PD-BAW 097

RURAL HEALTH SUPPORT PROJECT
SUDAN

REPORT OF THE MID-TERM EVALUATION

APRIL, 1985

IQC NO.: PDC-1406-I-00-4061-00

PIO/T NO.: 650-0030-3-20140A1

JSI

Table of Contents

	Page
Part One	
Introduction	1
List of Acronyms	2
Evaluation Summary	5
Evaluation Methodology	15
Background	18
Part Two: Conclusions and Recommendations	
Section I: Project Design	20
Section II: Environmental Factors	23
A. Recurrent Costs	23
B. Transporation	25
Section III: Management	27
A. Project Management	27
B. Health Planning, Management, and Budgeting	28
1. GOS Management Capacity	28
2. Management Training	31
3. Management Supervision	35
4. PIU Coordination	37
C. Manpower Development	39
Section IV: Drug Supply	41
A. Procurement and Distribution	41
B. Training	43
C. Community Pharmacies	46
Section V: Health Training	49
A. Health Workers	49
1. Community Health Workers	49
2. Village Midwives	49
3. Traditional Birth Attendants	51
B. Maternal and Child Health Training	52
C. Adult Literacy	54
D. Medical Education Training Units	55
Section VI: Maternal and Child Health/Family Planning	56
A. MCH Interventions	56
1. North	56
2. South	58
B. MCH Resources	58
C. Pregnancy Outcome Surveillance Study	59

Section VII: Community Participation 60
A. North 60
B. South 61

Section VIII: Darfur 63

Section IX: Nomads 64

Part Three: Findings

Section I: Project Design 65

Section II: Environmental Factors 71
A. Recurrent Costs 71
B. Transporation 73

Section III: Management 77
A. Project Management 77
B. Health Planning, Management, and Budgeting 83
1. GOS Management Capacity 83
2. Management Training 90
3. Management Supervision 100
4. PIU Coordination 105
C. Manpower Development 108

Section IV: Drug Supply 109
A. Procurement and Distribution 109
B. Training 112
C. Community Pharmacies 115

Section V: Health Training 119
Background 119
A. Health Workers 120
1. Community Health Workers 120
2. Village Midwives 123
3. Traditional Birth Attendants 127
B. Maternal and Child Health Training 130
C. Adult Literacy 135
D. Medical Education Training Units 136

Section VI: Maternal and Child Health/Family Planning 139
A. MCH Interventions 139
1. North 139
2. South 142
B. MCH Resources 145
C. Pregnancy Outcome Surveillance Study 148

Section VII: Community Participation 151
A. North 151
B. South 156

Section VIII: Darfur 160

Section IX: Nomads 162

Section X: Other Issues 164

INTRODUCTION

The evaluation team was given a very short timeframe to accomplish an evaluation of what should be considered more a program than a project. The RHSP covers a wide range of activities in a number of geographic locations. The project has encountered many serious problems that required considerable investigation and analysis. The section on methodology describes how the team went about this difficult and challenging task.

To the extent that we have been able to accomplish our evaluation objectives, much can be attributed to the support we received from many people along the way. We would like to extend our grateful appreciation for the support we received from the USAID Project Manager, Dr. Mary Ann Micka and her staff, from the Director General of the CMOH Directorate of Rural Health and PHC, Dr. Abdel Hamid El Said, from the OAI Chief of Party, Bruce Strassburger, Regional Coordinator Dr. James Sonnemann and MCH Advisor Dr. Amal Dardiry, from the AMREF Project Leader Dr. Kofi Asante and Provincial Coordinator Dr. Arun Patel, from the Director of the Kordofan Regional PIU, Dr. Taha Abdel Hamid and from so many others whose devotion to the project and interest in a successful evaluation made our work so much easier.

Dr. Alan D. Roth, PhD, JSI - Team Leader
Dr. William Abaker, MD, RHSP/South
Dr. Magda M.A. Ali, MD, Central MOH
Dr. Eisa Bushery, MD, RHSP/ North
Dr. Reginald Gipson, MD, MPH, JSI
Dr. Nahid Kamel, MBBCH, PhD, JSI
Ms. Pamela Mandel, MRP, USAID/Tanzania
Mr. David C. O'Brien, MBA, JSI
Ms. Anne Pence, MA, USAID/Sudan

Boston, 22 April 1985

5

LIST OF ACRONYMS

AMREF	African Medical Research and Education Foundation
BEG	Bahr El Ghazal Region
CDC	Centers for Disease Control
CHW	Community Health Worker
CMOH	Central Ministry of Health
CMS	Central Medical Stores
COP	Chief of Party
CP	Community Pharmacy
CPIU	Central Project Implementation Unit
EDC	Educational Development Center
EPI	Expanded Program of Immunization
GDP	Gross Domestic Product
GOK	Government of Kordofan - also GOE Government of Equatoria
GOS	Government of Sudan
HEMD	Health Education and Materials Development
HIS	Health Information System
HMDP	Health Manpower Development Plan
HPBI	Health Planning, Budgeting, Information
HPMB	Health Planning, Management, Budgeting
HV	Health Visitors
IEC	Information, Education and Communication
LOP	Life of Project
LS	Sudanese Pounds (currency)
MA	Medical Assistant
MCH/CS	Maternal and Child Health/Child Spacing
MCH/FP	Maternal and Child Health/Family Planning
METU	Medical Education Training Unit

MOFEP	Ministry of Finance and Economic Planning (Kordofan) also MOFE - Ministry of Finance and Economics (Nationa
MOH	Ministry of Health
MOPS	Ministry of Public Services
MOS	Ministry of Services
MTO	Medical Training Officer
NGO	Non-governmental Organizatio
NMW	Nurse Midwife
NPHCP	Northern Primary Health Care Project
NVMW	Nomadic Village Midwife also NCHW - Nomadic Community Health Worker
OAI	One America, Inc.
ORT	Oral Rehydration Therapy
PHC	Primary Health Care
PHCP	Primary Health Care Programme
PHCU	Primary Health Care Unit
PHO	Public Health Officer
PIACT	Program for the Introduction and Adoption of Contraceptive Technology
PIC	Project Implementation Committee
PIU	Project Implementation Unit
PP	Project Paper
PPS	Project Paper Supplement
RHSP	Rural Health Support Project also - RHSP/N - Rural Health Support Project/North - RHSP/S - Rural Health Support Project/South
RMPS	Regional Ministry of Public Services
RPIU	Regional Project Implementation Unit
RPU	Regional Planning Unit
SAHA	Southern health newsletter published in English

7

SMA	Senior Medical Officer
SPHCP	Southern Primary Health Care Project
TA	Technical Assistance
TBA	Traditional Birth Attendant
UN	Upper Nile Region
UNICEF	United Nations Childrens Fund
UNFPA	United Nations Fund for Population Activities
USAID	United States Agency for International Development/Sudan
VMW	Village Midwife

EVALUATION SUMMARY

Introduction

The Rural Health Support Project (RHSP) mid-term evaluation was carried out over a 4-week period by a team of nine persons, three of whom are Sudanese officials who are affiliated with project activities. USAID/Khartoum provided one team member while another was provided by USAID/Tanzania. The remaining four persons are consultants working for John Snow Public Health Group, Inc.(JSI) of Boston.

The stated objective of the project is to strengthen the capability of the Government of Sudan to provide primary health care and MCH/FP services in the regions of the project area.

The RHSP consists of a northern component which includes activities in Khartoum and in Kordofan Region (and a planned extension into Darfur Region) and a southern component which has included activities in the regions of Bahr El Ghazal, Upper Nile and Equatoria. In addition to research, interviews and writing in Khartoum, the team spent ten days on a field trip to Kordofan. Security problems in the South, however, prevented the team from visiting the southern regions. Instead, the team interviewed two of the southern component advisors and the USAID Assistant Project Manager who has been stationed in Juba, the capital of Equatoria. The team's understanding of southern component activities and accomplishments was enhanced by the presence on the team of the Medical Training Officer in Juba, who directs the training activities supported by the project.

While the information the team collected for both the North and the South has been sufficient to make a number of recommendations, the inability of the team to visit the South and the short time the team spent in the field in the North, has resulted in a number of information gaps.

Background

Since the Rural Health Support Project was authorized on August 27, 1980, with life-of-project funding of $18.063 million, there have been many delays in implementation. The most serious of these delays was in contracting. The contract for the southern component was signed 20 months after project authorization while the contract for the North took 28 months. The contractors then had difficulties fielding advisors. In the South, advisory positions were vacant for varying periods of time. In the North, while the Chief of Party (COP) arrived soon after contract signing, the only long-term advisor already in the field, the Regional Coordinator for Kordofan, arrived in the region in September, 1984. Due to these delays in startup in the northern component, the evaluation team recommends that this component be extended two additional years.

There were a number of environmental factors which have seriously affected, and continue to affect project implementation. Among these are:

1) A severe economic and budgetary crisis that has weakened GOS ability to finance regular health operations in project locations,

2) A "brain drain" that has reduced the ranks of trained health workers,

3) Security problems in the South that have impeded implementation of project activities and have now deteriorated in Upper Nile and Bahr El Ghazal to such an extent that project operations have ceased,

4) Regionalization and decentralization policies that have affected manpower resources in the South and have created unclear lines of authority and jumbled administrative procedures, and

5) A severe drought that has caused the displacement of large numbers of villages and weakened the health status of the population.

The evaluation team recommends that project activities in the southern component be limited to Equatoria Region and be continued through the planned life-of-project. To the extent that the budget allocated for this component cannot be fully utilized because of the reduced geographical scope, funds should be transferred to Kordofan Region. However, there may be some additional needs for resources scheduled for the other two southern regions to be used in Equatoria, and these needs should be met before a decision on transfer of funds to the North is made.

Although the project has experienced many troubles both within and from without, the evaluation team strongly believes that the Rural Health Support Project remains very important for the rural population of Sudan and SHOULD BE CONTINUED.

Project Design

Many of the problems the project has experienced stem from an inadequate design. The design team carried out its task in Khartoum without undertaking the fieldwork that projects of this kind normally require. The intervention strategies were designed without the benefit of adequate field knowledge, since most of the field work was delayed until the early stages of implementation. Apparently, too little time or neglect resulted in an inadequate consideration of the effect of potential constraints on project implementation. Although a number of potential constraints were identified, the implementation plan does not address them.

Another major flaw in the design is the lack of an overall strategy linking the diverse activities. The scattered array of planned activities has no underlying development principles to guide the implementers. While development concepts such as bottom-up planning were mentioned, no strategy nor plan for their application was described.

Soon after implementation, the project began facing recurrent cost problems; in 1983 USAID undertook a revalidation study of the project, and subsequently a modified design was developed as a Project Paper Supplement (PPS). The major change was in reducing the project's recurrent cost

liability. While the redesign gave more attention to the effects of environmental constraints, it again failed to provide an overall development strategy.

The evaluation team recommends that the following development strategy be used to guide RHSP implementation:

1. Bottom-up planning coupled with community participation. This does not mean that all plans must originate at the village level. Rather, planning should be a collaborative process where the resulting plan reflects broad policy and available resources from above and the interest and need of the involved parties below. The interest should be expressed in a willingness by the community to make a significant contribution to the activity.

2. Early establishment of management systems that reflect local capabilities and resources. This means that substantive activities are not started until the processes to enable these activities to be properly planned, supervised, monitored and evaluated are in place. In some cases, substantive implementation will help define the process but this should be done only in an explicit and planned manner. This leads to:

3. Sequencing of activities. This means that activities are carefully linked by a defined order to maximize the effect of one upon the other. For example, training of tutors should be carried out before the regular training begins. A management system should be developed before people are trained in better management techniques that may not reflect the techniques of the system to be used.

4. Sustainability of project activities or benefits once the project ends. While RHSP has carefully examined the recurrent cost problem in terms of sustainability of activities, much less attention has been placed on the role of counterparts and transfer of skills above the level of the health workers.

Project Management

Project managers suffered most from this lack of an overall development strategy. The major project decision makers (the USAID Project Manager, the Directors General in the central and regional ministries, the Chief of Party for the North, the Project Leaders for the South and the

Project Implementation Unit (PIU) Director and Regional Coordinator in Kordofan) were left to devise their conceptions of what development principles would guide their decision making. It is apparent that the first Project Leader in the South had a top-down orientation as did decision makers in Khartoum who have dominated decisions on activities for the Kordofan Region. The project continued to have a scattered array of activities with almost no consideration of their effect on each other or how they might be sequenced. This resulted in a large number of activities that showed little potential for moving towards achievement of the project purpose.

Transport Constraints

From its inception, the RHSP has explicitly assumed away some of its major transport constraints without responding to them directly. The evaluation team found invalid the assumptions that petroleum would be available to facilitate health activities, that the GOS would fund recurrent transport costs, and that the Central Medical Stores would continue to provide drug supply transport "at reasonable cost." The team found little evidence that these assumptions were true when originally made; subsequently the situation has continued to deteriorate.

The high cost and scarcity of transport resources in Sudan adversely affect project activities and costs. Both project components have made independent attempts to adjust to these constraints, many of which the team endorses. Such constraints render government health services unable to undertake complementary activities or provide expected resources. Transport constraints exemplify the question of whether RHSP activities are sustainable in the current resourceless environment and point up the need for increased resource assistance from the project if only to facilitate the transfer of skills so necessary for project success.

Recurrent Costs

Despite the general USAID policy that projects should not be undertaken where governments appear unable to sustain the recurrent costs associated with project activities, Sudan's environment calls this into question. In addition to Sudan's current severe economic crisis, the last three years have seen the onset of a drought which has had serious deleterious effects on people, agriculture and livestock. The result is a dramatic increase in malnutrition and disease from inadequate sources of drinking water. Local government is incapable of meeting the additional demands for health services. Not only have local revenues fallen with the decline in agricultural and rural incomes, but the central government is also not able to provide the extra needed support. Poor management of whatever health services remain further reduces the quantity and quality of health care services. The project is walking a thin line between development and relief.

Project activities cannot be effective in the resourceless environment in which they are being carried out. An increase in resources for the project will be necessary to give health workers actual on-the-job training and experience in the delivery of concrete services rather than taking them through the paces with nothing to apply.

The team sees an added value of this project as a vehicle to channel some relief services to a needy population. The U.S. is currently spending tens of millions of dollars financing relief efforts for Sudan. The effect of relief assistance is shortlived compared to that of development assistance. The development dollar has much greater value than the relief dollar. To the extent that these two can be combined, the relief assistance can have a longer term effect. To the extent that the project can improve the management of health services, especially in Kordofan where the effects of the drought are so severe, some of the health consequences of the drought can be avoided. Any extra resources needed for the project should be considered a valuable adjunct to the relief assistance rather than a recurrent cost liability.

Management

The evaluation team is making detailed recommendations to support and improve the GOS capacity to manage the primary health care program by enhancing the ability of the GOS to sustain PHC activities. In the northern component, the team finds that any health planning, management, budgeting (HPMB) assistance that is taking place is occuring in an informal manner via on-the-job training. This must be supplemented with a formal management training process. Further, the technical assistance currently in place is oriented more towards health services delivery than towards health management and budgeting or towards formal training. Therefore, the team proposes that a full-time technical assistance advisor in management systems be recruited to support the Regional Coordinator (whose technical, medical skills are needed for substantive health care activities) and to develop and help implement a systematic management approach through both formal and informal training, and that a short-term training advisor be recruited for multiple visits to support the training activities of the team. The major priority should be to assist in the development, implementation and institutionalization of an in-country regional training program. This program should be responsive to the training needs and resources for administration of PHC activities in the context of the GOS decentralized system of administration.

The team recommends that the planned, long-term Health Economist position in Kordofan be eliminated. The Management Systems Advisor may have skills in finance and budgeting. If not, these and any assistance needed in economics should be obtained through short-term consultants.

In Kordofan, the regional Ministry of Finance and Economic Planning is in the process of developing and implementing a decentralized planning system in which development units at the Area level are being trained to develop plans for discrete projects that would be funded by the Ministry. The evaluation team recommends that the RHSP's HPMB activities be developed in coordination and collaboration with this planning system operation.

The Health Information System (HIS) is currently producing data on vital health statistics which are being used, if at all, in a limited manner, and mainly to identify areas of epidemics. In most cases, the forms are completed and data is processed without analysis or use. Although this information may be useful for purposes of the CMOH in Khartoum, the current system provides very little information required for administration of PHC services. In addition, it is constrained by lack of supplies, transpor-

tation and communication problems and inadequate training in collection, processing, analysis and use of data. The evaluation team feels that the forms and the data currently utilized are temporarily adequate considering the level of sophistication of the health units at the periphery. In the short run, congruent with the bottom-up approach of the project and the initiative to integrate community participation, emphasis should be placed on the utilization of the current system to foster preventive and promotive activities at the village level. Subsequent to the implementation of basic changes, more sophisticated utilization of the HIS may be warranted. In the long run, a full assessment of the usefulness of the forms and their utilization should be conducted, mindful of the costs involved in changing the system and the nationwide scope of the HIS.

RHSP in both the North and South has yet to complete a Health Manpower Development Plan (HMDP). This is of particular concern because of the current limited availability of financial resources to cover recurrent costs of health services. The team recommends that this be completed as soon as possible, especially in the South. The HMDP should take into account the total quantity of manpower now employed by the Ministry of Services (MOS) and the recurrent cost. This data should be analyzed in relation to the MOS's Chapter I budget and its ability to pay the recurrent cost of salaries. Based on this information, the number of new health workers per year that the GOS can afford should be calculated. From this data, a decision should be made, based on manpower training priorities, on how many new health workers should be trained versus retraining of existing health workers. This is in keeping with recommendations made in AMREF's "Health Manpower in Southern Sudan" report of October, 1984 (p.70).

For the northern component, the establishment of the central and regional project implementation units (CPIU and RPIU) has not been an effective means for coordination of RHSP activities. The team is making detailed recommendations for changes in coordination and management of RHSP activities by dissolution of the CPIU and reconstitution of the RPIU. The Director General for Rural Health and PHC in the Central MOH and the One America Chief of Party (COP) should be responsible for finance and macro planning. The PIU should be responsible for regional planning and project management. The Director of the PIU and the Regional Coordinator should be jointly responsible for regional finances, and the COP should delegate more responsibility and authority to the Regional Coordinator for selection of short- and long-term advisors.

For the southern component, the planned project implementation committee (PIC) was established in Bahr El Ghazal and has recently been formed in Equatoria. The PIC in the latter should meet to develop terms of reference, work plans and a schedule for regular meetings.

Supervision has been a major problem impeding progress in the implementation of the PHCP in both the North and the South. There is no clear system of supervision. In one region, the Senior Medical Assistants make their reports without analyzing or making use of the information being provided by Medical Assistants (MAs) or Community Health Workers (CHWs) for whom they are responsible. In Kordofan, lack of coordination between south and north provinces in sending their reports to the Central MOH Statistics Department is a major problem for program management. A committee for the analysis and utilization of information provided by CHWs and MAs should be

established at different levels of the health system. The Management Systems Advisor should provide assistance to these committees. The Advisor should assist the region in development and implementation of a management/supervision system and work with the short-term training advisor consultant on developing a training program for system implementation.

The RHSP in the South has developed a proforma for supervision which needs to be completed and applied in the South. Both the HIS and the proforma should be made to complement each other.

Drug Supply and Distribution

In the area of medical logistics, the evaluation team understands that the southern component was able to make considerable progress in formal and informal training. The northern component has conducted several studies but has made few attempts to address the specific logistics problems in Kordfan Region. The contractor has been relying on the efforts of the predecessor to RHSP, the Northern Primary Health Care Project, and awaiting the arrival of a logistics advisor for the Darfur component of the project.

The team recommends that a more systematic approach be used for implementing change in the procurement and distribution activities at the central, regional and area levels. In the South, the position of long-term Logistics Advisor should be filled for the project duration. A long-term technical advisor for logistics and procurement should also be recruited for the Kordofan Region and be located in El Obeid. A logistics planning and implementation committee composed of the advisor and cadres of various related disciplines involved should be established and assigned the responsibility for designing a complete system for each region. The result of the planning effort is to be an operations manual and a formal training process in addition to provision for informal on-the-job training. These efforts are to be supported by the Management Systems Advisor and the short-term training consultant.

MCH/FP Institutionalization and Implementation

The institutionalization of MCH/FP activities has been severely hampered by the lack of policies, plans and a Department of MCH/FP at the national level. The unworkable division of preventive and curative services at the regional level in Kordofan has created administrative difficulties that further impede the delivery of MCH/FP services. This leaves little for the RHSP to "reinforce and complement".

The CDC program planned for Kadugli does not show any promise of providing significant benefits to the region. It was an activity initiated by the CPIU before the RPIU was established. The RPIU regarded it as a study fulfilling the needs of the Central MOH and was not supportive of it.

MCH/FP resources have been inadequately assessed by the RHSP in the northern component. An April, 1983, Needs Assessment is still in draft form and is seriously overdue for finalization. It is unclear whether or not there is something to be gained from it for project implementation. While studies have represented too large a share of activities to date, especially since the results of all of them have yet to be shared with local officials, several special studies remain to be completed by the

contractor. Particularly absent and important is the study related to the nomadic population's health services and training needs.

The baseline survey and village census of pilot Area and Rural Councils should be undertaken to identify a baseline for well-baby clinic intervention.

Finally, the lack of an MCH counterpart is a serious drawback to the project's sustainability.

The evaluation team recommends the restructuring of health services in Kordofan. This should be initiated by a decision of the Director General. Without an appropriate decision within four months, USAID should take steps to cancel all project activities in the region. Short-term technical assistance in MCH/FP fields should be provided to back up the MCH/FP Advisor and a counterpart should be assigned before any further major activities in MCH/FP are started. A national MCH/FP department should be established at the Central MOH to issue policies and to develop an overall MCH/FP strategy. The CDC pregnancy surveillance study should be cancelled.

Training Village Workers

In the North, the evaluation team found no significant progress in achieving output targets for training with the exception of TBAs. This is attributable to the lack of skilled staff in the health system to develop curriculum and provide training and retraining.

One quarter of the planned target for training/retraining of TBAs has been achieved. However, some of the recommendations made after the first course were not followed for the two subsequent courses. No written curriculum was designed nor tutor guide developed. Trainers were trained casually and on-the-job, and had no experience in competency-based training, training methodologies, nor how to influence the attitudes of illiterates.

The project should assist in developing a management system for training and should strengthen the Educational Development Center's capabilities to develop and revise curricula, and design and prepare training materials.

A Medical Education Training Unit (METU) similar to that set up in Equatoria should be established in Kordofan. This may be accomplished through a restructuring, recommended by the team, of the Kordofan Directorate of Health and Social Welfare. A systematic planning schedule should be developed at the Area level with the METU providing the appropriate resources. A short-term training consultant should be brought in to train the MCH/FP Advisor and trainers in competency-based training, training methodologies, development of learning materials and evaluation techniques.

The supervisory system development recommended in the management section of this summary should feed information back to the training unit about the performance of trained workers in order to better plan refresher courses. Refresher skill training courses should be developed for all those involved in the delivery of health services at the village level (CHWs,

VMWs and TBAs) planned according to specific needs and to include practical community-based training. These courses should be carried out by a multi-disciplinary teaching team.

In the South, minimum progress has been made in the development of curricula, training programs and teaching materials for a number of reasons. One of the most serious of these is a shortage of full-time trained staff for the METU. The focus of training activities should be on training and retraining MCH/FP personnel including TBAs. Coordination between training staff in Kordofan and Equatoria is encouraged to exchange and compare experiences.

The evaluation team endorses AMREF's proposals to convert short-term training funds to three long-term training slots in areas of priority, two of which are: to train the Medical Training Officer for a minimum of one year in curriculum development and training methodologies, and to support a mininum of one year of participant training in the area of MCH/FP. The team also recommends sending Southern Sudanese health workers to other countries in Africa where established short-term courses can be identified.

The team also endorses AMREF's proposal to reallocate resources for the construction of two birthing subcenters for the peri-urban settlements of Gumbo and Lologo outside Juba. AMREF should submit a plan and budget, explain how recurrent costs will be met, and have these approved by USAID. Organizational charts should be combined into one large chart including the new plan for organization of PHC at the Area level.

Community-based Participation and Community Development

Although stressed in the project design, the RHSP has done little if anything to facilitate community-based participation nor has it encouraged community development in the North. Nonetheless, there are several examples of existing commmunity concern and involvement in health care. Communities have contributed to Village Health Committees and Patient Friendship Committees, as well as to Area, Rural and Village Councils. The RHSP should build on and integrate their activities with existing community groups.

The evaluation team recommends the promotion of community participation and bottom-up planning. The project should focus efforts at the Village Council level, providing incentives and logistics for health workers to work together to plan community participation activities. We suggest an increased pivotal role for the Health Visitors and Community Health Workers. We also encourage the continued development of a planned newsletter for communication among health workers and their supervisors.

In the three years of RHSP activities in the South, the project has made considerable efforts towards facilitating community-based participation in PHC. These have included addressing Area Councils; training of health educators, VMWs and CHWs; development of health learning materials; and development of a health newsletter. Communities in the South have also played a significant role in building the PHCUs. Despite the security situation in the South, the RHSP can still undertake several activities promoting community participation and development. These are primarily in the areas of health worker training and health learning materials develop-

ment. Continued work with Area Councils should be encouraged, as well as follow-up on the PIACT health education materials being developed

Community Pharmacies

The three community pharmacies created in the North with support from RHSP are not structured to serve the targeted rural population of the project. They primarily serve urban areas and are in direct competition with existing private pharmacies. The three community pharmacies are heavily subsidized from a variety of sources. The major subsidies are: start-up capital from RHSP, salaries paid by GOS, and low purchase prices for drugs from the Central Medical Stores. While the subsidies cannot be relied on indefinately, the cost advantages of the community pharmacies are driving some private pharmacies out of the marketplace. The project should focus its attention on ways to provide drugs to the rural areas more effectively and efficiently. The GOS should consider ways to reduce the regulatory burden on the private pharmacies which, in turn, would reduce drug prices for, and bring more drugs to, the rural population.

Schedule for Startup in Darfur

Current plans are to undertake an assessment study in Darfur in March, 1985, and commence implementation soon thereafter. The Project Paper had planned a phased implementation for Darfur so that lessons learned during the first year of implementation in Kordofan and the Southern Region could be transferred there. The evaluation team has concluded that such an assessment is premature, that "lessons learned" are too few or not yet verified, that there is nothing to replicate, and that implementation in Darfur should be delayed for at least a year.

The assessment study, if carried out as scheduled, would provide information that is likely to be out of date when implementation begins. The team recommends that some basic information on health manpower, training resources, current budget and expenditure levels and the structure of health services be obtained over the next few months. At least a part of this information can be obtained by requesting it from the Director General of the Directorate of Health and Social Welfare.

The possibility of incorporating or adapting aspects of the Community-based Family Health Project in a pilot zone in Darfur should be examined. However, if this is implemented prior to other RHSP activities, there is a possibility of difficulty in fitting it into the RHSP framework.

USAID should conduct a budgetary analysis of the northern component to assess whether there are sufficient funds available to implement the recommendations in this evaluation that have been approved by USAID and the GOS for Kordofan. To the extent that additional funds are needed for Kordofan, and that these cannot be obtained from the southern component, the next likely candidate from which funds could be obtained is Darfur. The evaluation team believes that it is better to implement the northern component in one region well than to implement it poorly in two regions. It may be possible to make marginal changes so that Darfur does not need to be completely eliminated from the project. The short time the evaluation team had to do its research and write the report did not allow for sufficient budgetary analysis.

EVALUATION METHODOLOGY

Logical Framework

The evaluation team was asked by AID to structure the evaluation around the logical framework. Project logframes were constructed by USAID on two occasions: A logframe was included in the original Project Paper and two logframes were included in the Project Paper Supplement - one each for the northern and southern components. In its first sessions, the team reviewed logical framework terminology and methodology. Then, using the actual project logframes, an assessment was made of their quality for use as a guide in evaluating the project. The original logframe in the Project Paper (of 1980) was found to have inadequate detail and mistakes in methodology (see below). The logframes that were part of the Project Paper Supplement (1984) had significantly more detail and the mistakes in methodology were relatively minor although some of the mistakes in the original were carried over to these later ones.

The team looked into the text of the Project Paper (PP) and the Supplement (PPS) for more detail and definition of outputs and purpose. In the PP, project activities (inputs) were described but there was very little information about the expected quantity and quality of the outputs. There was also very little information about the expectations for purpose level achievement. There was very little discussion about the role of the identified assumptions for output and purpose achievement. The PPS also elaborated on the inputs but did not add much more to the targets identified in the logframes for output and purpose level achievement. It also did not provide guidance on the role of the assumptions.

While these weaknesses were a continuing problem for the evaluation team, the logframe methodology still proved valuable in discussing and analyzing the structure of the project. The report is written following logical framework methodology.

Problem Trees

The 9-person evaluation team had three days following arrival in Khartoum to read through project documents, discuss the logframe and identify issues. For issue identification purposes, the team used problem trees to work out the detailed components of possible issues and thereby see where different issues coincided or could be integrated. The issues were identified by the outputs and assumptions of the logical frameworks as well as from interviews with project personnel and from reading project documents. The issues were framed as questions. During the fieldwork and subsequent information analysis, the team consolidated issues where possible. The problem trees also enabled the evaluators to work out potential avenues of investigation and develop questions for planned interviews.

The team then spent two days interviewing individuals connected with the RHSP southern component. During these two days, with what little remaining time was available, team members continued to read documents and further refined the problem trees.

Interview Methodology

The interview methodology was relatively unstructured to allow for flexibility. The team had decided not to use quantitative methods given the very short timeframe for the evaluation and the difficulties that quastionnaire preparation and data collection and analysis would have created. The problem trees provided a check to see that sub-issues were being covered. The team split up according to specific issues that were to be discussed in scheduled interviews. Between interviews there was considerable discussion among the team members to compare findings and work toward integration of issues. Close and constant interaction among the team members was important because of the size of the team and the range of issues that needed to be covered. Despite the stress of trying to compress a two-month job into one month and the potential difficulties when so many people are both working and living together in the same guesthouse, there was considerable harmony among the members. As a result, the team was able to make strong recommendations that had full support from all members. All of the conclusions and recommendations in the report have been unanimously agreed to by the team.

Field Work

The next phase of the evaluation was a 10-day field trip to Kordofan Region. Upon arrival in El Obeid, four team members traveled to Abu Zabad for 1 1/2 days to attend the closing ceremonies of a TBA training session and to interview the trainers and participants. While they were away, the other team members interviewed local officials and wrote rough drafts for the southern component issues for which they were responsible. When the team came together again in El Obeid, a full interview schedule was developed and carried out. This continued throughout the stay in Kordofan Region except for a 2-day field trip. For this, team members split into 2 sub-teams; one for Kadugli Area and the other for En Nahud. During the last few days in El Obeid, any spare time was spent writing rough drafts pertaining to both southern and northern component issues.

Report Preparation and Debriefing

Upon the team's return to Khartoum, only five days remained to produce a draft report. The daytime was scheduled to include both writing and discussion periods while evening meetings were dedicated to discussion of recommendations. The fifth day was partially devoted to preparation of a written summary and the oral presentation for the following day.

At the oral debriefing, attended by GOS, AID and RHSP staff, each team member presented his/her major findings, conclusions and recommendations. The presentation by the team was followed by a question and answer period.

Report Structure

The report has been divided up into three major parts. Part One consists of the summary, background information and evaluation methodology. Part Two is Conclusions and Recommendations divided by issue. Part Three is Findings and these are divided by issue in the same sequence as in Part Two.

The issues were divided up by category roughly relating to a major focus of the project. These three RHSP focuses were identified in the PPS as:

a. improvement of the delivery of PHC services;

b. incorporation of a maternal and child health care/ family planning (MCH/FP) element in the PHCP;

c. strengthening of planning, management and logistical support to PHCP.

The team found the first stated focus to be too broad and overlapping with the others to be helpful in structuring the evaluation or the report. However, the other two (b and c) were useful as major subjects. To these the team has added training as a separate major focus. In the report, planning and management are Section III, logistics is Section IV, training is Section V and MCH/FP intervention is Section VI. In addition to these, Section II deals with two environmental issues, Section VII deals with community participation and the other sections deal with single issue subjects.

Each issue was prepared by writing the findings and then the conclusions which represented a summary of the findings and macro analysis of those findings. The recommendations were then based on the findings and conclusions. The conclusions and recommendations are separated from the findings for the convenience of the reader. It is likely that few people will read the report from cover to cover. The findings provide reference material for those cases where the reader wants more information about the issue after reading the conclusions and recommendations.

Some issues were dealt with easily and the write-up for them is short while other issues required considerable discussion and the write-up for these is more lengthy. Some of the issues were handled by a single team member but many of the issues had an identified leader and were worked on by a number of team members. With nine people doing issue write-ups and only part of five final days in Khartoum available for report writing, there was a considerable amount of cleaning up to be done in preparing the final report. The final report preparation, which was done in Boston and Washington by the team leader (two weeks)and one team member (one week) was constrained by the short time alloted to this task.

BACKGROUND

Project Design

The Rural Health Support Project (RHSP) was intended to provide a continuation of support for the GOS Primary Health Care Program. Prior to RHSP, support had been provided by USAID's Northern Primary Health Care Project and Southern Primary Health Care Project. The RHSP was designed in 1978-79 to focus support on the Western and Southern regions of Sudan where the GOS had particular difficulty in providing health services. A small portion of the project was devoted to improving the capability of the Central Ministry of Health (CMOH) to better coordinate primary health care activities and improve its service to local and regional governments.

The project strategy was oriented to the provision of technical assistance to help the GOS improve its ability to use available resources. Besides the technical assistance, the project also was to provide a moderate amount of commodities (mostly drugs), and to finance participant training and construction. The foreign exchange budget totaled $18,063,000.

When the project was originally planned, the economic conditions in the country were favorable and projections at that time were for continued economic growth that would increase government revenue. It was reasonable to assume that the GOS would be able to finance an expanded primary health care program.

This did not mean, however, that conditions in the country in general were favorable to the project. A number of potential constraints were mentioned. Some of these constraints and the way the Project Paper dealt with them are discussed in the first issue of this report.

Implementation

The project was divided into two parts, the northern component, consisting of the western regions and the central government, and the southern component consisting of the southern region(s). Separate contractors were chosen for each of the two components. The technical assistance inputs were late in arriving due to contracting delays in AID/Washington. The contract for the southern component was signed twenty months (April, 1982) after project authorization (August, 1980) while the contract for the North took twenty-eight months (December, 1982). Both contractors then encountered difficulties in fielding advisors. This evaluation was intended to be a mid-term evaluation for a 5-year project, but although the evaluation was undertaken 4 years and 5 months into the project, many activities had yet to be initiated.

Environment

This project has suffered greatly from environmental constraints. While a number of these were identified in the Project Paper, others have developed during project implementation. Many of those identified in the design have intensified during implementation. The most critical constraints have been:

1. an ongoing economic crisis that has crippled GOS attempts to provide health services;

2. decentralization of government services (1980) that has put the burden of financing health services on local governments;

3. inadequate tax revenue at local levels due to the poor economy, the drought and poor local tax collection capability, and recent changes in tax law;

4. a drought in the North (1984-85) that has adversely affected the health status of the rural population, income generation (ability to pay for services) and traditional demographic patterns;

5. redivision of local government units (1981) that has disrupted lines of communication and authority, and, in the South, has divided one region into three with one result being the transfer of government personnel to their home region - leaving 2 of the 3 regions with a dearth of trained manpower;

6. imposition of Islamic Sharia law (September, 1983) that has caused a civil war in the Christian South forcing the withdrawl of RHSP staff and advisors initially from two of the three regions and finally from all three;

7. a chronic "brain drain" to the more affluent gulf states that includes not only highly skilled people but also the lesser skilled such as community health workers and which has reduced the ranks of an already inadequate manpower base;

These constraints are discussed in greater detail in the findings for many of the issues covered in the report.

