be charged with this responsibility. Some is of the opinion that the funding responsibility should be charged to the regional governments (provincial and kabupaten), to reimburse foreign resources as well as as counter-part budget. But this does not seem to be too strong an argument. If the ex CHIPPS projects activities are considered worthy to continue, it stands to reason that the funds should be obtained from a stronger source i.e. the central government.

There are two things that need to be considered in determining which level of government should be charged with the responsibility. First, there are discrepancies in the Original Regional Income obtained by each province or kabupaten. There are provinces/kabupatens which are relatively well-off, there are also those not so well-off. The Province of NTT for instance, is considered not so well-off, full of constraints such geographic ones (it consists of islands) and difficulty in communications. While in

Aceh and West Sumatera, some kabupatens are poor and some are rich. If there is a strong desire to reduce the discrepancy in the welfare of the provinces and the kabupatens, it is appropriate that such a burden be borne by the central government. Second, what usually occurs in the division of responsibilities between the State Budget (APBN) and the Regional (Levels I and II) Budget (APBD) is that the APBD responsibility covers the funding of basic infrastructure for curative services (although through a large assistance from central through the SDO, INPRES etc.), while the State Budget (APBN) provides additional resources for funding preventive and promotive activities such as the development of Posyandu and Contagious Disease Control. It is indeed true that there also funds expended for preventive and promotive activities coming from levels I and II Regional Budget (APBD), but it is usually small compared to expenditures for curative purposes. The serious constraint if we depend on the APBD, the level II APBD in particular, to finance future activities is that many kabupatens will treat the income from the health sector not for the development of health service in the kabupaten concerned, but as the regional revenue which will be used to finance other sectors than health. This kind of attitude is quite common as proven by interviews with the officials of the kabupatens on the kabupatens' contributions to the financing of the HIPPS program, past and future. The kabupaten's contributions to the financing of CHIPPS all this time were very small and could be ignored. The same with their commitments to finance future programs. With the exception of kabupaten Pesisir Selatan in West Sumatera, which is not a rich kabupaten but the Bupati's commitment to sustain the ex CHIPPS project in his kabupaten is quite serious and the methods used are very innovative.

The essence of above description is that although it would

Translator's note:

Page 82 of the original is missing.

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with the computer company covering all of the computers will be cheaper compared to one by one maintenance costs). Talks with the Governor of NTT also produced the same result. Although NTT is the poorest province of the three provinces, but because the present Governor is a former Head of the Health Regional Office of NTT, he has a very strong commitment for the health sector.

In general, the activities carried out or which are beneficial, pass the jurisdiction of a certain region should preferably be financed by the budget of the higher level. So the training activities which involve the provincial staff members should not be financed by level II APBD, and should appropriately be financed by the provincial APBD or through the State Budget. Also if a program has a limited operational scale, such as Tuberculosis control in Fesisir Selatan, it will be more appropriate if the financial responsibility is placed at the higher level of government (province or Central), because such programs cost relatively more to be charged to the kabupaten budget and also the outputs cover the more extensive national interests.

From the list of programs evaluated, there are two programs which are directly beneficial for the community, i.e. the SPK field training and the Fesyandu volunteers; so this means that community self support may be expected in future. In the case of the SPK field training, it is clear that after the project is completed, the cost of the training will be charged to the parents of the students.

For the Department of Health's owned SPK at provincial level, the burden of the parents is rather light because the funds, although not quite enough can still be taken from the Central as well as the Provincial budgets. But for the owned by level II Regional Government, the burden of the parents will be heavier because of limited funds at level II Regional Government, except for certain kabupaten such as North Aceh. In spite of this however, the parents of the students seem prepared to bear the cost because after graduating their children will surely be appointed as civil servants. Considering the ratio between applicants to

the SPK and the acceptance of new students may come to 10 : 1, it is estimated that the raise in the school fee will not affect the number of SPK students. But what will happen is that the raise in the school fee will in the end stop those coming from low income families from entering the SPK.

There were times, in 1987/88 and 1988/89, when the total of SPK graduates was larger than available formations. To make use of the services of the graduates who had no formations as yet in two provinces, West Sumatera and Aceh, they obtained transport allowance to work at the Posyandu level. This volunteer program is now completed, but the discrepancy between the number of graduates and the formations keeps on occurring. Some ways have been found to finance the volunteers, among others in Pesisir Selatan where the volunteers are charged with the task of providing curative services in the villages. For those services it is agreed with the kabupaten that they are allowed to ask for payment of the service at a higher rate than the Puskesmas's. The difference between the tariff applied by them (Rp.1000) and that of the Puskesmas (Rp. 300) constitutes an income for the volunteers. As the volunteers work at Posyandu level, as the final output there occurs cross subsidizing where the curative service subsidize the preventive service. It is possible that such a tariff may be considered to be unaffordable by the low income members of the community, but if the alternative is to be no health service at all in isolated villages, such a mechanism is much better.

