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Final Evaluation of USAID OPG AID/Afr-G-1560

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1. INTRODUCTION

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1.1 PURPOSE AND TERMS OF GRANT

The overall purpose of the grant was "to strengthen the capability of AMREF to plan, manage and evaluate its rural health care services and training programmes in Kenya". The grant provided a number of diverse inputs which can be divided into two major categories: those contributing directly to specific AMREF project activities in the area of rural health services, and those indirectly supporting the same activities as well as other AMREF rural health services and training projects through supporting AMREF's efforts to strengthen and systematize project management and evaluation at AMREF headquarters. Table I shows how overall purpose, primary and secondary objectives, and the inputs provided by the grant relate to one another.

The budgeted direct inputs to the Kibwezi Rural Health Scheme represent about 18% of total funds made available during the grant period; direct inputs to Learning Resources are 14%; and indirect inputs strengthening AMREF management used the remaining 68% of the grant. Of the indirect inputs, 25% went to support the operation of AMREF's New York Office.

Negotiations for the grant began in June of 1976 and were finalized with the signing of the Grant in September 1978. Implementation of the three year Grant began in August 1979 and was extended, for six months through March 1983.

1.2 PURPOSE OF THE FINAL EVALUATION

The terms of the Grant call for a final evaluation. The specific goals of the evaluation are to assess:

Table 1 INTERRELATIONSHIPS OF GRANT OVERALL PURPOSE, OBJECTIVES AND INPUTS

OVERALL PURPOSE

TO STRENGTHEN THE
ABILITY OF AMREF TO
PLAN, MANAGE AND
EVALUATE ITS RURAL
HEALTH CARE SERVICES
AND TRAINING PROGRAMS
IN KENYA

PRIMARY OBJECTIVES

1. KIBWEZI RURAL HEALTH SCHEME
Assist GOK/MOH in the development of an integrated and comprehensive rural health service system for Makindu Division, with Kibwezi HC serving as base of operations, utilizing HC staff as well as CHWs at the village level to meet the health care needs of the population in the target area.
2. LEARNING RESOURCES
Assist GOK/MOH in expanding the development and production of teaching materials and learning resources for all its rural health workers, and in the development and execution of training and refresher courses for MOH personnel, especially those involved with the Kibwezi Project.

SECONDARY OBJECTIVES

3. OTHER AMREF RURAL HEALTH PROJECTS
Improve HQ support for rural health projects, including
 - outreach services to rural poor, particularly nomadic tribes
 - medical radio communications for remote health facilities
4. OTHER AMREF TRAINING PROJECTS
Improved HQ support for training projects

INPUTS

- direct
Salaries for Kibwezi HC staff;
Supplies and selected running costs for Kibwezi HC
- indirect
Salaries for some senior and junior AMREF HQ staff;
Overseas training of 2 junior HQ Staff;
Office equipment for AMREF HQ
Misc. allowances for field studies and evaluations
- direct
Production and distribution of training manuals;
Production and distribution of health journals/magazines;
In-service and refresher training courses for Kibwezi HC staff
- indirect
Same as above under indirect
- Same as above under indirect
- Same as above under indirect

- To what extent planned purposes have been realized.
- To what extent inputs were appropriate to achieve outputs.
- What has been achieved including unintended side effects.
- What lessons have been learned.
- Effects direct and indirect on beneficiaries.

The scope of work for the evaluation is outlined in Appendix A.

1.3 METHODOLOGY OF THE EVALUATION

Two consultants - a health planner and an evaluation specialist - were engaged to carry out the evaluation. Dr. Ferguson was assigned to evaluate the Kibwezi Rural Health Scheme and Ms. deLucena to evaluate the Learning Resources and AMREF's Rural Health Services and Training Programme.

Ms. deLucena's methodology was confined to informal interviews of headquarters staff and donors and analysis of secondary data sources. Pertinent documents were identified, reviewed and analyzed. Financial records were examined, and discussions with the accountants and project staff conducted. Lists of individuals interviewed and documents reviewed are found in Appendices B and C respectively.

Dr. Ferguson's report is based on documentary analysis, interviews with AMREF staff particularly with the Kibwezi project leader, and field visits which included interviews with community health workers, community leaders, other opinion leaders such as teachers and health center staff.

It should be noted that all three aspects of this Grant, Kibwezi Rural Health Scheme, Learning Resources, and AMREF Rural Health Service and Training Programme began before the implementation of the USAID Grant and are continuing after the Grant has finished.

The USAID Grant has made a significant contribution toward the implementation and augmentation of these three aspects of AMREF but it was not the sole donor. It is, therefore, difficult to separate out the specific entities that USAID funded. Accordingly, the evaluators have chosen to review these three aspects in entirety - where they were at the inception of the Grant, where they are at the end of the Grant, and what is their future.

AMREF BACKGROUND

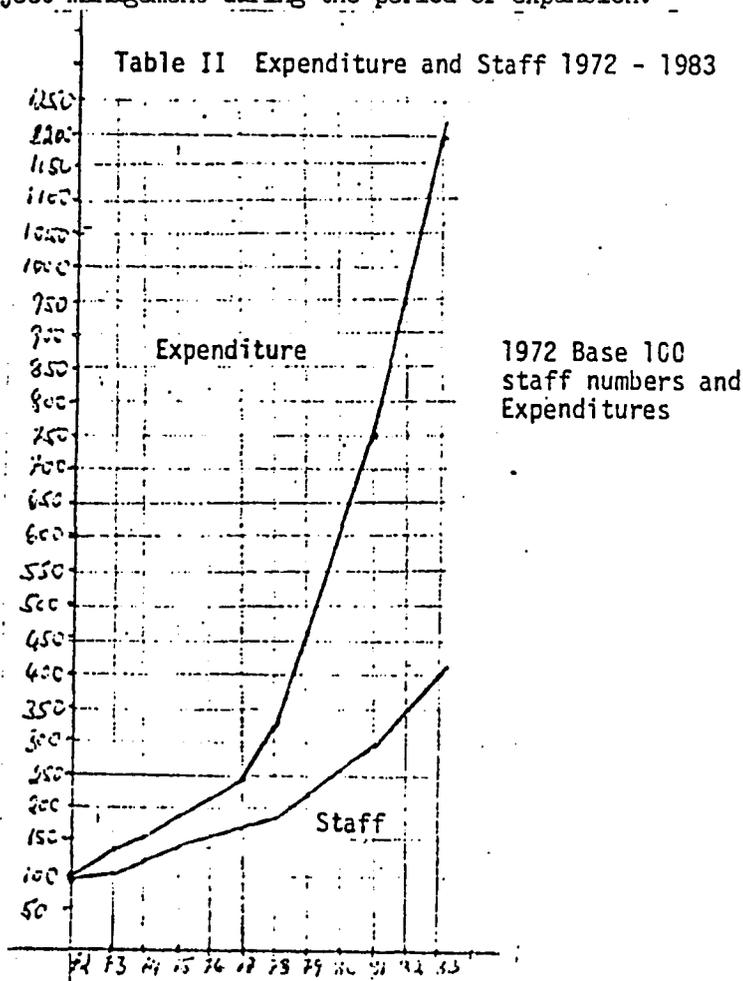
1.4 AMREF has for twenty years provided health services to the people of rural Kenya, Tanzania, Uganda, and the Sudan. Founded as a nonprofit, nongovernmental organization in 1957, the Foundation today spans preventive and curative health endeavours, with particular emphasis on training of all categories of rural health workers. The Foundation conducts a variety of programs in East Africa with endorsement from ministries of health. These programs include:

- * development of primary health care delivery systems and training of the community health workers to staff them.
- * development of continuing education courses for rural health workers.
- * production of health manuals and teaching materials.
- * deployment of mobile medical services (ground and air)—curative and preventive.
- * application of social and behavioral service to health.

- * operation of the largest medical radio communications network in Africa.
- * research on parasitic and other diseases.
- * provision of health consulting services to African government and private agencies.