PART TWO

CONCLUSIONS AND RECOMMENDATIONS

SECTION I: PROJECT DESIGN

ISSUE I: Did the original project design provide adequate consideration of project implementation constraints?

Conclusions

The original Project Paper (1980) was deficient in identifying the magnitude of constraints on specific project activities and then relating project strategy and targets to those constraints. The implementation plans were therefore not realistic and subject to a high probability of failure. The project logical framework was not done properly which confused implementers and this evaluation team. When the project was reassessed three years later, some of the problems were attributed to unforeseen factors, but many of the difficulties could be anticipated from constraints mentioned in the project design. The project was planned with insufficient fieldwork to understand what needed to be done, how it should be done and what constraints might exist.

The Project Paper Supplement (1984) had a better defined implementation plan with more than 100 activities identified. The long list of activities was an ambitious attempt to push the project along on a broad scale yet there was no significat effort to show how these activities could be prioritized, sequenced and made to complement each other using development guidelines and strategies. Planned outputs were more detailed and had indicators of quantity, quality and time. The Supplement has numerous descriptions of potential constraints and links strategy to overcoming them. However, assumptions are again made that are at odds with the constraint descriptions and the experience of the first three years. It is not clear how the output targets can be achieved within the existing LOP, especially if the assumptions prove invalid.

Recommendations

The following development strategy should be used to guide future project planning:

Depending on which recommendations of the evaluation team are accepted and the level of resources that USAID and the GOS are willing to apply, a new logical framework should be developed. Some guidance on targets and assumptions can be found in various sections of this report. Some suggestions concerning logframe methodology using the PPS logframes as a base are:

a. Bottom-up planning coupled with community participation. This does not mean that all plans must originate at the village level. Rather, planning should be a collaborative process where the resulting plan reflects broad policy and available resources from above and the interest and need of the involved parties below. The interest should be expressed in a willingness by the community to make a significant contribution to the activity.

b. Early establishment of management systems that reflect local capabilities and resources. This means that substantive activities are not started until the processes to enable these activities to be properly planned, supervised, monitored and evaluated are in place. In some cases, substantive implementation will help define the process but this should be done only in an explicit and planned manner. This leads to:

c. Sequencing of activities. This means that activities are carefully linked by a defined order to maximize the effect of one upon the other. For example, training of tutors should be carried out before the regular training begins. A management system should be developed before people are trained in better management techniques that may not reflect the techniques of the system to be used.

d. Sustainability of project activities or benefits once the project ends. While RHSF has carefully examined the recurrent cost problem in terms of sustainability of activities, much less attention has been placed on the role of counterparts and transfer of skills above the level of the health workers.

AID 1020-28 (1-72)

PROJECT DESIGN SUMMARY
LOGICAL FRAMEWORK

Life of Project:
From FY _____ to FY _____
Total U. S. Funding _____
Date Prepared: _____

Project Title & Number: Rural Health Support Project - Comments for improving logical framework.

NARRATIVE SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Program or Sector Goal: The broader objective to Improved health status of the rural population of Kordofan and Darfur. (note: the project activities have not specifically targeted the rural poor. Most of the rural population is poor and it would not be cost effective to try to limit services to only the poor. By servicing the rural population generally, the health status of the rural poor will be improved.)	**Measures of Goal Achievement:**		**Assumptions for achieving goal targets:** Of the original assumptions in the PPS for achieving goal targets, the first assumption, national priority for health continues, belies the fact that primary health care and MCH have not been national priorities. The second assumption is the basic hypothesis of the purpose to goal link and need not be a listed assumption.
Project Purpose: Improved delivery of primary health care and MCH/FP services in project area. (note: the original purpose statement included strengthening GOS capacity in HPMR. This is a summary of the outputs and not a higher order objective.)	**Conditions that will indicate purpose has been achieved: End of project status.** In the PPS logframe, a number of the End of Project Status indicators were actually indicators for various outputs. Purpose level indicators should be specific to the purpose of improved delivery of services (quantity and quality of services reaching the target population). The quantity and quality targets should be realistic for the timeframe of the project.		**Assumptions for achieving purpose:** It is not clear why the first two assumptions in this box in the PPS are important for achieving the purpose. The third assumption is too vague to be helpful. The assumptions should be specific enough to provide operational guidance to project managers and evaluators.
Outputs: These should be listed as results of the inputs and not as the inputs themselves. The PPS outputs were simply activities. Inputs are activities and resources. The general characteristic of the output should be listed in the output box while the quantity and quality targets for the output are in the box to the right.	**Magnitude of Outputs:** This was one of the strongest parts of the PPS logframe in terms of methodology. It is here that the quantity and quality of the planned output achievement should be listed.		**Assumptions for achieving outputs:** Almost all of these assumptions were known to be faulty when the project was planned. If it is known that an outside factor will adversely affect the project, it should be dealt with as a project activity or resource or its affect should be reflected in the outputs and purpose. Listed assumptions should be external factors that may possibly affect the project adversely and need to be monitored by project management. If they do affect the project, the project activities or targets should be modified or the project cancelled if it is no longer cost effective to continue.
Inputs: This box is mainly for input activities The resources to be used for these activities and/or summaries of types of resources and their cost should be listed in the box to the right.	**Implementation Target (Type and Quantity)** Type of input resources and their cost should be listed here.		

SECTION II: ENVIRONMENTAL FACTORS

ISSUE II.A.: Is the GOS willing and able to maintain health as a national priority and cover recurrent costs?

Conclusions

The team believes the current drought stricken environment is close to resourceless. In Sudan's ravaged economic condition, the project is walking a thin line between development and relief. Rather than concerning itself with the unlikely ability of Sudan to sustain PHC well over the decade, the project can help develop the existing workers into an appropriately trained cadre prepared to operate within a developed system as more domestic resources become available. This project has thus never been more important to Sudan's PHC system.

If the poor health conditions in Sudan's rural areas could be considered typical in Africa and worthy of development only to the extent that activities supported by the project could be sustained by the GOS or the private sector when RHSP ends, it would not be worthy of continuation. It is likely that all primary health care activities dependent on project resources would stop as soon as those resources were used up. Under normal circumstances, this would disqualify this project from any further assistance.

However, Sudan's current situation is not at all typical. The drought is causing severe human suffering with donor countries and agencies pouring great amounts of relief assistance into Sudan and its two neighbors (Ethiopia and Chad). The U.S. Government is under strong political pressure to increase relief assistance to population groups suffering the most from the drought. To the extent that these conditions continue, relief assistance will be a major expense for the U.S. Government.

Relief assistance provides no sustainability and, while it keeps people alive, it has a very high cost-to-benefit ratio compared to development assistance, which also acts to keep people alive. In the case of the RHSP, development assistance is mainly oriented to institution building and human resource development. The improved GOS capability to deliver primary health care services is most critical at a time when the population is at greatest risk. The drought has created that high risk level. To the extent that the RHSP development facilitates the delivery of health services using meagre GOS resources and donor resources and alleviates the necessity of relief assistance, those development dollars save costly relief expenditures.

The improved GOS capability resulting from RHSP activities is meant to have a direct effect on the health of the population now at risk from the drought. To the extent that the preventive health services can reduce morbidity from some drought-caused diseases, it can offset some relief assistance.

The RHSP was originally designed to help the GOS better use its own resources. The TA could be leveraged by those resources to provide a high benefit relative to the cost of the project. Because of the current lack of GOS resources, expectations of achievement have to be reduced while the cost goes up to supply added resources. While this greatly increases the cost/benefit ratio of the project, its value must now be judged by:

1. The immediate effect on the health conditions of a population at extremely high risk;

2. The direct trade-off of development assistance against relief assistance;

3. The value of having a better-trained cadre of health workers to help channel relief assistance;

4. The increased value of any relief assistance that can be converted to resource support for RHSP, thereby helping to improve GOS capability for the long term while providing necessary relief for the short-term.

Due to time restraints on the evaluation team, a budgetary analysis of project activities was not possible, nor was it possible to assess how much more money will be needed in Kordofan to provide the resources necessary to implement the project as planned. The team found that the number of vehicles and the amounts of fuel, drugs and other commodities planned cannot suffice in the current resourceless environment. However, there remains a considerable amount of local currency in the project that can be used for some of these items. Also, there has been a savings by having a Sudanese advisor (MCH/FP) at lower cost and paid in local currency take the place of an expatriate advisor. It is not clear how these balance out and whether vehicles and fuel can be purchased using local currency. However, the local currency budget should be at a high enough level to adequately finance the community-based activities that the evaluation team is stressing.

Recommendations

Recurrent cost should continue to be an important issue in this project. Sustainability of project activities should be a major consideration in any project undertaking. However, project resources should be increased to make up for the dearth of resources in the project environment. This project resource level should not be considered sustainable but rather the sustainable factor should be an improved GOS technical and management capability resulting from a transfer of skills. The extra resources should be a means to this end while also facilitating relief efforts.

The team endorses the northern component's proposal to survey a couple of large villages in Kordofan to determine how much is being spent on drugs and other health care, including traditional medicine. This should be used as a partial basis for determining whether rural "drug stores" are supportable and to help set service fee structures.

USAID should undertake a budgetary assessment of both project components to ascertain whether there are sufficient monetary resources remaining in the project to adequately undertake the recommendations that have been approved by USAID.

To the extent that the added budgetary resources needed for Kordofan can be transferred from the two regions eliminated from the project in the South, this should be done. If this does not suffice, and the project budget as a whole cannot be expanded, another option is to transfer funds to Kordofan that are currently earmarked for Darfur. In the current situation, it is preferable to implement the project correctly in only one northern region than poorly in two. One additional option is to identify ways in which the project will be facilitating the relief efforts and use available relief money to provide some of the necessary inputs that have both a relief and development effect.

ISSUE II.B.: Are project assumptions regarding transport costs and availability currently valid?

Conclusions

The availability of transport has diminished in recent years, especially in more remote regions of the country. Moreover, the Central Government is having increasing difficulty importing enough fuel to meet domestic demand. As GOS revenues decline and the pound continues to lose value, the foreign exchange resources needed become ever more burdensome to raise. With Sudan's total fuel supply so limited, regional allocation of fuel is now spotty and inadequate, with regions purchasing fuel at high cost in the black market, or doing without and suffering the consequences.

The high cost and scarcity of transport resources in Sudan affects project activities and costs. They also render government health services unable to provide expected resources. This brings into question the long-run sustainability of the primary health care activities the RHSP is undertaking.

Recommendations

Overly optimistic logframe assumptions and targets should be rewritten and incorporated to reflect real transport constraints and thereby guide project planning, implementation and budgeting.

Both project components should continue providing increased vehicle inputs, but make this contingent on the development of a management system developed by the contractors in collaboration with their local counterparts. Both project components should consider purchasing smaller, more fuel-efficient vehicles for in-town use in urban areas. The northern component should move ahead with its proposal to procure such cars. After OAI completes its planned survey of salvageable vehicles, it should use that data together with project implementation plans to propose additional vehicle inputs. The team endorses OAI's proposal to improve the local vehicle maintenance capability.

Recognition of severe transport constraints should be a criteria in locating pilot zones and health facilities (warehouses, dispensaries, community pharmacies, etc.) so as to ensure optimal use. Both components should estimate realistic coverage levels of each project facility so as to help define the costs of achieving certain coverage levels for planning purposes.

Both project components should continue making efforts to reduce the mobility required within the health system for efficient service, and to better coordinate existing transport resources for supply movement and supervision. In fact, this should be a specific activity in their respective work plans in the future. Both components should examine the possibility of making greater use of public transport for health worker mobility, and the possible provision and monitoring of travel allowances for supervision.

SECTION III: MANAGEMENT

ISSUE III.A.: How have project management decisions and styles affected project implementation?

Conclusions

Project management has suffered from a lack of an overall development strategy. The major project decision makers were left to devise their own conceptions of what development principles would guide their decision making. It is apparent that the first Project Leader in the South had a top-down orientation as did decision makers in Khartoum who have dominated decisions on activities for the Kordofan Region. The project continued to have a scattered array of activities with almost no consideration of their effect on each other or how they might be sequenced. This resulted in a large number of activities that showed little potential for moving towards achievement of the project purpose.

Officials in Kordofan Region have not found any value in the region from many project activities already underway. They have had little to say about what is to be implemented despite an agreement with the central MOH that the Regional Project Implementation Unit (RPIU) and the Central PIU are equal partners.

Recommendations

Project managers should base their project plans on the development strategy described in the recommendations above.

The CPIU should be dissolved to put more emphasis on the role of the regions in project planning. (See Issue III.B.4)

Decision makers in Khartoum should review project plans developed in the regions rather than propose plans to the regions.

ISSUE III.B.1.: Has a regional capacity in health planning, budgeting, and information been developed?

Conclusions

In the northern component, the evaluation team finds that there has been little progress in the implementation of the activities planned to develop a regional capacity in health planning, budgeting, and information. Although RHSP has completed a workplan for FY 84/85, the RHSP has not participated in or assisted in the development of a regional health plan and budget for the Ministry of Public Services.

Further some of the activities that have been proposed do not appear to contribute to the success of the project as planned. This can largely be attributed to the fact that a pre-implementation assessment of the GOK planning, budgeting, and information systems has not been successfully performed upon which to base plans. Although isolated and inconclusive studies have been performed, even these studies have not been distributed or applied to the situation at hand.

The Joint Planning Exercise and Grant Fund activities which have been cited as intended to fulfill these requirements have not been implemented and neither activity has been planned in detail. Both of these activities, however, represent opportunities for training in and implementation of planning, managing, and budgeting exercises, particularly within the proposed pilot zones and with the collaboration of the MOFEP's Regional Planning Unit (RPU).

Until now, little communication has taken place between the RPIU and the RPU. The Unit represents a particularly attractive opportunity to encourage HPMB at the village and Area levels due to the village development units being formed and the training sessions in project identification and project implementation being sponsored by the RPU.

The GOS Health Information System (HIS) is currently producing data on vital health statistics which are being used, if at all, in a limited manner, mainly to identify areas of epidemics. Although this information may be useful for purposes of the Central MOH in Khartoum, the current system provides fairly little information required for administration of PHC services. In most cases, when forms are available, the forms are completed and data is processed, but without appropriate analysis or use. The quality of the information collected and reported by PHCUs and MAs is of limited use. The large number of errors make it difficult to use the data for purposes of program monitoring and evaluation.

Recommendations

For the northern component, OAI should recruit a management systems specialist to be located in El Obeid to support the activities of the Regional Coordinator. This person should have been trained and be experienced in budgeting and financial management. He should specifically be charged with developing management systems for planning and budgeting. Careful consideration must be given to what data is needed, how to best collect the data, who should receive the data, and what action should be taken as a result of the data analysis.

In both the northern and southern components, the HIS technical assistance needs can be met by the current staffing for implementation with support from short-term advisory assistance several times per year.

The evaluation team feels that the forms currently in use for the Health Information System are only temporarily adequate, especially considering the current low level of capability of the program at the periphery. However, in the long run, a complete assessment of the forms and their applicability to the administration of the PHCP in the context of the decentralized Sudanese government should be conducted by the RPIU and PIC under the guidance of HIS short-term technical assistance. This assessment must evaluate any proposed modifications from the perspective of the costs involved in changing the system, the logistical requirements, and the nationwide scope of the HIS. The assessment and any redesign of the existing system should specifically address the need for and appropriate balance of management information in addition to health information. The likelihood that data is accumulated and recorded accurately could also be enhanced by providing incentives to the village health workers to do so. Health workers should be instructed in the usefulness of these data at the central level, as well as for management and planning at the intermediate and periphery levels.

At this time, congruent with the bottom-up approach of the project, the team recommends that emphasis be placed on the utilization of data at the village level for primary care. In particular the process of community diagnosis and the subsequent preventive and promotive activities should be reinforced. This can be accomplished first by training and guidance and subsequently integrated into the supervisory system. The HIS system as now designed includes records of a Village Health Survey and Census Form for performing a community diagnosis and a Promotive and Preventive Activities Register. The evaluation team recommends that it is appropriate at this time to develop and implement a form for planning the promotive and preventive activities after the community diagnosis and before the activities themselves. This planning document would also be useful to guide the Senior Medical Assistant in his supervisory activities. Primary care activities, including their management and budgeting, should then be planned on the basis of the community diagnosis with the collaboration of the village health committee and the approval of the village council.

In an effort to encourage and to foster these crucial initial stages of implementing an HPMB process and the application of the most basic elements of the HIS, funds should be made available to support very basic interventions with appropriate resources and equipment. Among the types of preventive and promotive interventions that should be encouraged are: protection and development of water resources; teaching and assisting in proper latrine construction; control of insects, animals and other pests; environmental sanitation and health education. Only subsequent to the implementation of basic changes would consideration of more sophisticated utilization of the HIS be warranted.

These activities also should be coordinated with the Regional Ministry of Finance and Economic Planning, Regional Planning Unit (RPU) initiatives to establish village development units and to provide formal training in project identification and project implementation.,

The flow of information in the reporting process should be rationalized and standardized. The planning and implementation of activities should be reported upwards to the Rural Council and Area Council levels. Likewise, vital health statistics should be reported back downwards to the Village level after aggregation at the higher levels. Monthly reports should go first to the PHC Complex Center for review and feedback, including the correction of any misunderstandings concerning the proper completion of forms. Subsequently, the data should be sent on to the Area Medical Assistant. Monitoring, evaluation, and supervisory capabilities must be developed at the Area and regional levels to improve planning, management, and supervision.

The Health Survey and Population Census Report should be repeated periodically, perhaps annually, to update baseline information and analyze trends.

Sufficient forms should be obtained to supply all units for at least one year.

The evaluation team endorses the concept of the Regional PIU to initiate health planning, management, and budgeting activities for health services delivery in pilot zones and subsequently replicating or adapting successful elements for Area-wide and Region-wide implementation. The team emphasizes, however, that this bottom-up planning must involve community participation, requires the early establishment of management systems reflective of local capabilities and resources, and the careful linking of activities in a defined order to maximize effectiveness.

A committee consisting of several members of the RPIU and representatives from the RPU should be formed in order to facilitate collaboration and coordination between the two organizations on planning activities. This committee should be required to meet at least quarterly.

In conjunction with the RPU, the RPIU should complete an assessment of the GOK planning, budgeting, and information systems and plans for decentralization. Special attention should be devoted to the relationship between these activities and the anticipated RHSP HPBI activities.

The evaluation team endorses the RMPS plans for establishment of a staff Planning Unit. The RPIU should contribute to the formation of this unit in view of their mission to strengthen the GOK health planning capability.

ISSUE III.B.2.: Have targets been met in the development, implementaiton and institutionalization of a training progrtam in health planning, management and budgeting?

Conclusions

North

1. The project targets have not been met for the development, implementation and institutionalization of a training program in HPMB.

2. The pre-implementation needs study did not provide an adequate assessment of the planning, management and budgeting training needs and resources for PHC administrative personnel. Therefore, there was an insufficient amount of data to use as a basis for development of an HPMB training program.

3. The pre-implementation needs study did not provide adequate data on the GOK's organizational structure and process for planning, management and budgeting functions at each level of the PHC system.

4. The management by exception studies are not an effective means of improving the skills of SMA's in their supervisory/ management activities.

5. The disaggregation of regional health budget and Area level expenditure activities are good approaches for the initial assessment of how the current health budgetary process works and what is required to improve or further develop this system, however, this applicability for future improvements in these areas is uncertain.

6. The workshop for SMAs represents a good approach for involvement of health personnel in problem identification and problem solving activities. But, it is only one component of a training program in HPMB.

7. There is no institutional structure or unit at the regional level under the Directorate of Health and Social Welfare for the administration of planning and training (HPMB) activities.

8. The rate of progress in the development of an HPMB training program has been slow because of the following constraints:

- delays in the USAID/W contracting process.
- delays in fielding of advisors by OAI.
- lack of GOK administrative/organizational structure for regional training.
- lack of appropriate full-time counterparts.
- unclear GOS policies on decentralization/regionalization.
- transportation and communication problems.

South

Workshops on general management have been conducted but the areas of planning and budgeting were not significantly covered.

The rate of progress in the development of a HPMB training program has been slow because of the following constraints:

- delays of USAID/W contracting process
- security problems which restricted travel
- lack of appropriate MOS counterparts
- problems in provision of continuous TA by AMREF
- delay in establishment of METU
- local government/regionalization act
- lack of training facilities
- transportation and communication problems.

The METU was established and staffed.

Recommendations

North

The management by exception studies should be discontinued as a project activity. Vehicles should still be provided to administrative health personnel for transportation as part of their management/supervisory functions, but this should be done as a part of a supervisory system. Activities should be developed which will assist in the development of a management/ supervisory system.

A long-term Management Systems Specialist supported by a short-term training specialist should be added to the OAI team in El Obeid. They should assist in the development of an in-country regional training program in HPMB for Kordofan. It should be based on the management/supervisory system developed and an assessment of the training needs and resources for administration of PHC activities by health personnel at all levels of the health systems.

One America should work with Sudanese counterparts from the CMOH and Regional Ministry of Public Services (MOPS), consultants and appropriate faculty members of the universities and training institutions in assessing GOS decentralization/regionalization plans and procedures and guidelines for systematic planning, management, budgeting, resource allocations, implementation, and evaluation (as it relates to PHC activities at all levels of the health system).

The current regional organization of health services should be changed, as planned, so that an institutional structure (unit) will be provided for the administration of HPMB activities. Diagram I (see Findings for this issue) represents one possible organizational structure.

A Kordofan regional PHC training team should be formed under the office of the Director General. Team members should include a medical officer, senior medical assistant, PHO, two community health worker tutors, health visitor tutor, VMW tutor and TBA tutors and a statistical tech./clerk.

Consultants in the above areas should be utilized to design a training of trainees course in HPMB. This course should include areas such as training needs assessment, curriculum development, teaching methodologies and content material on HPMB.

As a part of implementation of the training program (TP) complementary teams should be set up at Area, rural and village levels. This should include the development of HPMB training-of-trainer manuals for Area-level trainer teams and manuals for training trainee teams at the rural and village levels.

The regional PHC training team should train the Area-level teams as trainers. The Area-level PHC teams should then train rural and village teams with some help from the regional team.

The rural and village teams should then work with the Rural and Village Councils to form health committees (if not already formed) and conduct a community health problem diagnosis study. From this information a community PHC plan would be developed for the PHC health problems. (Also see issue VII.A. on community participation)

The joint planning activities which are planned as a means of involving communities in planning their own programs with collaboration from the Rural Councils should be coordinated with this activity. The RHSP Grant Fund should be used as a means of funding community PHC plans.

The training should be planned so that after community PHC plans are developed and funded, training in management focused on practical skills required for implementation of the work plans would start.

South

AMREF should work with the METU to develop an in-country regional training program in HPMB in Equatoria. This program should be responsive to the HPMB training needs and resources of the region. Therefore, it should be based on the results of an assessment of the training needs and resources for administration of PHC activities by health personnel at all levels of the health system. It should also be based on the GOE's decentratlization/regionalization plans and procedures/guidelines for systematic planning, management, budgeting/resource allocations and implementation of health activities.

An HPMB team should be established as part of the METU that could be trained as regional trainers in HPMB. Team members should include an MO, SMA, PHO, two CHW tutors, HV tutor, VMW tutor, TBA tutor and statistical clerk. A team of this size may be possible given the current concentration of southern health personnel in Equatoria.

Diagram II

ORGANIZATIONAL RELATIONSHIP BETWEEN PROPOSED HPMB TRAINING PROGRAM, HEALTH SERVICES DELIVERY SYSTEM, AND GOS ADMINISTRATIVE SYSTEM

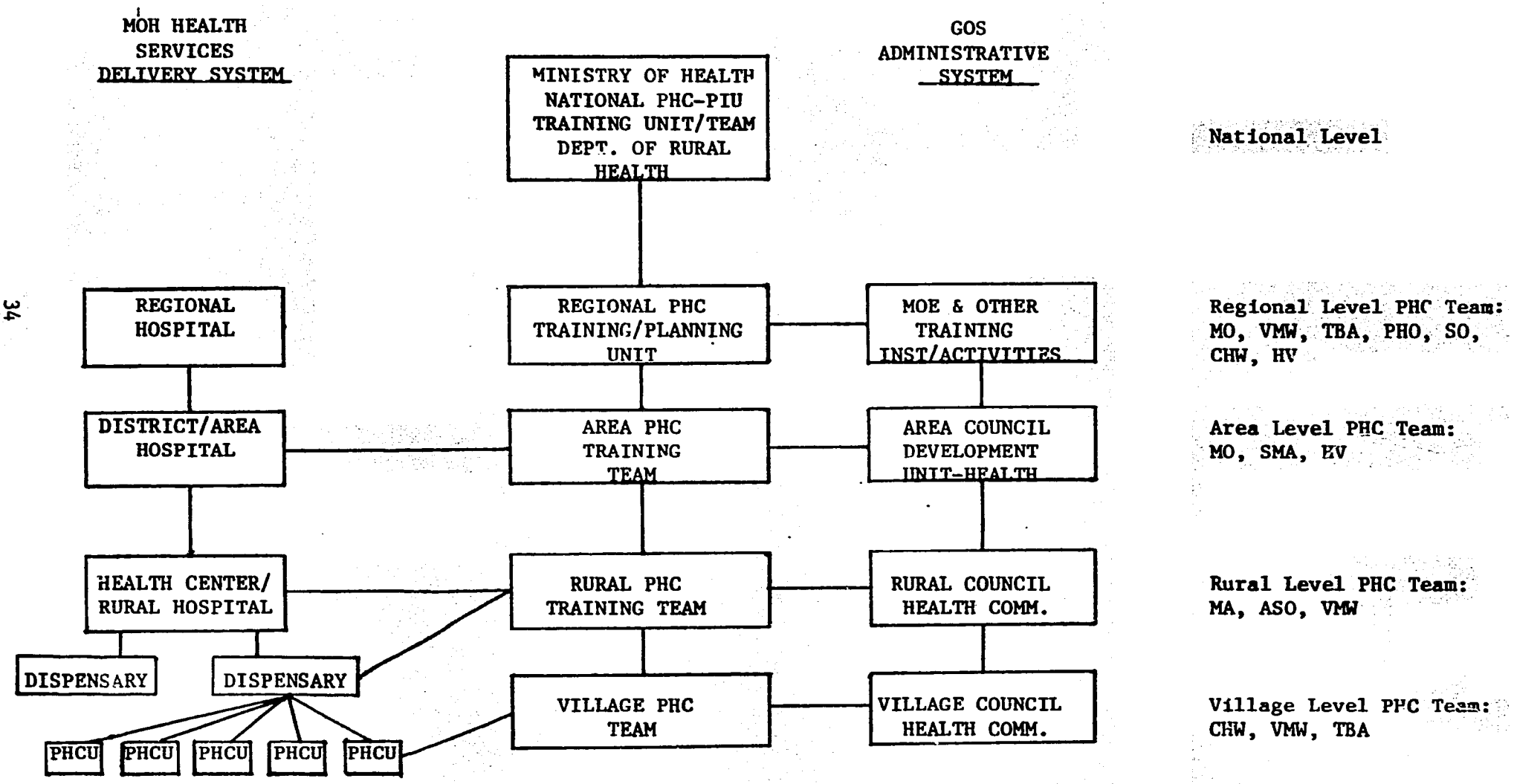


Diagram II outlines how the training program might be organized and instructed at each level of the system and its relationship with the organization of health services and the GOS administrative system.

ISSUE III.B.3.: Has a Program of Supportive Supervision of Community Health Workers been Instituted?

Conclusions

Northern Component

In the Northern component, the only steps taken towards achievement of the output target, "Program developed, tested and instituted; annual supervisory visit to 50% of rural health workers" is the initiation of a "management by exception" project in which two Senior Medical Assistants (SMAs) have each been given an RHSP vehicle to enhance their supervisory activities. They were chosen because of their reputation for "exceptional" performance in their regular activities. This project lacks merit because it is more oriented to management of a vehicle than management of primary health care. The vehicle used by the SMA in Kadugli has helped him in his health care operations but it has not been used for supervision to the extent planned. Moreover, there was no supervisory system into which the vehicle could fit nor was the SMA properly trained in supervision. The management by exception activity did not include any training or technical assistance.

Southern Component

In the South, there has been significant progress towards achievement of the output target "'Supervision proforma' developed and revised; used by 60% of supervisors." A draft of the proforma has been developed, tested and distributed to 55% of the area. Since it is only a draft, it has not been used officially. A revision is underway although this is being hampered by absence of the AMREF advisors. The proforma puts attention on preventive health care and MCH/FP although the MAs and SMAs who supervise the CHWs have not had the training in these areas that the CHWs have had. No forms or procedures have been developed to process the information collected by the proforma, nor for the supervisors to report to their supervisors. No system to feedback information to the CHWs has been developed.

Both Components

In both the North and South, two major constraints are transportation and attitudes about supervision. Supervision is currently considered a disciplinary activity. It will require a major attitudinal change for it to be supportive.

Recommendations

Northern Component

The Management by Exception project should be abandoned although the vehicles should remain with the SMAs, at least until there is a clear reason to reallocate them.

The recommended long-term Management Systems Advisor should provide assistance to the pilot zones to develop a supervisory system. Consideration should be given to using the Rural Council as a contact point with the CHWs when they pick up their salary. The system should include compilation of information for use at levels above the immediate supervisor. The system should be geared to minimally acceptable levels given the lack of transportation and the attitudinal barriers that will not be quickly overcome. Some methods for economizing on transport are described in the section on transport.

The project should provide a vehicle for use in the pilot zone for the SMA to carry out his supervisory responsibilities under the new system. The SMA should be trained in supervision.

A refresher course should be given to MAs and SMAs in preventive health care and MCH/FP so that they will understand what the CHWs have been trained to do in these areas and thereby provide better technical supervision. The MAs should be trained in supervision and be provided with bicycles where bicycles can be used. The training should emphasize the supportive nature of supervision.

Southern Component

When the advisors can return to Equatoria, they should proceed with a revision of the proforma. It should be reduced to the minimum number of questions that need to be asked for a minimally adequate level of supervision as the longer the proforma, the less likely it will be used.

Another proforma and procedures should be developed for the supervisors to report to higher levels and also to provide feedback to the CHWs.

A supervisory system should be developed for other field workers.

The AMREF advisors should share information about proforma development with the One America advisors and vice versa.

Both Components

The outputs for supervision should be revised. They should both include "Supervisory system, including proforma, developed, tested and implemented for supervision of all categories of village level health workers. MAs and SMAs in project regions retrained in supervision and in MCH/FP and preventive health care techniques used by the health workers. HVs trained in supervision. System functioning in pilot zones (North) or Equatoria (South) where 80% of health workers are covered. System is more supportive than disciplinary."

ISSUE III.B.4: How have Project Implementation Units/Committees contributed to effective coordination of RHSP activities?

Conclusions

Neither the Central nor Regional PIUs have contributed to the effective coordination of the RHSP/North. Meetings of both PIUs are not held on a regular basis, minutes of the meetings are not available and not circulated, and members of the units are not clear concerning the purpose or activities of the RHSP/N. The RHSP Kordofan Region Work Plan for FY 84/85 was approved by the RPIU, but was developed with little participation from RPIU members. Indicative of this oversight is the fact that the Work Plan does not include any specific activities for the improvement of Nomadic PHC services. Despite the involvement of both the CPIU and RPIU, problems with financial control and management of RPIU funds have been noted by a Project audit. To their credit. however, these problems have not been major.

Recommendations

The CPIU should be dissolved. Congruent with the GOS policy of decentralization of PHC services, the RPIU in El Obeid should have the responsibility for project planning and implementation of activities. The terms of reference for the RPIU should include the following:

- o Monthly meetings should be held.
- o Agendas and minutes of meetings should be written and circulated.
- o The RPIU should be responsible for the management of all Regional RHSP activities.
- o The RPIU should monitor, at least on a quarterly basis, progress in the implementation of the annual Work Plan.
- o The RPIU should identify constraints and problems which may impede project progress and take appropriate action.
- o The PRIU should be responsible for the planning, implementation, monitoring, and evaluation of the annual Work Plan.
- o The RPIU should submit quarterly progress reports and minutes of monthly meetings to the Director General of Rural Health of the Central Ministry of Health and to the OAI Chief of Party.

In order to better reflect the representation of Regional Ministry of Public Services staff directly involved in the RHSP/N, the membership of the RPIU should be reconstituted as follows:

- o Director of Curative Services and PHC (Director of PIU),
- o Senior Public Health Officer,

- o Director of Community Pharmacies,
- o Director of Nomadic Health Unit,
- o MCH/FP Coordinator of UNFPA,
- o OAI MCH Advisor, and
- o OAI Regional Coordinator.

RPIU financial management should be controlled jointly by the Director of the PIU and the Regional Coordinator. A system should be established which requires the signatures of both or their designates for disbursement of project funds.

The Director General of Rural Health and PHC of the Central Ministry of Health and the OAI Chief of Party should be responsible for finance and approval of plans.

An implementation work plan should be developed for the FY 84/85 Work Plan which prioritizes and sequences activities. The activities should be part of a program. The RPIU should define the program, articulate the objectives, specify the components, including human and other resource requirements, and then itemize the activities in a logical sequence.

A plan should be developed to improve the Nomadic PHC Services during FY 84/85.

In the Southern component, the Equatoria PIC should meet to develop its terms of reference and work plan, and to schedule regular meetings.

ISSUE III.C.: Has a Health Manpower Development Plan been developed and implemented?

Conclusions

In the northern component, a Regional Health Manpower Development Plan (HMDP) has not been developed, and no activities have been initiated by One America, Inc. for achieving this output activity.

In the southern component, an HMDP has not been completed either. However the report completed by AMREF on Health Manpower in Southern Sudan (HMSS) provides a foundation for developing a Health Manpower Development Plan.

Recommendations

In the northern component, the RPIU should meet to address this issue and to develop an implementation work plan which specifically outlines the activities (in greater detail than contained in the RHSP/N FY 1984/85 Work Plan) required for the achievement of this element of the project.

The HMDP should take into account the total quantity of manpower now employed by the Ministry of Public Services and the recurrent cost incurred by that manpower. This data should be analyzed in relation to the MOS Chapter I budget and the ability to pay the recurrent cost of salaries. Based on this information, the number of newly trained health workers per year that the GOS can afford should be calculated. From this data, policy decisions and management decisions can be made, based on manpower training priorities, concerning how many new health workers (CHWs and VMWs) should be trained as opposed to the in-service retraining of existing health workers.

This activity should be coordinated with the National Department of Manpower Development and other appropriate ministries and institutions.

In the southern component, a meeting with the Directorate of Health (for Equatoria) should be convened to review the HMSS, to plan for the implementation of the recommendations contained in the HMSS, and to plan for the development of the HMDP.

Recommendation number one of the HMSS should be acted upon immediately: "Directorates of health must reconsider the advisability of continued growth in health manpower. Current economic growth and revenue sources cannot sustain unlimited growth in health services in Southern Sudan. A policy which includes national and realistic limitations on growth must be developed and implemented.

SECTION IV: DRUG SUPPLY

ISSUE IV.A.: Have appropriate drug procurement and distribution systems for supporting project goals been developed and implemented?

Conclusions

Virtually unanimously, health workers interviewed indicated that not only was the distribution system for drugs and supplies inadequate, but the quantity being distributed was far less than required to meet demand. The consensus is that the kits being provided every three months only last for about one month, and that therefore supplies are on hand approximately 35% of the time.