More detailed discussions on the field findings are explained below:

A c e h

In Aceh there were 8 SPK's that carried out field training financed by CHIEPS, consisting 1 owned by the Provincial Government, the Department of Health (Banda Aceh, 1 owned by Department of Health Meulaboh), 3 owned by level II Government (Sigli, Bangsa, Lhokseumawe) and 3 privately owned (Muhammadiyah, Kesdam, Bustanul Ulum). For privately owned SPK's, it is quite clear that further costs will be charged to the parents of the students.

While for level II Government school, the students' meal allowance which constitutes the largest cost item, will be taken from dormitory meal allowance. Other costs have to be charged to the parents of the students because of the limited budget of the Level II Government (except the North Aceh Regional Government). SPK Meulaboh is waiting to be included in the State Budget. If this is not possible, then the costs will have to be charged to the parents also. The SPK Banda Aceh, owned by the Province & the Department of Health, seems to have no problems because it is now included in the Provincial budget, although the unit cost is smaller.

The Posyandu program actually provides direct benefits to the level II Regional Government. But because of limited ability (except for Kabupaten North Aceh), if the program is to be sustained, funds should be made available by the Provincial Government or the Central Government. The same applies to Posyandu Monev program.

Such programs as epidemiology, organization effectivity and drugs management should be financed by the State Budget.

West Sumatera:

There are 7 SPK in West Sumatera consisting of 2 SPK owned by the Department of Health (Padang, Bukit Tinggi), 1 owned by the Provincial Government (Solok), and 4 privately owned schools (Kesdam, Yarsi, Aisyiyah, Ranah Miang). The pattern of financing in future is no different than in Aceh, i.e. shifting the burden to the parents of the students.

To finance the Posyandu volunteer program, the Pesisir Selatan pattern could be applied to other kabupatens.

The sustaining program of Posyandu Monev in West Sumatera will be no problem. The level II Regional Government finances the computer operational costs while the Provincial Government finances their maintenance.

For training programs, financing should be payed by the State Budget.

N.T.T.

In NTT there are 3 SPK which obtains project's assistance, i.e. SPK Kupang (Department of Health), Ende (Level II Government) and Lela (private); however the SPK Ende has a parallel class the field training of which is also financed by the project. In principle, continuation of the funding will be borne by the parents of the students, except for the SPK Kupang which will be able to make use of the practice budget of the APBN.

The epidemiology training in this province is planned to be continued in the form of "home study course" by re-compiling the training materials, the output of the CHIPPS project, sending them to the Puskesmas doctors and the Dokabu's, and making periodic tests. As the forum of communication, the monthly meeting between the Dokabu's and the Puskesmas doctors will be used. Where the funds for the compilation of the materials and tests are to come from is not yet clear. Maybe the Provincial government could be asked for help.

For other tainings such as the drugs managment training and the organization effectivity, these preferably should be funded by the State Budget (APBN).

The conclusions that could be made from above descriptions are that the continuity of the CHIPPS program depends on government funding, except in the case of the community getting direct benefits from the activity. It is appropriate that the central government that should bear the heaviest burden, then followed by the Provincial Government. Not much could be expected from level II Governments, except for some exceptions, considering the limited funds they possess.

7. The Mechanism for the Management of the Funding Resources

In a government project, everywhere, the chain of bureaucracy is something that cannot be avoided. Every government has strict rules to safeguard the project against any leaks. It is often found that the rules are so strict so that there is no room for modifications needed to adjust to field conditions at that particular time.

one hand, it is a foreign assisted project, in which, like it or not, one has to follow the rules of the game of the Government of Indonesia and of the donor country (the United States of America). On the other hand, this project is an experimental project in decentralization of health development; for this reason, it requires ample room for applying new ideas. As an experiment, the mistakes made constitute an important part in a learning process, because the results of this project are the "lessons learned" that will enrich the health development treasures of Indonesia.

The need for the room concerned, from the aspect of finance, is greatly helped by the grant, in which the process from the request for funds to its cashing takes relatively short time without having to go through long channels of bureaucracy. We can say that the grant is an important factor in the implementation of projects such as the CHIPPS project. The grant provides the much needed flexibility desired by project Officers in the regions in carrying out new experiments as well as modifications.

Even though the availability of a grant does not mean that there will be no difficulties in its cashing. No matter what, in each project there are certainly instruments of control, and it is these instruments that are very often (considered) the 'trouble maker'. The problems that emerge are not always caused by bureaucratic procedures but it can be said that most of them are caused by non-understanding on the part of the project's apparatus about the procedures of requesting and cashing of the funds.