AMREF headquarters in Nairobi employs nearly 120 staff for project planning, training, clinical services, health behaviour and health education, printing and publication, research, radio communication, aviation, and administration.

During the time of the USAID Grant, AMREF underwent an extraordinary period of growth in allocated funds, project diversification, geographic areas and staff. Expenditures more than doubled as is illustrated in Table II. The OPG was instrumental in assisting AMREF to strengthen and systematize project management during the period of expansion.



OUTPUTS AND EXPECTED LONG TERM EFFECTS

Table III

	PLANNED EXP.	ACTUAL EXP.	BALANCE	RESULTING ACTIVITY (OUTPUT)	LONGTERM EFFECT/OUTCOME
<u>Direct Inputs for Kibwezi R H Scheme</u>					
Staff Salaries	48,760.00	34,953.18	13,806.82	HC operating	Effective curative/ preventive services provided. Improved morbidity and mortality.
Supplies (drugs and other commodities)	54,000.00	18,707.75	40,292.25	Same as above	Same as above
Transport for Mobile Clinics	10,000.00	9,537.47	462.53	Provide preventive and curative services to pop. not covered now.	Improved health status
Other Running Costs	6,500.00	16,159.15	(9,659.15)	HC operating	Same as above
Refresher Courses for HC Staff	22,320.00	16,321.97	5,998.03	Improved quality of services at HC	Improved health status
Sub-Total	141,580.00	91,679.52	50,900.48		
<u>Direct Inputs for Learning resources</u>					
Prod. and Dist. of Manuals	71,010.00	52,420.58	18,589.42	Provide appropriate learning material in areas not covered before.	Improved knowledge of health workers and better health services
Translations	9,480.00	11,937.31	(2,457.31)	Same as above	Same as above
Defender	18,810.00	25,983.04	(7,173.04)	Providing health information to the general public	Improved health practices
Afya	18,075.00	35,252.00	(17,177.08)	Provide health information to paraprofessionals	Improved health services in practice
Refresher Courses (see under 1. Kibwezi)	-	-	-	-	-
Sub-Total	117,375.00	125,592.93	(8,217.93)		
<u>Indirect Inputs</u>					
Salaries and Fringe Benefits HQ & New York	284,595.00	419,966.72	(135,371.72)	Improved project management	Improved learning from documented AMREF activities.
Overseas Training	24,000.00	36,681.38	(12,681.38)	Improved capability of jr. staff to take on more responsibi- lity for project planning and evaluation	Contribution to improved manpower resources to Kenya
Office Equipment	15,365.00	59,813.18	(44,448.18)	Improved project management	
Allowances for field studies	67,885.00	54,861.44	13,523.56	Completed studies and documentation of AMREF project experiences	Improved learning and information system
Dissemination of information	21,450.00	6,279.89	15,170.11	Same as above	Same as above
New York Office support	145,275.00	23,698.60	121,576.40	Fundraising and backstopping	
Sub-Total	558,570.00	601,302.21	(42,732.21)		
Grand Total	817,525.00	817,574.66	49.66		

2. AMREF RURAL HEALTH SERVICES AND TRAINING PROGRAMME

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2.1 PURPOSE

The USAID Grant to AMREF has funded the development of rural health and training programme services by contributing to the support of core senior management. It is the core management who is involved with the design, implementation, and assessment of programmes. The objectives of the programmes are to reach the rural poor at reasonable cost per service activity and to determine their replication feasibility and value. Funding support has been in several areas: salaries, overseas training, office equipment, the New York Office, field studies, evaluation and dissemination of information. The evaluation will review financial inputs and the outputs regarding development of management and organization structure and documents specifically funded by the Grant.

2.2 INPUTS

2.2.1. Salaries

	Total Budget	Total Actual	Cumulative Balance
<u>Salaries</u>			
Senior staff(4)	\$ 163,350	\$279,449.77	\$(116,099.77)
Junior staff(5)	76,485	92,793.41	(16,308.41)
<u>Allowances</u>			
Senior staff(4)	24,510	29,438.50	(4,928.50)
Junior staff(5)	9,675	11,385.56	(1,710.56)
Passages	10,575	6,899.44	(3,675.56)
Total	\$ 284,595	\$419,966.72	\$(135,371.72)

It was elected not to fill the position of Deputy Medical Director but to use the allocation to strengthen evaluation activities. The four senior staff have continued to be directly involved with the supervision and management of the Grant and the junior staff has supported the senior staff in their endeavours.

2.2.2. Overseas Training

Expenditures

	<u>Total Budget</u>	<u>Actual Exp.</u>	<u>Cumulative Balance</u>
Overseas training	\$ 24,000	\$ 36,682.38	\$ (12,682.38)

Two AMREF staff have successfully completed their MPH studies in the USA. Over-expenditure was due to the increased cost of graduate education (the budget was estimated in 1976 and the staff started their courses in 1980) and because one of the trainees was enrolled in a two-year programme instead of the budgeted one-year.

2.2.3. Office Equipment

	<u>Total Budget</u>	<u>Total Actual</u>	<u>Cumulative Balance</u>
IBM Composer	\$ 12,500	\$ 26,153.97	\$ (13,653.97)
Typewriters	1,920	3,381.14	(1,461.14)
Filing Cabinets	320	612.49	(292.49)
Calculator	625	545.58	79.42
Micro-Computer Terminal	-	29,120.00	-
Total	\$ 15,365	\$ 59,813.18	\$ 44,448.18

Funds for the micro computer system are committed and the order has been placed, but as for writing of this report, it has not arrived. Its impact, therefore, cannot be evaluated. The rest of the equipment has been put to full use for project implementation.

2.2.4 Field Studies, Evaluation and Dissemination of Information

	<u>Total Budgeted</u>	<u>Total Actual</u>	<u>Cumulative Balance</u>
Per diems	\$ 49,635.00	\$ 2,311.52	\$ 47,323.48
Flying costs	8,250.00	23,228.38	(14,978.38)
Evaluation studies	<u>10,000.00</u>	<u>28,821.54</u>	<u>(18,821.54)</u>
Total	67,885.00	54,361.44	13,523.56

A review of the field studies, evaluations, and other documents funded by the Grant can be found in section 2.3.2.

2.2.5 Support Cost for New York Office

AMREF USA is the project holder, and maintains the master financial accounts for the project and carries out the following project functions and activities:

- liaison with AMREF Nairobi regarding project planning and evaluation
- liaison with USAID Washington regarding project progress and financial status and reporting
- staff recruitment as required
- organising and co-ordinating the US-b activities
- information services regarding project progress and evaluation findings and results
- project planning, management and evaluation inputs during regular field visits to Kenya.

Support costs for New York were fully expended as planned.

A recent development from the New York Office is to establish a network of medical/technical, financial, organization and management and public relations specialists who would be available as a resource to the Foundation for ideas, feedback, specific problem solving, information services, staff recruitment, promoting AMREF, etc. Mr. Lackey, DDG, is very excited about the prospect and feels it will further enhance AMREF as a unique indigenous, regional/international organization.

2.3 OUTPUTS

2.3.1 Management And Organization:

A. Organizational Structure

1. When the grant began

The Core management structure of AMREF in 1979 was:

- Director General
- Medical Director
- Project Director
- Financial Director
- Training Director
- Head of Health and Behavior Department

The Medical Director was responsible for both the day to day administration as well as the medical and technical aspects of the organization. The main Committee was the Management and Planning Committee composed of senior management and chaired by the Medical Director.

2. Present structure

Subsequent to a Management Study by Ndisi and Stoddart the second portion of which was completed in 1982, the following changes occurred:

- Deputy Director General position was created to run the day to day administration thus freeing the Medical Director for medical technical responsibilities
- Project Evaluation and Planning position was created
- Management Planning Committee was broken into two components - Executive Committee
Development Committee
- Decentralization was begun

At present seven projects are decentralized. They are located in Turkana, the Sudan, Kenya, Tanzania and Uganda. A Project Leader is administratively and technically responsible for the day to day operation of the project(s) and is backed up by technical, medical, and administrative support at AMREF headquarters. The strategy behind decentralization is to assure Government acceptance and involvement by localizing projects as much as possible. Also, using similar staffing patterns drugs and supplies to the local ministries enhances the ability to replicate projects. This may mean, however, that particularly at the beginning of the project Headquarters management spends a great deal of time building up the reporting and monitoring capabilities of the local staff.