At the time of project design it was expected that the then optimistic economy of Sudan would be able to meet the shortfall. However, the new economic realities have virtually eliminated this as an option. Some rural dwellers are still able to afford to purchase drugs and supplies, however, the ability of villagers to pay the full economic cost of these items is probably more the exception than the rule currently. Regardless of willingness and ability to pay for drugs and supplies, private sector distribution channels have not yet been developed to reach this level; partially due to contrary government regulations (refer to Community Pharmacies Issue).

Therefore, in the long run the provision of drugs and supplies to the rural areas will require incentives for the expansion of private sector distribution channels to the periphery.

Furthermore, those drugs and supplies that are available for the PHCP are not always reaching their intended destination due to transportation problems arising from a lack of both vehicles and fuel. In the final analysis, the negative impact of these problems is compounded since the availability of drugs is such a crucial factor in generating and maintaining public interest and participation in health related activities.

To perform the functions of selection, procurement, and distribution of supplies the logistics system must have certain structural components: administration, information system, personnel, facilities, equipment, supplies and finances. To a greater or lesser extent, each component is required at the central, regional, and district levels. The evaluation team finds this systematic approach to implementing change in the procurement and distribution activities to be lacking in the northern component, perhaps due to the short life of the Kordofan project and the awaiting of the eventual arrival of a Logistics Advisor scheduled for Darfur Region. Nonetheless, an implementation strategy cannot be identified. In the South, it appears that a somewhat more systematic approach has been undertaken, although substantially interrupted.

Further, the project paper assumption of minimizing USAID involvement in an effort to encourage a self-sustaining system no longer obtains under the circumstances.

Recommendations

In the South, should security considerations permit AMREF to continue the project in Equatoria Region, the position of Logistics Advisor should be filled for the life of the project. AMREF has already identified a candidate for the position.

A long term technical advisor for logistics and procurement should be recruited for the northern component. This person should be located in El Obeid, Kordofan Region with the responsibility for both Kordofan and, eventually, Darfur. The advisor should perform an assessment to supplement the information collected in the Kordofan drug studies.

A logistics planning and implementation team should be identified and assigned the responsibility for designing a complete system for each component. The team should consist of a representative from at least each of the following cadres: Logistics Advisor, Chief Storekeeper, Senior Medical Supply Officer, Regional Medical Assistant, and District Medical Assistant.

The team should review fundamental management issues such as reviewing delivery intervals, stock requirements, and inventory control practices. Procedures and forms should be reviewed and modified as appropriate for all supply related tasks. Responsibilities of staff members and health workers sould be defined and documented. All decisions, procedures, and paperwork should be assigned to a specific responsible person at each level.

The result of the planning effort is to be the production of an operations manual. However, production of the manual itself is not to be confused with implementation. The manual should be a guide for identifying, prioritizing, and scheduling the activities necessary for implementation, i.e. improving the supply information system, organizing warehouses, procuring supplies, training personnel, and re-stocking PHCUs.

The list of essential drugs being provided to PHCU's should be assessed. Subsequent to this assessment a decision should be made either to change or maintain the same items in the UNICEF kits and the required quantities should be recalculated.

Refresher training courses should include a module on the topic of diagnosis and treatment of illnesses in order to reinforce the appropriate dispensing patterns. After completing the refresher training course, health workers should be provided with appropriate and durable graphics and visual aids in Arabic which can be prominently displayed at the PHCU and readily referenced.

As management systems for health care are improved in pilot zones in the northern component, the project should substantially increase the provision of supplies and equipment to PHCUs in these areas in order to reinforce skills. This would be done contingent upon satisfactorily having implemented management systems both to support logistics and supplies management, and health planning management and budgeting activities; and having trained the personnel involved. Otherwise, little is accomplished by training and the implementation of systems without having the resources to manage. Similarly, infusions of supplies and equipment should not

increase substantially without appropriate training in order to strengthen the capability to manage resources. The quantity of supplies and equipment to be provided should be determined by baseline drug consumption studies yet to be performed. As the system improves throughout the Region, subsequent to replication of successful interventions outside the pilot zones, the infusion of resources by the project should be marginally increased. However, incremental additional inputs on a broad scale should only be provided after the advisory team has analyzed the recurrent cost implications of these actions.

In view of the current extenuating circumstances and the high cost of food and medication, USAID should consider integrating some of the health related relief assistance, drugs and immunizations, into the existing PHCP. This would be a use of relief resources to support development, conversely to the more common and less efficient use of development resources to provide relief.

More aggressive efforts should also be made to collaborate with donor agencies.

Similar assessments of essential supplies and of essential equipment should be performed by the implementation and planning committee.

An essential furniture list should be standardized and these items should be provided by the Village Councils.

Pending the outcome of the cataloguing and analysis of vehicles proposed by the Kordofan Regional Coordinator, vehicles should be assigned to personnel providing supervisory or logistics services. It is predicted that the following vehicles would be warranted: Due to the rugged terrain and geographical requirements Land Rovers (or Ford Trucks) would be appropriate for each Area Senior Medical Assistant. The regional medical stores should require one large truck and one Ford pick-up truck. The long term Logistics Advisor will also require an appropriate vehicle. Other supervisory personnel should be assigned vehicles as appropriate. To the extent feasible, the vehicles to be rehabilited by the health services can be utilized for these purposes.

ISSUE IV.B.: Have effective training programs and supervisory procedures for storekeepers been planned, developed, and implemented?

Conclusions

The constraints to managing drug supply and distribution are numerous and formidable. However, these factors have not precluded AMREF from developing training courses for storekeepers in the South. Filling the logistics advisor position in the South will further reinforce training activities that have already taken place. It is unknown whether AMREF has made any significant progress towards instituting a system of supervision for medical storekeepers.

In the northern component, a comparison of project indicators and project performance reveals that no activity and little planning has taken place to improve logistics training and supervision. Up to the present time, OAI has relied on the activities of the NPHCP and has awaited the arrival of the logistics advisor due to be engaged when the Darfur component becomes operational.

Recommendations

The new Logistics Advisor in the South should therefore perform an assessment to evaluate the effectiveness of the previous training program.

For the northern component, a formal training plan should be developed by the logistics planning and implementation team and the short-term training advisor. The type of training plan developed will depend on several factors:

- o Assessment of current system and deficiencies noted;
- o Institutions and agencies available that can do the training needed to improve these deficiencies; and
- o Existing support for implementing improvement after completion of training.

Training sessions should cover the following topics:

instruction on filling out forms
stock handling
shelf arrangement
procurement cycle
purchasing methods
selecting suppliers
quality assurance
warehousing operations
transportation
inventory control
practical applications to hypothetical problems
routine for supplying health workers
forecasting
scheduling purchases
payment mechanism
information system
packaging/repackaging
security

Conferences and seminars should be developed and presented on a regional basis using curricula developed specific to the Sudanese and regional context.

In both the North and South, the training strategies that are developed should be appropriate to the specific education level of personnel in that region, relevant to the resources available in the country and region, and feasible in terms of the amount of time and travel involved. Particularly in the South, officials tend to be placed in positions of responsibilities for which they have little formal education, and planning must reflect this fact.

Observation trips to functioning programs are another option. AMREF has already utilized this technique, although it is unclear how effectively. These serve as useful and practical examples for personnel.

Further, some multinational manufacturers have regional warehouses, manufacturing plants, laboratories, etc. that could make good site visits. These observation trips should be integrated with short-term training thereby reinforcing skills in a practical way.

ISSUE IV.C.: Are community pharmacies an appropriate vehicle for increasing the availability of low cost drugs in rural areas?

Conclusions

Community pharmacies, as currently operating, serve mainly urban populations. The form they would take in a rural environment is yet undefined.

Community pharmacies can deliver drugs to their customers at low prices because the drugs are centrally subsidized, and other operating and start-up costs are subsidized by the GOS and USAID. The community pharmacies in Kordofan are popular because of the low prices.

In rural areas where no regular supply of drugs is sold, even where "free" public drugs are sometimes available, community pharmacies may be a useful mechanism to move away from subsidizing drugs while increasing total rural supplies.

The central government cannot continue to replenish drug supplies for the public system with current sales revenues. Even current prices of community pharmacy drugs do not cover their replacement costs. The pharmacies are not self-sustaining at this point, and the central government will have to continue paying part of their drug supply cost. With the entire public drug supply unsustainable at current prices, community pharmacies are not viable in the long run.

One reason private drug supplies are so scarce and costly in rural areas is because of the regulatory structure affecting pharmacies. Community pharmacies are not subject to many of the regulations.

Wherever urban community pharmacies are found, private pharmacy business has been adversely affected. Community pharmacies have cost advantages against which private dealers cannot easily compete. If the private pharmacies are driven away and the community pharmacies lose their subsidies and cannot continue, the local population will be without a commerical source of drug supplies.

Recommendations

In order that community pharmacies fulfill the objective of serving rural areas while moving public drug provision from a "free" system to full-cost recovery, some guidelines should be followed:

- Community pharmacies should be settled in rural areas provided the population can support the business and supplies can be legally sold by available medical personnel.

- To the maximum extent possible, they should carry only CMS or UNICEF stock, and only essentials needed to treat endemic and highly contagious diseases and minor disorders and wounds.

- Prices should be adjusted to contain no real budget subsidies and allow for capital recovery.

- The northern component's practice of recovering the capital investment in the community pharmacies and reserving it for establishing other community pharmacies should continue for all future units. The RPIU should consider fuller recovery and accelerated payment schedule compared to current practices.

These simple guidelines can help prevent RHSP-supported pharmacies from driving valuable private resources out of drug-scarce areas. Moreover, they focus the community pharmacies more clearly on PHC objectives of serving the rural population and meeting basic health needs.

The Regional Coordinator should work with the Director of Community Pharmacies in Kordofan to evaluate what form of public drug sales unit is feasible and efficient for supplying rural areas. The AMREF project leader should undertake the same with assistance from a short- term consultant for about one month. In doing so, both parties should examine the experience of small private rural drug stores often run by retired medical assistants. No new community pharmacies should be established unless the analysis points to a workable formula.

USAID staff, with the CMOH Pharmacy Department, should undertake an examination of current central regulatory structures which now appear to inhibit efficient delivery of drug supplies, both publicly and privately. The examination should include, but not be limited to:

- The costs and benefits of CMOH prohibiting private agents from importing bulk drugs for sale to private and public outlets, so as to differentiate between publicly and privately procured items. To the extent such differentiation is required, alternative means should be explored by USAID Khartoum and the CMOH Pharmacy Department.

- The extent to which requiring a licensed pharmacist be on staff at all full-service pharmacies, and of severely limiting sales of even essential drugs by other trained medical personnel, raises drug costs and limits private pharmacy expansion. Options need definition.

- Alternatives to requiring that each and every private drug importation request be approved through CMOH development of a pre-approved private importation list.

- The validity of the CMOH's current "essential drug" import list as a guide to cost-effective provision of curative care; i.e., does it allow inefficient procurement of expensive brands or an excess of esoteric drugs with low demand, at the expense of generics and drugs needed for endemic diseases and immunizations?

- The real legal limitations on public health care cost recovery contained within the current constitution of Sudan.

The team recognizes the impact of the regulations on health care delivery, while realizing that their reform is not within the purview of the RHSP. They do, however, affect the project's operating environment, particularly with respect to community pharmacies.

SECTION V: TRAINING

ISSUE V.A.1.: Has the community health worker training program in the North achieved planned targets?

Conclusions

No significant achievement of expected output was found. Apart from delays in technical assistance inputs, other factors contributed: lack of skilled staff in the health system to develop curricula; the conspicuous oversight of training tutors and preparing teaching materials; and the reliance of Kordofan Regional Government on the Central MOH in Khartoum for planning and coordinating these courses.

Recommendations:

All CHWs and MAs should be trained in MCH/FP.

Training/retraining and refresher courses should be carried out by a multi-disciplinary team (HV, MA, PHO and selected CHW). The latter should be selected on the basis of personality and competency.

All training programs should emphasize preventive and promotive services and adopt task-oriented problem-solving techniques rather than didactive teaching, and should be evaluated by a multidisciplinary team released from other activities, to monitor on-the-job training.

ISSUE V.A.2.: Has the Northern VMW training program achieved planned targets?

Conclusions

No significant achievements in expected output were found. The shortfall is attributed to delays in technical assistance inputs. Other factors contributing to the delays are: the inadequate organization of MCH/FP at central, regional and area levels; inadequate supervision; absence of an MCH counterpart at the region; and lack of skilled staff in the health system to develop curriculum training and retraining.

Recommendations

To ensure the continuity and quality of training of VMWs, the RHSP should assist in developing a management system for training all levels. The recommended Management Systems Advisor should provide assistance to a short-term training consultant and the MCH/FP Advisor.

The Educational Development Center (EDC) is providing assistance to the CMOH in the revision of curriculum, for training of tutors in training methodologies, curriculum development and development of audiovisual aids. RHSP should strengthen the center's capabilities to perform these tasks. A Sudanese full-time staff person should be appointed to the EDC. This staff person should have a medical background and be trained on-the-job using a short-term OAI consultant. The main duties of this person would be to carry out the above tasks, and to train Sudanese for the same tasks.

An METU similar to that in Equatoria should be established in Kordofan. It should be responsible for integrating VMW training programs for village-level workers, develop and revise the curriculum, train tutors, and coordinate all VMW training activities. A short-term consultant is recommended to guide the staff of the METU and train them. The in-service training programs should retrain the VMWs to assume responsibilities for child care and child spacing in addition to their work with mothers in maternity care, and changing community behavior. Training/retraining should be community-based focusing on task-oriented, problem-solving techniques.

The MCH/FP TA advisor should be trained by the short-term consultants. She should give assistance in developing training trainers' guides and manuals and in selecting tutors. It is essential that tutors selected be experienced in the tasks carried out by the VMWs and be familiar with the conditions in which these workers are working. Health visitors who are the trainers of the VMWs should be more involved in supervision and in job evaluations. VMWs should be involved as well in training and be selected on the basis of skills and personality. They should be more involved in practical class demonstrations and community-based training in villages.

RHSP should assist in the establishment of a supervisory system for monitoring performance. Supervisors should be selected from MAs, CHWs, HVs, and instructors of VMWs and MAs. All should be trained in supervision. CHWs and MAs should first be trained in midwifery, and should know the contents of the program and be able to reinforce and demonstrate the new skill learned. This supervision should be immediately after training has been completed. Tutors of training should carry out follow-up training and continuous education every three months.

All refresher courses should be revised to include practical community-based training. A systematic planning schedule for such a refresher course should be delivered at the area level with CMOH providing the appropriate resources. All should be planned according to a specific needs assessment. They should be evaluated for their impact on knowledge, attitudes and practices.

ISSUE V.A.3 Has the Northern TBA Training Program achieved planned targets?

Conclusions

Only one-fourth of the expected output at the end of the project has been achieved. The short fall is attributed to delays in technical assistance inputs. The rush to develop the activity and the inexperience of the planners resulted in some of the vital recommendations forwarded after the implementation of the first course being ignored. For both courses no written curriculum was designed nor tutor guides developed. Tutors were not trained except casually on-the-job during the course. They were not trained in competency-based training, or training methodologies or in how to change the attitudes of the illiterates. However, they are trainers of VMWS who are predominantly illiterate. This weakness in the capabilities of the trainers will eventually be reflected in an evaluation of the trained TBAs. There is no on-the-job evaluation planned.

Recommendations

To ensure the continuity and quality of training TBAs, the RHSP should assist in developing a management system for training at all levels: central, regional, area and village. (See issue III.B.1)

An METU similar to that in Equatoria should be established and be responsible for:

o integrating the TBA training program into the broader training programs for village level workers to focus on a team approach to village health;

o developing and revising the curriculum, training tutors, developing in-training methodologies, curricula and audiovisual aids; and

o coordinating all TBA training programs. It should invite all concerned agencies and individuals to a meeting to discuss their respective projects, plans, and resources in order to plan more effective programs.

RHSP should provide assistance in:

o training trainers of TBAs in competency-based training, training methodologies and evaluation techniques. They should be trained to develop learning materials for illiterates and in techniques of transmitting health information, skills and attitudes;

o selecting tutors for TBAs. At the moment, HVs are conducting the training course. It is essential that RHSP ensure that the tutors are well experienced in the tasks carried out by TBAs, and that they are familiar with conditions under which their trainees are working. This may be achieved by their participation in supervision and in carrying out a job evaluation. The project should explore the possibility of selecting VMWs and TBAs to be trained as tutors. They should be selected on the basis of

skills and personality, and be more involved in practical class demonstrations and community-based training in villages. TBA tutors should carry out follow-up training and continuous education. This should be done on a three-month basis.

o developing tutor guides and manuals. These should include specific guidelines for selecting training sites, materials needed, the step-by-step training activities to be carried out, and how to evaluate skills learned. Instructional materials should be developed for the preparation of tutors themselves;

o establishment of a supervisory system to monitor the performance of TBAs. Supervision should be carried out immediately after the training, and should be a continuous process done on a regular basis; and

o selection of MAs or CHWs as supervisors who should not only be trained in midwifery, but also in supervision. They should know the content of the program, and be able to reinforce, model, demonstrate and drill on new skills. They should check TBAs records and kits and provide them with the necessary supplies. A constant flow of supplies is required in order that TBAs continue to practice what they have learned, particularly in the area of general hygiene and sterilization.

The RHSP should participate in evaluating the two completed TBA training courses. The evaluation should cover the subject matter as well as the curriculum framework and the impact of these two courses on TBA's performance before starting any new training courses. The project should explore areas of weakness and strength in order to plan refresher courses for a shorter period to fill training needs. Evaluation should be carried out by the two HVs who conducted the two courses after being trained to carry out this function and should have a well-planned evaluation sheet. Evaluation of this course should be carried out in July, 1985, in order to allow time for preparing the evaluation formats and to train the evaluators. The HVs who will carry out the evaluation should be released from other activities and have means of transportation.

The RHSP should not support any further TBA training courses unless all the above recommendations have been accomplished.

ISSUE V.B.: In the South, have MCH/FP training programs been developed, and curricula for NVMWs, VMWs, CHWs, been designed? Have teaching materials been prepared? Is the retraining of tutors and the training of CHWs, VMWs, HVs, TBAs and others on schedule?

Conclusions

The project activities in relation to this issue are seriously behind schedule because:

o the contract for activities in the South was signed with AMREF 20 months after project authorization. AMREF has also suffered delays in providing inputs;

o failure to have one potential MCH/FP Advisor permanently assigned (only September 82-May 83); the second MCH/FP Advisor arrived only in June, 1984;

o the redivision/decentralization process has created formidable difficulties in the project's operating environment. It has resulted in the dislocation of the national staff which impeded the technical and managerial tasks of the PHCP. All Equatorians, the large majority of civil servants in the South, were sent back to their region, leaving BEG and UN Regions with lack of trained personnel to fill health positions;

o the security situation continued to deteriorate, and AMREF staff were evacuated from Wau in mid-July with the MCH Advisor;

o the lack of overall guidelines and targets to guide training;

o lack of full-time personnel to give time and effort to the various activities required to achieve expected outputs;

o the design of the project itself being too ambitious, aiming at covering all curricula of rural workers without focusing on the most important cadres serving MCH/FP; and

o poor sequential planning of implementation.

Recommendations

The project should only fill a need in training and retraining programs that do not replicate activities already being carried out by other agencies.

RHSP should encourage coordination between the two regions (Kordofan and Equatoria) in order to exchange experiences. Quarterly meetings should be set up and held in both regions on an alternating basis.

RHSP/South should convert short-term training funds to long-term for one person in the area of MCH/FP for a minimum of one year.

Due to the limitation on relevant courses in the country, the project should explore sending Southern Sudanese health workers to other countries in Africa where established short-term courses are held.

The Project should consider reallocating funds for construction to Equatoria Region to support MCH/FP subcenters for the new peri-urban settlements of Gumbo and Lolongo outside Juba. AMREF should submit a plan and budget for approval by USAID. The plan should explain how recurrent costs will be covered. These two subcenters can offer much needed MCH/FP services to the peri-urban population in addition to strengthening the VMW's training center programs.

ISSUE V.C.: How have MCH/FP/Nutrition modules for adult literacy been developed, tested and distributed in the North?

Conclusions

Although health education for Primary Health Care and community participation are fundamental to RHSP project success, both are among the weaker aspects of project implementation thus far. Plans for the coming year are also weak.

The proposed health education modules not only have value for adult literacy programs, but could also be integrated into CHW, VMW, and TBA training, as well as MCH and well-baby clinic activities. Development and testing of the materials would provide an excellent opportunity for working with the communities and health providers.

Recommendations

The following five activities should take place in the upcoming year:

- The Regional Coordinator and MCH Advisor in Kordofan should review the experience of PIACT material utilization in the southern component for possible use in Kordofan.
- MCH/FP/Nutrition modules should be developed by the MCH Advisor with the assistance of short-term consultants in health education and materials development (HEMD) anad adult literacy.
- Planning and development of materials should be coordinated with other related activities at the regional level by the MCH Advisor.
- Input from Area Council Health and Education Committees should be sought by the MCH Advisor, HEMD consultant, and adult literacy consultant.
- Materials should be tested in at least two pilot villages, and the MCH advisor, HEMD consultant and community development consultant should work closely with Village Council Health or Develoment Committees (where they exist) and with local adult literacy training programs.

In the following years, these activities are recommended:

- MCH/FP/Nutrition modules should be integrated into existing adult literacy programs by the MCH Advisor, Adult Literacy consultant and Ministry of Education.
- These health education modules should also be integrated into selected CHW, VMW, and TBA training courses by the MCH and training advisors. These modules should also be utilized by MCH and well-baby clinics for their education activities. CHWs and VMWs should be encouraged to promote their utilization.

ISSUE V.D.: Has the Medical Education and Training Unit (METU) serving two Regions been established?

Conclusions

The METU was established and has been functioning in Equatoria although its activities are now on hold due to the current security problem in all southern regions. Three counterparts who were appointed to the unit were trained in training methodology but work only as part-timers. The Senior Medical Officer in charge, who gives his full time to the unit, has not been exposed to the concept of competency-based training nor has experience and skills in training methodology.

Although organization charts have been drawn, they do not show the new plan for organization of PHC services at the area level in accordance with the national policy of decentralization and regionalization.

Recommendations

Short-term and in-country training funds should be converted to long-term training in areas of priority needs. One of these should be allotted to train the Senior Medical Officer in charge in curriculum development and training methodology. A minimum of one year is required.

Organizational charts should be combined into one large chart including the new plan for organization of PHC services at the area level with the policy of decentralization and regionalization, to ensure that the overall organization of services and relationships are seen.

SECTION VI: MCH/FP

ISSUE VI.A.1.: How has the RHSP developed and implemented a focused intervention in MCH/FP in one district in Kordofan and institutionalized MCH/FP activities in the North?

Conclusions

The institutionalization of MCH/FP activities has been severely hampered by the lack of policies, plans and a Department of MCH/FP at the national level, as well as an unworkable division of preventive and curative service at the regional level. This leaves little for the RHSP to "reinforce and complement." The lack of an MCH counterpart continues to be a serious drawback to project sustainability. The structure of the RPIU is not clear. Members of the RPIU have no defined scope of work and do not participate in planning and management of the project.

Recommendations

If a decision to restructure health services in Kordofan is not formally initiated within the next four months, all RHSP activities in Kordofan should be cancelled. The evaluation team sees two alternatives, among others, for restructuring.

1. A scheme already being considered in Kordofan would be to divide health services into four categories, each a Directorate under the Director General for Health and Social Welfare. (Diagram VI.A.

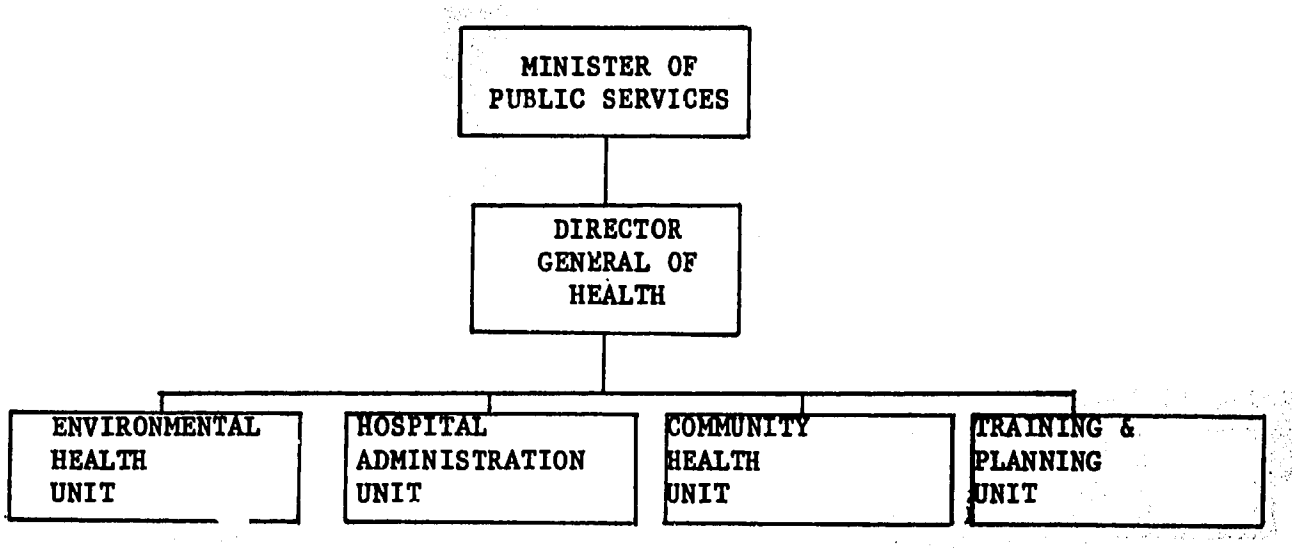
   - Community Health
   - Environmental Health
   - Planning and Training
   - Hospital Administration

2. A structure recommended by the National Workshop on Strengthening PHC in Sudan (December 1984) which would include all the components of PHC under one Department of Rural Health. This structure should be instituted at both the central and regional levels. (Refer to Findings of Issue III.B.2. for chart.)

At the Area Council level, one HV should be designated as a Senior HV, who is given training in supervising other HVs, who in turn are trained to supervise VMWs. Resources such as vehicles would need to be provided for this supervisory structure.

The MCH Advisor would perhaps benefit from participant training in MCH/FP. In addition, the evaluation team encourages the project, as it has proposed, to bring in short-term TA to support her.

Diagram VI.A.1



ISSUE VI.A.2.: How has RHSP instituted MCH/FP activities in Southern Sudan?

Conclusions

The lack of a national MCH/FP policy for planning and implementing interventions has greatly delayed any progress in MCH/FP service delivery. The set-up of the health structure confirms a bias towards curative services. There is a shortage of MCH/FP staff and the few existing facilities are carrying out curative services. The unstable political situation, security problems and the redivision of the South have extensively limited the project activities.

For the period August, 1982, through August, 1984, there had been no significant progress made in the delivery of MCH/FP services. In the few months of her appointment, the new MCH/FP advisor was able to initiate some MCH activities in two dispensaries.

Recommendations

More health facilities in Equatoria should be provided assistance to carry out MCH/FP services.

ISSUE VI.B.: How have MCH/FP resources been assessed by the RHSP in the North?

Conclusions

MCH/FP resources have been inadequately assessed by the RHSP in the northern component. An April, 1983 Needs Assessment is still in draft form, and is seriously overdue for finalization. Several special studies remain to be completed by the contractor. Particularly absent and important is the study related to the nomadic population, their health service and training needs.

The baseline survey carried out by the CDC does not provide sufficient detail for the encouragement nor development of well-baby clinics. In fact, it found child care services nearly absent in the surveyed areas. Although CDC based its study on recognition of this, it provides no information which will benefit the establishment of these clinics.

The RHSP has coordinated with other NGOs in health and health-related fields, but not specifically in maternal child health and family planning.

UNICEF's Growth Monitoring and Nutrition Education Project was intended to coordinate with the CDC Study, but the coordination never occurred.

The role of NGOs in family planning was studied by a short-term MCH advisor in Kordofan. Finally, the Sudan Family Planning Society works in close collaboration with MOH staff in health centers in El Obeid.

Recommendations

The MCH/FP Needs Assessment should be finalized as soon as possible, and distributed to the Region and Area Councils, assuming there is something of value to be gained from it.

The remainder of the seven special studies should be undertaken, particularly the status of health services and training needs of the nomadic population.

The baseline survey and village census of pilot area and rural councils should be undertaken to identify a baseline for well-baby clinic interventions.

The RHSP should coordinate and collaborate with UNICEF and UNFPA on maternal child health and family planning activities in the Sudan.

ISSUE VI.C.: How has the RHSP instituted a population-based data collection system for MCH/FP in Kordofan?

Conclusion

The project has done little to implement a data collection system for MCH/FP in Kordofan. One type of data collection system was initiated by the CMOH for pregnancy outcome surveillance. This activity was centrally planned and did not consider the needs and capabilities of the region. The evaluation team agrees with the Regional Coordinator that the planned pregnancy outcome surveillance system is not suited to local needs.

Recommendations

The CDC pregnancy surveillance study should be terminated. See Issue III.B.1. for recommendations regarding Health Information Systems.

SECTION VII: COMMUNITY PARTICIPATION

ISSUE VII.A.: How has the Rural Health Support Project facilitated community-based participation and encouraged community development in the North?

Conclusions

The RHSP has made a reasonable effort towards facilitating community - based participation in primary health care. Other activities have been discussed and may well be developed given the opportunity to reinitiate activities in the South.

Recommendations

The Ministry of Health and AMREF should continue and expand the content and scope of SAHA.

AMREF should incorporate additional health learning materials in the training of VMWs and CHWs. An increasing role for HVs should be encouraged.

AMREF should build on contacts and progress made at the series of seminars for Area Councils and should follow up through visits, correspondence and/or another seminar.

AMREF should follow through with the use of PIACT materials in the six PCH areas identified after evaluating their use and acceptance by the communities.

ISSUE VII.B.: How has the Rural Health Support Project facilitated community-based participation and encouraged community development in the South?

Conclusions

The RHSP has done little if anything to facilitate community-based participation nor has it encouraged community development. Although the FY 84/85 Work Plan and Budget addresses these issues, the RHSP plans to do "needs assessments", develop "community sensitization methodologies", and explore the use of media resources. It seems very late in the project to be doing assessments and designs of interventions, rather than having direct intervention strategies at hand. The plans are vague and as yet unformed.

There are several examples of existing community concern and involvement in health care. Communities have contributed to Village Health Committees and Patient Friendship Committees, as well as Area, Rural and Village Councils.

Recommendations

Community involvement has to take place with the development of programs and interventions, not something done as an afterthought, nor as a separate task; it needs to be incorporated as part of the planning and implementation process.

The weak and in some cases non-existent community institutions and mechanisms need encouragement and strengthening. The RHSP should develop its community participation and development strategies and activities to build on some of the existing systems at the regional, area and village levels.

The RHSP should, as soon as possible, conduct orientation seminars for community leaders and Area Councils.

The RHSP should work with the Health Committees at the Area Council, Rural Council and Village Council levels to develop appropriate implementation strategies. The evaluation team recommends setting up a mechanism whereby health workers from the villages meet regularly, say once quarterly, to be trained and to develop strategies for working with their communities in identifying shared problems, developing plans, and implementing self-help activities. This training would be on how to conduct meetings with Village Councils or Health Committees, develop planning criteria and work with groups in planning activities. Health workers would have an improved identity and support, and increased motivation. Through this mechanism, MAs and HVs will increasingly be in contact with health workers.

At the area level, the RHSP should identify appropriate technical staff who could be trained in planning, management and supervision of community-level activities.

The Rural Council should be the marker for its group of villages, with the Health Committee, especially the technical advisors, meeting with health workers at quarterly meetings. Area-level staff should work with the Rural Council in setting up the meetings and providing technical assistance.

The MCH Advisor should develop IEC programs for MCH/FP for Area Councils and women's groups.

Self-help projects should be identified and facilitated through needs assessment at the village level, with guidance from trained health workers. Community willingness to cooperate and contribute labor and resources needs to be assessed and incorporated into any implementation plan.

Women should be encouraged to become CHWs and communities should be encouraged to select women as trainees. This should be facilitated through the proposed "community sensitization" activities. An important role for women should be created on the Village Councils and their participation should be encouraged.

The proposed health newsletter, to facilitate communication between health workers and supervisors, should be encouraged.

SECTION VIII: DARFUR

ISSUE VIII: What RHSP experiences and lessons learned in the northern and southern components lend themselves to transferability to the Darfur Region?

Conclusions

Expansion of RHSP into Darfur was supposed to be phased into the project after two years of project experience in the Southern Region and Kordofan. Due to delays in implementation in Kordofan and a lack of replicable, positive experiences in both Kordofan and the South, there is little reason to start activities in Darfur. Also, the Kordofan Region may require more resources than initially planned which may take away some of the resources from Darfur implementation. If an assessment is done in Darfur as scheduled (early 1985), the results are likely to be out of date when implementation begins, especially considering the current effects of the drought on health status and migration.

Recommendations

RHSP implementation in Darfur should be delayed for at least one year to provide more time for lessons to be learned in Kordofan that can be replicated in Darfur. USAID should not add to the burden of the CMOH and contractor by adding a second region to the project when an operating methodology and appropriate intervention strategies have not yet been adequately developed for the first region.

The planned assessment study for Darfur should be delayed to a time more immediately preceding implementation. However, some basic information on health manpower, training resources, current budget and expenditure levels and the structure of health services should be obtained over the next few months. A major part of this information can be obtained by requesting it from the Director General of the Directorate of Health and Social Welfare in Darfur.

SECTION IX: NOMADS

ISSUE IX: Have health services for the nomads been addressed by the RHSP?

Conclusions

The PHCP has not yet developed a mechanism for supporting the Nomad Community Health Workers (NCHWs). RHSP has provided training to a few nomad TBAs, but has not yet worked out plans for improving health services in general to the nomads.

Recommendations

The RPIU should develop plans to improve health services to the nomads. The planning operation should draw on available information such as the anthropological study of the Chells and their recommendations for improving health services. Information gaps should be filled with discrete studies.

Resources should be provided to the NCHWs and MAs to improve health care delivery. One of the MAs should be provided a vehicle to supervise and support the NCHWs. Drug supplies should be specifically targeted for NCHW use. The Management Systems Advisor should assist in the development of management systems for serving the nomad population.

Rather than try to serve the nomadic population in general, several pilot groups should be selected and served at their identified rainy and dry season resting places.

Refresher courses should be developed for the NCHWs. The tutors should be trained and then participate in a study of how well the NCHWs are providing health care services and what constraints they have encountered. The training should be based in part on the findings of this study and in part on the MCH/FP technology that they did not have in their initial training. The MAs should also receive MCH/FP training.

PART THREE

FINDINGS

SECTION I: PROJECT DESIGN

ISSUE I: Did the original project design provide adequate consideration of project implementation constraints?

Project Paper

The RHSP Project Paper (PP) was approved in August, 1980, for five years commencing in the 4th quarter of 1980. The Project Agreement was signed in April, 1982. In August, 1984, the Project Paper Supplement extended the project to August, 1987. This extension was mainly due to implementation constraints and delays, many of which developed or increased after the project was first approved. Since August, 1984, these constraints have become even more serious and have further hampered project operations and curtailed the achievement of project objectives.

Since the planned project outputs as described in the PP have not been achieved as originally scheduled, one task of this evaluation is to determine why in order to avoid similar problems in the future. The outputs themselves are evaluated independently in later portions of this report. Lack of achievement can be attributed to many factors, some of which have affected the project in complex and unexpected ways. However, the team has found a number of factors that were foreseen in the PP but were not accounted for neither in the implementation plan nor project schedule.