Before discussing the matter of fund cashing, we need to know first the mechanism of the cashing of funds in relation to the implementation of the CHIPPS project.

Basically there are 3 kinds of mechanism of payment:

1. The State Budget (APBN) DIP/DUP mechanism
2. The Loan (Reimbursement) mechanism.
3. Grant and Direct Payment Loan mechanism.

The APBN DIP/DUP mechanism

The CHIPPS project Officer present the Proposal (DUP-Daftar Usulan Proyek) to the Bureau of Planning, Department of Health. After approval the DUP becomes DIP and sent to the province. Based on the DIP, the project presents a SPP to the provincial KPN (Treasury Office). the provincial KPN issues a SPM and send the money to the project. The project sends it to the location, and after the activity is completed, the SPJ is sent from the location to the project. After that, quarterly wise, the SPJ is reported to the Secretariat General of the Department of Health. A clearer picture can be seen in Diagram 1.

The Loan Reimbursement mechanism.

First the project sends a DUP to the Department of Health which will come to the province as a DIP. The copy of the DIP is sent by the Department of Health to USAID. After receiving the DIP, the project sends a SPP to the Directorate General of Budget (DJA) and after approval, DJA issues a SPM. After the funds is received by the province the activities begin. After completion of the activities, a SPJ is sent to the province. The SPJ is then sent by the province to DJA (Foreign Monetary Section). The DJA asks for reimbursement by USAID. USAID then makes a payment to the DJA (see Diagram 2).

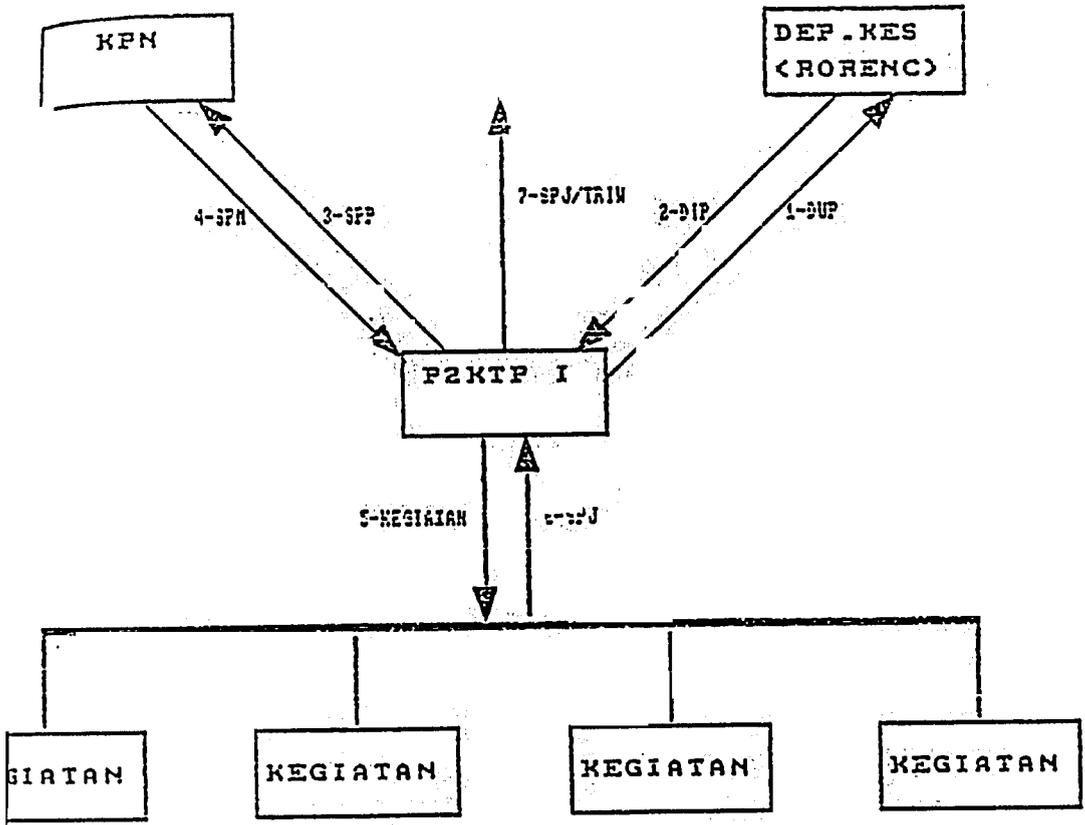
The Grant and Direct Payment Loan

First the project sends a proposal to the Department of Health and the Department of Health sends it on to USAID. After approval, USAID issues a PIL (Project Implementation Letter) and sends it to the province. The province then asks the USAID for funds.