Another aspect of organizational strategy has been the development of support units in the areas of Community Health Care. They support both the field projects and the Ministries of Health. At present, there is a Community Health Work Support Unit and An Environmental Unit. Plans are underway for the creation of a Maternal Child Health Family Planning/Nutrition Unit. Table 3 illustrates the present organizational structure of AMREF

The present Committee's are as follows:

The Executive Committee Chaired by the DDG

The Development Committee Chaired by the Director of Project Management

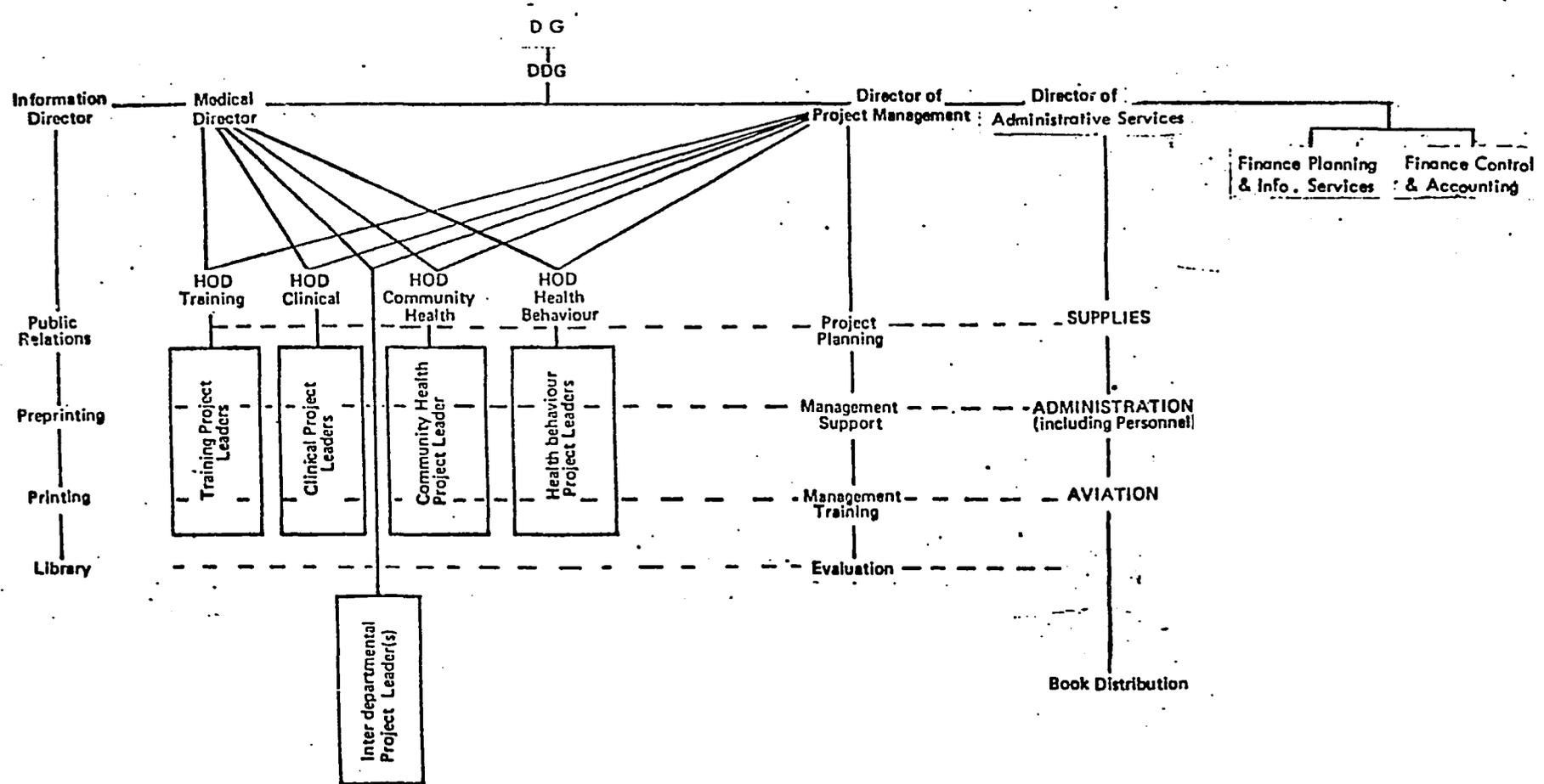
Project Working Committees Chaired by the Project Leaders

Steering Committees - Chaired by MOH or the donor

Standards Committee - an "ad hoc" committee that establishes policies to insure quality control, classification, and standardization of documents and systems.

3. Program design and development

The Development Committee meets every six weeks. It is an advisory Committee to the Executive Directors' Committee providing an opportunity for Department Heads and junior staff to contribute to program decisions. Membership consists of the Director of Project Management as Chairman, the four technical department heads plus additional members from each department, the



Planning and Evaluation Officer, and the three Directors of Information, Medicine and Finance Planning and Information Services. The purpose of the Committee is:

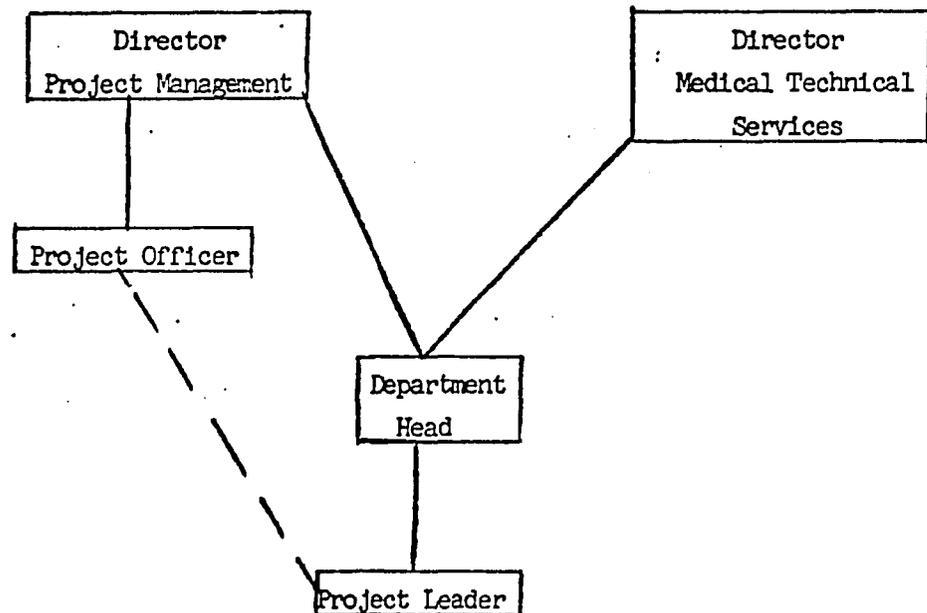
- to review new project ideas either from outside sources or from internal concept papers
- to review the refunding of existing projects

Concept papers are submitted to the Committee through Department Heads but they can also be submitted directly. Any staff member can develop a concept paper and is encouraged to do so. Criteria for the review of projects were recently drafted by the Committee. Given AMREF's history of rapid expansion, it is particularly important to have these established parameters in order to offset the dangers of over commitment.

4. Project management
 - a. Project Leader/Project Officer

Every project has a Project Leader and a Project Officer. The Project Officer is one of three officers from the Project Management Department. It is his/her responsibility to backstop the project. The Project Leader, if not the Department Head, reports to the Department Head who in turn, reports to the Medical Director. Formally, the Medical/Technical Division is responsible for the technical and quality control of a project while the Project Management Department is responsible for the management. Informally, there is a direct relationship between the Project Leader and Project Officer.