Potential Constraints Identified

A number of potential constraints were described in broad terms as assumptions in the logical framework, and were further described in the body of the PP. Other potential constraints were identified in the Project Paper Annexes. An informal, technical review of the PP in Washington in September, 1979, elicited the following message form AFR/DR/EAP:

> A general comment was that there was a wealth of information in the annexes which did not surface in the PP itself. Further, each of the components seem to inadequately address the relationship of the given component to the other components in achieving a solution. The PP did not follow the process of (a) identifying the problem (b) defining the solution (examining the proposed solution's impact on other components, as well as alternatives to the proposed solution) and (c) describing how the solution will in fact be implemented. The general consensus was that the PP should be rewritten and that the components may require restructuring either due to implementation and/or budgetary phasing.

While the evaluation team did not have information regarding specific changes that might have been made in the PP between September, 1979, and the PP that was approved in August, 1980, the team found many of the same problems with the latter.

Availability of Trainers

The assumption that sufficient trainers will be available to expand the training system, if wrong, affects achievement of the project's training objectives as well as other objectives that depend on the training being properly achieved. Yet, the information in the annexes strongly indicates that trainers are likely to be in short supply, especially in the South. On pages 8 to 11 of Annex A, such statements as "Personnel resources are seriously affected by both internal and external 'brain drain' ...The output of [the tutor-training program] is limited and it may take considerable time for all MA tutors to pass through this special course." On page 28 of Annex C regarding TBA training, it states, "Trainers ideally should be GOS/MOH Health Visitors or Nurse Midwives. Given the paucity of such personnel in the Southern Region and the usual assignment of such personnel at the provincial level, it is clear that this approach cannot be taken." Actual experience of the project in the South showed that there was good reason for this concern. There were insufficient numbers of senior medical personnel available for training tutors and for training Sanitation Overseers. This limited the number of training sessions that could be scheduled.

The logframe assumption that trainable personnel would be available also was not in keeping with statements in the annexes that there were limited human resources, especially in the South, with adequate qualifications for training. This limitation also adversely affected project implementation.

GOS Support of Project

Two input assumptions dealt with GOS support of the project: one for budget support and the other for counterpart funding support. The assumptions were that the support would be available. Yet, on page 17 of Annex A, it states, "...often funds which would have been approved for the health care sector are simply not forthcoming from the Central Government. The severe liquidity crisis which the GOS faces constricts the flow of local currency as well as foreign exchange." On page 15 of Annex D, it states, "The GOS often finds itself unable to provide the local currency needed to match foreign contributions and sustain development projects...As a means of holding down deficit financing by the GOS, the MOF will sometimes deliberately frustrate MOH efforts to obtain appropriate release...Traditionally, the Southern Regional Government receives less than 15% per annum of its appropriated development budget. The effect of this situation on the health sector is most serious." In the course of project implementation, not only were counterpart funds not made available, but also GOS financial support for regular PHCP operations dropped substantially from the already low previous level.

Regionalization and Decentralization

The logframe has two assumptions at the purpose level: that the GOS commitment to regionalization continues and that the GOS planning/budgeting system remains decentralized. These were seen as necessary for achievement of the purpose of strengthening GOS capability but there were also indications of problems with this mentioned in the PP annexes. The implementation plan was built around an administrative system that was part

71

national and part provincial. Yet, on page 37 of the PP, it states, "In early 1980 the GOS announced its intention to implement a decentralization policy which creates six regions...Detailed working plans to launch these regional governments in the North are to be worked out during the period May 1980 to May 1981. Thus Regional governments will commence in May 1981 to exercise actual authorities which are now located either at the national or provincial levels." On page 19 of Annex A, it states, "It is a fundamental principal in program development that an administrative infrastructure be in place before the deployment of of primary health care personnel." Yet, the project was starting before the GOS had even clarified its new structure. Considerable time would have to be allowed after that before adminstrative patterns were discernable. Even the existing provincial administrative system was not clear: "Weaknesses in administrative linkage up through the health organization have also created problems. Decentralized levels of government, coupled with a national GOS policy, has created certain grey areas. Respective roles of the MOH vis-a-vis district health departments require further clarification." The ambiguity of decentralized structures thus has caused considerable difficulties in project implementation.

Problems Not Addressed in PP or Implementation Plan

While the above environmental constraints were addressed in the logframe by assuming that they were not weaknesses, other potential problems which were identified in the PP were neither mentioned in the logframe nor fully dealt with in the implementation plan. The result was that they impeded project progress. In some cases the implementation plan was somewhat modified to accomodate these problems, but the problems were usually much greater than the planned solutions allowed for. Among these problems were an inadequate and inefficient drug supply system, community participation constraints and a lack of transportation and communications infrastructure. For this last problem, page 36 of the PP states, "Replication and diffusion of the health services within the PHCP format will be more difficult as lines of administrative, logistic and supervisory support grow longer. However, the basic pattern for delivery of services to the remote villages and nomad tribes is sound." This is in contrast to page 38, "...field administration is hamstrung by lack of transportation and communication," and page 44, "The nomadic population of Sudan moves across vast expanses of the north and west of the country, making the delivery of health care a particular problem.

Inadequate Output Indicators

The PP implementation plan was not described in much detail, nor were targets clear for planned outputs. The seven output statements were very broad and were described in only two to seven words. The output indicators were quantitative targets with only a total for the life of the project. The text of the PP provided descriptions of planned activities and other inputs but was silent regarding expected output performance. The reason for the lack of detail appears evident on page 62 of the PP under the heading SPECIAL STUDIES AND EVALUATION. The studies and assessments planned for project implementation appear to be the type of fieldwork that is generally done during the design phase of a project. This fieldwork would have produced information that leads to a determination of the inputs that should be incorporated into the project and a better understanding of

potential constraints. Most of these special studies have still not been undertaken. While AID promotes the idea of bottom-up planning, much of this project was planned top-down using aggregate, central-level data rather than information compiled at project sites. Among the planned studies were the following:

> Site Specific Assessments:...will analyze past performance, problems, needs and constraints, and will identify a strategy for better use of GOS resources.
>
> Pre-Implementation Surveys:...will determine the exact timing and location of each of the inputs.
>
> Baseline Studies:...will provide current, village-level information on prevalent health problems, preventive and curative health knowledge and behavior, nutritional status, and patterns of water use and hygiene.

Project Paper Supplement

When project implementation was delayed due to problems in the contracting process, and recurrent cost problems appeared to threaten the project, a revalidation study was conducted to assess the effects of these on future implementation. This led to some marginal replanning which was finalized by the production and approval of a Project Paper Supplement (PPS) that included a new logical framework.

Old Assumptions Retained

The PPS modifications were intended to retailor the project to fit the changed project environment and make up for the delays, as well as to question the validity of the project design. The project was extended two years and the outputs were more carefully defined and scheduled. One thing that was not changed was the old list of assumptions, although some new assumptions were added. The experience of the project had already shown that the old assumptions were invalid; they were nonetheless retained.

> The PPS summarizes the extent of the project disruption as follows: "...the GOS overall has disrupted institutional and procedural implementation with its controversial regional redivision plan. The economic situation, already serious in 1980, has deteriorated rapidly, causing collapse of institutional, infrastructural and logistical support."(p.1)

To counter the influence of these constraints, and to adjust project inputs to reflect lessons learned during the three years since the project was first approved, some inputs were eliminated, some new ones were added and a number of them had levels of effort and content changed. The TA in the South was temporarily reduced until the political situation improved. An economist and a logistics supply officer were added to the TA in the North.

Critique of Project Paper in PPS

The PPS included a report on progress to June 30, 1984, that identified many of the weaknesses in the PP:

> "Project design was rushed, assumptions about GOS administrative/management capabilities were not borne out and projections of financial and budgetary resources were considerably overestimated. Overall logistic and infrastructural problems were severely underestimated. AID/W was unable to provide contracting in a timely fashion which had its own severe impact on GOS enthusiasm and project momentum. The GOS repeatedly has been unable to provide the budgetary or administrative support required, or the manpower in the South..."(p.7)

The PPS also had some positive things to say, especially about a new willingness on the part of the central MOH and Kordofan MOS officials to deal with some of the thornier issues such as cost recovery and revenue generation and to move ahead with project activities.

PPS Linked Inputs to Constraints

Unlike the PP, the PPS linked specific inputs to identified constraints and explained how the constraints would be overcome. For example, after relating problems in the health system to a lack of incentives to cut financial or economic cost, describing the lack of project or program related budgets and knowledge of the previous fiscal year's expenditures, and the need to attack the planning, budgeting, accounting and evaluation process, the PPS proposes adding a health economist for Kordofan Region with responsibilities at the central level and Darfur Region as well. While this is a direct attempt to resolve a perceived problem, the evaluation team concluded that an economist was less important than a management specialist for this type of service.

Greater Detail in New Plan

The PPS also provided a detailed list of 107 activities that were planned through the remaining life of project (LOP). Each activity had start/finish dates by month and the name of the responsibile entity. Critical path activities were identified and some of the training activities had specific quantity targets. The PPS clarified the distinction between activities in the South and those in the North, and these two sections of the project were each described in separate log-frames. Much of the information in the two logframes was identical although the distinction between them became clear in the identification of output indicators. The indicators included both quantitative and qualitative targets.

Despite this detail, it is still not clear whether the proposed type and level of effort is sufficient to achieve the targets, especially if they are strongly dependent on the assumptions' validity. The GOS track record to date to supply the necessary counterpart support is so poor that it is difficult to assume that this will suddenly reverse itself. The PPS output assumptions such as:

Region/districts provide adequate administrative staff and support;

GOS will provide the necessary finding for recurrent costs. especially for drugs and transport; and

GOS identifies and retains counterpart staff;

have been difficult enough without considering the security situation in the South, the continuing brain drain, the worsening economic situation and the effects of the drought.

SECTION II: ENVIRONMENTAL FACTORS

ISSUE II.A.: Is the GOS willing and able to maintain health as a national priority and cover recurrent costs?

GOS Priority for PHC

The national priority for primary health care has been voiced in polictical platforms at the highest levels and a national plan for its implementation was approved several years ago. The current constitution virtually guarantees access to health care as a right in Sudan. Nonetheless, public budget planning and actual resource allocation at the central level indicate that health services have a lower priority than so-called productive sectors. Central government real expenditures on health services have declined by half since the early 1970's. Per capita central spending on health is negligible (about LS 1 per person). The last three-year public investment plan stated that the development of services (including health) is restricted due to paucity of funds for which productive sectors have always claimed higher priority." Services (health and education) claim 11% of the development budget. No new or ongoing central government health projects are described in the Public Investment Plan. Sudan receives a high level of foreign assistance generally, and its drug supplies and technical capacity in health have been supplemented for years in both the North and South by donors.

Economic Downturn

Sudan's ability to cover recurrent costs has diminished greatly in recent years with declining production and falling per capita incomes. Not only has government revenue-raising capacity been adversely affected at all levels, but the ability of health care recipients themselves to pay for goods and services, though largely untapped, has taken a downturn as well. Clearly the drought has worsened the situation in the last few years.

In the last two years, taxes at the central level, mostly reliant on trade, have fallen as import and export levels declined. For the last five years there has been a government budget deficit of 6% to 9% of GDP. In addition, Sudan's external debt is one of its most crushing burdens, currently around $10 billion. Unrescheduled annual debt obligations are about 12% of the entire annual GDP.

The prospects for Sudan's economic recovery are poor given that the drought shows no signs of abating in 1985 and plantings for this year's crop were low. Agriculture leads Sudan's economy, so all other sectors will suffer as well. Moreover, fixed investment has dropped sharply and Sudan's productive base is further eroding. Both the IMF and USAID project a worsening in nearly all macroeconomic indicators until late in the 1980's.

In sum, central government resources will continue to be limited to covering current Chapter I expenditures (wages and salaries) and that inadequately. There will be little to no operating and maintenance funds at local levels. Without external assistance, even current meager PHC

Inadequate Financial Resources at Local Level

The regions and areas are facing the same problematic drop in tax resources at the very time when the drought is dramatically affecting the well-being of the rural population. In the last year there has been a sharp increase in malnutrition and disease from inadequate and impure drinking water. At the same time, the Kordofan region, for example, is expecting a decrease in its central deficit grant while its own tax revenues from last year were 33% below projections related to budget needs and expected to be lower still this year. While Kordofan's Ministry of Finance has allocated LS 300,000 for planning purposes to its 10 districts, most have seen drastic reductions in their own total available monies this year.

Nahud Area is expecting a 66% reduction in 1985, when previous levels already left nothing for operating expenses and development. Salaries are often late as it is. The Chief Executive Officer of Kadugli said that while he is receiving LS 54,000 this year for development he has not been able to repair school buildings since 1977 due to lack of an operational budget.

In the South, previous missions had already found Area Councils with scarcely any revenue raised and health workers owed up to six months back pay. That situation has further deteriorated in the last year.

Recurrent Cost

The revalidation exercise in May/June 1983, was an exhaustive examination of the recurrent cost issue. Like the revalidation exercise, the team found less ability to cover recurrent costs at all governmental levels and the cost of maintaining a steady service level has gone up. Inshort, there is little evidence that the GOS can provide the financial support necessary to maintain already-low PHC levels, and much less expand. The evaluation team's field work reconfirms the finding that existing health units and workers are undersupplied, undercapitalized, and under-supervised.

Cost Recovery Attempts

The evaluation team found numerous examples of attempts to have beneficiaries cover costs at the local level. These ranged from government health insurance plans to food inspection fees. Patient visit fees of 5 to 10 piastres and 10 piastre injection fees helped cover fuel and water costs of some PHCU's. Community pharmacies are helping to partially cover public drug costs in many places (although at a cost to the private sector). There are still regulatory and constitutional barriers to imposing fees and recovering full health costs. Moreover, citizens have been led to believe they are entitled to "free" health care and are reluctant to pay though they often volunteer labor and materials for constructing PHCU's. Mechanisms for beneficiaries to pay are underdeveloped and raise little revenue, but hold promise for the future if ability to pay does not disappear completely.

ISSUE II.B.: Are project assumptions regarding transport costs and availability currently available?

Overview

Project activities are hampered by the high costs of transport and fuel even though the project can find fuel more easily than other participants in health, either through government sources or through having an adequate budget for purchases in the market. However, at times the fuel is simply unavailable and delays occur while it is located. Activities consistently require more fuel than estimated which pushes up costs and adds more delay. The poor transportation infrastructure and distances travelled within Sudan are largely responsible for such underestimates that include the high time investment project staff must make to travel in target areas. It also means that the project must reimburse trainees for transport, and often provide transport to participants in other project-related activities to promote attendance. Both project components have difficulty controlling the uses of project-provided vehicles given the scarce transport resources available at the Regional and Area levels.

Response to Fuel Shortages

One America has proposed responding to this situation by periodically purchasing tankers of fuel in Port Sudan, i.e., by laying in a large supply. Storage cost must then be figured into the budget. Fortunately, fuel cost is not a constraint as the project's budget is adequate, although it may displace other items.

The southern component was especially affected by regional fuel shortages. Instead of procuring local supplies from their Sudanese pound budget, the project has been forced to bring in fuel supplies through Kenya and pay the costs from their foreign exchange account. However, AMREF's ability to finance other foreign currency activities has not been affected, as most are not very far along yet. The original budget was revised to reflect the increased foreign exchange fuel costs. The revision was not executed and remains with the contract officer for action.

GOS Policy for Fuel

The entire PHC delivery system is deeply affected by high transport costs. The Central Government must procure fuel for all its services at ever-rising cost given the devaluation of the pound. As supplies to government services have been subsidized by up to 50%, consumption demands have grown even as money to replace supply has diminished. Recurrent fuel costs are growing harder to meet. Allocations to all central ministries have consequently fallen even while prices were increased. Services, including health, that are a net drain on the central budget, have a lower supply priority than so-called "productive" sectors. The Central MOH has thus experienced a further reduction in its capacity to undertake PHC activities, and clearly this restricts contacts between the Central MOH and Regional health services.

In February, 1985, the Central Government decided to raise the official prices of fuels up to 60%. This increase will be passed on to all government entities receiving an allocation, which will act to further increase regional costs.

At the regional level, fuel allocations come as a block and health must compete with 'productive sectors' for its share. The current supply is inadequate to allow for basic supervision of community health care or efficient drug supply distribution. The Southern region's plight in this respect is far worse than that of Kordofan. In both, however, the constraint is severe. To buy much supplemental fuel in the black market is prohibitive for most Area Councils and the regional governments. Benzene prices now range from LS20 to LS50/gallon in Sudan's black market for fuel. Moreover, drought-caused revenue reductions at all government levels has further diminished capacity to finance fuel supplies.

Vehicle Maintenance

In Sudan, vast distances and poor infrastructure increase maintenance costs on vehicles. As the pound has devalued, spare parts are also less available and more expensive. One District Medical Assistant budgeted a full LS2600 for maintenance and fuel for one vehicle this year, an example of the high overall cost to transportation. It was estimated by OAI that upkeep of one vehicle for two full rounds of supervisory visits in Nahud would cost LS18,000/year. Even to have access to a vehicle in the first place is unusual, given the multiple demands on the available public fleet. The CHWs and VMWs are forced to find their own transportation even to collect their salaries, deliver monthly reports, and often to pick up drug supplies.

Transport by Central Medical Store

The project logframe assumed the continuance of (Central Medical Store) CMS supply transport (mainly for drugs) at reasonable cost. The foundation for this central government subsidy was always very shaky. There was thus no basis for assuming its continuation in the May, 1984, logframe revision and Project Paper Supplement developed in August, 1984. Part of the problem is likely a lack of understanding of logframe methodology rather than a belief that such assumptions would remain valid.

In the early 1980's, the CMS and the districts had a fully operating fleet of 24 International Harvesters for drug and equipment delivery. At this point, poor maintenance has cut the fleet and many northern Regions and Areas send an agent to Khartoum to find CMS supplies and transport them privately. In fact, CMS now views this as a regional responsibility. Naturally, the outermost regions face the most difficulty in affording this, especially in light of fuel shortages. For areas with access to the railroad, rates for freight are subsidized and priority is given to drug shipments. The cost is about LS20/kg to move drug freight from Khartoum to El Obeid. These rates are less than half of a private lorry. There is currently a strong central effort to raise rail tariffs and perhaps even to commercialize the entire rail system which will increase drug transport costs. The railroad cost is being paid in any case, through poor maintenance, taxes, and operating inefficiencies such as delayed runs.

Sudan Railways used to run to Wau in the Southern Region, transporting much of the region's drug supply. In mid-1984, the bridge into Wau was destroyed by insurgents who are also restricting use of low cost river transport. The South thus has no access to CMS-paid or low cost subsidized public transport. The drugs must now be transported in through Mombasa (Kenya) at substantial expense, or brought in by military air transport. That suffices to get supplies to Juba. Fuel there is now so scare that the town water supply cannot even be pumped. Moving supplies out from Juba is costly and very irregular. Security checkpoints have increased the difficulty of moving such items in the southern regions.

Recurrent Transport Costs

GOS ability to meet recurrent transport costs now inhibits delivery of a desired health service level; without adequate transport inputs, health output levels are low. For example, basic supervision and supply delivery are seriously hampered. Although some improvement is achievable through increasing efficiency of current resource use, it is marginal compared to total need. Moreover, the central, regional, and Area governments spend most of their revenues covering Chapter I salary expenses, leaving little for operating costs. There is almost no chance of reallocating funds from salaries to cover transport costs.

Unless the project supports recurrent transport costs (which are clearly unsustainable by the GOS) the project cannot achieve many of its outputs, and perhaps not its overall purpose. Moreover, without such assistance, primary health care, which is defined to be the minimum acceptable level in Sudan, cannot be implemented successfully.

RHSP Attempts to Deal with Transport Problem

In short, the project is based on key assumptions about transportation cost and availability that are clearly unrealistic. The project components have, however, tried to overcome these constraints. The northern component proposed developing a newsletter for CHWs and their supervisors to help increase their communication and reduce the need for in-service training. One America also envisions improving the design of the HIS for use as a management tool. The hope is to reduce the number of information gathering trips and improve conditions for supervision generally.

Northern project staff feel that movements of the existing vehicles, at Regional and Area levels, are poorly coordinated and inefficient. Two vehicles have been given to medical assistants in Nahud and Kadugli Areas and their use is being monitored. The project may elect to purchase smaller vehicles for in-town use to help cut fuel use. Transport surveys detailing cost factors have been undertaken but no conclusions reached. Numerous memoranda also indicate northern project attempts to consider moving local health people by everything from bicycles to donkeys. Some consideration has been given to increasing public transport use by health officials and front-line workers as well.

The Southern Component is even further along with its newsletter for CHWs and other village-level health personel having finished the seventh quarterly issue. However, there is no evaluation of whether these have actually improved services or skill levels, thereby reducing the need for information and supervisory visits. The RHSP has provided 24 vehicles to the South with three going to each provincial headquarters. There have been numerous cases of abuse and even outright vehicle confiscation to meet non-PHCP related transport demand. AMREF hopes that redivision will create a greater sense of responsibility for these vehicles at local levels.

AMREF has gone so far as to procure fuel for the Southern regional governments with project foreign exchange and accepting Sudanese pounds in payment. The Contractor has tried unsuccessfully to manage the use of this fuel for PHCP activities through Southern government controlled depots.

Neither component has contributed to alleviating the transport constraint on those perhaps most affected, the rural population seeking health care. Primary health care is by definition an attempt to reach these rural people, but resources are too scarce in Sudan and the population too sparsely settled to provide close access to all. Nonetheless, one indicator of project final success is that "50% of the rural population has access to MCH/FP services." In light of the transport situation, this is a poor indicator and clearly not achievable with current project inputs, unless "access" is defined so broadly as to be meaningless.

SECTION III: MANAGEMENT

ISSUE III.A.: How have project management decisions and styles affected project implementation?

Project Design

The RHSP project design was faulty in not setting up an implementation strategy that could guide project managers. The design called for an assessment study to provide information on details in the project environment. This was intended to facilitate and improve planning activities during implementation. However, there was little mention of development themes or strategies on how the information from the study should be applied. Although the design posed the need for bottom-up development, this was not thoroughly explained nor was it stressed as a guiding strategy. The design work was undertaken mainly in Khartoum and in a top-down manner, perhaps setting the stage for a similar pattern during project implementation. Without adequate guidance on project strategy in the design, each project manager was left to his or her own independent ideas. Project managers are defined here as the USAID Project Manager, Chief of Party, Regional Coordinators, Project Leaders and national and regional GOS Project Directors.

Pre-implementation

The management of the pre-implementation phase was severely hampered by the AID/Washington bureaucracy holding up contract signing for 20 months for the South and for 28 months for the North. This resulted in USAID/Khartoum losing control of project scheduling. Concern developed in the GOS and USAID that the project may not be salvageable since the Sudanese economy was rapidly deteriorating and the proposed advisors might not be able to wait long enough for the contracts to be activited. The PP Supplement stated that the delay had a "severe impact on GOS enthusiasm and project momentum."

Pre-contract Implementation

The project design had included a pre-contractor implementation phase which, being much longer than originally expected, gave the USAID Project Manager a much greater involvement in implementation than is usual. USAID undertook direct procurement of contractor support items such as vehicles, trucks and furniture. While the evaluation team understands these pre-contractor activities as perhaps necessary to show the GOS that there was still a project, the short-term training that was done during this phase had mixed results. While it was apparently needed to give the impression the project was progressing, it also used project resources in a manner that (a) neglected the intention of the design to use a needs assessment study and other studies to determine training needs, (b) did not involve the targeted regions in decisions on training, and (c) this, in turn, continued the pattern of top-down planning and decision making.

Implementation - Southern Component

The AMREF contract was signed in April, 1982, twenty months after project authorization. Project management in the South had little involvement from the Central MOH because of the greater level of decentralization in the South compared with other regions. Also, the northern component of RHSP included technical assistance to the central MOH while the southern component operated strictly in the South. When the project was first planned, there was a regional Ministry of Services covering the three project provinces. This differed from the rest of the country where administration of health services was partially decentralized to province-level authorities.

A major problem developed when the three provinces were each given regional status. The three resulting regions subsequently took considerable time dividing the former single region's assets (personnel, budget, furniture). In the end, Equatoria had acquired most of the trained manpower resources, depriving the other two regions to the extent that there were too few civil servants to undertake project activities. Yet, the intention of the project was to focus more on the two regions where the need for assistance was greater. Added to this was the growing security disturbances which cut off access to parts of Bhar El Ghazal and Upper Nile Regions. As this situation was unfolding, there was little doubt that project objectives were unachievable within the planned life-of-project (LOP). Instead of recognizing the difficulties and revamping the project accordingly, the project was allowed to limp along. This appears to have been partially a response to pressures to do some kind of implementation after the earlier contracting delays, and partially that contracts were signed and it would have been very difficult to make significant changes. Without clear strategy guidelines for project managers, almost any manner of implementation in this environment was acceptable.

While economic and security problems continued to plague the project, AID/W was threatening to cancel it because of concerns about sustainability, primarily focusing on recurrent costs and the manpower shortage. There was much less concern about the effects of the deteriorating environment on implementation activities and outputs. In response, USAID initiated a revalidation study to identify ways to address the sustainability questions. This led to a Project Paper Supplement (PPS) in which changes were made in some activities to reduce the potential recurrent cost liability. There was very little discussion, however, in either the revalidation study or the PPS on implementation strategy and project management. The revalidation report noted,

> The team found that while efforts have been and are continuing to be made by the GOS and donors to improve the management, planning, budgeting and expenditure control, there are few systems in place to provide timely and pertinent information, regular supervision of workers at the periphery, or analysis of program options. The implementation of the regionalization of government legislation and the deterioration of the southern political situation has further slowed progress toward improvements in these management related areas.

> It was concluded that further analysis of program options were necessary prior to the implementation of any specific intervention.

An RHSP Working Group on Planning, Management and Budget met in Khartoum on June 14, 1983, to discuss the problems caused by decentralization. They concluded that the regional personnel needed help in developing a planning and management capability and that the project should respond to these needs.

What was lacking in the revalidation study, the PPS and the Working Group analysis was the realization (or perhaps the willingness to consider) that without this planning and management capability already developed, many of the implementation activities could not be planned with local government participation nor could they be managed properly.

This resulted in the advisors becoming the planners and managers, taking operational roles in the ministries. They focused on undertaking the activities themselves rather than developing the local capability to do them. The current AMREF Project Leader explained to the evaluation team that while the weakness in this approach was evident to AMREF, they felt obliged to continue. They interpreted their role as meeting the project's output objectives rather than questioning them.

It appears AMREF rationalized their posture by viewing the transfer of skills as occuring by example. The evaluation team sensed an understanding by the Project Leader of how a transfer of skills could be accomplished correctly but that neither they nor USAID were willing to force the necessary changes in the project. The evaluation team found USAID more interested in the security and recurrent cost problems than in providing guidance in determining development strategies and priorities.

The stage already had been set for implementation based on a design characterized by relatively independent outputs without a development strategy to encompass and integrate them. Early AMREF team leadership had a philosophy which was operationally top-down. There was no consideration by the Project Leader of developing a bottom-up, sustainable GOS capability. USAID control over AMREF implementation was weak due to AMREF's contract being held by the AID Regional Office (REDSO) in Nairobi. Under this system, AMREF sent its financial reports to Nairobi and USAID would receive them after the fact and as a matter of record only. When USAID tried to improve communications with the project by placing an officer in Juba, AMREF vehemently objected to this and did its best to isolate this person from the project.

The conflict between USAID and AMREF abated considerably with the departure of the first Project Leader. His successor has changed AMREF's management style to be more flexible and more sensitive to the needs of the field advisors. This change has also resulted in more attention to development strategy. A recent proposal from the AMREF Project Leader to USAID (dated October 20, 1984) to modify the utilization of project resources shows the interest of AMREF to retreat from the established project path and make changes that are responsive to the changing environment.

Northern Component

AID and Contract Managers

This component of the project has been plagued with management problems from its inception. This is partially due to the management structure of the northern component and partially due to the inability of the contractor, One American, Inc. (OAI), to field advisors with the right mix of skills and willingness to live in rural Sudan. One difficulty for OAI was the scarcity of potential advisors who had the technical background, sufficient experience and Arabic language capability.

While the OAI Health Planner/Chief of Party (COP) arrived with very strong administrative skills, he was not a health planner. His background in development was not strong although he had worked for many years in food relief in developing countries. His lack of health planning skills and development experience, coupled with the lack of a development strategy in the project design, left this person to work out his own development ideas and manage the project accordingly.

Because the OAI contract was signed so late in the life of the project, August, 1982, USAID Project Manager had become very active in pre-contractor implementation. She was so close to the project that it was natural to continue to work closely with the COP when he arrived.

Assessment Study

The first OAI activity, the assessment study, was complicated by the fact that the two primary OAI consultants differed as how the study was to be carried out. There was considerable conflict on strategy which both the COP and the USAID Project Manager worked daily to resolve. Unfortunately, the project design did not provide sufficient guidance on specific objectives for the study and did not provide an integrating development philosophy. The result was that the study findings were a set of papers, each with a different approach and none dealing with the main purpose of the study; development of an implementation strategy. The study reports were so fragmented and poorly organized that they have yet to be put into final form for distribution, more than 18 months after the study was completed. Without guidance from the study, the project has been left to find its own course. The COP wrote an Implementation Overview but this too has failed to illuminate an overall strategy that could guide the project.

Role of Central Ministry of Health

At this point, the COP was responsible to the USAID Project Manager, the OAI Project Director in Washington and the Director General of the Department of Rural Health and PHC in the Central MOH (CMOH). He nonetheless had some degree of independence once his workplan was approved. The Director General had the most operational influence as he had to approve each request for project funds which was channeled from USAID through the Ministry of Finance and Economics (MOFE) to the CMOH. The CMOH interest in controlling these funds is likely to be high due to the decentralization of almost all government operations. This has left the CMOH with very little influence over the regional health activities. The regional ministries receive their operating funds directly from MOFE,

bypassing the CMOH. The only pursestring control exercisable by CMOH over regional ministries is through projects such as RHSP.

While the northern component of the project was oriented to development of GOS capability in the regions of Kordofan and Darfur, there were some funds for improving capabilities in the CMOH. OAI had trouble fielding a Regional Coordinator for Kordofan and the Darfur activities were not scheduled until later in the project. The result was that the COP was the only longterm advisor for more than a year, yet he lacked many of the skills that were needed at this time. While he was making trips to Kordofan to prepare for project implementation, his major focus was at the CMOH where the Central Project Implementation Unit (CPIU) was created.

Centralized Decision Making

The major project activities at this time were those that had the most interest for the CMOH and not necessarily for the region. Without a project implementation strategy to guide them, the CPIU, and especially the COP, took a strong leadership role and made decisions that were of questionable value to the region. While there was some discussion with regional health officials before many of the decisions wwere made, the discussion often was about what the CPIU was proposing to do rather than what the region was interested in or capable of handling. Perhaps due to the lack of a Regional Coordinator to work closely with Kordofan health officials, and because of a perceived need to move ahead with project activities, the major focus was on activities which could be quickly and easily implemented and not necessarily on those which would fit into an overall development scheme. Since the project design was actually a set of diverse activities, there was little reason to question them.

Regional Perspective

From the perspective of Kordofan Region, the project objectives were very unclear. Regional representatives had been told that the project was intended to provide assistance to improve primary health care although they saw very little achievement to support that intention. The major success was the establishment, through RHSP funding, of three community pharmacies, which brought cheaper drugs into three urban market places. Although the urban communities were very enthusiastic about the pharmacies, there was no significant discussion on how this related to primary health care.

Two additional project activities which have been received positively are the management by exception initiative and the TBA training. While the region appreciates the resources that have been committed, they point out that for the management by exception initiative, the idea originated with the COP and was presented to them as something the project was going to do. They were not involved in the planning, and the manner of its implementation (top-down) was not appreciated.

The only other project activities have been studies from which there has been little benefit to the region. Then, in mid-1983, a short-term health economist (who was also on the assessment team) visited Kordofan to do some smaller studies and again, the region never saw the results. The pregnancy outcome surveillance activity, planned with the help of the U.S. Centers for Disease Control (CDC), is to supply data to Khartoum with no

clear advantages to the region, has been used for advisor vehicles, housing and furniture. There were a number of reasons that the region has not participated in project decision making and has seen little project benefit. These include:

1. The OAI Regional Coordinator arrived in Kordofan only in September, 1984.

2. The Regional PIU took a long time to become operational and have the capability to draw up a workplan. This was finally done with the assistance of the Regional Coordinator.

3. There were institutional problems in the Directorate of Health in El Obeid that hampered decision making.

4. The COP and the CPIU were confident that what they were planning was best for the region and therefore would have to be acceptable.

5. The Regional Coordinator (RC) is the subordinate of the COP and has been reluctant to take issue with him over project strategy. While the RC has made some of his objections known, he has not felt strong enough to push his ideas.

6. Again, there was no strategy to guide the region or the CPIU on how to do planning or what criteria should be used to identify project activities.

The perception of the region is that they have little control over what the project is to do for them and they have not seen the benefits they anticipated. This has created some negativity towards the project. The Director General for Health and Social Welfare of the Ministry of Public Services of Kordofan signed an agreement with the Director General for Rural Health and PHC (also the director of the CPIU) of the CMOH, on November 8, 1983, regarding the management of RHSP. The agreement states that the two participating ministries

> "are full and equal partners in this project, and consequently agree to consult fully with each other on all key decisions relating to the project, with neither having the right of unilateral action. In particular the annual work plans for the project, starting with 1984/85 [GOS FY], will be developed by the staff of the [RPIU] with the assistance of the CPIU, and will be jointly presented to [AID]. Primary responsibility for carrying out the work plans will be with the RPIU."

This agreement apparently has not been carefully followed.

III.B. Health Planning, Management, and Budgeting

ISSUE III.B.1.: Has a regional capacity in health planning, budgeting, and information been developed?

The purpose of the RHSP is to strengthen the capacity of the GOS in the area of management, planning, budgeting, logistics and supply to improve the delivery of PHC and MCH/FP services to rural areas.

The log-frame for the Project Paper Supplement (PPS) identifies the institutionalization of a regional health planning, budgeting, and information capacity as a project output. The indicator for achievement of this output in the North is the production of one health plan by Project Year 4 and one by Project Year 5. For the southern component, the indicator is production of two health plans and budget by PY5.

According to the PPS, specific project activities that would lead to the achievement of the project purpose include:

- o Provision of a limited increase in health planning, management, budgeting (HPMB), and logistic expertise to assist the GOS in effective decentralization;
- o Development of effective techniques - formal and on-the-job training - in health planning, management, and budgeting for senior, mid-level, and field managers;
- o Increased involvement of district, rural, and local councils in the administrative management, planning, and financing of primary health care.

Activities

Among the major activities planned by RHSP/North to achieve the project purpose are:

- o Management by Exception study
- o Health Donor Coordination exercise
- o Grant Fund
- o Joint Planning Exercise
- o Establishment of GOK Interdepartmental Committee
- o Several studies on the subject of financial management in Kordofan Region.

For an analysis of the Management by Exception study refer to the findings of the issue III.B.3.

OAI has been participating in the Health Donor Coordination activities organized by UNICEF in Kordofan Region. Although these meetings have been occuring on an ad hoc basis, the feeling is that the efforts have been quite successful. RHSP/North feels that any efforts on their part would merely duplicate the efforts of UNICEF. An example of this activity is that the most recent TBA training session that took place in Abu Zabad was organized by UNICEF and funded by both RHSP/North and UNICEF.