After being approved the funds are sent to the province and the activities begin. After the activities^{the} are completed, a SIJ is sent to the province. Based on the SPJ/province sends a Certified Invoice (CI) to Central CHIPPS with a copy to the USAID. The Central CHIPPS monitors the activities in the regions. A clearer picture may be seen in Diagram 3.

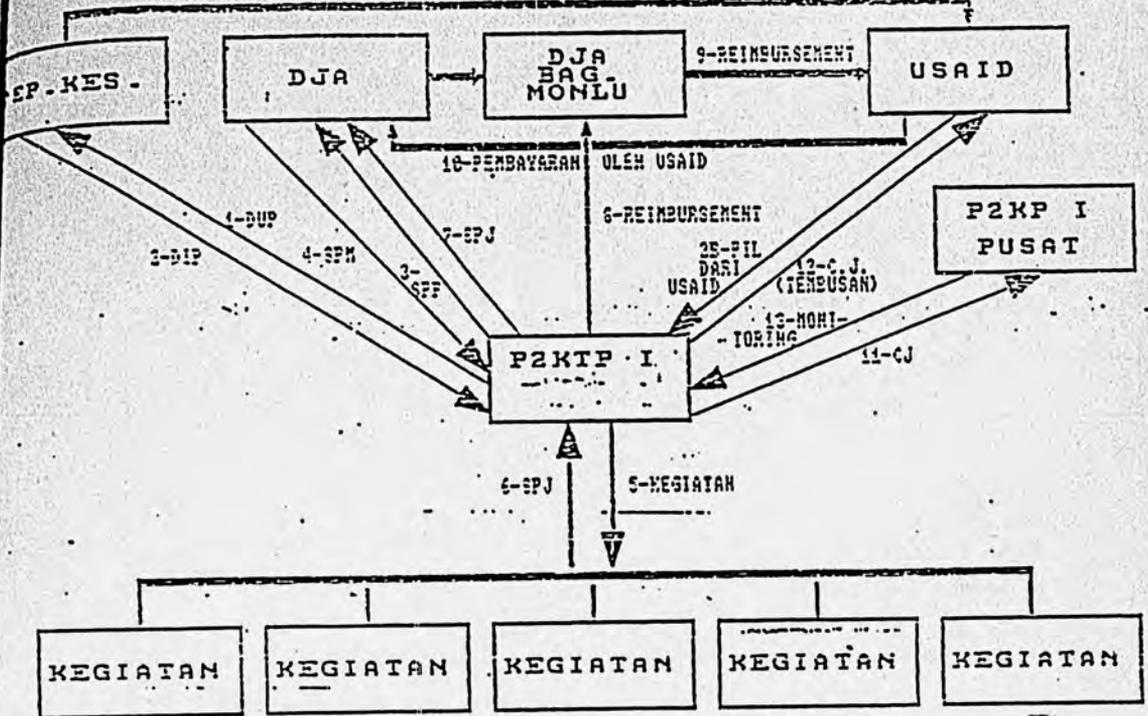
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DIP APBN (GOI)

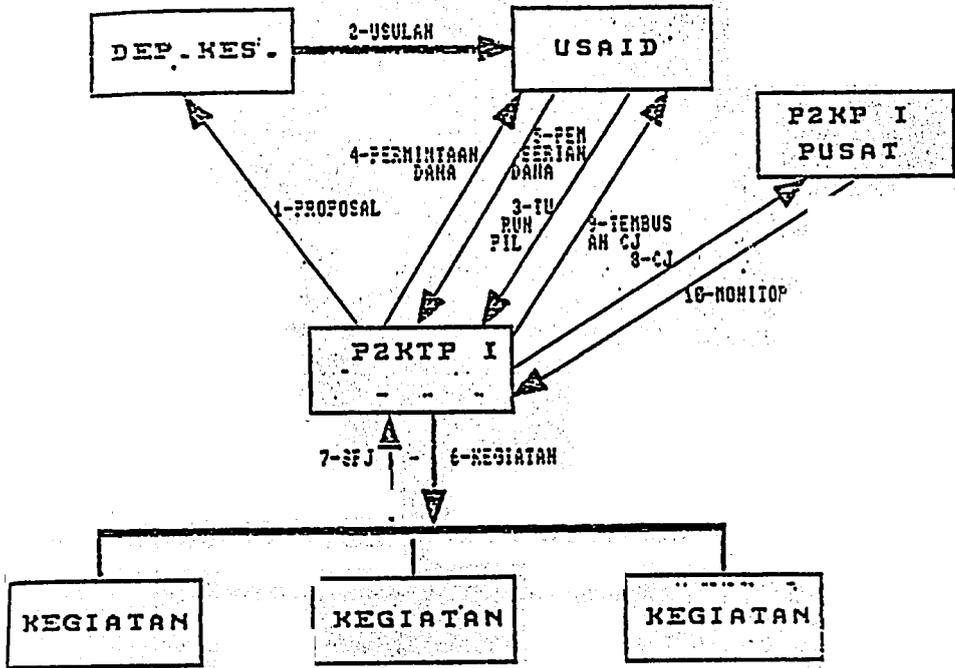


LOAH REIMBURSEMENT (USAID)