Table V Project Management



For large decentralized projects, such as the Southern Sudan Primary Health Project, the Project Leader is hired as a Department Head and, therefore, reports directly to the two Directors. Appendix D The Medical/ Technical Division Project Leadership and Management Support Assignment. Appendix E Division of Project Management Project Support and Monitoring Assignments

b. Project Working Committees

All projects have Project Working Committees that meet monthly or bimonthly. They are composed of the Project Leader as Chairman, the Director of Project Management or her representative, the Project Officer, the Medical Director or his representative (usually the appropriate Department Head), someone from Finance Planning and Information and Services and selected members of the

technical departments as are relevant to the project. The purpose of the Project Working Committee is to:

- enable the Project Leader to bring up issues and constraints in the project and to seek advice and assistance
- keep the committee informed
- monitor the project and insure that all targets are being met

c. Steering Committees

Where bilateral funding, provision for take over by MOH, or large-scale replication is a factor, projects have a Steering Committee. A Steering Committee has two representatives from AMREF and the MOH and one from each donor. The chairman is either from the MOH or the donor, never AMREF. The Committee meets every three months. Its responsibilities are:

- to provide a broad overview of the progress of the project to the donor(s) and the government
- bring up any policy issues
- ascertain that the project is congruent with MOH and donor's policies
- insure that where the project deviates from established parameters that MOH and donors are in agreement

Examples of projects with Steering Committees would be Kibwezi Rural Health, Southern Sudan Primary Health, and the continuing Education Project, Kenya.

5. Financial Management

a. Financial accounting

As of January 1983, the Office of Finance Planning and Information Services began the implementation of a computerized system for financial accounting and reporting. Prior to that time the office used a manual system based on cash control. Because of AMREF's extraordinary growth over the past five years in allocated funds, project diversification, geographic areas and staff, the manual system had trouble keeping up with demands by project staff for timely information. Often the project leader did not know soon enough how much money had been expended and therefore did not have proper financial control of the project. The key element to developing a new financial system was to speed up the budget control information back to the project leader. This is now done through monthly reports.

Before the new computerized system could be set up, however, the classification/coding system of accountability regarding grants and projects had to be reworked. The expenditure reporting system is now based on projects and HQ units. The income from different grants is separated out per calendar year and per grant. This allows for Grant control at two levels:

Cash control - keeping call down funds available

Budget control - monitoring where expenses stand against the total grant allocation.

In regard to cash control, USAID is a particular concern as the call down of funds is always a month in arrears resulting in AMREF having to maintain an over draft account of approximately one million Kenyan shillings at the expense of 16% interest. The

reason for the problem is that in order to obtain a call down from the letter of credit in New York, a monthly expenditure statement must be submitted. Monthly statements are not prepared until the middle of the subsequent month. AMREF and USAID are currently negotiating alternatives to alleviate this problem.

The three basic Financial Management documents prepared are:

Annual Programm Budget - a narrative description identifying objectives and activities for the Annual Financial Budget.

Annual Financial Budget - the operational budgets for individual projects and HQ units based on existing and expected grants

Monthly Income and Expenditure Reports - Show monthly expenditures, income received against grants and the amount remaining in the budget.

Addendix F is a list of all the current projects, their codes and the grant they are funded by and a list of the grants and their corresponding codes. Via this system it is now possible to submit budget expenditures broken down by various donors.

Addendix G is a list of standard line-items headings used in operational budgets.

Addendix H an annual budget summary

b. Management accounting

Management Accounting involves budget development, forecasting, and cost accounting mechanisms. Now that the data base via the financial accounting is established, it will become much easier to propose cost analyses of projects. Formerly, established inputs were not always set up to correlate with expected outputs and going back to do a cost analysis of a project has sometimes proved to be very difficult. A Consultant is currently assisting AMREF in designing a cost analysis model for the Kibwezi Rural Health Project. Several projects have been set up with built in cost accounting systems, the main one being the DANIDA funded Continuing Education Program, Kenya. The Medical Communications System and the various flying programs can also be costed out. To do cost-effectiveness and cost-benefit analysis then, depends on both organizational competence and project design. AMREF now has the organizational competence and it is building cost analysis models into its projects.

6. Evaluation and reporting systems

The USAID Grant was instrumental in getting the monitoring and evaluation aspects of AMREF started. The first evaluation officer was hired in 1980. The Health Behavior and Educational Department now conducts most of the baseline surveys and needs assessments. Detailed evaluations are done on an 'ad hoc' basis depending on the nature of the project, the demands of the donor, and internal requirements. Either a consultant is hired or an individual from a department is identified to do a specific in-depth evaluation. Currently, a proposal has been submitted to Carnegie Institute to develop operational research and strengthen evaluation capabilities.

In 1982 an Annual Review Process was established. This is a detailed programming exercise where Project Leaders analyse each project in relation to its goals and objectives its budget and how it is progressing. The criteria for the Annual Review is:

1. Goals and Objectives:

- a. What criteria for success and failure do you use?
- b. Are the goals stated in the original project proposal still appropriate? Do you feel they should be revised?

2. Implementation Status:

- a. Have the goals in the original proposal been achieved? If not, why not?

3. Detailed Plan of Action for Next Year

- a. What will be done/achieved in the coming project year?
- b. What resources, in terms of manpower, equipment etc. will be required to carry out your activities?

4. Funding:

- a. Have the funds been utilized as planned?
- b. What funds will be required when present funds run out?

The Project Status Reports are subject to continuous reviews. Other reporting documents are the biannual Progress Development Reports and the Status Reports which are currently being revised and will be issued on a quarterly basis.

7. Staff development

a. On the job training:

AMREF is committed to the upgrading of its staff through continuous on-the-job-training. The objective is to create a strong middle management. Eventually, the DDG envisions that the administration will probably be entirely Africanized, leaving ex-patriots as technical support. Already the Director of Training and the Unit Heads of Health Behavior and Community Health are African.

This commitment is laudable, however, as the Foundation develops its middle management there is a time gap when all of the burden of day to day administration is on top management. This results in a loss of efficiency; the development and reporting of projects is slowed down. Obviously, a balance is needed between the hiring of recent University graduates and those individuals with more experience that can immediately assume a middle management role. Fortunately, AMREF seems to now be over the initial hurdle and has established a fairly strong middle management. The other side of the coin, however, is that once trained these individuals are in demand and likely to move on to new posts.

b. Graduate degrees

After two to three years of working experience, AMREF assists selected staff to obtain graduate degrees. Upon return, the staff member is bonded to AMREF for a period of time. This is an extremely important program, however, it is very difficult to support due to the escalating costs of education.

c. Short term courses

AMREF also sends staff to attend short term courses overseas. For example, two public health nurses recently attended a four week course at Columbia University on family planning. While they were in the U.S.A. they also presented papers on traditional birth care attendants at a meeting of the National Council for International Health.

In light of the increasing costs of education, short term courses on relevant topics could be considered as one alternative to graduate degree programs. Not only do they offer the participant an opportunity to learn more about a subject, they also provide a forum for valuable international exchange.

d. Staff seminars

Each month the entire staff attends a seminar. The purpose of the seminar is to share information and to assist staff members in obtaining experience in making presentations and defending programs.

e. Development committee

Not only is junior staff represented on the Committee, they are expected to contribute through concept papers, presentations, and discussions.

8. Co-ordination with the Ministry of Health

In Kenya, a number of formal links have been designed to assure that MOH is not only informed but can actively participate in the

decision-making about AMREF's programme. Specifically, the following means have been used to co-ordinate with MOH:

- MOH is requested to approve all AMREF rural health proposals and programmes
- MOH is represented on the steering and advisory committees of relevant AMREF projects
- for those projects without formal steering committees, MOH is invited to participate in planning and review meetings
- there are numerous individual consultations between AMREF and MOH staff, constituting an informal network of communication
- in some projects, e.g. Kibwezi Rural Health Scheme, MOH staff have been seconded to AMREF, working hand in hand with AMREF staff.