The objective of establishing a GOK Interdepartmental Committee is to facilitate information exchange between all agencies involved in rural health and rural development. These plans have since been abandoned. It was decided that it would be inappropriate for a technical assistance team to impose such a committee on the GOS government structure.

Joint Planning Exercise

The objective of this exercise is to "demonstrate the practicality of involving communities in planning their own programs, and assess the degree to which these locally developed planning initiatives might be accepted at Rural Council level and above and incorporated in the appropriate district and regional components of the overall GOS health planning process."

The means for achieving the objective are to "work with several Rural Councils in one or two districts to explain the concept of joint planning and community involvement. Obtain the cooperation of Village Councils and CHWs in the several sub-districts, as well as appropriate district level authorities. Help the Village and Rural Councils to establish priorities for the PHCP for 1984/85 and performance standards for CHWs, and assist in their negotiations with District Council and Medical Inspector."

Progress in the implementation of this activity has been hampered by the late arrival of the Regional Coordinator and by insufficient manpower in the Regional IU. The research of the evaluation team indicates that to date there has been very little consideration of local interests. However, the pilot zone activities proposed in the workplan for the coming year are intended to involve significant community participation in the planning exercises. (See issues on community participation Section VII)

Financial Management

The studies of financial management in Kordofan Region include the following titles:

- o Disaggregation of Regional Health Budget,
- o District Level Expenditure Monitoring, and
- o Options for Raising Revenue.

These documents are the results of considerable effort and contain substantial amounts of data. However to date these reports have not been distributed to the Sudanese authorities involved and their applicability to provide solutions to the problems at hand is unclear. Studies alone cannot be considered as solutions to the problems. Any plans to draw conclusions from these studies or apply them to the HPMB problems have not been articulated.

In addition to the uncertain value of these studies, the pre-implementation assessment of the GOK planning, budgeting, and information systems upon which project plans and activities were to be based has never been successfully completed.

Grant Fund

The objective of the Grant Fund is to demonstrate the feasibility and utility of introducing flexibility into government disbursement procedures.

The activities proposed to achieve this objective are to establish a fund and develop disbursement procedures on a mini-project basis. The initial limit for one project would be LS 5000.

Progress to date has been limited. However, the Central PIU has defined criteria for project support, developed a draft application format, and developed a system for disbursement. Nonetheless, no attempt has been made to implement this activity to date.

Planned Pilot Zone Activities

The Kordofan Region Workplan for FY 84/85 emphasizes the development of pilot zones in which a full range of PHC/MCH/FP services are to be developed and integrated. The organization of these services is to be developed with the participation of the communities and government personnel involved. These local services are then to be expanded to the Area and Regional level with the implementation of systems of supervision, information, supply, and training. Pilot zone activities that are successful may then be replicated or adapted for other areas.

Regional Planning

The Kordofan Region responded to the decentralization of government services by establishing a Regional Planning Unit (RPU)[1] in the Regional Ministry of Finance and Economic Plannning in 1983. The RPU is responsible for the allocation and use of any development funds (Chapter III) available. Given the current economic situation these funds are scarce.

The RPU is in the process of developing and implementing a further decentralized regional planning, budgeting, and information process in response to the GOS policy of decentralization. Development units that will have the responsibility for Area level planning are being established as part of the Area Councils. The development units will plan and manage discrete projects funded by the Ministry. These units will consist of two administrative officers, one primary school teacher, and one intermediate school teacher. Health committees are established in most Areas and will be set up in the rest of the Areas. However, the health committees have not been effective in most cases due to their exclusion from the management process. At this time, this process is still in the nascent stages. The RPU has engaged the Sudan Institute for Administrative Studies (SAIS) to conduct training for the development units in project identification, project implementation, and basic recordkeeping. In order to foster the use of these skills, the RPU is making approximately LS 300,000 available to the ten development units based on the population of the Areas (approximately LS 30,000 per unit).

[1] The Regional Ministry of Finance and Economy has established a department for planning, however we are uncertain of the exact title of this unit. Therefore we will refer to it as the Regional Planning Unit (RPU).

Thus far no collaboration has taken place between the Regional PIU and the RPU although clearly the opportunities for synergy and cooperation are very attractive. The staff of the RPU is able to provide assistance in the more formal planning and management skills, however, it is unable to provide the technical health-oriented expertise required. It is in this area that the opportunity for collaboration is most apparent.

The Regional Ministry of Public Services also issued a Ministerial Directive (Number 37) to establish a unit for planning and follow-up at Ministry headquarters. This unit is to be comprised of a director and five statistical officers - two for education, two for health, and one for religious and youth affairs.

The functions of the Planning and Follow-up Section are to formulate short- and long-term plans, to collect and analyze data, to record achievements, and to carry out scientific studies and assign priorities.

At the time of the evaluation, the Director of the MPS Planning and Follow-up Section was out of the country. The status of this activity and plans for implementation are not clear.

Health Management Information Systems (HMIS)

Both the original Project Paper and the Project Paper Supplement identify the strengthening of HMIS as an important element of improving plannning, management, and logistics. However, the only indicators identified to verify that these activities have been achieved are regular reporting from 60% of functional PHC facilities and instituting a data management system for pregnancy outcome surveillance. (For evaluation of pregnancy outcome surveillance activity, refer to Issue IV.C.) In fact, the achievement of this quantity indicator is not adequate for evaluation of the quality of an information system. Simply because 60% of PHC facilities are reporting does not guarantee an efficient and effective HMIS. Not only does the indicator not consider quality aspects, but also 60% of the facilities is not a sufficient number of participants.

The GOS Department of Health Statistics of the Central Ministry of Health, in conjunction with a USAID advisor, the World Health Organization, and UNICEF, began development of the Health Information System for the Primary Health Care Program in 1976. Implementation of the system began in 1982. Hospital reporting is distinct from the PHCP reporting system.

Perhaps due to the needs of the organizations involved in the development of this system, it appears that the data is oriented more towards the macro requirements of funding organizations, global health agencies, and nationwide interest; and less towards the needs of the communities, the Areas and the regions for primary health care administration.

Further, the management applicability of the PHC/HIS is unclear. Although it appears that the system was not designed to be used as a managerial instrument, for example for purposes of management and budgeting, some useful management related data is available from the system.

These data include number of visits, drug utilization, population, resources,and health factors. However, management data that is conspicuously absent from the forms includes end-of-period inventory of drugs and supplies, quantity and condition of equipment, condition of facility, availability of utilities and resources, direct and indirect costs of operating and maintaining the facility, and community and local government contributions. Provided that appropriate analysis is performed, these data would provide substantial information to support management decision-making. At the present time, from interviews with the principals involved, it does not appear that such data would be utilized. A capability for data analysis and utilization needs to be developed.

Evaluations of the PHC/HIS have been conducted by both the northern and southern components of the RHSP. RHSP/North performed an evaluation in September, 1984, in conjunction with a nutrition survey of the drought stricken areas of northern Kordofan. RHSP/South performed an evaluation in March, 1984. The conclusions of both evaluations were somewhat similar.

Although the recent PHC/HIS has achieved considerable coverage in an area as vast as Sudan, a number of problems in the general system have been commonly cited, including the following:

- o There is a continual and pervasive lack of forms and supplies.
- o Transporation and communication problems hinder reporting in remote areas when forms and supplies are available.
- o Monthly reports are not regularly received.
- o Refresher training sessions in collection, processing, analysis, and use of data are not formally planned.
- o Virtually no analysis of the data, beyond successive levels of aggregation, takes place within the PHCP.
- o The flow of information in the system is strictly upwards; there is no provision for feedback of information to the peripheral levels.
- o The utilization of the present system for improved decision-making, except perhaps at the Central MOH level, is unclear. The information is not used in planning the distribution of drugs, the development of health facilities, or for general program planning.
- o In Kordofan Region, the actual flow of information after it leaves the Area level is unclear. Contradictory information was provided to the evaluation team by a number of sources.

The percentage of PHCUs submitting monthly reports varied according to Area. Rarely did all PHCUs in any Area submit reports, but never did all of the PHCUs in an Area fail to submit reports. Incomplete and/or inaccurate reporting is also a pervasive problem among PHCUs that are reporting. A high percentage of the reports had some information as required in the monthly report form, however few reports had all the required data. The lack of the necessary forms and registers seems to contribute substantially to these problems. However, these problems also indicate the need for further refresher training in this area. Currently health workers may see little usefulness in submitting these reports accurately, completely, and promptly because they receive little feedback concerning the usefulness of this data.

Research further indicates that the data submitted by CHWs and MAs are not routinely used as a source of service statistics for program management, monitoring, and evaluation as planned by the PHCP. It has also been observed that relatively little analysis of data from PHCUs is carried out at the Area or regional levels.

The flow of monthly reports has not been systematized. Some primary health care workers send their monthly reports to the PHC complex center (dispensary), some to Area health authorities, some to Regional health authorities, and others do not send in reports.

In the northern component, OAI has made few efforts to affect the PHC/HIS primarily due to the late arrival of the Regional Coordinator. However, the Regional Coordinator did participate in the evaluation of the HIS and is very actively interested in strengthening it. Plans for improving the HIS by strengthening data collection, standardizing feedback methods, and retraining personnel are very prominent in the 1984/5 Workplan. RHSP/North also relied on the overlap of the predecessor project, NPHCP which included a long-term HIS technical advisor until Spring, 1984.

In the southern component, AMREF has achieved some progress in HMIS. However it is unclear to what extent the progress has been achieved under RHSP/South and how much under SPHCP which was also implemented by AMREF. The following activities have been undertaken:

1. Carried out baseline surveys in three villages;

2. Provided overseas training for one Sudanese technical staff person;

3. Trained/retrained 38 statistical clerks, 203 CHWs, 65 MAs, 39 other PHC staff;

4. Printed monthly report forms;

5. Obtained reports from 52% of all staffed PHC facilities.

In terms of instituting a regional capability in management and budgeting, most of AMREF's activities have been in training. (Refer to issue III.B.5. concerning HPMB training.) AMREF has provided a workshop in health planning, management, and budgeting. Further, AMREF personnel have been working with Sudanese counterparts, to the extent possible, to improve

the health management system. However, these efforts have been undermined by the Local Government Act which was interpreted in the South to require that Sudanese personnel return to their regions of origin. As a result, in Bahr El Ghazal and in Upper Nile Regions there was a severe scarcity of trained manpower available to function as counterparts. Those counterparts who were assigned to AMREF personnel, were usually assigned on a part-time basis, thereby reducing the effectiveness of this aspect of the project.

ISSUE III.B.2.: Have targets been met in the development, implementation and institutionalization of a training program in health planning management and budgeting?

North

General Training Objectives

The original project design allowed for a sequential, systematic approach to the establishment of training programs for health administrators. The PPS uses this approach as a basis for the development, implementation and institutionalization of a regional training program in Health Planning, Management and Budgeting, HPMB.

The development of the training program was planned so central and regional health personnel, appropriate GOS institutions with training responsibilities and contractor advisors would work in a collaborative manner. During the implementation and institutionalization phases the training activities would be fully integrated into the planning and management systems, thereby meeting the training requirements and needs of PHC personnel and becoming a self-sustaining activity.

OAI Progress

Table I represents a summary of One America's reported progress towards completion of Planning, Management and Budgeting targeted activities which were included as part of the scope of work (SOW) in the AID/One America Contract Agreement.

Table I: Summary of Progress Towards Completion of Training HPMB SOW Activities by One America

PLANNED STATEMENT OF WORK ACTIVITY	ACTUAL PROGRESS
1. Baseline/pre-implementation Studies and Report	
a. Kordofan Region	1a. Baseline Study completed July 1983. The final report was never completed. A summary revised version was completed November 1984.
b. Darfur Region	b. Not done. Planned for completion in March 1985.

PLANNED ACTIVITY	ACTUAL PROGRESS
2. Training - HPMB	
a. Assist in the development of a health planning capability at the Central MOH.	2a. Baseline/pre-implementation studies provide on-the-job training for GOS/MOH personnel in data collection, analysis and planning (development of Project 83/84 Work Plan). No formal training in health planning provided. Most of the data was not analyzed.
b. Assist the Regional Governments in the development of budgets, financial analysis and cost projections	b. Use of Health Economist Consultant to analyze and disaggregate Kordofan Regional budget.
c. Assist MCH/PHCP supervisors in area of planning, management and logistics.	c. In service-training session for N/TBAs completed. CDC Pregnancy Outcome Studies in Kadugli.
d. Assist the regional Directors General of Health in Kordofan and Darfur and their staffs in development of the PHCP.	
1. Kordofan	d.[1] Discussions on managing PHC with Kordofan Director and Assistant Director General. No report prepared as result of discussions.
2. Darfur	[2] Not started.
e. Assist in the development, implementation and institutionalization of training for regional and provincial health administrators in:	
[1] planning and programming health services	e.[1] No activity
[2] analysis of human and other resources	[2] No activity
[3] budget, accounting, and audit procedures	[3] No activity
[4] personnel management	[4] Management by exception started March 1983 in En Nahud and Kadugli

[5] basic management skills and techniques	[5] Kordofan Regional Medical Assistants' Workshop July 7 to 16, 1984. Twenty-two Regional/ District SMAs attended.
f. Participated with the GOS and AMREF in the development and staging of joint North-South seminars for senior and mid-level managers.	f. Discussion with AMREF not planned due to problems in the South.
g. Assist in the development and presentation of a training course for Directors General of Health and regional health planners on uses of health information systems in dealing with prevailing disease patterns.	g. Evaluation of Kordofan Region HIS at the PHC level completed September 1984.
h. Assist the CMOH in the development and presenation of training courses in the development of health information systems and the use of statistics for Directors General of Health and health administrators at the regional and district level.	h. No Activity
i. Assist in the development and presentation, in each of the four provinces of Kordofan and Darfur Regions of a two week course in the collection and compilation of health statistics clerks.	i. No activity
j. Assist in the design and implementation of procedures for improving health logistics/supply system. This activity will be coordinated with personnel of the Southern Rural Health Support Project personnel.	j. Three community pharmacies started, El Obeid, En Nahud and Kadugli.
k. Assist in the development and implementation of training for health administrators in the areas of supply and maintenance.	k. Plans developed for vehicle maintenance workshop and cataloguing of vehicles in El Obeid.
l. Assist the GOS in providing training for logistics/supply personnel in inventory control, personnel management, and the transportation of drugs.	l. Development of community pharmacies.

One America developed a 1983/84 Work Plan which was said to be based on the pre-implementation assessment. This plan included HPMB activities as follows:

- Management by Exception Study
- Disaggregation of Regional Health Budget
- District Level Expenditure Monitoring
- Seminars and Workshop

Each activity is reviewed below or has been reviewed elsewhere in this report in reference to its progress and adequacy of design with respect to the probability of achieving the targets set by the SOW activities. The Management by Exception Study is reviewed in Issue III.B.3.

Disaggregation of Regional Health Budget

Objective: Demonstrate the practical value of an analytical budget and budgeting process related quite specifically to all appropriate aspects of the health plan, and contribute to the formation of a permanent planning unit in the MOS or the Department of Health. Obtain baseline data on actual proposed costs for FY 1983/84.

Activity: Disaggregate the GOK health budget for FY 1983/84 and prepare notional line item budgets for rural health generally and PHCP in particular. This activity should follow and be a part of activity A-1 and work with the MOS accounting and statistical units. (USAID/PHO has a letter from the Minister of Services requesting planning assistance).

Progress: The GOK health budget for FY 1983/84 was disaggregated by an OAI Health Economist consultant. A report was produced. However, the plans to follow-up this report and its appropriateness to the situation are unrelated.

Due to the decrease in regional funds which has resulted in primarily only funds being available for Chapter I (salaries) and a very limited amount for Chapter II (services) and III (development) this activity was stopped.

A Regional Planning Unit (RPU) was formed in the Regional Ministry of Finance and Economy (RMOFE) by the GOK. (Refer to Issue III.B.1. for further details concerning the RPU). No working relationship has been developed between the RPU and the RPIU. The SOW states that OAI will assist in the development of budget, accounting and audit procedures. This activity represents a small attempt towards the development of such a budgeting process.

This activity is contained in the FY 84/85 Plan.

District Level Expenditure Monitoring

Objective: To obtain useful baseline data and in the short-term contribute to long-range changes in the budgeting/planning/ programming process and in the type and quality of fiscal information available to decision-makers.

Activity: Monitor public expenditures in two selected districts over FY 1983/84 and involve the regional planning unit and non-RHSP planning advisors in the process. With the start of FY 1984/85 budget planning, work with the districts and their area councils on their new budgets, perhaps to the extent of creating a dual budgeting system -- one by chapter, one by functional line item, planning objectives, and program.

A major constraint is the lack of funds for operational expenditures at the Area level. In Kadugli, the Health Economist consultant studied the Area budget and found that not only was there inadequate funding from the regional government to cover Area civil service salaries, but also that local revenue had to be used to cover the shortfall in salary payments. This left no money for Area operations. The Area Council has made no effort to prepare an intemized budget because they have no expectation that any money would be available to them for identified uses. The development unit in Kadugli has prepared a development plan as a special exercise for the RMOFE Planning Department with the expectation of receiving some of the Chapter III funds allocated to this. The evaluation team examined the health component of Kadugli's development plan and found the plan to lack a development strategy and identification of priorities. This may be due to the short amount of training the development officer received (one week) and the absence of another key person who was engaged in a 6-week training course in development planning.

The training program set up by the RMOFE Planning Department is targeted to the 20 administrative officers, 10 primary school teachers and 10 intermediate school teachers that will comprise the development units in the 10 Areas. In August, 1984, 14 of the 20 administrative officers received a week of training. At the end of January, 1985, 10 administrative officers and 10 teachers finished a 6-week training course at the Sudan Academy of Administrative Sciences. A second training course for the remaining 20 people will be conducted starting in June, 1985.

Progress: The development of a monitoring system was started by OAI in Kadugli but there was no follow-up and the activity stopped.

Again, this activity represents an attempt to assess the current budgeting (planning) process. The RPIU was not involved in this activity. It is not clear to what degree the monitoring system was developed. It is included as part of the FY 1984/85 plan.

Seminars and Workshops

Objectives: Improve and learn to evaluate the actual output effects on practice brought about by in-service training of all kinds. In time, this should lead to an overall plan for continuing education of Department of Health personnel at the regional level.

Activity: Prepare recommendations for practical, field-oriented management training, perhaps carried out at Area level, and for multiple-level seminars for various grades of health workers, emphasizing skill training, especially where gaps or weak emphasis has been observed in pre-service training (MCH, for example). Design follow-up observation and evaluation as a routine part of the system. Carry out pilot project. Arrange for top-level administrators/directors of all appropriate training programs to

meet periodically with their graduates in the field or in seminars, to solicit suggested improvements in curricula and other course-related activities.

Progress: The RHSP has only participated in one workshop, the Kordofan Regional Medical Assistants' Workshop July 7-16, 1984, conducted by the Deputy Director, Rural Health, Khartoum, "The purposes of the workshop were to study and analyze the status of health services in Kordofan Region, to define health problems in order to determine solutions, and to plan strategies for improving health conditions in the region."

The workshop participants, Area SMAs, regional SMAs and others presented papers on the writers' views of problems which affect the health conditions of the area and proposed solutions.

While this workshop represents a good approach for the involvement of health personnel in problem identification and problem solving activities, it represents only one component of a training program in HPMB and was not explicitly oriented to training.

The rate of progress in the development of an HPMB training program has been slow because of the delays in the AID/W contracting process, delays in fielding of advisors by OAI, lack of GOK administrative/organizational structure for regional training, lack of appropriate full-time counterparts for advisors and unclear GOS policies on decentralization/regionalization.

South

As per the Project Paper AMREF was to work with Sudanese counterparts from the CMOH, RMOS and the Regional Ministry of Adminsitrative Reform in the development of a HPMB training program. A Medical Education Training Unit was to be established by the RMOS and serve as the site for administration of this activity.

Three types of in-service training courses were developed by AMREF. One for top-level senior health personnel, one for mid-level and one for lower-level managers and field administrators.

A training course in general management practices and problem preventing-solving for senior health personnel, Director General and Senior Adminsitrative Doctors, was developed by AMREF Staff in Nairobi and reviewed by AMREF staff in Juba. Its design was not based on an assessment of the management training needs of SMAs or with respect to the Ministry's PHC management systems or requirements for developments or improvement of the system. Apparently there was no significant degree of involvement of counterparts or institutions in the design of the course material.

Two senior-level workshops on Problem Preventing-Solving were conducted by AMREF and consultants in Juba, September 13-15, 1984, and December 3-6, 1984. Thirty-five SMAs attended the workshops. Participants in the first workshop identified the lack of updated job descriptions for head officials of departments in the regional office as a major management problem. The task of developing job descriptions was given as a problem to be completed before the next workshop. At the second workshop, job

descriptions were presented and reviewed. A follow-up workshop has been scheduled to review these job descriptions again with a view toward planning how they can be implemented.

Three other workshops, one for middle-level administrator and Regional Medical Assistants, (19 participants attended), and two for field-level Medical Assistants from PHCUs (41 attended) were designed the same way as the SMAs but there was a little more input from GOS counterparts.

A total of 95 participants were trained of the 250 planned during the LOP. Therefore, 38% of the total target output has been met.

The objectives of the aforementioned training courses were mainly to strengthen skills in general management. The areas of planning and budgeting were not significantly covered.

AMREF was to assist the RMOS in the establishment of an METU (refer to issue on Meth). This unit would have overall responsibility for the development, implementation and institutionalization of health training activities. The Unit was to be staffed by a Medical Training Officer (Director of the Unit), a Public Health Officer, Nursing Instructor and a Medical Assistant. This unit was not set up by the RMOS until November, 1983.

The rate of progess in the development of an HPMB training program has been slow because of security problems which have restricted travel and delayed completion of baseline studies. Among other constraints have been the lack of counterpart MOS personnel, delays in MOS establishing the METU, the Local Government Act, the Regionalization Act, Sharia Law and problems with provision of continuous TA by AMREF. Other constraints experienced are lack of adequate training facilities and transportation.

Despite all of the above constraints, AMREF has made progress. Health Management Teams have been set up at the provincial level. The METU is now staffed and functioning. Limited baseline training needs assessments were conducted and some training activities have been completed.

The current plan, in response to the Regionalization Act, is the division of AMREF staff between the three regions. This imposes even greater constraints. Each region will have to supply counterparts, and establish training units. The security problems, restrictions on travel and lack of infrastructure support systems are greater in Upper Nile and Bahr El Ghazal. The TA required is greater than the current level available

Organizational Structure Suggested by National Workshop on PHC

At the national level the Department of Rural Health should be responsible for coordinating all the components of PHC. A committee should be set up with the membership of all the other departments (EPI, MCH, Nutrition, CDD, HE, Malaria, Environmental Sanitation). This Rural Health committee is to coordinate all PHC activities by developing integrated PHC strategies and to channel all these plans through the Director General of Health in the regions. Contacts of the committee with the regional health authorities should be made through the Director of the Department of Rural Health or through the Undersecretary.

At the Regional level:

The Director General (DG) for Health Services would be the equivalent of the Director of Rural Health at the national level. The structure may vary because of the shortage in community physicians in some regions. The DG would be responsible for the various units and departments of MCH, EPI, Nutrition, etc. Similarly, as the Rural Health Committee, these units should coordinate activities with each other through the Director General.

At the Area level there may be a Medical Officer (MO) or an Assistant Director General (ADG) functioning in a Rural Hospital. The Area SMA, Senior Health Visitor (HV), Provincial Health Officer (PHO) work closely with the ADG in delivering health services. The political and administrative body at this level is the Area Council.

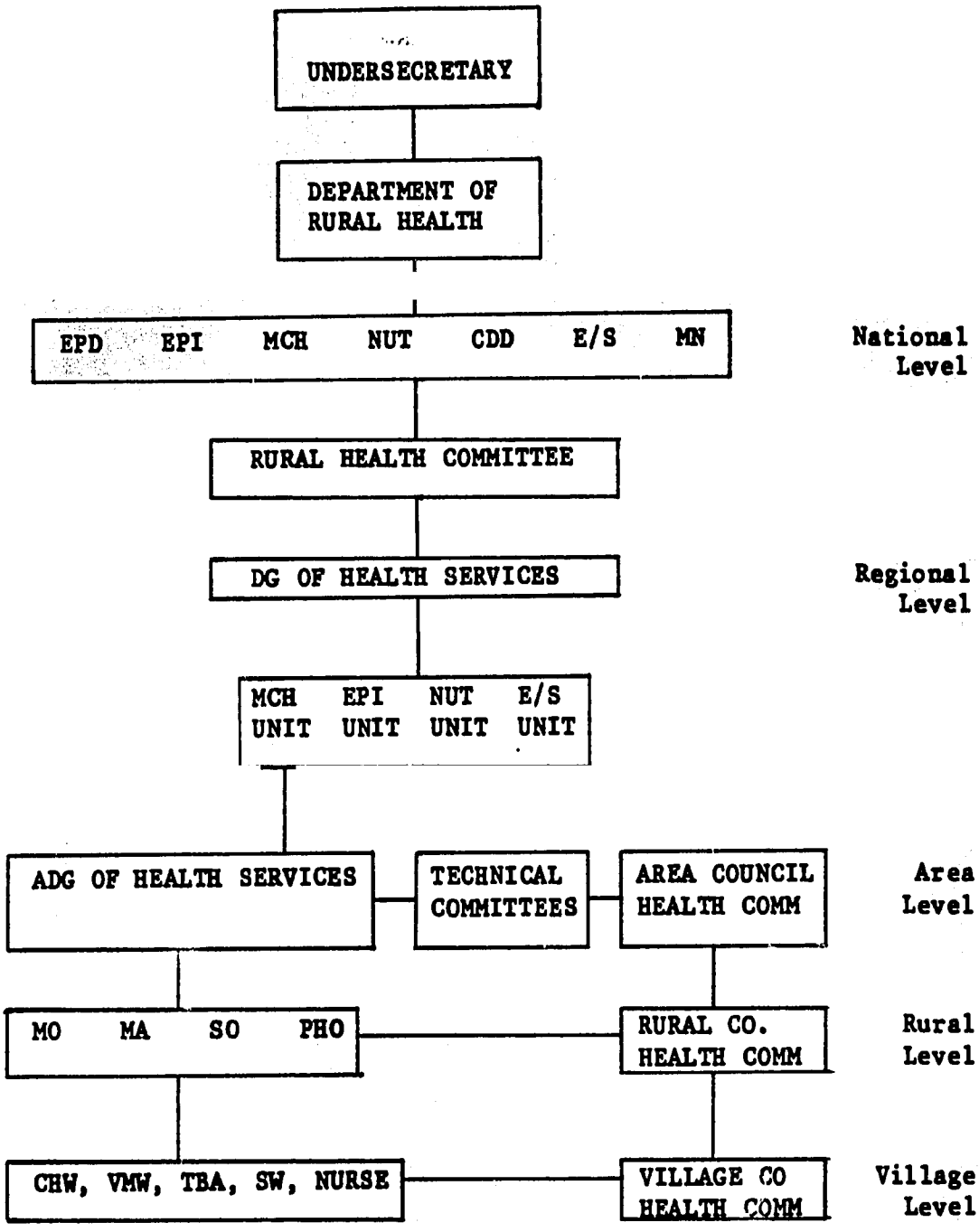
All health personnel in the Area, rural and village levels are administratively accountable to the Area Council. The health committee of the Council is headed by one of the senior health officials either the MA or the public health officer or a nurse. The ADG is not a member of the health committee but is only a technical adviser to the committee. To overcome this gap between the health providers, a technical committee should be set up headed by the ADG for health with the membership of the health committee of the Council and the Executive Officer.

This committee would help monitor health activities, plan the budget, moniter hospital performance, and promote community participation. Pooling of the resources of both the Area Council and the health directorate at the Area level will help in improving supervision, service delivery and planning.

Health personnel at these levels are members of the health committee in both the Rural and Village Councils. The link needed between the technical and administrative personnel is already established.

The CMOH's DRH/PHC is responsible for planning, management and training courses. It has recently been decided by CMOH that its PHC training unit should develop a master training plan and detailed plans should be developed and conducted by the regions.

Diagram of Proposed Reorganization of
MOH/Department of Rural Health



ISSUE III.B.3.: Has a program of supportive supervision of Community Health Workers been instituted?

Objectives

The supervision output stated in the logframes for the northern component and the southern component are identical and read, "Institute program of supportive supervision to monitor quality of care provided by CHW's." However, the output indicators differ. In the North, the target is: Program developed, tested and instituted; annual supervisory visit to 50% of rural health workers. In the South, it is "Supervision proforma developed & revised; used by 60% of supervisors."

Northern Component

In the North, the major effort to improve the supervisory system has been the implementation of a project activity called "Management by Exception." The principle behind this is that when an exceptionally good operation can be identified, it should be supported by the project and reviewed to see why or how it operates so well. The Chief of Party (COP) learned that the Senior Medical Assistant (SMA) in En Nahud and the SMA in Kadugli were both performing their jobs exceptionally well. The project provided support to them by giving each a vehicle to use for a period of one year. The vehicle was to be used solely by the SMA and specifically for visits to MAs, CHWs and other field personnel and for transporting drugs and other supplies. A special log was to be kept of mileage, fuel, repairs and purpose of trips. It was thought that the vehicle would enhance the SMA's supervisory work (his main responsiblity) as lack of transportation was a major constraint.

In the One America 4th Quarter Report for 1984, the COP wrote that it was the intention of the management by exception activity not to dictate how the SMA's went about their visits. He felt it was preferable to see how the individual went about it himself first befor trying to change his style.

While RHSP supplied the vehicles and one-third the cost of fuel and maintenance; two-thirds of the cost of fuel and maintenance were to be the responsibility of the Area Council.

Management by Exception in Kadugli

The COP delivered the vehicle to the SMA in Kadugli approximately ten months before the visit of the evaluation team. The SMA and the Assistant Director of Health for South Kordofan to whom the SMA reports both said they had no advance word about the "management by exception" activity. The COP showed up with contract papers in hand, requested signatures from the necessary Area officials, left the vehicle with the SMA and then returned to Khartoum.

The evaluation team interviewed the SMA about his use of the vehicle. According to the contract, estimated use to supervise his 23 dispensaries was expected to be 7,700 kilometers. The SMA said that he had been too busy with other work to do supervisory visits but had managed to visit 6 dispensaries over the past ten months in the course of his work handling

epidemics. The vehicle had been driven over 19,000 kilometers. Some of that was to assist the CDC team that had come to Kordofan under the RHSP for some preliminary field investigations. In a second interview with the SMA, he showed the team some papers that indicated he had also visited 33 PHCUs. A problem with the record-keeping system was that the log book kept on distance traveled and fuel use did not include destination. The SMA showed the team a form he fills out every 3 months which has a space to list how the vehicle was used but only in general terms (e.g. field visits, drug distribution). He said that the Area Council supplied fuel when it was available but that he was also able to obtain fuel from other donors.

The team learned that while the SMA reported to the Assistant Director of Health, he was not supervised by the Assistant Director. In practice, he was not supervised at all. In turn, he did not see a responsibility to supervise others. Although the vehicle was intended for supervisory use, there was no supervisory system. The team learned from a UNICEF water project advisor that the SMA was the principal user of the vehicle and that he was devoted to his work. According to the advisor who is well acquainted with the SMA, "If you could convince him that if he traveled more to the dispensaries, he would have an impact on health delivery, he would probably do it." The vehicle apparently was used for primary health care matters but the priorities for use were set by the SMA and these did not include supervision. Given the scarcity of vehicles in the Area, it is likely that the vehicle served a needed purpose in supporting primary health care.

Level of Supervision in Kadugli

The UNICEF advisor has spent considerable time in 12 villages and has established health committees in 7 of them. He has stayed at houses of the MAs and the CHWs and has had an opportunity to see how the primary health care system operates. In Kadugli town, the advisor was not able to learn which CHWs could be found in the targeted villages for the water project. "Nobody knows who is where among the CHWs. Perhaps some information could be found at the CHW school. The MA has no direct contact or communication with the CHWs. He would never visit them. Seven CHWs have recently left for Iraq but their absence has probably not been noticed."

Management by Exception in En Nahud

The SMA assigned the vehicle was not in En Nahud when the evaluation team visited there. The Area Medical Inspector was there but he was not involved with primary health care and could not provide information about the SMA. From a variety of sources in El Obeid, the team learned indirectly that the SMA was known to visit all of his PHCUs and dispensaries and, like the SMA in Kadugli, is devoted to his work. However, it is not known whether the vehicle was used mainly for supervision or for other health-related purposes.

Success of the Management by Exception Activity

It was not clear to the evaluation team how this activity was to provide useful information for improving primary health care supervision. There was no baseline information on how the supervisory system functioned before the vehicle was delivered. The information reported on vehicle use was not oriented to supervisory performance. There was no project guidance

to the SMA on how the vehicle was to improve his supervisory performance. There was no discussion with or training of the SMA on supervisory methodology. There was no effort to provide technical assistance to improve the supervisory system as a whole. The activity was more oriented to management of a vehicle than management of primary health care. Since the individuals chosen for the activity were already known to be exceptionally good, their performance with the vehicles would not necessarily be replicable for other SMAs.

In the OAI 4th Quarter Report, the COP reported preliminary indications that the SMA style could stand some improvement, mainly because of the emphasis "toward the old British 'disciplinary' supervisory mode - find out what they are doing and tell them its wrong. But this is the sort of thing that the Project needs to know. A workshop on 'supportive supervision' looks necessary before providing additional transport to District MAs." It is not clear how the management by exception system played a role in this finding. The team found a considerable amount of documentation and verbal information about the discipline orientation of supervisors.

Regional Workshop

In Kordofan, in July, 1984, there was 9-day regional workshop sponsored by the RHSP which had, as participants, Area Medical Assistants, Regional Medical Assistants, Health Care Instructors and others involved in supervision. There was a total of 31 participants and 11 organizers/supervisors. Some of the particpants and supervisors were asked to present papers for discussion. One paper entitled "Supervision", written by Dr. Tag al Sir Fatma Kanar, Deputy Director, Rural Health, Khartoum, described supervision problems but prefaced the list of problems by stating "Currently there is almost no supervising taking place in the health services." Among the problems listed were:

1. Since there are no job descriptions, supervisors do not know the limits of their responsibilities.
2. There is no clear, written plan of supervision.
3. Some supervisors lack the desire to do their jobs.
4. Appointment of supervisors is based on length of service, not efficiency or ability.
5. There are no training courses; they learn from experience only.
6. Supervisors lack means of transport.
7. Some supervisors do not like to visit the rural health facilities because the people and the health workers blame them for the insufficient supply of equipment and medicine.
8. Some supervisors are very discouraged because of this lack of supplies.
9. Poor work performance by senior staff is imitated by the subordinate workers, leading to bad work habits.

At the end of the workshop, participants filled out a questionnaire. One of the questions asked them to rank the importance of 11 subjects that were discussed. Supervision was identified as the most important subject. The participants also ranked 24 recommendations by order of importance. The second most important recommendation was the standardization of supervision procedures and the third was vehicles for supervision.

One of the major problems for development of a supervisory system is the generally held concept that supervision means to discipline those being supervised. There is a considerable attitudinal barrier to supervision being supportive.

Of the ten Areas of Kordofan, in only three of them do the Area SMAs have transport. Two of these use the RHSP vehicles.

The CHWs are generally paid by the Rural Council which receives the funds from higher government levels. Yet, the Rural Council does not participate in any supervision of the CHWs. Unfortunately, the one place the CHW will get to, given the inadequate transport facilities, is the Rural Council to pick up his salary.