SA-SALINAN DIP KE USAID



GRANT/DIRECT PAYMENT LOAN (USAID)



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The problems that emerge.

Basically, the problems that emerge in all three provinces are almost the same. The problems can be considered from 2 aspects:

1. Relations between the province and the location of activities.
2. Relati-

1. Relations Between the Province and the Location of Activities

The problems that emerge in connection with relations between the province and the location of activities can be divided into 3 groups: before the activities begin, during their running and after the activities are completed.

The problem that very often occur before the activities are started are among others:

1. The kabupaten complaints about the not too clear process of presenting proposals from the kabupaten to the province. This results in waiting periods on the part of the province and the kabupaten.
2. In the proposal presented by the kabupaten, no schedule of the cashing of funds is included. On the other hand, the province also does not make any corrections of the matter, so that there occurs misunderstanding between the kabupaten and the province.

The problems mentioned above occur particularly in Aceh where the process of decentralization of program planning has reached kabupaten level. In the other two provinces, planning is made more at provincial level. Planning decentralization efforts can also be observed in NTT where in the epi training program the participants from the kabupatens were asked to present 'mini proposals'. But of the 10 mini proposals made, not one was accepted by the province, because they were considered to be still short of requirements.

The procedural problem of proposal presentation in Aceh is the result of non issuance of standard procedure in writing which

in turn results in mutual waiting. On the one hand, the province thinks that it has given its approval and is waiting for the implementation of the program by the kabupaten. On the other hand, the kabupaten dares not take any step because it considers it has received no approval yet from the province.

The problems that occur during the implementation of the program and after the program is completed may be considered from the pattern of the cashing of their funds.

There are 3 kinds of fund cashing pattern:

1. The advance system, in which funds are sent first, only after the program is completed by the province.
2. The SPJ is sent to the province complete with signatures only then is the funds sent. This kind of practice has actually no legal basis, but for practical reasons it is acceptable and done by many people, especially for activities that run continuously and the cost and the acceptor are known, for instance: the posyandu volunteers.
3. The cashing in of the funds and the collection of the SPJ are done by the province. This occurs particularly in activities carried out directly by the province, for example, the epi training in the capital of the province.

In the first system, where the funds are sent first and the SPJ is collected later, the problem that occurs is the delay in obtaining the SPJ. This SPJ delay constitutes a great problem in all three provinces, with various degrees of delay, a delay of one month, two months and even one year or more. This delay in turn will also delay the provincial accounting to Central (Department of Health/DJA/USAID). The delay in the accounting for will influence further cashing of funds, because the provision of further funds will be reduced by funds not yet SPJ'd.

The delayed SPJ has become a 'chronic illness' which occurs not only in projects. There are many reasons for this, among others, geographical conditions, inability of the kabupaten staff to prepare the documents, no clear procedure of financial management, low sense of administration on the part of the kabupaten apparatus and lower.

This can be reduced by:

1. By preparing standard financial procedures, complete with job descriptions of each officer. This has been done for a long time in West Sumatera.
2. Training of administrative officers at provincial and kabupaten levels. It often happens that the SPJ sent to the province are still incomplete, so that they have to be returned. The only reason for this is lack of knowledge on the part of the administrative officers in the kabupaten (and the inability of the provincial administrative officers in giving information about the way of filling out the SPJ to the kabupaten officers).
3. Organizing of Branch Advance Funds Holder (PUMC Pemegang Uang Muka Cabang) in all the kabupatens. With the organizing of the horariumed PUMC's, collection of SPJ's could be speeded up. This has been done in all three provinces, but not yet equally spread out in the kabupatens, except in West Sumatera.

The delay in the SPJ's has made many project treasurers 'pragmatic and conservative', in which signed SPJ's are requested from the kabupaten and only then will the funds be sent. This is done especially for activities which are continuous in nature with large expenditures such as the posyandu volunteers. Actually this is rather in deviation of the rules, but because the treasurer has to make a report to Central as quickly as possible, this method is applied. Meanwhile no serious deviations are found in this case, except for the volunteer case in North

Accel where the delay in the funds to be received by the volunteers while the SPJ has been signed in advance, has been made used of by certain parties so that the story came out in the newspaper. In the case of the cashing in of the funds being handled by the province directly, there is no problem. This is done in training activities in which the committee consists of provincial officers.