Although the formal means for co-ordinating and sharing information exists they are not fully utilized by MOH; participation of ministry officials in steering and advisory committees and response to AMREF progress reports is often poor. This is mostly due to the chronic work overload at MOH. Far more important than the formal links, therefore, is the informal network that exists on many levels due to the large number of people at AMREF who, at one point or another, have worked for and with MOH.

9. Co-ordination with donors

AMREF maintains regular contact with donors informally and through Steering Committees. There is, obviously, particular close communication with donors who have offices in Nairobi. The network

of overseas offices does an admirable job in liaising with donors in their respective countries. -In general the donors interviewed were very pleased with their arrangements with AMREF. They particularly praised AMREF's ability to co-ordinate and work with Ministries of Health. The only criticism was regarding the timely submission of reporting documents. It is hoped that with the computerization of the financial division and the development of quarterly status reports, project status reports and other documents will be forthcoming on a more timely basis.

2.3.2 Documents Funded By The Grant

A break down of the types of project documents prepared by the Office of Project Management and the Medical Technical Division is found in Appendix I. The project reporting documents have been reviewed in section 2.3.1. of the evaluation. This section will briefly review the project documents that have been funded by the USAID Grant. Among them are the specific outputs identified in the plan for the Extension of the Grant. The extension called for five of eight papers to be completed; seven were completed.

A. AMREF Medical Radio Communications System

Evaluation January 1980

Seminar December 1980

AMREF's medical radio communications system, one of the largest systems in Africa linking over 90 rural health institutions in Eastern Africa, received an in-depth analysis in January 1980. The objectives of the evaluation study were to make recommendations for improving the effectiveness of the system and to present a report

that could serve as a basis for replication of the AMREF system in other countries.

An analysis of the present functions and uses of the system, and of the factors influencing use made of the radio, was carried out. A report to AMREF management also included sections on the selection of network participants and coverage on issues of equipment and maintenance; personnel and training; management of airtime; critical linkages and support services, such as flying doctor services; and on recording and reporting.

During the second half of 1980, a comprehensive report on the AMREF system was produced and made available to the interested public. A seminar on radio communication was organised in December. The seminar served as a forum for government as well as private organisations from several countries to meet and discuss communications needs in the health sector in general, and to present experiences in the field of radio communications. A summary of the seminar proceedings can be found in the Project Year 2 Annual Report.

- B. Janovsky, Katja, "Cost and Financing of Primary Health Care: Southern Sudan Primary Health Care Program" (draft working paper) September 1980.

The paper is based on an investigation by the Regional Ministry of Health with assistance from the AMREF. It was prepared in response to a request from the World Health Organization for re-examining the important issue of cost and financing of Primary Health Care Programmes.

The report is in eight sections corresponding to the eight issues listed in the WHO Document. The report also outlines further studies that the evaluators feel are needed to improve and

strengthen the present system for collecting and analyzing information on cost and financing of the Programme. The evaluation team attempted to provide as complete a picture of the actual cost and financing of PHCP as possible with the information available at the time. Some of their estimated findings regarding major inputs and their costs are:

- the cost per PHC per annum is estimated to be US \$5,
- the cost per PHC per annum is estimated to be US \$5, 815
- cost per person per annum (using median population projections US \$1.09
- annual recurrent costs (excluding technical assistance and administrative support cost) US \$ 1,328,572, -
- technical assistance and administrative support cost of non-governmental and international agencies represents 60% of total annual cost.

- C. Books for Health Workers, Report of a Workshop held at African Medical and Research Foundation 16-20 November 1981.

A review of this report is found in section 3.2. The report is particularly interesting because of the workshop's enthusiastic endorsement of the rural health manuals.

- D. Nordberg, Erik: "On the True disease Pattern in Kibwezi Division," Discussion Paper No. 1, AMREF, November 1981.

The paper focuses on the situation in Kibwezi Division where AMREF in cooperation with the Ministry of Health is implementing the

Kibwezi Rural Health Scheme. It is an attempt to estimate the true disease pattern and the true amount of ill-health in the Division. As health workers have a responsibility not only for those sick individuals who show up at the Health Centre gate but also for the others, it is important to make some reasonable assumptions regarding the amounts and the kinds of ill-health afflicting the population as a whole.

- E. Nordberg, Erik: "The Relative Roles of Nutrition, Hygiene, Medicine and Socio-Economic Equality in Improving Health, An analysis of the past development in industrialized countries with conclusions regarding health care in eastern Africa today," Discussion Paper No. 2, October 1982.

The paper is an analysis of the declining mortality and morbidity in industrialized countries over the last 200 years with some observations relevant to the health care situation in Africa today. The main conclusions regarding Africa are:

- "that even to-day, curative medical measures, have a relatively small impact on morbidity and mortality;"
- "that in poor countries in eastern Africa the modern health care needs are enormous while the demands are modest, particularly among the poorest;"
- "that inequalities as regards income and access to services are extreme in eastern Africa;"
- "that the present health care systems in eastern Africa, basically copies of European systems developed for a fundamentally different situation, are inappropriate for the majority of the population and should be reoriented, with more emphasis on nutrition, environmental sanitation, health

behaviour change (including child spacing and reduced family size), and a modest level of basic curative care for all."

- F. Nordberg, Erik, "Surgery in Eastern Africa: Met and Unmet Needs", Discussion Paper No. 3, AMREF, December 1982.

"About 1000 major surgical operations are estimated to be the very basic annual need in an average East Africa population of 100,000; only 60 of these operations are actually carried out..." "The number of minor operations carried out in East Africa is about 4000 per 100,000 per year, many of which are done at health centres and dispensaries. The minimum need is estimated to be 20,000 minor surgical interventions per 100,000 per year. If these estimates are correct, only one out of every 17 needed major operation is currently carried out, and only one out of every five minor operations. On the basis of surgical workloads considered appropriate in the USA, 1000 major operations annually would require three full-time surgeons, two of whom should be general surgeons and one an obstetrician/gynaecologist. In East Africa, a very large proportion of the major surgery, and particularly the emergencies, must be carried out by the district medical officer, who needs to be trained for this task. Visiting mobile specialist surgeons can perform the more complicated and uncommon elective operations wherever there is no resident specialist surgeon and no functioning referral system."

- G. Airborne Medical Services

Conference Seminar October 1982

Conference Proceedings in draft

Considerable attention has been paid to AMREF's mobile airborne medical services, these include medical specialist outreach programmes by light aircraft with supervisory trips being undertaken to assess programme performance. A Conference Seminar was held in October 1982; more than five countries as well as private institutions and governments were represented. Unfortunately, the proceedings of the conference are still in draft.

H. Muli, Samuel, Mwoloi, Killian, Nordberg, Erik, "The Major Health Centre in Support of a Community-Based Health Care Programme."

The paper examines the role of the health center in the Kibwezi Rural Health Scheme. It describes the aims of the project - to improve the basic health services in the Division by assessing basic the needs for health services, establishing and running a health center, retraining health personnel, training CHW's, mobile medicine, and administration. The role of the health centre is crucial for the long term success of a CBHP.

Inputs required from a health center are:

- explaining the concept of community based health care.
- assessing the commitment of the local community and its ability to support a CHW
- selection of CHW trainees
- CHW training
- technical supervision
- care of referred patients
- recommendations to local shops regarding drugs to sell

The monthly recurrent budget required to enable a fully staffed, equipped and supplied major health center in Kenya (1982) to run a complete service programme including community based health centre care component is estimated at about KShs. 75,000.

- I. "Oendo, Ayuka," "A Brief Kikamba Lexicon of Health Terms," Health Behavior and Education Department, AMREF, April 1982.

The main purpose of the lexicon is to help improve interpersonal communication, first between the lay and professional health workers and secondly, and more important, between those workers on the one hand and the community on the other. The initial body of terms was collected during discussions between staff and patients at the Kibwezi Health Centre. It was expanded following discussions with community health workers and various community members. It is an initial step towards a broader and more comprehensive lexicon. The way it will be expanded and developed depends on the feed back that AMREF gets from the users and on the needs of the communities.