Southern Component

The evaluation team was not able to interview SMAs or other operational staff with supervisory responsibilities in the South. However, it did obtain information from two of the AMREF advisors on the status of development of the proforma and its implementation. A draft proforma was developed, tested and distributed to 55% of the area. It has yet to be used officially. The draft is now in the process of revision and was scheduled to be discussed at a workshop February 7-10, 1985. Because the AMREF advisors could not stay in the South due to the security problems, this workshop will be rescheduled.

The AMREF Project Leader told the team that supervisors see value in the information to be obtained by the proforma. However, there has been some resistance to it by the CHWs because it takes them about one hour to complete the three pages. It is not clear why the CHW is filling out the proforma as the instructions with it say that it is to be filled out by the supervisor when making a supervisory visit. It is to be filled out at least every six months.

One problem with the potential for use of the proforma is that the supervisors (MAs and SMAs) have not been trained in supervision. Also, they have not been trained in some of the technical skills that they are supposed to be supervising. The proforma attempts to bring the attention of the supervisors and the CHWs to preventive health care and to MCH/FP. The CHW refresher courses have concentrated on these areas but the MAs and SMAs have not participated in these courses.

The proforma was developed for one level, the direct supervisor of the CHW. There has been no proforma developed for supervision of these supervisors. The team did not find any plans for how the information collected would be tabulated and used for broader analysis by the supervisors and more senior levels.

The CHWs report monthly via an HIS proforma that was developed in Khartoum. There are a number of differences in the information requested in the supervisory proforma and the HIS proforma. For more information about the HIS see Issue III.B.1.

As in the North, there is an attitude among MAs that to supervise means to discipline. The AMREF proforma is prefaced by a discussion on how to make the supervisory activity supportive. The AMREF Project Leader expressed his view that the MAs would revert back to a disciplinary system if there was not continuing emphasis on the need to be supportive.

ISSUE III.B.4: How have Project Implementation Units/Committees contributed to effective coordination of RHSP activities?

Objectives

The logical framework for the Project Paper Supplement requires effective project coordination as a project output. Three Project Implementation Units (PIUs) were to be established for the northern component; two Project Implementation Committees (PICs) were to be established in the South for coordination of RHSP activities during the life-of-project.

Northern Component

Central Project Implementation Unit

In the northern component, two PIUs have been established, one at the central level (CPIU) in Khartoum at the Ministry of Health and one for Kordofan Region (RPIU) in El Obeid. The third PIU is scheduled to be established in Darfur Region when RHSP is implemented in that Region.

The CPIU was established in February, 1983, soon after the arrival of the One America Inc. (OAI) Chief of Party. The CPIU consists of the following members:

- o The Director General of Rural Health and Primary Health Care (Director of CPIU).
- o The Director of Primary Health Care,
- o The Deputy Director for MCH,
- o The Deputy Director for Training,
- o A full-time Administrative Officer,
- o A full-time Project Accountant,
- o The One America Chief of Party, and
- o The Secretary.

The OAI contract states that the unit should have the following staff:

- o One Director
- o One Public Health Officer
- o One Health Visitor
- o One Community Health Tutor

During the first year of RHSP/North, all project activities were managed and coordinated by the CPIU. Currently, meetings take place on an as-necessary basis. There were frequent meetings during the period when the assessment study was planned, but since that time very few meetings have taken place. Most decisions made concerning the RHSP/N are made by the Director General of Rural Health and PHC (DGRH) and the OAI Chief of Party (COP) without the participation of other members of the PIU. The last meeting of the PIU was September, 1984. Minutes of meetings are not available as a rule.

Regional Project Implementation

The RPIU was established in November, 1983, but was not really operational until the OAI Regional Coordinator arrived in El Obeid in September, 1984. The RPIU has officially met three times on an ad hoc basis. Minutes of these meetings are not available. The RPIU consists of the following members:

- o The Director General of Health and Social Welfare,
- o The Director of Curative Services and Primary Health Care,
- o The Director of Preventive and Promotive Services,
- o The District Public Health Officer,
- o The Director of the Nomadic Health Unit (full-time),
- o The Pharmacist Coordinator,
- o Two Senior Medical Assistants,
- o The OAI MCH Advisor, and
- o The OAI Regional Coordinator.

On November 8, 1983, an "Agreement on the Management of the RHSP" was signed by the Director General of Rural Health and PHC of the Central Ministry and by the Director General of Health and Social Welfare of the Kordofan Region Ministry of Public Services. This agreement specified the relationship between the CPIU and the RPIU. The agreement stated that each were "full and equal partners" in the project and agree to consult fully with each other on all key decisions, with neither having the right to take unilateral action. This Agreement has not been followed. The OAI Chief of Party and the Director General of Rural Health in Khartoum have consistently made unilateral decisions on key RHSP issues.

Consequently the RPIU feels it has never been an equal party in the RHSP and that all activities have been dominated by central interests without concern for the real needs of the RPIU, the Region, or other levels (Refer to Issue: How Project Management Decisions and Styles Affected Project Implementation for further details). Regular monthly meetings of the RPIU are now to be scheduled prior to CPIU meetings so that representatives can also attend the CPIU meetings subsequent to RPIU meetings. However, the manner in which the CPIU has operated in the past does not augur well for this plan to work in practice.

Some of the Central and Regional PIU members are unclear of the function of the units and have limited knowledge of RHSP activities. Most of the Central and Regional PIU members are involved only part-time with RHSP activities.

Kordofan Region Work Plan and Budget

A major RPIU planning activity has just been completed. The RHSP Kordofan Region Work Plan and Budget for FY 84/85 was developed. This plan was mainly developed by the OAI Regional Coordinator with input from a few RPIU members, notably the Director of Curative Services and Primary Health Care and the OAI MCH Advisor. The plan was approved by the RPIU and submitted to the CPIU for review and approval. Several RPIU members had no input into the development of the plan. Some members of the RPIU do not speak, read, or understand English, yet the Work Plan was not translated into Arabic nor distributed in advance of the meeting for preparation.

The Work Plan was also developed without any collaboration with the Planning Unit of the Ministry of Finance and Economy.

The Plan contains no specific activity directed toward the improvement of Nomadic PHC services although the Director of the Nomadic Health Unit is a member of the RPIU and is attached to the RHSP on a full-time basis. It is unclear why this unit has not been involved in the planning process especially since the report produced subsequent to the February, 1983, workshop in Muglad to review the health problems of the nomads could have formed the basis of a plan.

The Work Plan does contain a formidable list of activities, approximately 80, for FY 84/85. Many of these activities are to be implemented in two or more pilot zones. Therefore it appears that many of the activities are to occur simultaneously. From the plan itself it is difficult to determine which activities have priority. Without an implementation work plan that would list the activities in a logical sequence and in order of priority, it is difficult to predict the effectiveness of the planned activities. Without further detail it is also difficult to judge how feasible these activities are, taken individually or together, or to conceptualize how the activities, including human resource requirements, can be integrated into a program.

Other Coordination Activities

In addition to the Central and Regional PIUs, several other activities concerning project coordination were planned in the OAI 1983/84 Work Plan. These activities are the Health Donor Coordination Exercise and the Establishment of a GOK Interdepartmental Committee. For the findings on these activities refer to issue: Regional Planning, Budgeting, and Information Capacity.

Audit

In November, 1984, an audit of project accounts was conducted by the Project auditor. The audit revealed a number of problems with the RPIU account which is controlled by the Regional Director of Curative Services and Primary Health Care. Although the transactions involved were all minor in nature, they are indicative of the need for the close involvement of the Regional Coordinator in financial matters.

Southern Component

For the Southern component, Regional Program Implementation Committees (PICs) were proposed to be established in Equatoria Region and Bahr El Ghazal Region. A PIC was established in Bahr El Ghazal in June, 1984, and has met on a quarterly basis. A PIC was constituted only in December, 1984 for Equatoria Region and no meetings have yet been held. In Upper Nile Region, a PIC was never proposed nor established.

ISSUE III.C.: Has a Health Manpower Development Plan been developed and implemented?

The RHSP PPS logical frameworks include the development and implementation of a Health Manpower Development Plan (HMDP) as an output activity.

Northern Component

Although this activity appears as an output on the project's logical framework, it is not included as part of the One America (OAI) Statement of Work in the Contract Agreement.

No substantive progress has been made toward completion of this activity by OAI. The Regional Director of Curative Services and Primary Health Care has begun an inventory of health personnel in the Region, but it is in the very early stages of implementation.

The Kordofan Region work plan for FY 1984/85 includes the development of a rural health manpower plan as a work plan objective. The main focus of this activity is the completion of a manpower plan only for the pilot zones. It is not clear what the long range plan is for the development and implementation of a Regional Health Manpower Development Plan.

Southern Component

A baseline survey entitled "Health Manpower in Southern Sudan" (HMSS) was completed in October 1984 with the assistance of AMREF.

SECTION IV: DRUG SUPPLY

ISSUE IV.A.: Have appropriate drug procurement and distribution systems for supporting project goals been developed and implemented?

Overview

One of the primary goals of the RHSP is to strengthen the management, planning, logistics and supply functions of the PHCP.

Logistics is the science of procuring, maintaining and transporting supplies. It involves delivering substantial amounts of supplies on schedule to many people located in numerous different places. In drug supply, it includes all aspects of the process required to bring a drug from the supplier to the dispenser and, ultimately, to the individual consumer. Logistics systems are truly "systems" in that they require the coordinated efforts of many individual units inside and outside the region. When the separate tasks are performed not as part of a system, but independently and disjointedly, costs rise, shortages become commonplace, and patients suffer.

Pharmaceuticals, vaccines, pills, capsules, oral rehydration salts and other drug products must be available to provide effective community health care. Experience in developing countries in general and in Sudan in particular indicates that the availability and effectiveness of drugs is a key factor in generating and maintaining public interest and participation in health related activities. Without sufficient drugs to dispense, the CHW loses credibility in the community and therefore encounters difficulty promoting preventive health activities. In order for the PHCP to achieve its goal of improving preventive and promotive activities and health education, the PHCUs must attract the local population to the facility by providing curative services including the provision of drugs and supplies. Indeed, irregular drug supply has become a greater constraint on PHC effectiveness than the number of health workers themselves. With the increasing number of PHCUs, the problem has become acute.

Inadequacy of Resources

For both North and South, the most apparent weakness in the procurement and distribution system is the inadequacy of resources - specifically vehicles, fuel, funds, and the drugs themselves. At the time of project design it was assumed that the economy of Sudan would remain stable and indeed grow. Therefore the actual provision of commodities was de-emphasized. Another part of the rationale for placing less emphasis on the actual procurement of drugs, fuel, and vehicles in the original Project Paper was to hold recurrent costs to a minimum thereby improving the likelihood that the GOS would be able to sustain these activities after PACD. The original intention of this project was to provide TA to help the Sudanese better use the resources that they have. By the time the PP was completed it was apparent that this would not be the case (refer to Project Design issue and Recurrent Cost issue) at least in the short term. Since then, economic conditions have continued to deteriorate and indeed, the short term outlook is presently anything but promising.

Furthermore, the Local Governments Act made the financing of supplies for the PHCP the responsibility of the Area Councils virtually overnight. However, the Area Councils do not have adequate financial resources to maintain a reasonable supply level. The regional and area officials interviewed indicated that their resources are insufficient to cover even personnel costs thereby precluding any chance of purchasing supplies with funds raised by the Area Councils. The evaluation team feels that the present extreme situation is exceptional considering the recent ecological and economic events. Nonethless, the assumptions of the original Project Paper no longer strictly obtain.

There is little evidence of efforts to facilitate donor coordination in the specific area of drug supply, aside from the purchase and distribution of UNICEF kits. Distribution is a complex and highly varied function.

At the present time, the economic realities are such that this project is not only supporting the management and training of the PHCP but must also be considered as providing relief, due to the extreme circumstances, to the government and the people of Sudan in the form of drugs, supplies, vehicles and fuel. Evidence of the need for this support is the fact that at most of the health posts visited by the evaluation team, drugs and supplies usually are available less than half the time.

AMREF Activities

Political changes taking place in Sudan made it difficult to carry out plans, particularly in the South. While the three newly created regional governments organized personnel in their Ministry of Services and divided the common assets of the former regional medical store in Juba, work ground to a standstill. Due to the security situation, travel to and from the three regional capitals was limited to air travel and it was not always safe to travel outside the capital towns. Transport lines from Khartoum to the Southern Sudan were periodically cut and essential drugs arrived for distribution inconsistently.

Two members of the AMREF staff were available for evaluation briefings in Khartoum on the southern component. However, they were two physicians, the Project Leader and the Bahr El Ghazal Regional Coordinator, who were not as well informed of logistical matters as they were of medical issues. The long term logistics advisor left the project and the country in July 1984 - approximately six months pior to the evaluation. As a result, the evaluation team was not able to verify progress reports on logistics.

AMREF has provided several training sessions for logistics personnel in the South including a tour by Senior Medical Supply Officers of the Kenya management system, development of a "Medical Storekeepers Handbook" and teacher's manual, training of 40 new storekeepers, instruction and materials for Senior Medical Supply Officers for ordering essential drugs from Central Medical Stores in Khartoum (CMS/K) and maintaining files, assistance in preparing workplans and budget requests for PL 480 Title III funds, and processing of a waiver for procuring UNIPAC kits.

Distribution Problems

Analysis of distribution networks in Sudan in general and Kordofan in particular has revealed numerous difficulties. Although substantial amounts of information concerning the distribution problem appear to be available from numerous sources, particularly baseline studies, there is little evidence that the information is actually utilized. Other sources of information include consumption records, vital statistics, accounting records, and health information systems. At the regional level the problems most often cited are storage, transportation, and stock mismanagement. Although the evaluation team was able to inspect only one facility (due to the unavailability of key personnel) out of the three districts in which inspections were requested, previous investigations have indicated problems in all three. Spoilage is hastened by overcrowded and disorganized warehouses, inadequate moisture, temperatures and pest controls. Inadequate security leads to further loss through theft. Because effective mechanisms for transferring stocks do not exist, supplies needed in one region may gather dust in another, although essential PHC drugs are scarce throughout. Problems in the communications and transportation infrastructure contribute to disorganized public transport scheduling and inadequate maintenance. Failure to consider private sector systems in the past contributes to slow delivery and increased costs.

RHSP Activities in the North

The northern component has undertaken a detailed evaluation of the Health Services Garage in El Obeid, Kordofan Region. The outcome of this evaluation is that RHSP/N has budgeted LS 27,000 for rehabilitation of the garage in this year's workplan (1984/85). There is also a plan to undertake a catalogue of the vehicle fleet. Many of the vehicles assigned to Kordofan Region are incapacitated for different reasons. Some of these could be rehabilitated. The cataloguing activity is to be the first step in establishing a system for rehabilitating these vehicles. The northern component has also undertaken a study of "The Distribution of Drugs and Medical Supplies to the Primary Health Care Program in the Kordofan Region" an assessment of "Logistics of Drugs and Supplies" an assessment of "Retail Outlets of Drugs in Kordofan" and a study to "Replicate Community Pharmacies." RHSP/N also intends to investigate the use of private sector transportation to provide supplies.

ISSUE IV.B.: Have effective training programs and supervisory procedures for storekeepers been planned, developed, and implemented?

Overview

One of the primary goals of the RHSP is to strengthen the management, planning, logistics, and supply functions of the PHCP through training. Among the end of project indicators that would support the goal is "50% of regional/district stores submit timely orders, and maintain inventory control."

Training in logistics and distribution is necessary for the following reasons; to increase the understanding of the special needs of pharmaceutical logistics, to emphasize the importance of each individual activity of logistics to the overall impact of public health programs, and to improve skills in the specific tasks that have to be completed for more efficient functioning of the logistics systems.

In order for the logistics to function, cooperation must be forthcoming from line personnel and mid-level managers as well as policy makers. Our field work confirms that policy makers at all levels perceive logistics management as a crucial element of supporting the Sudanese Primary Health Care Program. However, their ability to support the system is severely limited by the constraints imposed by post and telecommunication facilities, transportation and roads, and budgetary and economic factors. In the Sudanese context, training needs to be directed specifically at the line personnel who are responsible for implementing the specific changes required and at the mid-level managers who are responsible for supervising the various activities required in the logistics process.

An effective training program first needs an assessment of training requirements. Such an assessment should respond to the following issues at a minimum; Have personnel in key positions received any specific training for the tasks they are required to perform? What are the major deficiencies of the logistics system in Sudan and in the specific regions involved. Which of these problems areas can be addressed through better trained personnel or better facilities or equipment? What are the initial major target groups for training and what is the level of experience and education of the proposed trainees? What training programs currently exist that will address the deficiencies noted and are appropriate to the background of the participants? Can the environment accomodate changes? What post-training support will be required for graduates? And therefore what is the optimal training plan that will best meet the needs within the constraints of the resources identified?

AMREF Activities

To this end, the AMREF Quarterly Summary Report for the period ending December 31, 1984 states that the goals of the logistics portion of the project are that "Regional and district stores submit timely orders... Maintain proper documentation and inventory control...Exhibit cleanliness." However, AMFREF reports that the progress towards this goal is "unknown" and that there is no technical assistance to follow up at this time. Nonetheless, AMREF has documented that the following activities have taken place to improve the training and supervision of storekeepers:

- A study tour by Senior Medical Supply Officers of the Kenya management system of drug supply to rural health facilities;

- Senior Medical Supply Officers for each region prepared work-plans including itemized budget requests for PL 480 Title III funds;

- Senior Medical Supply Officers for each region have received instruction and materials for establishing a filing system for medical supplies, and for ordering essential drugs from Central Medical Supply/Khartoum;

- A drug consumption study has been designed and, in Equatoria, initiated;

- A Medical Storekeeper's handbook and a teacher's manual have been completed;

- In the three southern regions, 40 new storekeepers have completed training (out of the 120 projected for life of project);

- A waiver has been processed for procuring UNIPAC kits.

In the face of the obstacles presented, AMREF deserves credit for these accomplishments at mid-term. However, it should also be noted that the evaluation team has not been able to document the quality or effectiveness of these activities due to limitations imposed on the scope of the evaluation.

Indicators Not Fully Achieved

A review of the documentation also indicates that the following indicators have either not been achieved or achieved only partially:

- Of the three warehouses planned for construction in Bor, Malakal, and Wau, none have been built. Warehouse equipment is beginning to arrive. However, program activities have been suspended in the regions involved.

- One supervisory visit to each medical store was projected; none have been provided to date.

- The drug consumption study mentioned previously as having been designed and initiated was projected to be a baseline study with subsequent follow-up. No follow-up has, to date, taken place and the technical assistance to provide follow-up is in "on-hold" status.

- Of the $1 million of pharmaceuticals scheduled to be provided over the life-of-project, none have been provided although $600,000 are on order.

One America's Activities

In the northern component, little activity has taken place in addressing the training needs of storekeepers. A report was submitted by a health economics consultant entitled "Analysis of the Existing Drug Supply System." This report is a compilation of a great deal of data and the result of considerable field work. However, the findings are inconclusive and it is not clear how this research is to be practically applied to the problem.

The One America Inc.'s (OAI) scope of work specifically requires training in logistics and procurement assistance to assist MCH/PHCP supervisors in areas of planning, management and logistics, assistance in the development and implementation of training for health administrators in the area of supply and maintenance, and assistance in providing training for logistics/supply personnel in inventory control, personnel management, and the supply of drugs. It appears to be OAI's intention that these problems will be addressed by on-the-job training, yet little planning has been done even to accomodate such informal training. OAI intends to engage a full time logistics expert in the Darfur component of the RHSP/N.

The Regional Coordinator in Kordofan has proposed good ideas for improving vehicle management. However, there are still no plans for formal training in the logistics area.

In the estimation of the Chief of Party, these concerns have already been addressed by the inauguration of several community pharmacies (refer to community pharmacies issue) and by the activities of the NPHCP, the predecessor of the RHSP.

ISSUE IV.C.: Are community pharmacies an appropriate vehicle for increasing the availability of low cost drugs in rural areas?

Objective of Community Pharmacies

"Community Pharmacies" were developed with the benign intention of allowing publicly provided drugs to be sold to help cover their cost, and to provide low-cost supplies of essential items to areas suffering shortages. The RHSP has committed itself to assist with construction and drug supplies for twelve "Community Pharmacies," ten in the North and two in the South. Three now operate, are extremely popular, and are considered to be RHSP "successes". Their effect on the market suggests useful lessons for project involvement.

Staff Salaries

Community Pharmacies are operated at the local level with supervisory control resting in the Regional Ministry of Public Services (RMPS) in Kordofan. There are currently none operating in the South. Those in Kordofan are well staffed and comply with legal requirements for retaining a licensed pharmacist. Staff are seconded from the RMPS, which covers their government salaries, and any travel and housing allowances associated with their government posts. According to the Director for Community Pharmacies in Kordofan Region, the pharmacists receive an LS200/month government salary, plus LS300/month incentive pay plus more in housing and travel allowances, and one domestic vacation trip ticket yearly. To this the pharmacy itself provides only the incentive pay from its revenues. The exception is Kadugli where the pharmacist is not a civil servant and receives a salary of LS550/month from the pharmacy. The pharmacist has applied to become a civil servant. Kordofan's Director General of Health and Social Welfare expressed his delight that pharmacists were finally coming to work for the government through these pharmacies, as private salaries are only about LS700 in most urban areas. At a time when RHPS is especially sensitive to the recurrent cost liability of project activities, it appears contradictory to add new, expensive positions to already hard-strapped personnel (Chapter 1) budget.

Lower level staff salaries are all paid by the RMPS. The pharmacies pay an extra LS25 to 75/month as an additional incentive to each for the evening hours the staff must work.

Capital Costs

The initial start up capital of the pharmacies was about LS60,000 apiece in Kadugli and En Nahud, the provincial capitals, and approximately LS120,000 in El Obeid, the capital of Kordofan Region. There are no community pharmacies in more rural areas. The principal of capital recovery has been established through development of a reserve fund for each existing pharmacy. Kadugli and Nahud Pharmacies each pay in LS500/month, while El Obeid Pharmacy reserves LS1,000/month. Each thus has over nine years to repay, with no interest charges. The RHSP Regional Coordinator indicated his understanding that these funds would revolve to help support other community pharmacy start-ups. He recognized that these funds represent subsidized capital costs.

OAI staff explained that the CPs were started up in urban areas with the idea that they would, in turn, generate smaller pharmacies in more rural areas. However, the evaluation team did not find any specific plan to make this happen. There was some discussion among project staff and regional officials about setting up CPs in other urban areas in the region using the same model as the first three.

The availability and cost of credit for inventory build-up or capital investment was a problem for some private pharmacists. In El Obeid, private dealers cooperate in terms of sharing supplies of short items and in making volume wholesale purchases of essential drugs, which partially helps overcome capital scarcity.

Subsidies

The community pharmacies (CPs) are allowed to purchase drugs from the central government's Central Medical Store (CMS), where prices are as much as 80% below those in the private sector and bulk purchasing is possible. During the evaluation, mention was made of possible concessionary sales of drugs to CPs by UNICEF. UNICEF has apparently agreed to price their drugs based on the official Sudanese Commercial Bank rate of LS2.08/US $1, a subsidized rate. It is unknown whether the newly announced bank exchange rates will affect this decision. Faisal Islamic Bank intends to finance the purchase at what looks to be a 21% return on their equity and profit sharing participation. This is in fact a negative interest rate given the 30-40% annual inflation rate. Thus, community pharmacies have another cost of capital advantage over private pharmacists although it is not clear if the Faisal Bank intends this as a subsidized loan.

Drug transport is partly provided by the Central Medical Store and partly arranged through private lorries. Although CMS is not often able to assist, to the extent they do, CPs have lower transport costs than private pharmacies. Moreover, private pharmacists claim to pay up to 50% of current profits in taxes. In addition, the rent of all community pharmacy buildings has been subsidized to some degree. In one case, the Area Council has already paid the rent beyond the first year. In another, the Area Council covered rent costs for the first few months, then left the pharmacy to take over payment from its own revenues. USAID has financed several months rent for the third unit, on the condition that it all be repaid from pharmacy revenues.

Price Markup

For all these reasons, community pharmacies are able to sell drugs at much lower prices than private pharmacies. Despite the belief of many that CPs should not compete directly with private operators, about 40% of their initial drug supply was comprised of the same packaged brands as those purchased by private pharmacists through private agents. The legally allowed CP mark-up on these private drugs has been only 10%, out of which minimal operating costs must be paid. Clearly, private companies which must pay all real costs in full cannot compete with such prices. The mark-up was increased to 15% in December, 1984, according to Kordofan's CP Director. Two of the three pharmacies are still using the 10% mark-up rate. Moreover, the increase still leaves the community pharmacies to earn

higher net revenues, as their direct costs are minimal. On CMS drugs, CPs are supposed to use a 35% mark-up. Kordofan's CP director stated that the official margin is to be raised to 65% to increase revenues and protect private pharmacies' business.

Popularity

In Kordofan, fanfare accompanied the CP's entry into the community as posters and loud-speakers spread the news of their "low prices and reliable supply." They are known as government stores and often bear signs designating them as property of the regional government. Public health units usually refer patients first to community pharmacies for drugs now, if one is available.

We found two of the community pharmacies (the CP in Nahud remained closed during the team's brief visit) to be doing a brisk business, at much lower prices than private operators. They were often located near to already functioning private establishments. Site selection seemed to aim at gaining market share, rather than targeting poorer customers. They are all found in prime downtown business locations, enjoying the benefits of their strong competitive advantage.

Effect on Private Sector

Private pharmacists, especially the newer or more marginal operators, all expressed concern over the competitive advantage of community pharmacies. Some had seen substantial business decline, from perhaps LS400-500/day on average to LS200 per day. Others had seen their clientele change to wealthier, more established customers. These people had a faith in the quality of the heavily packaged international brands carried by the private pharmacists, which separated them from those willing to buy cheaper generics and lesser known brands in plain envelopes from community pharmacies.

Thus, private pharmacists were angered at the unfair competition created by the increasing purchases of drugs from private agents by the CPs, which can then price identical brands lower because of their cost advantages.

Private pharmacists contacted generally felt that the community pharmacies would collapse just as all government ventures do, when their supplies rant out. Some seemed ready to continue operating through a business downtown until this came to pass. Others feared bankruptcy in the interim, believing the urban markets to be saturated even at current prices.

Regulatory Burden on Private Pharmacies

Private pharmacists have no access to the cheaper bulk drugs of the CMS and thus cannot easily compete for lower income customers. The Central Government forbids private bulk importation in order to distinguish public from private drugs. Private drug costs and prices are consequently increased.

Private pharmacies legally are allowed only a 16.6% mark-up on drug costs, and must cover all other real costs from that. Kordofan's Director of Community Pharmacies held that the mark-up has been raised to 20%. That they are still operating at all is a tribute to their efficiency under such strict financial discipline. Few of them were found to charge more than the allowable retail price, except to add transport charges amounting to about 1-2% of wholesale cost. This is partly due to customer's knowledge that they can request to see the pharmacists' vouchers, which indicate set retail prices. In major urban areas where two or more separately owned private pharmacies operate, competition also plays a role.

All private full-service pharmacies are required to be staffed by a licensed pharmacist. These personnel are scarce throughout Sudan, especially in the South where there is only one pharmacist in government service, and perhaps less than 10 in the private sector. In the North, salaries of private pharmacists are sometimes greater than those of doctors. For urban pharmacists, salaries exceed LS700 per month. Northern project staff have ascertained that this salary is a substantial cost factor in pharmacy operations, and AMREF concurs. Pharmacist cost and scarcity thus limits pharmacy expansion.

The cost of privately imported drugs is further increased by regulations regarding import procedures. The composition and level of each and every private drug import shipment must be approved by the Central Ministry of Health. There is no pre-established criteria or pre-approved private import list. This slow and inefficient process adds to overall drug costs.

In sum, the private pharmacy business faces higher direct costs and greater regulatory burden than the community pharmacies. This has contributed to their remaining in more urban areas, where it is easier to comply. When community pharmacies move into existing urban markets, however, private business suffers. To the extent that the CPs drive out the one or few private pharmacies in an area and then they lose their subsidies and cannot continue operating, the local population will be without a commercial source of drug supplies.

SECTION V: TRAINING

Training and retraining programs for community level workers

Background:

One of the major components of this project is concerned with MCH services. The project is to assist the Ministry of Health in strengthening MCH at central and regional levels with particular emphasis on integration of MCH/FP services with other elements of PHCP. A major point of intervention is the training of health service personnel, particularly those who will serve at the village, and dispensary level.

MCH services are provided by traditional birth attendants (TBAs), village midwives (VMWs), nurse midwives (NMWs), and health visitors (HVs), in ascending order of level of training. Community health workers (CHWs) and Medical Assistants (MAs) are also contributing. Among other tasks, MAs check the activities of VMWs for the HV. CHWs are engaged in health education, treatment of malnutrition, anemia, and endemic diseases, as well as registering all births and deaths.

In the Project Paper Supplement logframe, a purpose-level indicator is to extend MCH/FP services to reach 50% of the rural population. This is to be achieved in part by establishing relevant in-service training programs for all health workers to include nutrition, child care, child spacing and reproductive health problems.

The revalidation team forwarded several recommendations which are related to training. These included:

(a) assist in strengthening MCH/FP curricula for all health workers who will be providing and supervising MCH/FP services. This includes the training of tutors from various training institutions in training methodologies and curriculum development.

(b) design and implement refresher training courses for MCH/FP personnel who actually provide services and engage in supervision

(c) evaluate TBA training before planning further training activities for the TBAs.

(d) develop special orientation courses on the importance of MCH/FP services for area level health service decision makers.

V.A. Health Workers

ISSUE V.A.1.: Has the community health worker training program in the North achieved planned targets?

Community Health Worker Responsibility

The community health worker (CHW) is considered the front line health service provider to villages among the nomads and rural communities. He operates the Primary Health Care Unit (PHCU) and has a target population of approximately 4,000 individuals (1,500 for nomads). He is an indigenous member of the community, paid by the Rural Council and responsible for carrying out promotive activities particularly in health education and community participation. He offers ambulatory treatment and preventive advice to the village population. He refers cases that are specified in "list 2," as well as complicated cases to the medical assistants. He does not carry out any deliveries.

The CHW is responsible for daily registration of all activities carried out, registering births/deaths and reporting on activities he has discussed with the Village Council. He has to keep records of his work for a period of at least 5 years.

CHWs are mainly engaged in curative services, and spend the majority of their time dispensing drugs. Among the constraints which CHWs encounter are shortages of drugs, poor means of communication and transport, as well as poor or non-existent supervision. Some CHWs also suffer from delays of 2-3 months and more for salary payments.

CHW Selection

The Village Council nominates a candidate to be trained as a CHW. If they nominate more than one, tutors from the schools then select one. This selection procedure seems to assure community participation and the involvement of tutors.

Training Curriculum

The training course is nine months of classroom work plus an additional three months of practical work in a dispensary. They also are given training in a health center for EPI, antenatal care and health education. Once they complete their practical training, they return back to school to discuss their experiences. Recently, adult literacy education was added to the curriculum.

The theory covers primary health care programs, local customs and beliefs, planning community development, environmental sanitation, MCH, nutrition and records. The rest of the curriculum content deals with common diseases, wounds, burns and accidents to be treated at the primary health care unit (PHCU) and complaints and disease referrals. There is more time devoted to theory than field practice. The practical training is limited to clinical activities and there is no attempt to integrate promotive and preventive health care components into the training.

The teaching is mainly didactic lecturing and not task-oriented problem solving. The training does not include skill development in communication or techniques of transmitting health messages to the community.

An elaborate training manual was first written in 1976 and extensively revised in 1981. The new manual includes new subjects with more elaboration on MCH and has more illustrations. However, objectives for each subject and self-assessment questions have been omitted.

Audiovisual materials are scarce and there is a deficiency of equipment and tools for teaching environmental health.

Tutors

Tutors of CHWs are selected from the ranks of experienced medical assistants (MAs) who are 100% medically oriented. Tutors attend a 3-month course in community health, and a 3-month course in teaching methodology in Barakat training center. Some of the senior tutors were exposed to a one-month course on supervision.

Weaknesses of Training

The Report on a Training Strategy for the Delivery of PHC Services in North Kordofan, (1982), indicated that the training of CHWs: (a) is not sufficiently thorough in curative knowledge and practical skills, (b) has too great a component of theoretical learning and lectures rather than focusng on community based practical learning aimed at acquiring skills through a learning by doing approach to PHC, (c) does not sufficiently enable him to fulfill his role as the front line worker in a basic rural health development strategy.

RHSP Objectives and Constraints

The planned RHSP output was to develop training programs, teaching materials, and a curriculum for CHWs and train and retrain CHWs and their tutors in the area of MCH/FP/Nutrition knowledge. Nearly all these outputs were not achieved or even started. Most of the activities related to the outputs were scheduled to start in FY 84/85. Output achievement for refresher and reorientation courses are 10% for the former and 4% for the latter. No specific teaching materials were prepared for these courses. Tutors were not trained to carry out training/retraining. All the refresher courses were carried out by lecturing.

The project related activities are behind schedule due to (1) delays in technical assistance inputs; (2) absence of qualified persons for developing and revising curricula, designing materials and implementing training; (3) inadequate supervision; (4) non-sequential planning and implementation of activities related to training; (5) conspicuous oversight of training tutors and preparing teaching materials; (6) inexperience of planners of refresher courses in training technology; and (7) reliance of Kordofan Regional Government on the Central MOH in Khartoum for planning and coordinating these courses.

The base line study to determine CHW's activities, patient load, treatment site, schedules, resources and working relationships was postponed. The installation of a new health information system (HIS) included a detailed monthly report of activities from each of the CHWs. It was decided to analyze a sample of these reports as they may provide most of the data which was assumed to require a field survey.

CHW Profile Study

One study (A Profile of Community Health Workers) was completed (Sept. 1984). The study indicated that there is a contrast between the classical notion of the CHW and the actual type in Kordofan. The CHW is overwhelmingly likely to be young, single, and male. He is not well established financially, and very likely wishes to leave the village. He considers himself a full government employee and looks forward to a career in government. The fact that they are not presents a problem for the future. The evaluation team did not have adequate time to deal with this issue.

The study, however, did not deal with the key question needed to effectively plan training programs: what are the tasks carried out by this worker? It was assumed that this question will be answerable in greater quantitative depth at the end of the 1984/1985 project year after analysis of samples of HIS returns from CHWs and possibly one or more spot surveys. One problem may be the reliability of the HIS which is discussed at length in Issue III.B.1.

ISSUE V.A.2.: Has the Northern VMW training program achieved planned targets?

VMW Responsibilities and Supervision

The village midwives (VMWs) are connected to the formal health system. They are paid 20 LS/month by the Rural Council. Each community chooses its own candidates for training. They are usually unmarried women between 20-30 years old who have had no formal education.

The VMW in the PHCU/dispensary carries out antenatal care services and goes daily to those she has delivered until the 7th day, and on the 10th day. She reports to the MA/CHW about births, maternal and neonatal deaths and also for replenishing her supply of drugs, including cotton and gauze.

Like other workers, VMWs suffer from a poor supervisory system. Most VMWs work at the PHCUs, while others serve from dispensaries. HVs, usually, stationed in urban health centers, are supposed to supervise VMWs. Shortage of fuel and vehicles make it impossible for HVs to carry out their supervisory functions. To overcome this gap, the CMOH, in 1981,started a one-year course to train assistant health visitors to assume this responsibility. However, the annual output of the two schools is quite small. For now, actual supervision, if it is done, is carried out by MAs or CHWs. This is not a satisfactory arrangement as VMWs are more skilled in this work than either the MA or CHW. So, MAs and CHWs are not able to direct, guide or train them on the job.

VMW Training

All regional VMW schools follow a national curriculum. Theoretical training lasts seven months and the whole course is intended to be 9 months. However, training may last 18 months because each trainee in a class is required to perform 20 supervised deliveries before the whole group is allowed to graduate.