2. Relations Between the Province and Central

The constraints felt at Central may be explained as follows:

1. Procedural constraints caused by unclear procedures and the instructions for the implementation. At the beginning of the project (1982/83), the disbursement procedures were not understood as yet. Here the project was guided by the Letter of Decision of the Minister of Finance No.395/1979 only, which stated that disbursement of the funds was to be done by the Directorate General of Budget/Dit TUA. But in practice, the disbursement procedure had to be applied by the project itself after accounting for the use of the funds to the DJA/DIT TUA. At the beginning of the project, on disbursement guide from USAID was available, but it was difficult to apply because of the difference in the bureaucratic procedures. The change of disbursement procedure and administration of foreign assistance from the Letter of Decision of the Minister of Finance No. 395 to SKB No.048 1987 also affected the application of disbursement, because each project had again to study a new procedure. Besides this, the varied funding resources, i.e. Loans (Direct Payment and Reimbursement/Prefinancing) and Grants, without clear instructions on implementation, also made the implementation of disbursement more complex.
2. The long process of financial accounting, starting from the collection of SPJ's, review of the figures, delivery to the Bureau of Planning, Directorate General of Foreign Assistance, Bank Indonesia and USAID. In USAID this

process also takes a long time because it has to pass through the Program Officer's desk, the Financial Officer's and the approval from Bangkok.

3. The time lapse between the disbursement and the implementation of the program is very often quite long, because of the delay in the activities. Besides this, also the delay in the SPJ as mentioned above, which will affect further disbursements.
4. Monitoring of funds (covering allocations and realization of PII, SPH, SPJ per activity) which is not careful, also affects disbursement process.
5. The problem of project personnel. Unskilled project managers and the often replacement of project staff members (especially in NTT) also affect disbursements.
6. The implementation of programs very often differs from the plan.

The problems of disbursement will more or less affect the absorption of funds during the implementation of the project. Following is the information on the budget/commitments and the realizations/disbursements in relation of source of funds (see Tables V.1 and V.2 and V.3).

From Table V.1 we can see that the rate of fund absorption originating from grants in all three provinces is almost the same, i.e. 80.8% for Aceh, 80.8% for West Sumatera and 78.5% for NTT. But considered from the nominal value the use of the grant in the three provinces shows a rather different picture, in which Aceh absorbs US\$ 2,068,073, West Sumatera absorbs US\$ 1,742,024 and NTT absorbs US\$ 1,542,154.

The use of loan funds, in which most are Direct payments shows the same picture. Aceh absorbs 89.7%, West Sumatera 93.7% and NTT 88.7% giving the total absorption of 90.5% (See Table V.2)

The APBDN funds absorbed are lower; Aceh absorbs 81.3%, West Sumatera 83.0% and NTT 81.4%. Conclusions could be made from all three tables that the more complex the disbursement procedure, such as found in DIP/DUP the lower the absorption.

From above descriptions, the following conclusions could be made:

1. The problem of disbursement which occurs the most is the delay in the sending of SPJ's which results in a chain reaction from the kabupaten to the Central.
2. Unclear disbursement procedures, especially at the beginning, constitutes a great constraint for the Central, Provincial as well as Kabupaten staff members.
3. Lack of flexibility in the use of funds contained in DIP, because a revision would take about 3 months which resulted in low absorption of funds. On the other hand, a grant even though quite flexible for use, the disbursement takes a long time.
For the future, foreign financial assistance in the form of Loans or Grants could be channelled through a special account, the disbursement of which could be done through the State Treasury Office (KPN)
4. Grants are very flexible and highly supportive for such projects as CHIPPS in which new experiments are required. With the ending of the grants, it is difficult to carry out new experiments through existing DIP/DUT system.