- J. Godwin, Peter, "Producing Manuals for Health Workers: How to do it" AMREF 1983.

A review of this paper is found in section 3.2. Now that AMREF has produced its first series of health manuals, it is taking a hard look at how best to plan a manual taking into particular consideration the relevance the of the content and the usability of the text.

- K. Kogi, Wambui, Field Research Officer, "Nutrition and Family Health. A Brief Preliminary Study in West Pokot," Health Behavior and Education Dept. AMREF, May 1982.

This report was prepared for the purpose of developing an effective Family Life Training Programme (FLTP) in West Pokot District at Kapenguria. It is a study of the state of nutrition and family health of the district. It was found that 73% of the children were malnourished according to weight for age. The limited success of the FLTP in controlling malnutrition can be attributed to lack of financial resources at home, mothers failing to learn due to learning disability or disinterest, or those trained at FLCT may not be those who take care of the children at home.

The information from the report was shared with the FLTP and the Ministry of Culture & Social Services. A workshop was held with the health workers based on the findings of the report.

- L. Nyambura Githagui, Field Research Officer, "Voluntary Participation in Community Based Health Care Programmes: The Kenya Case" (Draft), Health Behavior and Education Department, March 1983.

Three contrasting communities were studied:

Tombe area in Kisii District - a high potential high population density area.

Mukaange sub-location, Kibwezi Division, Machakos District - a medium potential sparsely populated area.

Narosura sub-location, Narok District - a low potential, low population density and largely pastoral community.

The study is designed to explore the selected communities: organization, willingness to support and take responsibility for their own health care, attitudes towards voluntary efforts, and formal and informal leadership that could be utilized to support CEHC programme.

- M. Oendo, Ayuka, Field Research Officer "Water, Health and the Community in Kibwezi," Health Behavior and Education Department, April 1983.

Having established a community-based health care programme in Kibwezi, AMREF looked for ways to contribute to the community water supply efforts and thus increase health impact. An understanding of the nature of water sources used and water handling practices was needed in order to address the health problems. The study is a first step in what is expected to be a continuous process of learning from the community and responding to its needs, not by donating aid, but by supporting its initiatives and bolstering its self-reliance.

- N. Ochola, Penina, "The Comparative Advantages of Traditional Healing Practices and the Contemporary Health Practices: The Kenya Case"

Like many developing countries, Kenya offers adequate coverage to less than 30% of the population. This paper examines the extent and nature of traditional healing in Kenya, compares the traditional health care system and the modern health care system and explores the possibilities of collaboration between these two health care approaches. The Paper concludes that: the modern care practitioners must initiate the process of collaboration. Workshops should be organized at the health centre levels with the rural health practitioners, the community health workers and traditional healers as active participants. The CHW could form a link between the traditional healer and the modern practitioners. The weaknesses and strengths of the traditional healers practice need to be identified; weaknesses improved through training and strengths encouraged and incorporated into the modern health system.

Note: This paper was presented at the National Council for International Health June, 1983.

- O. Memia, Mary T. "Traditional Birth Attendants in Kenya" AMREF.

TBA's currently perform 80% of all deliveries. They provide service to the community at a very low cost, and are widely distributed throughout rural areas. Recognition of the importance of TBA's and their acceptance into the health care system is progressing steadily in Kenya. Since 1980, AMREF together with MOH has held 20 courses attended by a total of 400 TBA's. Training programmes are viewed as refresher courses, building on the existing knowledge and experience of the TBA.

Note: This paper was presented at the National Council for International Health June, 1983.

- P. "Review and Assessment of Kibwezi Rural Health Scheme 1970-1982."

A comprehensive review and assessment of the Kibwezi Rural Health Scheme has been completed, the draft of the report is currently being reviewed.

- Q. Jonovksy, Katja, "Financing Primary Health Care; Health Project Management of an NGO" (in draft)

- R. Evaluation of Mobile Rural Health Service in Kajiado and Narok Districts.

Funds for the evaluation were committed before the end of March 1983, however, the team was not available to conduct the evaluation until June. The evaluation report shall contain assessment, analyses, findings and recommendations on the ground mobile services in Kajiado and Narok Districts.

2.4 Implementation of Recommendations of Mid-Term Evaluation

- 2.4.1 Responsibility for project implementation should to a larger extent be delegated to middle level staff, and project leaders should be appointed among a slightly larger group of senior staff.

As documented in the section on Project Management, Project Leaders and Project Officers are, for the most, part middle level staff.

- 2.4.2. Senior staff should spend less time on day-to-day administration of projects and more time on project and programme evaluation, review, and development.

The competence of middle level staff has been upgraded and Senior Staff is no longer involved with administration of projects on a day to day basis; that is the responsibility of the Project Leader and the Project Officer. The one exception is The Medical Director who is acting Project Leader for five projects. Once the new Heads of the Health and Behavior and Community Health Departments are on board, they will assume the responsibility for the projects.

- 2.4.3 Project management section and Medical Director's office should liaise closely with Finance to develop a better system for monitoring project implementation. With the return of Projects Officer from study leave and addition of a Projects Co-ordinator, together with a Project Administrative Officer, project reporting is expected to improve.

With the introduction of the financial accounting system and the revision of the Status Reports, monitoring of project implementation has improved.

- 2.4.4 AMREF should improve its project cost accounting system to link expenditure to project activities. AMREF should consider identifying a full-time project accountant for this task.

Management accounting systems are currently being implemented. With the computerization of the accounting system, identifying a full-time project accountant was deemed unnecessary.

- 2.4.5 Inter-departmental co-operation and co-ordination should be further developed, particularly in areas where different departments have overlapping interests.

The co-ordination of inter-departmental projects is now well defined. It is described in the section on project management.

- 2.4.6. MOH headquarters staff are over-burdened and usually unavailable for steering committee meetings. Their current degree of participation in AMREF activities is probably fair considering these constraints. However, AMREF should try to develop better liaison and co-ordination with the Government at district level. This co-ordination would be easier if the DMO were briefed accordingly by MOH headquarters on the areas of co-ordination.

The improved liason with Government at the district level is described in Section. 4.3.

2.5 Comments And Recommendations

- 2.5.1 Together with USAID, identify means to eliminate the necessity for maintaining a large overdraft.

- 2.5.3. Although the Director of Project Management and the Director of Finance Planning and Information Services are working on the models for cost analysis, the information is needed now. The process should be speeded up; the use of outside consultants may be necessary.
- 2.5.4. Following graduate training and a bonding period, the trainees are in demand and may accept posts elsewhere. A firmer career structure/ladder and assurance of increased financial remuneration should be established.
- 2.5.5. With its extraordinary history of growth in the last five years, AMREF has reached the danger point of over commitment. If it continues, there will be a loss of quality for quantity. The Development Committee's review criteria is a start in establishing controls, but further analyses and policy decisions are required.

3. LEARNING RESOURCES

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3.1. PURPOSE

It is now an agreed fact that shortage of appropriate books and learning materials for rural health workers is a major problem in many areas of Africa. In order to develop primary health care and extend rural health services, trained health workers are required. There is, therefore, an urgent need to remedy the shortage of books in training institutions.

While some textbooks for professional cadres may be interchangeable internationally, those required for lower cadres need to be much more specific to the region. Both the suitability and the high cost of imported books demand the production of more local books and teaching materials.

AMREF is, therefore, attempting to address the problem through production and distribution of its Rural Health Series Manuals and its health magazines AFYA and DEFENDER.

3.2 DIRECT INPUTS LEARNING RESOURCES:

Under this component, the following inputs were provided:

- production and distribution of manuals
- translation of manuals
- production and distribution of AFYA
- production and distribution of DEFENDER

Expenditures

	<u>Total Budget</u>	<u>Actual Exp.</u>	<u>Comulative Balance</u>
Manuals	\$ 71,010	\$ 52,420.58	\$ 18,589.42
Translations	9,480	11,937.31	(2,457.31)
DEFENDER	18,810	25,983.04	7,173.04)
AFYA	<u>18,075</u>	<u>35,252.00</u>	<u>(17,177.00)</u>
Total	\$117,375	\$125,592.93	(8,217.93)

3.3 OUTPUTS3.3.1. Training Manuals

A. Manuals Produced

The Grant provided funds for workshop expenses, printing and distribution costs for four manuals a year. So far the following manuals have been printed with funds from the project.