As the majority of VMWs trained are illiterates, the course depends heavily on visual aids that include local items which the VMW will use in her work. They are trained to use their taste and smell senses in order to recognize simple medical products such as alcohol and dettol. Teaching accentuates the practical aspects and includes 20 attendances at deliveries, 20 supervised deliveries, house-to-house visits and attendance of antenatal clinics. The course comprises all normal midwifery skills including prenatal care, recognition of complications, and emergency care in the absence of more skilled help. It also includes female circumcision and its complications. Training does not include any child care beyond 10 days of life. On graduation the VMW receives a UNICEF midwifery bag (type 3), and a small supply of drugs.

No attempt has yet been made to revise the curriculum of VMWs. In Kordofan, the program implementation plan prepared by the Directorate of Health and Social Welfare indicated a need to expand VMW skills to include child spacing and infant health.

RHSP Progress

The planned project output was to develop a training program, teaching materials and curriculum for VMWs and their tutors. The majority of these objectives have not been achieved.

In the area of development of training programs and curriculum design for VMWs, there has been no progress. No training/retraining has yet been carried out for the VMWs or their tutors.

Although, no teaching materials have yet been prepared, the MCH/advisors for both the northern and southern project components participated in a Health Education Materials Development Workshop sponsored by the AID-funded Community-based Family Health Project and the Program for the Introduction of Adoption and Contraceptivev Technology (PIACT), a centrally funded population project. The workshop (10/84) resulted in designing birth spacing materials and replanning the already developed ORT teaching materials.

So far, the project studied several pilot projects in progress in Sudan which are relevant to the activities stated. Two projects studied were the National MCH/FP Teacher Training Program at the Barakat Training Centre in Gezira; and the Community-based Family Health Project. The National MCH/FP Teacher Training Program is funded by UNFPA and implemented by WHO. Its purpose is to increase the delivery of MCH care by upgrading skills of teachers at VMW, CHW, and MA schools, as well as supervisors and in-service trainers of MCH personnel. Approximately 36 teachers are trained per year in skills that include technical knowledge in MCH/PH, education skills and community assessment. An assessment of this project in November, 1982, indicated the need to evaluate the course being given.

The second project studied was the Community-based Family Health Project which is AID funded. It has trained VMWs to provide a variety of MCH/FP services to women living in 90 villages located along the Nile River. The VMWs were taught prevention and care of diarrhea in children by use of ORT, nutrition education, use of oral contraceptives for family planning and motivation of the community for immunizations. VMWs distributed OR salts and oral contraceptives. The project established a referral system for rehydration, infertility, and other complications.

Although the study of these projects has been accomplished, it is not yet clear if the results will be used in the training of VMWs. The OAI Annual Report 83/84 stated that the results will be integrated into activities related to community mobilization.

Centralized Activities Supported by RHSP

Due to the interest of the Deputy Director of Rural Health, CMOH, Khartoum, in-service training of VMWs and their supervisors was carried out. The RHSP supported the following:

(1) 8 refresher courses out of the 90 planned were carried out (about 10%); 22% of the workers attended these courses. Participants in each course included CHWs, VMWs, and Sanitary Overseers (SOs). Courses were planned to cover primary health care concepts and components, and included other subjects according to the needs expressed by the participants.

(2) 4 orientation courses were carried out, out of the 90 planned (about 4%). 121 participants were exposed to those courses. They included district MAs, SOs, and HVs. They were oriented to the concepts and components of primary health care as well as the preventive aspects of health care.

All these courses were carried out in the regions, but planned and developed centrally. The lecture technique was adopted and no attempt was made to evaluate these courses.

Dr. Tag il Sir Fathi Karar, Deputy Director of Rural Health, who is responsible for training for primary health care developed a general plan for these courses. He was also the person responsible for planning the previous courses. He was not exposed to any medical education training, either in curriculum development or training methodologies.

The RHSP also supported the MAs' workshop in July 1984.

Constraints

It is obvious that the project-related activities are behind schedule due to delays in (1) contract signing for One America Inc. (January 1983) (2) arrival of the OAI Regional Coordinator for Kordofan (March 1984), and (3) appointment of the OAI MCH advisor (Sept. 1984). Other factors also contributed:

(1) At present there is no Department of MCH/FP at the central MOH to set policy and plan programs ;

(2) The current UNFPA Project Director is assigned to the Directorate of Preventive Medicine. His role is limited to managing MCH/FP activities of the UNFPA project while coordination of MCH/FP programs within the country is not being handled.

(3) The Directorate of Rural Health and PHC is responsible for the PHC programs including the training component, while EPI and nutrition are handled by a separate Directorate of Preventive Medicine;

(4) There is no technical body concerned with all curriculum development training and training methodology;

(5) In Kordofan at the regional level, PHC falls under the department of Curative Medicine, while the Director of Preventive Medicine is the UNFPA MCH/FP Regional Coordinator. There is no separate department of MCH. At the Area level, a Senior MA is responsible for MCH services;

(6) There is a lack of skilled staff to carry out curriculum development, training and evaluation at the regional and central level; and

(7) There is an inadequacy of supervision and inability to identify project tasks carried out and the quality of performance.

ISSUE V.A.3.: Has the Northern TBA Training Program achieved planned targets?

Traditional Role of TBAs

It has been estimated that 70-90% of the deliveries in rural areas are carried out by the Traditional Birth Attendants (TBAs). Through the years, the TBAs have developed an intimate relationship with mothers and have gained their total confidence. Mothers therefore seek TBAs advice and do it unquestionably. In El Kweik Village, near Kadugli, a training school was established for TBAs. The training program is carried out by the Regional Directorate of Health and Social Welfare, the Central MOH and UNICEF. The RHSP role in the training has been to: (a) gather information on TBAs, (b) design a pilot training program, and (c) plan and implement continuing refresher training and referral support services for the TBAs following the training period. The revalidation team recommended that RHSP should participate in the evaluation of the previous courses run by UNICEF, pointing out that it would be unfortunate to discontinue training of this important cadre of MCH providers because the training was not being effectively carried out. Continuing evaluation of the needs of the program were designed to be the responsibility of health administration at the area and regional levels. The provision of training materials and basic supplies are carried out at these two regional levels. Support at the national level for TBA training programs include policy development, program guidance, consultant services on planning and curriculum development.

Progress Towards Objectives

Not all GOS personnel are encouraging TBA training; the Kardofan Director of Preventive Medicine feels that VMWs rather than TBAs should be the focus of attention for training/retraining and refresher courses. Moreover, TBA training should logically be linked to MCH/FP activities. This relates to the problem of the administrative structure in Kordofan for health services. This problem is dealth with at length in issue VI.A.1. This creates administrative difficulties in running the training courses, particularly in selecting tutors of the TBAs.

The planned output of this component of the RHSP was to train 150 TBA's by the end of the project. The actual current figure is 39 (19 in the first training session carried out in November, 1984, in Muglad, and 20 in the second trainng session in Abu Zabad in January, 1985). This is 1/4 of the expected output at the end of the project. The short fall may be attributed to delay in (1) contract signing for One America Inc. (January 1983) (2) appointing an RHSP Regional Coordinator for Kordofan (March 1984) and (3) appointing the RHSP MCH Advisor (September 1984). Hence, one cannot expect much output in such a short time.

Administrative Obstacle

No written curriculum has been designed. What was planned was a subject-oriented course (20% theory and 80% practical). No teacher's guide or teaching materials have been prepared nor are there aids to educate TBAs apart from a few models (pelvis, doll locally made from crude materials). It could not be expected that the course would be designed using a system

approach when none of those who developed it were trained in curriculum development. The planners of the course used previous courses designed by UNICEF in El Kweik as their model.

Range of Subjects Covered

Although it was felt that the TBAs role should expand to include areas other than delivery, the course was planned in such a way that 50% of learned activities focused on delivery, 10% on general hygiene, 20% on antenatal care, 5% postnatal care and 5% child care. The learning opportunities for the various planned activities are not equal and the TBAs cannot be expected to master all these areas. However, nd practical skills, (b) has too great a component of theoretical learning and lectures rather than focusing on community based practical learning aimed at acquiring skills through a learning by doing approach to PHC, (c) does not sufficiently enable him to fulfill his role as the front line worker in a basic rural health development strategy.

RHSP Objectives and Constraints

The planned RHSP output was to develop training programs, teaching materials, and a curriculum for CHWs and train and retrain CHWs and their tutors in the area of MCH/FP/Nutrition knowledge. Nearly all these outputs were not achieved or even started. Most of the activities related to the outputs were scheduled to start in FY 84/85. Output achievement for refresher and reorientation courses are 10% for the former and 4% for the latter. No specific teaching materials were prepared for these courses. Tutors were not trained to carry out training/retraining. All the refresher courses were carried out by lecturing.

The project related activities are behind schedule due to (1) delays in technical assistance inputs; (2) absence of qualified persons for developing and revising curricula, designing materials and implementing training; (3) inadequate supervision; (4) non-sequential planning and implementation of activities related to training; (5) conspicuous oversight of training tutors and preparing teaching materials; (6) inexperience of planners of refresher courses in training technology; and (7) reliance of Kordofan Regional Government on the Central MOH in Khartoum for planning and coordinating these courses.

The base line study to determine CHW's activities, patient load, treatment site, schedules, resources and working relationships was postponed. The installation of a new health information system (HIS) included a detailed monthly report of activities from each of the CHWs. It was decided to analyze a sample of these reports as they may provide most of the data which was assumed to require a field survey.

CHW Profile Study

One study (A Profile of Community Health Workers) was completed (Sept. 1984). The study indicated that there is a contrast between the classical notion of the CHW and the actual type in Kordofan. The CHW is overwhelmingly likely to be young, single, and male. He is not well established financially, and very likely wishes to leave the village. He considers himself a full government employee and looks forward to a career in

government. The fact that they are not presents a problem for the future. The evaluation team did not have adequate time to deal with this issue.

The study, however, did not deal with the key question needed to effectively plan training programs: what are the tasks carried out by this worker? It was assumed that this question will be answerable in greater quantitative depth at the end of the 1984/1985 project year after analysis of samples of HIS returns from CHWs and possibly one or more spot surveys. One problem may be the reliability of the HIS which is discussed at length in Issue III.B.1.

ISSUE V.B.: In the South, have MCH/FP training programs been developed, and curricula for NVMWs, VMWs, CHWs, been designed? Have teaching materials been prepared? Is the retraining of tutors and the training of CHWs, VMWs, HVs, TBAs and others on schedule?

There is a consensus among health planners that program success depends on the provision of the necessary manpower and training for health services to be delivered efficiently. The success of the Primary Health Care Program depends upon a proper mix of trained health workers, good administrators and supervisory capabilities.

MCH/FP Structure in GOS is Major Constraint

MCH/FP services are important components of primary health care services. UNFPA negotiated a 5-year grant (1980-1984) with CMOH to support MCH/FP activities throughout Sudan. As a result, a Project Directorate was established in Khartoum and coordinators were appointed in El Obeid, Kadugli, Port Sudan, Juba, Dongola and El Fasher. However, at the central level, no Department of MCH/FP was established to set policy and programs, coordinate activities, and work with other MOH health programs. Before the regionalization act and redivision of the South into three autonomous regions, there was an MCH Director in the South who was working in a department that was staffed only by herself. She had no real control over the health visitors or midwives who were the main government providers of MCH/FP services.

To date MCH services have been quite rudimentary. Private voluntary organizations provide some MCH/FP services with the scope of the services varying by location. The PHCP has yet to play an effective role in MCH. The CHW, usually a male, is the front line service provider to the rural communities. He is not skilled to perform maternity services. (Culturally, men are not accepted to provide maternal care.) CHWs also do little in the field of child care and nutrition or in following up of children. CHWs, however, carry out health education directly or indirectly related to MCH/FP services. For various reasons discussed above, CHWs feel the need of village midwives working in their areas. This was documented in the Seminar on the Primary Health Care Program (Jan,1979-Juba).

VMW Shortage and Training

There is a shortage of VMWs. Trained village midwives are not working in rural areas due to: (1) a scarcity of nurses in the South with vacancies first filled in urban centers; and (2) selection criteria in the past which did not take into consideration the rural origin of trainees. Now VMWs are being selected by Village Councils to ensure that the VMWs return back to serve their communities.

All VMW schools are attached to hospitals. This produces a VMW oriented to the hospital environment rather than the community environment. In November, 1984, AMREF proposed constructing MCH/FP subcenters for the two new peri-urban settlements of Gumbo and Lologo outside Juba. These areas are rural by every criteria. The MCH/FP status in these large shanty areas is often worse than many remote village served by CHWs and VMWs. The subcenters will allow trainees to be trained in a community similar as possible to the community in which they will be working.

The Traditional Birth Attendant

Due to the shortage of VMWs, as well as the scattered, low density population; natal and post natal services are carried out by TBAs. A TBA is a middle-aged or elderly woman who assumed her role as TBA through (a) family tradition, (b) exhibition of a natural skill after assisting at a few deliveries, or (c) by her deliberate choice. A TBA may work voluntarily but often she receives gifts in cash or kind from the families she serves. She has a well-defined and accepted role in the community. Recognizing that much time must elapse before a sufficient number of VMWs are trained, training of TBAs was started by some private organizations. Also local women were trained to assist with and teach child care in the comunities. Coverage, however, was limited. The need to build an entire infrastructure to support the primary health care program was neglected.

AID's MCH/FP Strategy

AID's strategy for strengthening MCH/FP in Sudan has been to complement the effect of the GOS aided by UNFPA and to reinforce the program by:

(1) providing additional funds for the kits, drugs and construction of training centers,

(2) supporting continuing refresher training in MCH/FP at all levels of health workers but with emphasis on VMWs and TBAs,

(3) providing Regional MCH/FP Coordinators with training of probably three months each in a third country in substantive planning and administration of MCH/FP programs,

(4) assisting regional MCH/FP Coordinators and others responsible for MCH/FP programs to develop appropriate supervision and support service to institute MCH/FP service,

(5) supporting anthropological surveys of TBA's role and a capacity for additional responsibilities as well as planning local training, provision of basic equipment and supervisory service. Training of TBAs will be integrated into the broader training programs for village level workers to foster a team approach to village health work.

(6) continuing refresher training and referral support for TBAs following the training period; to be planned and implemented at the area and local level,

(7) supporting policy development, program guidance, consultation services on planning and curriculum development for TBA training programs. Provision of training materials and basic supplies is to be done at provincial and area levels, and

(8) supporting continuing assessment of the needs and evaluation of the program; the responsiblity of health administrators at area and provincial levels.

Changes Made in PPS

The revalidation team generally supported the activities already planned to strengthen MCH/FP. Their comments have resulted in certain refinements and modifications stated in the Project Paper Supplement (August, 1984). In addition to pursuing the original concept of coordination with existing MCH/FP activities, the RHSP will add two major additional activities:

(a) pregnancy outcome and infant mortality surveillance in a demonstration district in Equatoria or Bahr El Ghazal Regions.

(b) family planning activity -- Juba.

A major recommendation for strengthening MCH/FP was curriculum component development and instructional methods improvement. The revalidation team recommended that instructional materials be developed which emphasized a competency-based approach. Tutors using these materials should be trained as well in competency-based instructional methods.

Curriculum Development

Although the planning and training phases were initiated, the actual progress has lagged far behind the planned output. None of the curricula for VMWs and NVMWs were developed. The CHW curriculum was designed as much as possible on task analysis. However, the MCH component of the curriculum was not developed. AMREF has completed a revision of the nurse midwife curriculum which is being used at Wau.

Several workshops for developing the curricula were held. Ideas were generated at a brain-storming workshop for curriculum development in November, 1984. During the same month, a meeting was held in the MCH/FP office with representatives of TORIT, an NGA, to discuss and formulate a plan for TBA curriculum to be developed for use in Southern Sudan. From January 29 to February 7, 1985, a workshop was held for developing the VMW curriculum. A report on the proceedings and outcomes of the workshop has not yet been produced.

The delay in the output of curriculum development for the other categories is directly related to the current policy that such an activity has to be carried out centrally. The central MOH has the responsibility for writing down standards of performance and the periodic revision of the curricula for various cadres of PHC. The Educational Development Center (EDC) is providing assistance in the revision of the curricula for the various cadres for the training of tutors in training methodologies and developing curriculum and visual aids.

In late 1982, the Director General of Health and Social Welfare for the Southern Region went to Khartoum and discussed the need for developing curricula at the regional level. The Central MOH agreed to the proposals forwarded by the Director General to carry out curricula development, but not for nurses. The Central MOH was thinking of recruiting trainees for MA courses from secondary schools for a three-year training course rather than recruiting nurses. However, before the implementation of this plan, the Regionalization Act was issued, redivision of the South took place and the

Central MOH took over again the activity of curriculum development. It was then decided to use the curriculum designed centrally as a guide line to develop task-oriented curricula.

Refresher Training

AMREF conducted brief training for VMWs, nurse midwives, and TBAs. In its training and retraining outputs, it was planned to train/retrain 400 rural workers: CHWs, MAs, VMWs, HVs, nurses and TBAs. Only 145 workers out of the 400, i.e., 36% of the target, have been trained/retrained. Considering TBAs, only 30 out of the 150 (i.e., 20%) were trained.

An effort was made to join VMWs and TBAs in joint refresher courses. In designing these courses, limited surveys to identify learning needs were carried out. The courses covered both theory and practical exercises. The aims for these courses were to refresh VMWs'/TBAs' minds, update their midwifery techniques, check and organize replacement of old or broken instruments, and bring them together. These refresher courses covered midwifery, hygiene, nutrition relating to mother and baby, as well as general nutrition focusing on malnutrition. However, since details of content, instructional methods, etc. of these courses are not documented in the files, it is difficult to assess if they were systematically designed or not. Planners of these courses were unable to use the results of the MCH/FP base line surveys in Equatoria and BEG because of delays. Only BEG was completed and a report draft presented in May, 1984. The TBA pre-implementation survey was scheduled for February, 1984, and, although it was carried out then, the data was stolen.

Teaching Materials

Teaching materials were not finalized. Few were designed, and teaching materials for only one subject (ORT) are being replanned. The MCH Advisors for North and South participated in a health education materials development workshop sponsored by the AID-funded Community-Based Family Health Project and the Program for the Introduction and Adoption of Contraceptive Technology (PIACT), a centrally funded population project. This workshop (October, 1984) resulted in (a) designing teaching materials for birth spacing (motivation of birth spacing booklet, use of the pill booklet) and one booklet on nutrition, and (b) pretesting materials related to ORT and planning the use of these materials. These materials are to be finalized in 1985.

For the planned activities scheduled, more teaching materials should have been developed to facilitate not only health education but also training the community health workers. Due to this delay in their production, it was impossible to train tutors to use them.

Recent Activities

In December, 1984, a workshop on integrated MCH/FP services at Li Rangu for MCH/FP Centers in Western Equatoria (9 people) was held, and in the same month a meeting was held with the METU on compiling training activities. These activities were carried out despite the security

situation that compelled the MCH advisor, who arrived in June, 1984, not to assume her post at Wau. However, AMREF has attempted to maintain contact with BEG officials to encourage training activities. In addition, the uprooting of staff and resulting uncertainties impose morale problems.

Issue V.C. How have MCH/FP/Nutrition modules for adult literacy been developed, tested and distributed in the North?

Findings

The development, testing, and distribution on MCH/FP/Nutrition modules for adult literacy programs has yet to be initiated in the North. In meetings at the Regional and Area levels, it was discovered that these health education tools had not yet been discussed with the Sudanese. It is not clear from the FY 84/85 Kordofan Region Workplan and Budget that these modules are planned. While mention is made of developing health education materials, details have not been provided.

ISSUE V.D.: Has the Medical Education and Training Unit (METU) serving two Regions been established?

Objectives

A Medical Training Officer (MTO), Public Health Officer (PHO), and Nursing Education Officer constituted the primary health training team for the Southern PHCP. The training focus of the SPHCP was on developing instructional systems and materials; laying the foundation for the training of personnel to initiate the PHCP. The emphasis was on developing a curriculum for CHW training; training CHW tutors; setting up six CHW training schools (one per province) to produce 708 CHWs over a 5-year period; production of a CHW manual, and distribution thereof; orientation and refresher courses for PHCP staff; and assisting a Sanitary Overseers' training school. These End-of-Project targets were all accomplished.

Institutional Development for Training

In the process, the former Southern Region MOH decided to extend the training teams' activities to include all the educational and training responsibilities of the Ministry. This led to the proposal to establish the Medical Education and Training Unit (METU) made up of the MTO and PHO as TA personnel and 4 national counterparts in the Equatoria Region (1982). BEG Region was also in the process of setting up a Regional Training Board and Unit with the help of the Nursing Education Advisor and two nationals acting as a task force. The MTO, PHO and nurse educator have been guiding and assisting the review and development of systems for the interregional training institutions based in Juba and Wau, and the region-specific schools for BEG and Equatoria. They have been conducting a Health and Social Welfare Manpower and School Survey for all southern regions.

Role of METU

According to the proposals, the METU was to study, review and improve the health manpower production system through the interregional schools in Juba that train staff for all three southern regions as well as the other schools which serve Equatoria only. It was intended that the METU would deal with curriculum development, organization of teaching materials, selection of students and teachers, libraries, supervision of schools, etc. The proposed project budget was as high as LS 2.5 million of which the government of Sudan was to provide 20%. Permission was obtained to go ahead with the METU despite the completion of the SPHCP project. Meanwhile, the RHSP project started its activities. It was possible to incorporate the proposed plan of establishing an METU without needing additional funding especially after cancelling the radio, and health education components.

The proposal was partially accepted as activities were limited only to those responsible for rural health services. The categories of rural health workers for whom these tasks will be completed are the following:

General Medical Assistant
Village Midwives
Health Visitors

Community Health Workers
Sanitary Overseers
Assistant Sanitary Overseers

The scope of work for the METU in Equatoria and BEG Regions funded by the RHSP was narrowed to support retraining and reorientation activities of health workers and tutors, curriculum improvement, and development of teaching manuals and instructional aids.

Staffing of METU

The Medical Education and Training Unit was placed under the Director of Training and Planning in the Directorate of Health. It consists of the AMREF MTO and PHO as TA personnel and four counterparts who were appointed in November, 1983: a Senior Medical Officer in charge (Dean of the Medical School for Paramedics in Equatoria); the Environmental Health Officer (PHO); a Principal Nursing Officer (nurse tutor) and a Senior Medical Assistant (tutor). All but the Senior Medical Officer were trained in medical education methodologies. The PHO had 8-10 weeks of training in Manchester, the Medical Assistant a one-year medical education course in Nairobi and the nurse tutor a two-year nursing tutor course in Khartoum. The Senior Medical Officer in charge of the METU has no skills in medical education methodology. The other three nationals, although they had competency-based training and were skilled enough to carry out training, were engaged in other activities. The medical assistant and the nurse tutor were able to train their students, while the PHO after 3-4 months was assigned to the Juba town council. The post was filled by another PHO who was also giving only part of his time to the METU. The four counterparts that joined the METU were given only an orientation session, which was attended by the Director of Planning and Training. This orientation included going through the project proposals and highlighting each member's inputs and generally what the proposal was about.

The staffing of the METU was behind schedule because of (1) delay in AMREF contract signing (Jan/1983), (2) the health planner arrived September, 1982, and was assigned the responsibility of Project Leader in early 1983 with concurrence of USAID in Khartoum. He had difficulty fulfilling both the technical planning and the leadership and coordination role and also fell sick and was absent for 5 months, (3) staffing of the METU was delayed when both the MTO and PHO started working for RHSP in July, 1983, and the selection of four counterparts was done after October, 1983, and assumed responsibility after an additional month.

Problems with Redivision and Security

The establishment of the METU in one region to serve all 3 regions has been accomplished. The training unit in BEG started to function. The training board in this region was formed and an ad hoc training unit was started. The training unit in Upper Nile (UN) was not established. Currently only the Equatoria METU is operating. This is due to: (1) the redivision of Southern Sudan into three regions, Equatoria, BEG, and Upper Nile (June, 1983), where all assets of the former Southern region were divided into three, and all Equatorians were sent back to their place of origin. This resulted in depleting the other two regions of health

manpower; (2) the security situation started to worsen, especially in Upper Nile and BEG; (3) agencies which were operating in these regions suspended their activities, and the projects were suspended in Upper Nile (Feb. 83) and BEG (July 84).

Implementation

Instead of asking them to set up a general plan, they were asked to participate in the collection of information on the school, physical facilities and manpower. Because of understaffing, and the start of the various training activities, all technical aspects of training were carried out by the MTO and PHO. These factors led to inadequate coordination of all training activities carried out by the various agencies working in the South in 83/83. For the year 1985, a coordinated work plan was designed that scheduled training activities of the Department of Health and Social Welfare and NonGovernmental Agencies (NGAs) in Equatoria Region. The work plan for 1985 is more extensive than that of 1984, although the security problem of the southern regions, which affects mobility and communication may be a critical constraint to achieving the training objectives.

Organization Charts

The organization charts have been drawn. However, the relationship between the administrative structure for PHC/RHSP at the regional and provincial levels is not clear. The charts do not incorporate the new plan for organization of PHC services at the area level with the national policy of decentralization and regionalization.

SECTION VI: MCH/FP

VI.A. MCH Interventions

ISSUE VI.A.: How has the RHSP developed and implemented a focused intervention in MCH/FP in one district in Kordofan and institutionalized MCH/FP activities in the north?

Planned Interventions

The logframe envisioned a focused intervention in MCH/FP in a pilot area of Kordofan. The indicators of success were the development of the program and such services as ante-natal care, child care, growth monitoring, ORT, EPI and child spacing. Four activities were planned to implement these MCH/FP interventions.

The Northern RHSP Work Plan 1983/84 illustrated those activities as:

1. Survey CHW and client views about well-baby clinics and pilot-test the addition of these services to existing pre-natal clinics;

2. Increase community participation in and utilization of local MCH services such as immunization and well-baby clinics;

3. Assess a potential wider role in the PHC system for TBAs and VMWs and, if warranted, plan pilot projects; and

4. Inventory services and staff of non-governmental family planning organizations and determine RHSP role in this area.

The OAI Evaluation Background document of January, 1985, listed the scope of work output. Assistance in TBA training and a family planning study were the only outputs of MCH/FP activities. The remaining two activities were not carried out. The major constraint that faced the project was the non-existance of an MCH department in the central MOH. Such a department would have helped the project in following a stated national policy for MCH.

RHSP and UNFPA

MCH/FP services were delivered through a UNFPA Project that was mainly involved in training health personnel in MCH and providing equipment and contraceptives to health centers in the pilot areas. AID's strategy, according to the PP, centered on complementing the efforts of the GOS aided by UNFPA. The Regional MCH/FP coordinator of the UNFPA in Kordofan was to be assisted by AID in developing appropriate supervision and support services to institute MCH/FP. This strategy was overlooked when the workplan was developed. There was no coordination between the RHSP and the UNFPA MCH coordinator. The contractor until then, was unable to appoint an MCH advisor to the project. The contractor tried to make up for the original delay of the project by hurried planning of MCH/FP activities. The developed plan was a set of unrelated interventions that lacked a pre-implementation policy.

Coordination with UNICEF for TBA Training

In September 1984, the MCH Advisor was appointed. Only then was the RPIU formulated. In compliance with the recommendation of the Revalidation team, the RPIU collaborated with UNICEF in TBA training. UNICEF had started similar TBA training in El Kuweik Center in Kadugli, Southern Kordofan. It was a local activity of UNICEF in collaboration with the Assistant Director of Health Services for South Kordofan. The Assistant Director was responsible for both preventive and curative health services in the province and was the coordinator of the MCH/FP project. Following that, the RPIU and UNICEF decided to carry out their first nomadic TBA training course, which was conducted as a local activity at El Muglad in South Kordofan, and involved the health authorities of Kadugli, the RPIU and UNICEF.

Two Health Visitors assisted in the training. They were staff of the Directorate of Preventive Medicine in El Obeid; the Director of which is also the coordinator for the UNFPA-supported MCH/FP project in El Obeid. Administratively there was no coordination between the MCH/FP projects in El Obeid and South Kordofan. This administrative weakness has created considerable sensitivitieis between the MCH/FP coordinator in El Obeid and the RPIU.

Overlapping Structure for PHC/MCH in Kordofan

In the regional headquarters, the organizational structure of the Ministry of Public Services (MOPS) does not relate to the existing structure in South Kordofan. There are three assistants to the Director General for Health and Social Welfare in the MOPS: One is the Director for curative medicine, primary health care and the RPIU; the second is the director for preventive medicine and the MCH/FP project, while the third is the Assistant Director in South Kordofan who covers preventive, curative and PHC. Their responsibilities overlap especially in the areas of MCH. On the one hand, MCH is one of the main components of PHC which is in the Department of Curative Medicine. On the other, there is a vertical project for MCH/FP in the Department of Preventive Medicine. The paramedical staff in health centers, dispensaries and primary health care units are accountable to both departments; the Department of Preventive Medicine and the Department of PHC.

This ambiguity in the organizational structure was the main reason for the friction and sensitivities between the two departments. The concept of dividing health services into preventive and curative services was universally abandoned several years ago; there is no reason why it should continue in Sudan, especially when it conflicts with the adoption of PHC as Sudan's National Health policy. It is even more confusing when a third assistant to the Director General, the Assistant Director of Health for South Kordofan, has a geographical responsibility that overlaps with the functional responsibilities of the two Directors.

The RPIU in El Obeid had to cooperate with the existing organizational structure of the Ministry of Public Services. The MCH/FP coordinator was a member of the RPIU as a Director of a Department in the Ministry rather than an MCH/FP resource person. The roles of the various members of the

RPIU were poorly defined. Therefore, not all of them were involved in the planning and management of the project. This fact, together with the overlapping scope of work between the Director of the RPIU (who was also in charge of curative services and PHC) and the MCH/FP project coordinator (who was Director of Preventive Medicine), did not allow them to work in harmony as members of the RPIU.

Second TBA Training Session

Shortly after the first TBA training, the second course was conducted at Abu Zabad in Northern Kordofan. The direct responsibility for this activity was not clear. Tutors who participated in the earlier training were accountable to the Department of Preventive Medicine. The director of this deparment, who was the MCH/FP Coordinator, did not fully agree to the TBA training. This situation resulted in administrative difficulties exemplified in the tutor's inability to obtain official release from their posts to undertake the training.

Lack of MCH/FP Counterpart

With respect to the RHSP, there is the serious problem of the lack of an MCH/FP counterpart. OAI's difficulty in identifying an appropriate candidate for MCH Advisor made it necessary to appoint a Sudanese to this position. In this case, the advisor was the same person who would have been the counterpart had an advisor been selected from outside the region or country. Although well-qualified, there is no "value added" from her appointment as advisor. The problem of a counterpart may be resolved with the restructuring of the health services.

ISSUE VI.A.2.: How has RHSP instituted MCH/FP activities in Southern Sudan?

MCH/FP in the Central Ministry of Health

One of the primary outputs of the RHSP is to integrate MCH/FP into the PHCP services at the village level. The six year National Health Program for 1977/78 - 1983/84 had given priority to MCH-related activities. However, there was no clear commitment to MCH in the Program. The Central Ministry of Health had no policy for the implementation of MCH/FP plans. The only existing MCH activity was that carried out by the UNFPA's MCH/FP project. In 1979, UNFPA granted the CMOH a five year project (1980-1984) to "support" MCH/FP activities throughout Sudan. A project Directorate was established in Khartoum. Coordinators for the project were nominated in six pilot areas (El Obeid, Kadugli, Juba, Port Sudan, Dongola and El Fasher). The Director of the project was assigned to the Directorate of Preventive Medicine in the CMOH. Despite the project's potential, the Central MOH was not encouraged to establish an MCH department. Policies, plans and programs for MCH existed as ad hoc activities and had little impact on mothers and children.

Role of RHSP

It was through the RHSP that USAID's strategy for strengthening MCH/FP had aimed at complementing the efforts of the CMOH and UNFPA. According to the Project Paper, it sought to reinforce MCH/FP within the PHC program by:

1. Providing additional funds for kits, drugs and construction of training centers.

2. Supporting continuing and refresher training in MCH/FP for all levels of health workers but with emphasis on VMWs and TBAs. Urban as well as rural health personnel would be included in training.

3. Training of regional MCH/FP Coordinators for MCH (probably 3 months each in a third country in substantive planning and administration of MCH/FP programs).

4. Developing appropriate supervision and support service to institute MCH/FP service.

5. Supporting anthropological surveys of the TBA's role and capacity for additional responsibilities and asisting them through planning, local training, provision of basic equipment and supervisory service. Training of TBAs would be integrated into the broader training programs for village-level workers to foster a team approach to village health work.

6. Continuing refresher training and referral support service for the TBA following the training period; to be planned and implemented at the district and local level.

7. Supporting TBA training programs at the national level through policy development, program guidance, consultation services on planning, and curriculum development. Provision of training materials and basic supplies would be done at the provincial and district levels.

8. Continuing assessment of the needs and evaluation of the program. This would be the responsibility of health administrators at the district and provincial levels. (Per RHSP Project Paper).

MCH/FP Advisor

The contract for activities in the South was signed with AMREF 20 months after the project authorization in April, 1982. The MCH/FP advisor arrived in August, 1982, a few months after signing the contract and almost 2 years after project authorization. Nine months later, the contract of the MCH advisor was not renewed. During that period no MCH/FP activities were implemented. There was no MCH/FP structure in the Region. The MCH/FP coordinator for the UNFPA project was assigned to the Regional Directorate for Health and Social Welfare. She was not a director of a department, but rather a coordinator for a project. This was reflected in the health delivery system where there was no clear policy and hence no MCH/FP services were established in the health facilities. Soon afterward, the MCH/FP coordinator went to Khartoum for a Master's Degree in Community Medicine. Her post was left vacant.

Effects of Regionalization Act

In March of the same year (1983), the Regionalization Act was signed dividing the Southern Region into three autonomous regions. As a result of the re-division, Equatoria retained the largest proportion of trained PHCP staff. BEG and UN Regions had inadequate numbers of staff and serious shortages of supplies and facilities. The Project Paper Supplement (August 1984) explained that this issue created a lot of unsettlement. The distribution of common assets including personnel and even office equipment continued until December of the same year. Furthermore, this political decision significantly affected MCH/FP planning which was under consideration at that time. With the departure of the MCH/FP advisor, one year elapsed before the appointment of a new MCH/FP advisor in May, 1984. During that period (May-August 1984), USAID undertook a Revalidation Exercise for the project in view of the Regionalization Act and the changing economic situation of the country.

The Revalidation team supported the activities already planned to strengthen MCH/FP and suggested certain refinements and modifications stated in the PP Supplement (August 1984). In addition to pursuing the original concept of coordination with existing MCH/FP activities, two major additional activities were added:

a) Pregnancy Outcome and Infant Mortality Surveillance in a demonstration district in Equatoria or BEG Region.

b) Family Planning activity in Juba.

Baseline Survey

AMREF was unable to field a new MCH advisori for 13 months. In an attempt to initiate some MCH/FP activities, a baseline survey was carried out in May, 1984, in Raga sub-district of Bahr El Ghazal Region by MOS personnel. It was initiated by AMREF as an exercise for the health workers

to identify MCH/FP problems. The information derived from this activity was expected to help in identifying MCH/FP needs. The sample for the survey was randomly selected and covered 180 households. The questionnaire has also included MAs, HVs, VMWs and TBAs. The TBA raw data was stolen and thus results were only partially analyzed. This incident affected the planning for all activities in the area of MCH. Moreover, the security situation continued to deteriorate and AMREF staff were evacuated from Wau in mid-July. The MCH advisor who arrived in June has not been able to assume her post in Wau and has been stationed in Juba.