Tabel V.1 Pelaksanaan Anggaran Grant Proyek P2C1P1 Di Tiga Propinsi
(Dalam US \$)

KOMPONEN	D. I. ACEH			SUMATERA BARAT			NUSA TENGGARA TIMUR			JUMLAH		
	Commitment	Disbursement	%	Commitment	Disbursement	%	Commitment	Disbursement	%	Commitment	Disbursement	%
Training	282,182	767,857	74.02%	221,075	216,920	98.08%	115,379	111,022	76.22%	618,636	575,699	96.25%
Supplies												
Salvage												
Contingency												
Field Study	963,654	716,318	71.33%	832,711	622,383	74.74%	660,425	415,198	62.87%	2,456,799	1,753,877	71.37%
Other	11,510	11,510	100.00%							11,510	11,510	100.00%
Technical Assistant	1,317,754	1,072,300	81.41%	1,100,630	792,821	82.03%	1,188,218	1,015,934	85.50%	3,606,602	2,971,143	82.45%
Policy Meetings												
Total	2,577,096	7,660,073	80.32%	2,154,416	1,742,024	80.86%	1,764,022	1,542,154	70.52%	6,673,280	5,352,251	79.96%

Data realisasi pengeluaran per 6 Mei 1982

- disbursement dibanding commitment

821-128

Tabel V.2 Pelaksanaan Anggaran Loan Proyek P2CTPI Di Tiga Propinsi
(Dalam US \$) - I)

KOMPONEN	D.I. ACEH			SUMATERA BARAT			MUSA TENGGARA TIMUR			J U M L A H		
	Commlnent	Disbursement	Z	Commlnent	Disbursement	Z	Commlnent	Disbursement	Z	Commlnent	Disbursement	Z
1. Training	654,737	571,475	79.33%	713,303	680,850	95.44%	806,314	732,051	90.79%	2,174,434	2,004,326	92.18
2. Equipments	116,637	116,637	100.00%	131,640	131,640	100.00%	142,850	142,850	100.00%	391,127	391,127	100.00
3. Evaluation	9,356	0,255	80.42%	0,939	8,939	100.00%	0,255	0,255	100.00%	26,530	25,449	95.92
4. Contingency	1,016	1,016	100.00%	3,606	2,842	77.10%	4,608	4,608	100.00%	9,310	8,456	90.73
5. Field Studies	631,250	595,573	92.33%	352,502	341,740	96.95%	233,749	202,675	86.63%	1,220,701	1,130,008	92.57
6. C. TE	28,395	15,045	55.98%	49,105	46,363	74.26%				77,490	62,298	80.28
7. Technical Assistance												
8. Public Meetings	55,667	30,000	45.00%	66,667	30,000	45.00%	66,667	30,000	45.00%	200,001	90,000	45.00
Jumlah	1,510,748	1,340,771	89.27%	1,326,062	1,242,374	93.69%	1,262,643	1,120,439	88.74%	4,099,593	3,711,581	90.51

*11 Data realisasi pengeluaran per 6 Mei 1987

Z = disbursement dibanding commlnent

Tabel V.3 Alokasi dan Realisasi Dana APBN Proyek P2KIP1 BI Tiga Propinsi
(Dalam Ribu Rupiah)

TAHUN	D.I. ACEH			SUMATERA BARAT			PUSA TENGGARA TIMUR			J U M L A H		
	Alokasi	Realisasi	%	Alokasi	Realisasi	%	Alokasi	Realisasi	%	Alokasi	Realisasi	%
1782/85	110,123	106.287	87.98%	68,690	66,670	100.00%	87.290	87,102	97.70%	274,503	262,077	95.41%
1783/84	146,243	113.667	77.73%	131,439	126,214	96.07%	112,948	97,904	86.68%	390,630	337,787	86.47%
1784/85	172,580	221,771	128.17%	175,600	157,170	89.51%	240,000	194,161	80.70%	687,500	573,375	83.39%
1785/86	165,580	117,812	71.15%	173,033	113,897	65.77%	198,450	143,601	72.36%	537,063	375,220	69.87%
1786/87	50,000	47,477	94.95%	27,000	22.321	82.68%	40,000	36,922	92.31%	117,000	106,723	91.22%
1787/88	50,000	44,720	89.44%	30,000	23,819	79.40%	65,700	58,532	89.77%	145,200	127,071	87.51%
1788/87 1)	20,810	17,420	83.68%	29,256	14,748	50.41%	24,480	7,631	31.17%	74,546	37,777	50.68%
Jumlah	873,264	669,379	81.31%	634,418	526,772	83.03%	768,368	625,953	81.45%	2,276,050	1,822,004	80.05%

1) Data realisasi pengeluaran per 31 Desember 1988.