Community Health
Epidemiology
Community Health Workers Manual
Therapeutic Guideline

The following manuals are expected to be completed by the end of this year:

Medicine
Obstetrics and Gynaecology
Health Centre Surgery
Continuing Education for Health Workers
Rural Health Practise

Table VI shows the number of prints and reprints of the Rural Health Manual Series.

Table VI

Year of First Run Frequencies of the Number of Copies Printed
1980, 1981, and 1982 for the Manuals

Rural Health Series Manuals	P r i n t s a n d R e p r i n t s					
	Year of First Run	1980	1981	Jan - Oct 82	Total 1980 - Oct 82	First Run to Oct 82
Child Health	1975	-	6,098		6,098	25,000
Health Education	1976	4,000	-	2,298	65,298	16,298
Obstetric Emergencies	1976	3,000	2,015	4,778	9,793	17,778
Pharmacology & Therapeutics	1976	2,885	6,245	3,243	12,373	15,128
Mental Health	1977	2,000	5,000	1,238	9,238	10,238
Communicable Diseases	1978	-	4,000	4,000	8,000	12,000
The Hand	1979	-	2,000	2,000	4,000	6,000
Epidemiology (Text)	1979	-	2,050	-	2,050	4,050
Epidemiology (Work Book)	1979	-	2,050	-	2,050	4,050
Management Schedules	1979	-	6,821	2,962	9,783	11,783
Occupational Health	1979	2,000	3,000	3,000	8,000	9,000
Community Health	1981	-	2,000	6,500	8,500	8,500
Therapeutic Guidelines	1980	2,000	-	1,960	3,960	3,960
TOTAL		15,885	14,279	32,979	93,143	143,785

B. Delays

The delays in the production of the manuals occurred for three reasons:

1. Revisions:

Following the report of an investigation into the manual Child Health, the next two manuals that were to be produced in the series, Surgery and Rural Health, were held up in order to revise them in line with the findings of the report.

2. Printing process:

The major block in the publication of the learning manuals, is the preprinting process. The process involves: copyediting, specification, proof reading, past-up, and liaison with artists. One very efficient part-time individual has the responsibility to do the first three tasks and to supervise the last two. At present, there are nine books in the pipeline, four about to enter the pipeline, and three that will be ready shortly. Obviously, there is a need for more staff in the preprinting process - another copyeditor and a proof reader. Two proposals, one for the Health Learning Materials Unit and the second for AFYA have included in their requests ways of augmenting the preprinting process through additional secretaries and a proof reader.

3. Printing:

The Printing Department must cope with the production of new manuals and also with reprints of manuals developed earlier. At any time of the mid-term evaluation, concern was expressed regarding the Departments capacity to keep up with demands for reprints. Now, due to improved management, they can meet demands.

C. Documents regarding the training manuals

1. Report of an Investigation into the Manual Child Health. An investigation into the manual Child Health was carried out in 1979 with Health workers in Kenya and Tanzania. The study concluded that revisions of the manual should take the form of:

- "simplifying the language (in some cases translation into Swahili may be necessary);
- clarifying the layout and presentation to guide readers in using the books;
- re-structuring the presentation of information to give readers more help in recognising the nature of texts and using the information in practice;
- taking into account the role that students will have to assume when they start working, and supplementing the development of their ability to assume this role."

2. A Survey of AMREF's Rural Health Series of Manuals: What has happened to the manuals produces?

A Survey of health para-professional, factors and statistics was conducted in 1982.

The report recommends that:

- AMREF develop a more systematic method for anticipating demand and supplying copies.
- Manuals should be distributed directly to the training institutions.
- Free distribution lists should include the tutors that use specific manuals.
- Libraries in the training institutions need to be updated, expanded, and properly administered.
- The needs of the different cadres of health paraprofessionals should be evaluated and a new curricular of revised manuals developed.

Unfortunately, the survey did not reach any conclusions regarding the question "What has happened to the manuals produced?" A further analysis is required of the figures compiled by the study in order to answer this question.

3. Producing Manuals for Health Workers: How to do it, by Peter Godwin (Educational Officer)

According to the author, the booklet has been written for four main reasons:

- * to bring to the attention of manual writers some areas of consideration that have often been ignored;
- * to share some experiences in writing manuals;
- * to offer some guidelines to manuals writers, based on these experience;
- * to stimulate further discussion, research and work on producing better manuals."

The content of the booklet addresses:

Why are Manuals needed?

What makes a good manual? An overview

What are the problems with Manuals?

Planning a Manual

Getting the content right: Relevance

Achieving Usability: How should we present the text?

Publishing a Manual

The educational orientation of the booklet is reflected in the draft proposal for the support of the Health Learning Materials Unit at AMREF in which the implementation of activities will follow three interlinking and concurrent streams:

- * Assessing needs and priorities for health learning materials: evaluation of existing materials; investigation of training needs, priorities, and gaps.
- * Establishing criteria and guidelines for usability, readability levels, presentation formats, and layout design.

* Planning, designing, writing, and producing priority materials.

4. Books for Health Workers, Report of a Workshop Held at African Medical Research Foundation 16-20 November 1981.

The purpose of the workshop was to consider methods of selection, distribution and use of books, and to update lists of recommended books for various cadres of health workers in English speaking Africa. It is clear from the proceedings that there is a great demand for AMREP's expertise and assistance, as well as for the manuals.

3.3.2. Translations

The proposal called for one translation into Kiswahili per annum. The following manuals have been translated:

Child Health

Child to Child

Health Education

The translations are mostly distributed in Tanzania; as yet, it is not known how relevant the translations are. The chief problem in producing the translations is finding a good Swahili translator, and then determining whether to produce a translation or a Swahili version of the manual. Clearly, a study is required to answer these questions.

3.3.3. AFYA Health Magazine

AFYA is a low-cost health periodical targeted to rural health staff in Eastern Africa. Funds from the USAID grant have subsidized the

production and distribution costs. In 1981, in order to economize on distribution costs, the number of issues was reduced from six to four; the number of pages, however, remained the same. The circulation has not changed since 1979 and remains at about 4,000. About 1,300 subscriptions of Kshs 25/- per year are received. The selection of articles for AFYA is mainly from other health journals, only a few articles come from local contributions and AMREF staff. The editor tries to have articles addressing clinical, management, and theoretical issues represented in each issue. Because so many of the articles come from health journals the language level tends to be too high for the middle-level rural health staff at which the periodical is aimed.

To counteract this problem, more local contributions should be encouraged. This, however, would require time and commitment from the Editor to both solicit and edit the articles. It is hoped that this may be corrected with the funding of the project proposal for the support and distribution of AFYA and an evaluation and feasibility study on readers' demands.

3.3.4. Defender Health Education Magazine

The Grant supported the production and distribution of the Defender. The overall objective of the Defender is to make people in Eastern Africa more knowledgeable about health and therefore help them to be their own primary source of health. It is distributed quarterly. Circulation has increased from 8,000 in 1979 to some 10,500 copies of vol.13 No. 4 distributed in 1982 to individual readers mainly in Kenya, Tanzania and Uganda.

To insure that Defender reaches a live, interested readership an assessment was carried out in 1982. The findings showed that Defender meets readers' demands, and that the demand from would-be readers is still rising and likely to lead to a circulation figure of 17,000 copies in 1985. The magazine is edited by the Health Behavior and Education Department. Selection of topics for publication is made on the basis of number of readers raising a particular problem. An average of more than fifty letters a month is received by the Department.