Establishment of MCH/FP Centers

In August, 1984, an MCH/FP unit was set up at the Regional Directorate of Health and Social Welfare in Juba. No specific MCH staff were appointed to the office and the counterpart for the MCH advisor was a member of the training team. This clearly reflected the shortage in personnel which had a negative impact on the planning and implementation of MCH activities.

In August, 1984, the MCH advisor visited Lirya dispensary located 42 miles east of Juba. The aim of the trip, as written by the MCH advisor in her trip report, was to assess the quality and type of services delivered to the community and to explore the possibility of establishing a comprehensive MCH/FP service in the dispensary as a model for Equatoria Region. No MCH/FP services were delivered and since April, 1984, no immunizations had been given. Moreover, no H.V. was at the dispensary. Only curative services were delivered by the MA and a nurse. The dispensary was the sole health facility in the area. The type of services made available reflected a clear bias of the health system towards curative care. The shortage in MCH/FP personnel might have been responsible for this bias. There was no further document available to the Evaluation Team to assess how Lirya dispensary was established as an MCH unit.

Kator Health Center was officially opened in October, 1984. Personnel were appointed, and furniture and equipment installed. The first Quarterly Report for October/December, 1984, stated that antenatal care and immunization services commenced and that weekly meetings were held at Kator Health Center. There was no further information concerning the mother population served or the number of children vaccinated. It was very difficult for the Evaluation Team to have confidence that Kator was an established MCH/FP center since no verification visit was made to the South.

ISSUE VI.B.: How have MCH/FP resources been assessed by the RHSP in the North?

Intentions

The Project Paper outlined a methodology for assessing MCH/FP resources in the northern component, through a baseline survey, a village census, and seven special studies to be undertaken in Kadugli. The baseline survey and village census have partially been completed, and two of the seven special studies. Most critically, the CDC Pregnancy Outcome Surveillance Study has pre-empted this activity and has provided a poor substitute for the original intention of the RHSP.

The intention of the baseline survey and village census was to be:

> "A combined provider/recipient survey in one district and all rural councils, sampling CHWs to determine why they do not now conduct well baby clinics; sampling mothers to determine attitudes towards these clinics and other standard MCH services. The survey will provide baseline data for a pilot intervention starting a number of well baby clinics in the surveyed areas. Ideally, the selected district should have one or more existing pre-natal clinics to which the under-5 service can also be added." (N/RHSP Annual Report, 1983/84)

This activity has not yet been carried out, although the FY 84/85 workplan identifies some assessment acitvities to take place. These include assessing MCH/Family Planning (FP) (or MCH/Child Spacing [CS]) resources in pilot zones, "working backwards towards central levels." Some of the PHCP assessment plan also relates generally, if not specifically, to MCH/FP. It is not clear when the term MCH/FP was changed to MCH/CS. In any case, the contractor has proposed a vague activity with respect to the assessment, rather than a systematic and well-defined approach.

Planned Studies

The Project Paper identified seven studies to be conducted in the northern component. These were:

(1) Provincial baseline studies;
(2) Project site assessments;
(3) Project pre-implementation surveys;
(4) Analysis of maternal and child health and family planning training;
(5) Studies of special health services and training needs of the nomadic population;
(6) Role of traditional birth attendants; and
(7) Primary health care economic baseline studies.

The baseline studies and pre-implementation surveys are, according to the contractor, being addressed through the Needs Assessment conducted in early 1983. This document is still in draft form, and is anticipated to be finalized by April, 1985. The analysis of MCH/FP training and primary health care baseline studies have been completed.

The role of TBAs has been addressed through Viviane Sakkal's Mid-Term Assessment for UNICEF, "Training Traditional Birth Attendants in Kordofan" (January 1984). Her excellent assessment addresses the capabilities of trained TBAs, their role as change agents in the community, the recognition by communities of improved MCH services after training, and increased support for TBAs by community members.

It appears that the CDC Pregnancy Surveillance Study in Kadugli was conceived of as addressing other related MCH activities as well as an assessment of pregnancy outcomes. However, the study is a discreet activity and does not provide a baseline indicator for assessing MCH/FP resources. The CDC study was originally envisioned as an indicator for institutionalizing regional health planning, budgeting, and information capacity. Although the study might have some implications for developing MCH/FP activities, the link has not been clearly defined. The background, objectives and implementation of the CDC Project do not in any direct manner relate to well-baby clinics.

The CDC study seems to have emerged from a specific interest of the contractor or CDC rather than as a result of any needs identified in the April, 1983 Needs Assessment. The Assessment pointed out that only 30% of nearly 600 PHCUs in Kordofan have a child-directed program of any type. It is not clear how this led to a pilot pregnancy and infant mortality surveillance project. There are not many supporters of this study at the regional nor district levels. Several persons have asserted that this exercise has raised the expectations of the community. The "valuable information" collected would lead them to believe that improved service provision would be forthcoming.

The only RHSP effort in coordinating with other donors focuses on health and health-related fields, not specifically on maternal child health and family planning activities. A single meeting of NGO donors was held in Khartoum in July, 1984, attended by some 33 national and international donors. The meeting generally addressed collaboration among NGO projects in the Sudan, and recommended the establishment of a national committee for NGO coordination and organization of periodic workshops to discuss NGO assistance and activities, as well as government plans.

UNICEF Growth Monitoring and Nutrition Education Project

In 1982, UNICEF started a Growth Monitoring and Nutrition Education Project in Southern Kordofan in Kadugli and Dilling Districts. The project was developed in coordination with the CMOH. It provided assistance for the development and testing of a methodology to be used by CHWs to monitor the nutritional status of infants and children from 0-5 years and provide nutrition education for mothers. The RHSP intended to coordinate this project with the pregnancy surveillance study of the CDC. CHWs, VMWs and TBAs who were involved with the UNICEF project were to be trained by the RHSP to weigh and register the newly born for the pregnancy surveillance study. These two activities were complementary. With the delay in the training of trainers for the CDC, however, no coordination was established.

The Role of NGOs in Family Planning

A report was prepared in September, 1984, on the role of non-governmental organizations in child-spacing activities in Kordofan. The report was prepared by a short-term MCH advisor.

At El Obeid, family planning services were provided in all the health centers. The services are being delivered by regional health personnel. Supplies and equipment are delivered by AID, WHO and UNFPA. The MCH/FP project carries out a training program for health personnel in family planning. Physicians at the Regional Hospital are being trained under a special grant in association with Johns Hopkins University. The Sudan Family Planning Society, an NGO, works in close collaboration with the staff in these health centers. They provide drugs and contraceptive supplies.

Family planning services are available only in El Obeid town. In Kadugli, family planning services have not been established.

ISSUE VI.C.: How has the RHSP instituted a population-based data collection system for MCH/FP in Kordofan?

Background

RHSP started its activities in the North in February, 1983, with the establishment of the Central Project Implementation Unit (CPIU) within the Directorate of Rural Health and Primary Health Care. Activities began 10 months after the GOS-AID agreement of April 1982. During that period, the National Ministry of Health was decentralizing in response to the Regionalization Act of late 1980. The role of the new Central Ministry of Health (CMOH), however, was not at all clear. Regions, on the other hand, were hurriedly trying to establish their own separate identities regardless of national coordination. This confused situation was aggravated by the weak role of the CMOH and its unwillingness to make decisions.

Assessment Survey

In that very ambiguous situation, RHSP commenced an assessment survey in April, 1983. The team consisted of members of the Directorate of PHC, consultants from AID and members of the Kordofan Health Department staff. Even at this preliminary stage of RHSP activities, there were disagreements between the Region and the Center regarding survey administration because of the unclear lines of communication between them.

The survey gathered a large quantity of data and, by June, RHSP established its priorities for Work Plan activities. It was the intention of the Planning Working Group to implement new interventions on a small scale first and later, if they proved successful, to disseminate them from Area to Area. This was thought to fit easily with the recent decentralization policy and would influence the gradual improvement of health services based on the actual needs of the communities.

In the area of MCH, the needs assessment identified the fundamental constraints in the institutionalization of MCH/FP:

1. Only 3% of nearly 600 PHCUs in Kordofan had a child-directed program of any type; and

2. There was little population-based epidemiologic data for Kordofan, making estimates of infant morbidity and mortality unreliable. Based on these findings, the CPIU called on the U.S. Centers for Disease Control (CDC) under a PASA Agreement to help overcome these constraints through the implementation and monitoring of a pilot pregnancy and infant mortality surveillance system in Kadugli District. This system would accomplish:

(1) The provision of information to formulate a risk approach intervention strategy to reduce infant and maternal mortality;

(2) Identification of performance problems within the health care delivery system which interfere with its ability to reduce the high infant and maternal mortality rates;

(3) Identification of groups of pregnant women and children who should be targeted for intervention; and

(4) Provision of baseline data against which to measure the effectiveness of various interventions.

CDC Scope of Work Unrelated to PHC Deficiencies

The scope of work of CDC did not deal with any operational intervention in service delivery. The poor coverage of the health facilities in the area of child health necessitated the implementation of a well-organized service. The CPIU trip report submitted after the pilot training of tutors in Kadugli clearly stated the importance of "restoration of dispensaries." The lack of basic equipment and instruments, shortage of essential drugs for antenatal care and the poor communciation system were evident obstacles to added responsibilities for health workers. Basic needs for the delivery of health services were lacking. These findings supported the statements of the needs assessment survey. Unfortunately, the CPIU did not get this message when proposing the CDC study.

Centralized Decisionmaking on CDC Role

The CDC surveillance system started before the establishment of the RPIU. The CPIU was responsible for all project activity decision-making, leaving out the RPIU entirely. Because of the 10-month delay in signing the contract, the CPIU was pressured to initiate some activities. The Regional authorities were urging the RHSP personnel to start intervention in Kordofan:

"....the new MOH Director for the RHSP is interested and willing to take decisions specifically related to project activities and Kordofan Region Ministry of Services is anxious to get on with the Project..." (P.P. Supplement, page 8)

With the lack of a national MCH/FP policy and the absence of an MCH department, the CPIU took the initiative of making the decision. There was a need at CMOH for basic information on infant and maternal mortality that would help in national planning and policymaking for MCH. The needs of Kordofan that were identified during the assessment were hoped to be addressed by the establishment of a scientific, useful data system through the CDC study.

The RPIU was established in November, 1983. It was only in September, 1984, however, that the RPIU started its activities with the arrival of the One America Regional Coordinator and the MCH Advisor. The time-lag between the start of the CDC activity in March, 1984, and the startup of the RPIU in September, 1984, permitted the Region and Center to develop different strategies regarding the implementation of MCH/FP services. The RPIU did not regard pregnancy surveillance as one of its priority needs in MCH/FP. With the changing situation in Kordofan, especially the increasing problems of displaced communities, other urgent issues arose.

The CDC pregnancy surveillance was viewed by the RPIU as "another study" required for the interest of CMOH. Clearly the PASA Agreement with CDC imposes a significant burden on the project budget, and especially on scarce human and transport resources in the study area. It is important to explore the marginal benefit of that cost. Given the current situation in Kordofan, the CPIU has no objection to overlooking the importance of insti-

tuting a data management system for pregnancy surveillance. The objective of the CPIU in accepting the CDC study was to provide a baseline and to establish a data management system in maternal health. It is the goal of CMOH to respond to the priority needs of the Kordofan region.

Regional Objections

The One America Regional Coordinator took issue with the plans for CDC operation. His intention was to put a priority on the overall health information system needs of the Area targeted for the CDC study. For such an HIS, he found the CDC proposed system inadequate in scope, unbalanced in focus and inappropriate in cost. He believed it would not be widely generalizable and would not provide the range of information required for planing and managing the usual range of MCH services, let alone the full range of PHC. He felt that local health officials should be able to see how their services could be improved from the data collected and that they should have an opportunity to participate in the decision making regarding the type and scope of data collection to be undertaken.

SECTION VII. COMMUNITY PARTICIPATION

ISSUE VII.A.: How has the Rural Health Support Project facilitated community-based participation and encouraged community development in the North?

Progress to Date

In the Project Paper, Project Paper Supplement and logical frameworks, community-based participation and community development were seen as important areas of concern and critical to project success. A major output envisioned in the Northern component was the involvement of Area Councils in health planning, management and budgeting (HPMB), as well as maternal child health/family planning (MCH/FP). To date, however, none of the indicators of output realization in this area have been achieved. Moreover, although there has been a continuing concern and reassertion of the importance of community involvement, the project has not yet contributed to the orientation of community leaders, the development of MCH/FP for Area Councils and women's groups, nor the implementation of self-help projects.

Within the RHSP, there has been a lack of consistent policy and implementation strategy for community participation and Information, Education and Communication (IEC). While recognized throughout the project design and planning stages, no real approach nor plan has yet been developed. Nonetheless, although the project itself has yet to make its contribution, there are encouraging examples of participation, self-help efforts and community development at the central, regional, area and village levels.

Government of Sudan's Interest

The Government of Sudan (GOS) recognizes and supports community involvement in primary health care. As noted in the 1977/78 - 1983/84 National Health Programme, the "community development spirit" started in the Sudan in 1971, and first showed results in the area of environmental health. At that time, the extent of community involvement was limited, partially due to the fact that the GOS was not yet convinced of its importance. Since then, however, the GOS has recognized that much of the success of their efforts rests on community involvement and participation. The GOS has asserted that "any disease should not be looked at just as a medical, but as a social and economic problem."

The Government makes specific recommendations of promotive activities which should be included in primary health care. These include:

- Advice to the community on drawing water, food hygiene, collection and disposal of refuse, better use of latrines;
- Participate [sic] in the village development activities;
- Simple examination of school children, especially on personal hygiene and local school environment; and

- Communal activities, such as recording of all births - live and still. (page 67)

Although these promotive activities are neither an extensive nor complete list, they do reflect the Government's stated orientation and commitment to community involvement.

Area, Rural and Village Councils

Area, Rural and Village Council members are elected by communities to represent their political interests. In the Kadugli Area, for instance, the Area Council is made up of 44 members, 40 of whom are elected and 4 of whom are appointed by the Regional Commissioner. The 40 elected members, including 6 women, represent 40 identified geographical, administrative and organizational constituencies. The Area Council has 11 standing committees, one of which is the Health Committee. The latter is composed of 7 members, with the Secretary being a health professional and a non-voting associate member. Other health professionals may be brought in for consultation as the need arises. The Health Committee meets once a month except during the rainy season and is concerned with problems such as drug supply, environmental sanitation and water.

At the Area Council level, activities seem to be discussion groups without specific authority to change things. The Area Council is not really a decision-making body. It has limited power, with the Chief Executive Officer (CEO) in total control. In fact, the CEO metes out resources based on the effective lobbying by different interest groups for scarce resources.

The Rural Council may or may not be an appropriate vehicle for promoting community participation at lower levels. There was inadequate information available on whether villages work through Rural Councils, or work around them, and if the Rural Council is a barrier or of benefit to communities.

The Area Councils develop the Rural Councils and delegate authority to them. In the Kadugli Area, there are five Rural Councils, one of which is the Kadugli Town Council. The Rural Councils are divided into the same committees as the Area Council. The former make recommendations to the latter in their monthly reports.

At the village level, the Village Councils have 24 members, theoretically 18 men and 6 women. In practice though, women do not generally participate in Village Council activities. There are also supposedly Health Committees at the village level, although in visits to 25 to 30 meetings in 12 villages, a UNICEF staff person based in Kadugli has seen no village which has taken the initiative to develop one. The UNICEF Water Project in the area is facilitating "Development Committees" in the villages, which are intended to function in a similar fashion to Health Committees.

The Health Committees at the village level are generally either uninformed or ineffective and the health workers in the villages are isolated, lacking both contact with other health workers and accessibility to drugs and supplies. They often have little to do and few incentives.

There are some notable examples of community involvement in the Primary Health Care Program , however, that may be indicators of the importance of local participation in some villages and areas of rural Sudan. These include some Village Health Committees and the Patient Friendship Committees at rural hospitals.

The Health Committees in each village where they operate do lend minor support to health service delivery. Often, leaders in the community, merchants and businessmen, will give money each month, or when needed; drugs and instruments; and furniture such as beds, tables and chairs. These contributions are not only for hospitals or dispensaries, but also for training sessions. In Abu Zabad, for instance, the community has been extremely cooperative with the recent training program for Traditional Birth Attendants (TBAs). The graduation ceremony for the 20 TBA trainees in January, 1985, was attended by 400 or more community members. Male community leaders contributed an assortment of refreshments, and were involved throughout the training with providing various forms of assistance. The community was very proud of the enhanced skills offered to their TBAs, and the TBAs were made to feel very special because of their important rôle in the community and their new ability to offer safer and healthier service to the community.

The Patient Frendship Committees depend on self-help and rely to a varying degree on the community for various contributions. These contributions include fuel, spare parts for vehicles, transportation of drugs from regional centers to rural hospitals, and funds for the purchase of some drugs.

Relationship of Health Workers to Their Communities

The Kordofan villages have participated in the selection of community level personnel, particularly those who have been identified for training and retraining. CHWs, VMWs and TBAs have all initially been selected for training by their communities. Their essential link with the community is therefore already in place. They have a natural entree into the community and can be catalysts for community involvement and change. This can be further influenced by the emphasis placed on community involvement within their training. In Kordofan, CHWs are given courses in community development and health education, coordinated with a course on environmental health. They also receive training in teaching mothers how to grow vegetables and poultry for improved nutrition.

The CHW Training Center in El Obeid also offers a course on adult education, for which the trainees receive a separate certificate. The Rural Council may pay the CHWs up to LS 30 if the CHW opens a class for adult education. These classes are concerned exclusively with literacy, however. No extra incentives are given for health education nor community development activitites. The CHW may meet with leaders and hold meetings and group classes. While this is supported by the Rural Councils, it is considered a regular part of CHW activities.

The CHWs form part of the educated elites of their communities and many are members of their village councils. Many also have established contact with traditional healers in their area, who sometimes make referrals to the CHWs. There are few women who are functioning as CHWs in their communities, although it is reported that their numbers are increasing in training centers.

Village Midwives are also important members of their communities; many are members of their village councils, although their role on the councils is still unclear. Their participation in the SSU Women's Union, however, cannot be documented either from field observations by the needs assessment nor the evaluation team. Nonetheless, their influence in the community makes them important possible "change agents" for the improved health of mothers and children - to encourage improved maternal and infant nutrition, breastfeeding, child spacing, personal hygiene and sanitation, and to discourage the practice of female circumcision.

TBAs usually serve several communities, and are reported to handle between 60-75% of the deliveries in Kordofan. They are the chief health providers who still perform female circumcisions. Although many have had considerable experience in delivering babies, their lack of skills and sometimes unhygienic practices have led to high maternal and infant morbidity and mortality. The TBA training courses which have been offered in Kordofan have begun to address their needs, and appear to be successful in upgrading their skills and health service to the community. Female circumcision is discouraged in their training.

The CHWs and VMWs have several overlapping functions; they both are involved in recording births and deaths, weighing of infants and children, nutrition of mothers and children, and antenatal care. There is strong support for refresher courses for both categories. The CHWs and TBAs also could overlap in some of their responsibilities, such as providing ORS for diarrhea.

One major impediment to cooperation is the fear on the part of some TBAs to admit that they are TBAs, because of their illegal status.

Future Plans

Future RHSP plans for the Kordofan Region reflect some attention to community participation and development. In the project's FY 84/85 Work Plan and Budget for Kordofan, community participation and integration activities are planned as part of two major objectives, in improving the delivery of PHC services to rural communities and in the institutionalization of MCH/CS within the PHCP.

In the former, a pilot community health program of integrated PHC/MCH is envisioned at two pilot sites yet to be selected. Needs and resources of the selected sites will be assessed, which will lead (it is hoped) to the design of appropriate interventions. A complementary system will be set up for nomadic health services.

At the implementation stage, community involvement will be secured through "community sensitization." The methodology for this sensitization has not as yet been determined, and various methods will be tested in the community. These alternative methods have also not been clarified. Secondly, the community role in planning and supervising the PHCP will be defined, emphasizing prevention/health promotion and integration of services. Thirdly, the use of various media will be explored and tested. Neither "community sensitization". community planning and supervision, nor media use have been well defined, nor real apparent strategies developed.

In the institutionalization process, other relevant MCH/CS projects will be assessed, and MCH/CS components will be designed. MCH/CS will be integrated into the pilot programs "sensitizing the communities to the integration." MCH/CS components will be monitored and evaluated, although it is not specified by whom. Finally, the RHSP will provide support for ongoing MCH/CS services and support the development of health education materials for MCH/CS.

ISSUE VII.B. How has the Rural Health Support Project facilitated community-based participation and encouraged community development in the South?

Overview

A major assumption as stated in the logical framework for achieving the project purpose was that the "GOS and rural population support community-based participation in primary health care." Although the National Plan speaks to this issue and endorses community participation, there is little evidence that the national government has given it more than lip service. At the regional, area and village level, the Village Midwives (VMWs) and Community Health Workers (CHWs) seem to be the major bridges to the community. Several RHSP activities in the South over the three years of project operations have addressed the issue of community participation, and plans have been drawn for additional activities, once the project resumes.

History of Community Participation

A WHO/UNICEF Project Report in 1980 discussed the level of community involvement in the South at that time. Their observations were that community contributions and active participation had been limited, although there were continuing efforts to involve the community in the establishment of PHCUs. The AMREF Project Leader pointed out that in all areas where units have been built by the community, the CHWs work through the village leadership to secure communal labor. In Bahr El Ghazal, some 54% of the PHCUs were built by the community. Their primary contribution has been labor, since materials are locally available and free (e.g., mud, thatch, poles). There are more community-built units in B.E.G. and U.N. than in Equatoria; in the latter, more PHCUs have been built by non-governmental organizations.

Project Contribution

If one focuses on the project's contributions, one may find several important activities. In conjunction with the Primary Health Care Department of the Ministry of Services, AMREF's health education staff person has been involved in SAHA, a regional health newsletter, published in English. SAHA discusses topical health issues with articles solicited from health workers in the field. Each issue focuses on one topic/disease; to date, seven issues, distributed quarterly at no charge, have been channeled through Area Councils and CHWs. SAHA is a major media tool for dissemination of health information. Planned use of radio as a health education tool had to be dropped from the project due to the lack of broadcasting ability in the South.

Role of Village Workers

The VMWs and CHWs are the key links to the community. In several locations in Bahr El Ghazal, for instance, the VMWS have been involved in the schools, using them as a focus for health education. They may give classes on such topics as personal hygiene or water weekly or twice monthly. The CHWS may contact the chief or schoolmaster in each village and/or work with digging or drinking groups.

Women's Groups

Women's groups are apparently not very well organized, and since women do ont feel they need any special instruction in health and nutrition for their families, any preventive and promotive health activities would have to be introduced to women's groups which have been created for another purpose, such as income generating or training. There are several unifying and self-sustaining activities which might be introduced to assist women in organizing for development, such as sewing, knitting, crafts or grain-grinding projects. To these could be added PHC education and health-related self-help activities. There are promising lessons to be learned from the Norwegian Communication for Development Project, which may have applicability.

The RHSP/S has had close contact with Health Visitors and has encouraged the CMOH to offer them a career structure similar to, but separate from that of the MA. This has unfortunately not been supported. The HVs are anxious to work with the RHSP because they haven't had much to do outside the VMW training schools. They are in a strong position to supervise nurses and VMWs, and might be an important link to the community.

Area Councils

The RHSP Project Director for the South admits that there has not been enough of a relationship with Area Councils. In January/February 1984, the Project sponsored one-week seminars in three provinces; Raja, Wau and Juba. They were designed to assess the ability of councils to accept rural primary health care, and how quickly the councils could implement activities. Findings varied considerably, for instance, in West Equatoria, the Council could support activities, while in Juba support wouldn't be available for 12 to 15 months. The seminars also focused on costs of personnel and dispensaries, and cost-sharing ideas for budgetary planning. The Project helped each Council prepare a plan for the new cadre of health workers (MAs, CHWs and VMWs), and their distribution in the region. For the latter, the MOS and Area Councils met together with the assistance of the Ministry of Finance and Planning. The seminars emphasized realistic planning, helping Council representatives to assess which types of health care are most effective, and what they can afford. A UNICEF representative spoke on the economics of prevention, although the emphasis was on immunizations, rather than such PHC interventions such as water and sanitation.

The seminars were well attended by Council members as well as government representatives. For instance, from the MOS, the Director of Medical Services, the Director of Primary Health Care, and the EPI Operational Officer all attended. Nonetheless, it was felt at the conclusion of the seminars, that the Local Government Act, decentralization, and the role of Area Councils were not yet well understood.

Information, Education and Communication

The chief activity in the area of Information, Education and Communication (IEC) is the adaptation of the PIACT materials for nonliterates. Research and testing in Khartoum and in regional clinics led focus groups to identify six major areas of interest, from which they

are developing brochures. These areas are ORT, diarrhea, breastfeeding, OCs, birth spacing and nutrition. Sample ORT materials, for instance, from Kenya and Sierra Leone, were tested in low income areas in Khartoum as well as rural areas in the South. Pictures (messages) were shown to MCH clinic attendees, and the materials were adapted to the Sudanese setting. Family planning topics such as OCs and birth spacing were discussed at clinics; the problems identified by women incorporated into changes. These IEC materials will be utilized in the training of CHWs, VMWs and TBAs as service providers.

Future Plans

The RHSP has plans for addressing community participation and IEC in a pilot area of Bahr El Ghazal. Prior to program design, the MCH Advisor and the leader of a women's organization will study the target area for the characteristics of women and their needs. The AMREF Project Leader is promoting several activities which can continue despite the security situation.

In addition to the work PIACT is doing, the RHSP is developing health learning materials for planning and management, logistics and supplies, and MCH training and supervision for MAs and VMWs. They are also developing basic learning materials for women's groups in rural areas and health education materials for public education (e.g., diarrhea, ORT, schistosomiasis, etc.). The development of these materials is already budgeted and each of the AMREF advisors has a role to play in developing the materials and providing training. The materials will thus be ready for testing when the staff are allowed to return to the field. The Project Leader felt that even if the materials are developed in Equatoria, they will be adaptable to BEG and UN, with slight modifications to printed materials in dress and language.

The RHSP/S also has plans to continue its training programs: long-term, third country, and limited in-country. For the latter, a scheduled 8-week Health Education Assistants training program is proposed to be held in Kenya. Much of the focus would be on developing health education components for communities. For instance, the trainees will be asked to develop a few plays or scripts during their training exercise which could be utilized in radio broadcasts or at community meetings.

Since 1981, Area Councils have been expected to assume responsibility for health planning, management and budgeting (HPMB), MCH/FP and PHC services and fiscal responsibilities. Prior to decentralization policies, these Area Councils were gratuitiously assumed to have the knowledge and skill to carry out HPMB and to be, therefore, responsible for financing their health personnel and activities. However, due to insufficient training programs and inadequate previous experience Area Councils have not been capable of fulfilling these responsibilities. Tax systems have been difficult and other sources of local revenue inadequate. Lack of fuel to facilitate health activities has been a problem and Area Council personnel have not been receiving salaries. These two factors have contributed to a lack of interest in Area Council jobs. The deteriorating security situation has added to the difficulties.

There has been a bias towards curative medicines due to an inadequate understanding of PHC in the Area Councils. Importance to the delivery and expansion of health services to the rural population is underestimated by them. Recently the security situation and the deterioration of equipment and vehicles have further fostered a lack of interest in communicating. The lack of a coherent management structure in Area Councils has encouraged political jockeying for positions and created conflicts detrimental to systematic decision-making. Moreover, transportation systems are disorganized because of the constant lack of fuel and the difficult, long roads in rural areas. This further detracts from any capability for effective HPMB.

Contractor recruiting problems, health problems of project personnel, and the recent security problems have had a severely detrimental impact on the time required to meaningfully involve Area Councils in HPMB, MCH/FP and PHC activities. Health planning, budgeting, and management training activities for Area Councils are planned by RHSP but have not yet been carried out.

SECTION VIII. DARFUR

ISSUE VIII.: What RHSP experiences and lessons learned in the northern and southern components lend themselves to transferability to the Darfur Region?

Plan to Include Darfur

Current plans are to undertake an assessment study in Darfur in March, 1985, and to commence implementation soon thereafter. The Project Paper had Darfur implementation phased so that lessons learned during the first two years of implementation in Kordofan and the Southern Region could be transferred there. "Implementation activities will take place on a phased basis, Kordofan then after two years Darfur, to permit refinements to be made based on experience from both the Southern Region and the first region in the North." PP page 14.

The proposed assessment study, if undertaken in March as planned, might only build up expectations which the project will be unable to fulfill. Meetings between AID, OAI and the regional Ministry of Services have already been held in Darfur, and it is likely that expectations have already been raised.

Replicability from Southern Component

The Evaluation Team looked at the RHSP experience in the South and in Kordofan for possible transfer to Darfur. In the South, one promising area is the sensitization of community leaders and Area Councils. The RHSP held a series of three seminars which may prove to be important ground-work for future interventions. The contacts and strategies, however, have not been exploited nor developed adequately to recommend similar seminars to be held in Darfur. Another output, the supervisory pro-forma, is being field-tested and seems to be having some acceptance. However, this activity has not progressed enough to draw conclusions for transfer. A third project output, the health planning, management and budgeting workshops, are not transferrable. Among other things, they are an AMREF design that has shown little practicality and is unlikely to be adopted by the One America team.

Replicability from Kordofan

In Kordofan, there has been very little experience with project implementation, due primarily to delays in start-up. The Evaluation Team looked at five activities for their possible transferability. The first, community pharmacies as a model for rural assistance, has yet to be devised. The experience so far suggests that they are serving the urban middle class rather than the rural poor, and are driving out the private pharmacists. Secondly, the experience with Project Implementation Units (PIUs) is not clear. The relations among and between USAID, the GOS, the CPIU, the RPIU, the Region and the Areas are not well-defined nor running smoothly. If we look thirdly at Management by Exception, we note that nothing has yet been proven other than people use vehicles when they are given to them. In the area of TBA training, we observe that it has not yet been evaluated, curriculum and materials have not been developed, the administrative structure has not been set up and tutors have not been

trained. There is still the unresolved issue relating to paying TBAs, and the overriding concern that TBAs are illegal in this country. Finally, we look at the CDC Study, which we feel does not serve the needs of the project nor the region.

Severe Lack of Resources

In addition to our not being able to identify replicable components from earlier experience, we also wish to stress the change in resources in the environment. That is to say, that Kordofan is close to a "resourceless society" and the existing budget is inadequate to provide the resources needed by the region. This is a very serious consideration impinging on future project activities. We see a few options which might be considered.

SECTION IX: NOMADS

ISSUE IX: Have Health Services for the Nomads been addressed by the RHSP?

Plans for Serving Nomad Population

Within the target population of the RHSP are the nomads who constitute about 18 percent of the total Sudanese population. Kordofan has the second largest nomadic population in the country. One Area in Kordofan is 72% nomadic while two others have a nomad population of about 47%.

Health care for the nomads was initially addressed in the Primary Health Care Program (PHCP) in which it was thought that construction of dispensaries in nomad areas would improve drug supplies to Nomad Community Health Workers (NCHWs). The PHCP increased the number of NCHWs by changing the formal education requirements to emphasize ability, commitment and sociocultural skills. They were to be supplied by supervisory personnel who would transport drugs from health facilities located near the nomads out to the NCHWs. Initially, the PHCP suggested that a primary health care complex of one dispensary and 5 CHWs (or NCHWs) would be able to serve a population of 2,400 settled people or nomads. This was later changed to 1,500 for the nomads but is still a difficult population to serve.

Achievement

In practice, very little health care service has reached the nomads. Nomad women who were trained as midwives (NMWs) left the nomads and settled in the villages and small towns. The NCHWs are not served by supervisors who could supply them with drugs. They are relatively isolated from the primary health care system.

The most recent training course for TBAs was to be oriented to nomads but only three nomadic women showed up for the training. Part of the problem was the lack of time to adequately recruit these women.

The evaluation team did not find project personnel to be well informed about health problems and practices of the nomads. The Project Paper suggested an information resource that could provide a better understanding of how to deliver health services to the nomads. The team did not hear mention of this resource. The paragraph from the PP is presented here in full to guide project staff.

> "Extensive study of the health needs of nomad communities and the experience of NCHWs and Village Midwives has been done by two anthropologists, David and Angela Chell. Their many recommendations on the selection, training, placement, and supervision of NCHWs, just made available in draft, should be carefully reviewed and used in the design of project support for nomadic populations. The Chells present information on the role of TBAs among the nomads, and taking into account that VMWs now cover only 1% of all nomads, and in view of the interest and abilities of nomad TBAs, strongly recommend short-term training of nomad TBAs to strengthen MCH services. Their specific suggestions on how to design the training program should be considered as the details of project implementation are developed." (page 27)

Limited Migration Time

The nomad member of the evaluation team sees less of a problem in serving the nomads than many people interviewed by the team believe. He stresses that the nomads only migrate for about one month of the year and are settled the rest of the time. For example, the camel riding groups settle in the South during the dry season and in the North during the rainy season. They settle in groups around sources of water. An EPI program could be carried out during the rainy season when the majority of the nomads are gathered only one-half hour from the small towns.

Upgrading Service Personnel

There are two nurses now being trained to become MAs for the nomads. These two persons had been working at a hospital. They will complete their training in January, 1986. CHWs do not qualify for training at the MA school. This is a major issue for CHWs as they do not have upward mobility. The MA school requires entrants to have a significant amount of technical medical training which is obtained at the nursing schools. The CHW schools do not provide this type of training. The NCHWs therefore have no opportunities for more advanced training.

SECTION X: OTHER ISSUES

These issues are put together here because the evaluation team did not identify them as requiring a lengthy write-up. This does not mean that these issues are of only minor importance. The team considers these issues to be of considerable importance.

Confining Activities in the South to Equatoria

In the Background section of this report there is a description of the security problem that hindered project implementation in the southern component. The regions of Bhar El Ghazal and Upper Nile are currently too hostile for project operations. The team received indirect reports that these two regions will likely remain hostile for the near future.

When the Southern Region was divided into three regions, civil servants in the South were requested to return to their home region. A large majority of the civil servants in the South were from Equatoria. The result is that Equatoria now has many more trained civil servants than the other two regions. The South had already had a deficit of skilled servants. The BEG and UN regions now have such a critical shortage of manpower that it would be unlikely that project activities could be maintained there.

The team was led to believe by USAID staff that the Mission was not planning to revive project activities in BEG and UN regions. The evaluation team believes this is a reasonable decision based on the information available.

Need for Focusing Medical Intervention

The team found that little attention has been paid to the question of how to focus project activities, especially in the North. It appeared that there was no focus but rather an attempt was being made to cover a wide range of medical interventions. The evaluation team recommends that these interventions be narrowed to better match local capability and technological feasibility. For example, EPI intervention has limited potential due to a lack of viable technology for establishing a cold chain in the Sudanese rural environment. For ORT, the oral rehydration salts have limited utility in an environment that lacks water. One area that appear to have considerable merit and reinforces the preventive orientation of the project is health education. The project appears well-suited to development and dissemination of health education materials.

Water Project

The RHSP was orginally planned to include a major water component. However, this was dropped when the Mission saw how long it would take for AID/Washington to process an environmental impact assessment for a water project. USAID wanted quick approval of the project and therefore decided to ignore the need for increasing rural village access to water. The current drought underscores the dependancy of rural Sudan on scarce water

resources. The evaluation team recommends that USAID initiate planning for a water project. Such a project should include development of village health committees similar to those being developed by the UNICEF project in South Kordofan and should be closely tied to primary health care services.