2) Angka realisasi pada tahun-tahun lain per 31 Maret

4: JUNE

Perhitungan Alokasi Biaya Konsultan Jangka Pendek Annie Veight
 dalam Program Latihan Lapangan SPK

PEB 84	Kash & Suatar	Rp.	16,060,212		
	Capital Recovery Factor pada discount rate 9%				
	untuk periode 5 tahun				0.25709
	Biaya per tahun	Rp.			4,120,659
	Alokasi untuk masing-masing propinsi /thn	Rp.			<u>1,375,320</u>
PEB 85	Kash & Suatar	Rp.	9,370,888		
	Capital Recovery Factor pada discount rate 9%				
	untuk periode 4 tahun				0.30857
	Biaya per tahun	Rp.			2,881,633
	Alokasi untuk masing-masing propinsi /thn	Rp.			<u>933,578</u>
PEB 86	Suatar	Rp.	6,267,168		
	Capital Recovery Factor pada discount rate 9%				
	untuk periode 3 tahun				0.35505
	Biaya per tahun	Rp.			2,475,575
	Alokasi untuk masing-masing propinsi /thn	Rp.			<u>825,292</u>

Item 2

Tambahan masukan untuk program Latihan Lapangan SPK

1. Sumbang, latihan Epi utk guru SPK 1986/87 Rp. 3,295,007 (VIS)

2. Konsultan Annie Voight:

	1984/85	1985/86	1986/87	1987/88	1988/89
Alokasi biaya B4	1,376,320	1,376,320	1,376,320	1,376,320	1,376,320
Alokasi biaya B5		953,878	953,878	953,878	953,878
Alokasi biaya B6			825,292	825,292	825,292
Jumlah tambahan biaya / propinsi	1,376,320	2,330,198	3,155,490	3,155,490	3,155,490

3. Sumbang, 87/88, Mary Johnston (VIS), Rp. 3,341,432

Beban 50% program Gelawan Penyandu = Rp. 1,670,716

Beban 50% program Latihan Lapangan SPK = Rp. 1,670,716

4. Sumbang, 88/89, uang makan siswa Rp.1500 per hari
Biaya per bulan = Rp. 45,000

5. Aceh, 88/89, Evaluasi dampak Latihan Lapangan SPK, Rp. 5,000,000

2.7 Aceh, Sumbang, NTT, 85/87, pertausah guru 3 propinsi di Sumbang
Peserta Aceh 3 orang, Sumbang 15 orang, NTT 4 orang.
Perkiraan biaya:

	Total Per peserta /hari	
Transport peserta	3,412,500	31,023
Persediaan peserta	595,000	5,409
Penyelenggaraan	550,000	5,000
Lain-lain	55,000	500
<u>jumlah</u>	<u>4.612,500</u>	<u>41.932</u>

**Perhitungan Alokasi Biaya Modal Penelitian Komputer
di Sumatera Barat**

Tingkat Bunga Pasar 15.3 %
Tingkat Inflasi Per Tahun 6.5 %

Tingkat Bunga Riil

Capital Recovery Factor pada discount rate 9%
untuk periode 6 tahun 0.2229197633

Biaya Komputer Per Tahun = Rp.81.107.000 x 0.222919 = 18,050,355

Alokasi untuk program Money 25% = Rp. 4,520,089

Alokasi untuk program Manajemen Dlat 25% = Rp. 4,520,089

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Asiran 4

Latihan Manajemen Obat - MSK

2-JUN 85

ACEH : 24,782 Rp. 27,470,847

Capital Recovery Factor pada discount rate 9%
untuk periode 4 tahun 0.30867

Biaya Latihan Manajemen Obat - MSK per tahun =
Rp. 27,470,847 x 0.30867 = 8,479,390

dialokasikan serata di tiga propinsi dengan
sisa biaya per tahun sebesar Rp. 2,326,463

11-JUL 86

SUMBAR : 35,895 Rp. 40.565.746

Capital Recovery Factor pada discount rate 9%
untuk periode 3 tahun 0.39505

Biaya Latihan Manajemen Obat - MSK per tahun = Rp. 16,027,271

dialokasikan serata di tiga propinsi dengan
sisa biaya per tahun sebesar Rp. 5,342,424

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Lampiran 5

Perhitungan Alokasi Biaya Konsultan jangka Pendek Uda'i Pareft
dalam Program Latihan Efektifitas Organisasi

1986	NTT	Rp.	18.829.245	
	Capital Recovery Factor pada discount rate 9% untuk periode 3 tahun			0.39505
	Biaya per tahun	Rp.		7.438.583

1987	Aceh	Rp.	22.408.301	
	Capital Recovery Factor pada discount rate 9% untuk periode 2 tahun			0.58847
	Biaya per tahun	Rp.		12.735.422

1001730

Perhitungan Nilai Biaya Konsultan jangka Panjang Usai Pabrik
dalam Program Latihan Efektivitas Organisasi

1956

NTT	Rp.	19.829.245	
Capital Recovery Factor pada discount rate 9%			0.39505
untuk periode 3 tahun			
Biaya per tahun	Rp.		7.832.603

1957

Acen	Rp.	22.402.301	
Capital Recovery Factor pada discount rate 9%			0.56247
untuk periode 2 tahun			
Biaya per tahun	Rp.		12.735.422