As the demand for the Defender and the amount of correspondence received, continue to increase, so do the postage, printing and editorial costs. Each letter requires a personal reply. Replies must be carefully prepared in order to encourage readers' involvement and to develop the correct response to poorly formulated enquiries. New means of supporting the production and distribution costs need to be identified. Perhaps, a subscription fee should be considered.

3.3.5 Distribution of Learning Materials

Book distribution has grown from a staff of one three years ago to a Book Distribution Unit with a staff of four. The Unit has built up its distribution capabilities and now distributes to more than fifty countries. Unfortunately, the Unit Manager's position is vacant at present. The objectives of the Unit are:

- to provide an efficient service for the packaging and distribution of all AMREF printed materials to their target audiences in Africa and elsewhere, particularly in the fields of health training and health education

- to advise institutions and individuals concerned with health care in Africa on how to obtain appropriate low-cost, health-related printed materials
- to further the development of effective and financially viable systems for the publication, stock-holding and distribution to their target audiences of appropriate low-cost, health-related printed materials
- to provide the above services at the lowest possible cost, subject to achieving satisfactory service levels and supporting other agreed ANREF programme activities.

With the recent drastic cuts on import licences as well as the reduction of foreign exchange for ordering books, the demand for locally produced and distributed books is increasing. The unit needs to develop its marketing strategies and its distribution capabilities to meet this escalating demand.

3.4 UPLANNED EFFECTS

Because of AMREF's broad experience and on-going production, it has become an important resource for the development of small scale book production facilities.

- WHO's Global Health Learning Materials Project draws heavily on AMREF's experience
- Individual consultants for inservice training in printing and production techniques come to AMREF for periods of six months.

3.5 SPECIAL COMMENTS OR REMARKS:

- 3.5.1 The preprinting process is slowing down the production of learning material. In order to increase production AMREF should consider the hiring of a full time copy editor and a proof reader.
- 3.5.2 Three translations of the training manuals have been completed. An evaluation into their relevancy and the applicability of the translations would now be in order.
- 3.5.3. In order to reach the target audience of the middle-level rural health staff, AFYA needs to elicit more local articles and articles from AMREF staff.
- 3.5.4. Given the drastic cuts in import licences and the reduction of foreign exchange for ordering books, the demand for locally produced materials is increasing. The distribution unit needs to develop its marketing and distribution capabilities to respond to this escalating demand.

4. KIBWEZI RURAL HEALTH SCHEME
 =====

4.1 DIRECT INPUTS

Under this component, the following inputs were provided:

- Salaries For Kibwezi Health Centre staff
- Supplies including drugs for Kibwezi Health Centre
- Other selected running costs for Kibwezi Health Centre
- Transport for mobile clinics
- Continuing education training for Kibwezi division health personnel

Expenditures on this component at end of project year 3
 (March 1983) were as follows: (over-expenditures in brackets):

	<u>Total Budget (3 years)</u>	<u>Actual Expenditure</u>	<u>Balance</u>
Salaries and Allowances	\$ 48,760	34,953.18	13,806.82
Refresher Courses	22,320	16,321.97	5,998.03
Commodities	54,000	13,707.75	40,292.25
Transport for H.C. outreach programme	10,000	-9,537.47	462.53
Other health centre costs	<u>6,500</u>	<u>16,159.15</u>	<u>(9,659.15)</u>
Total	\$ 141,580	90,679.52	50,900.48

In the original proposal, a list of "conditions expected at end of project" was given. Several of these have been achieved or excelled while others have not yet been reached or were subsequently dropped as objectives.

In this section, achievements are considered in five separate component areas - the health centre, the CHW component, community involvement, intergration, both vertical and horizontal, and project costs. An overall assessment of the project's achievements completes the section.

Development of the Kibwezi RHS from 1978 through April 1983 is shown in Appendix J. The project got underway during 1978 with the commencement of construction of the health centre, the setting up and frequent meeting of working and steering committees and sensitization of the communities as to the goals of the project. Much sensitization was performed by the Health Behaviour and Education Department (HBED) team when carrying out an extensive baseline survey in the four areas chosen for initial intervention.

During 1979, the baseline survey was completed, seminars for health workers held and investigations into the organizational structures of the communities made. By the end of the year the Health Centre was 80% complete.

In 1980 construction of the health centre stopped for three months while a dispute was resolved. Training of the first set of CHWs selected by the communities in Kai Sub-location went ahead without the facilities of the centre and the first CHWs became active in mid-year. The report of the baseline survey appeared, adding much substantive knowledge and the first evaluation of CHWs was done. The Health Centre was finally handed over to AMREF at the end of the year, almost twelve months later than originally projected.

Under-expenditure in most of the above categories is due mainly to the delay in construction of the Kibwezi Health Centre and to the purchase of drugs from a different budget. The cumulative balance at the end of the project, for direct inputs was \$50,900.48 compared with \$74,545.43 at the end of project years 1 and 2. As expected therefore, expenditures in the last project year increased substantially.

The balance of direct inputs funds has been used in other areas of operation of the project, particularly financing of evaluations and payment of consultants.

4.2. ACHIEVEMENTS OF KIBWEZI RURAL HEALTH SCHEME

4.2.1. Aims and Developments

The main aim of the Kibwezi RHS was to "develop in co-operation with central and local health officials, community leaders, and other donors, a model system of division health care delivery in the Makindu (later Kibwezi) Division of Kenya at Kibwezi with the Kibwezi Health Centre as the base of operation and utilizing community health workers at village level", (USAID OPG Proposal, June 1978).

The scheme is an attempt to extend effective primary health care to a dispersed rural population of over 100,000 living in a semi-arid environment of Kenya within the resources available to a regular health centre. In achieving this aim, the key element involved mobilization of the rural communities in selection and support of a cadre of CHWs performing basic promotive and curative health tasks within the villages.

1981 was a year of rapid development of the project. The Health Centre wound up to operate at full capacity by June. Two more groups of CHWs were selected by the communities and trained by Health Centre and AMREF staff. A survey of health-related beliefs and practices added to the information from the baseline survey and the HBED was active in research and evaluation. Workshops and seminars for health personnel and teachers were held at the Health Centre.

1982 saw a further group of CHWs selected and trained and requests being made spontaneously by other communities to AMREF for an extension of the scheme to these areas. The health centre operated normally and further workshops were held, including one for TBAs.

These developments and achievements are assessed in more detail in the following sections.

4.2.2. The Health Centre

The Health Centre has provided improved health care to the people of the division in its static and mobile outreach roles and, indirectly, by supporting the CHW scheme and by integrating health facilities in the division through its role as a training and seminar centre. It also performs the function of collating returns from all facilities in the division in its monthly reports.

The Health Centre handles 3000-5000 outpatients per month. Most recent figures suggest an upward trend after two years of fairly steady numbers after allowing for seasonal fluctuations. MCH clinics are experiencing increased attendances, although family planning attendances are still very low. Mobile outreach services concentrate on taking MCH and immunization clinics to the remoter parts of the division in the weekly visits and these are helped

greatly by the local CHWs who assist in publicising the clinics and organization of attendances.

An average of 45 people per month are admitted as in-patients and the maternity wing performs normal deliveries. Complex cases are referred to the district hospital in Machakos or, in some cases, to Makindu.

The Health Centre is performing all its main projected functions and has added a significant component to health care in the division. Its more direct role in community development is still not fully operational and it is doubtful whether the Health Centre staff fully appreciate the innovative role of Kibwezi, apart from those directly involved with the CHWs and outreach services. The proposals for the second phase of the project envisage a more active role for the Health Centre in community development, but it is difficult to see how this can be achieved unless the staffing pattern is changed. The staff are already overworked and the adherence to standard staffing for GOK health centres may have to be relaxed.

4.2.3. The Community Health Worker Component

The original proposal called for the "...training, development and performance evaluation of 40 community health workers (CHWs) which MOH has requested AMREF to develop on a prototype basis." By the end of 1982, 91 CHWs had been trained. The additional numbers reflect the earlier unrealistic projection of one CHW per 2000 - 3000 population. Given the difficult terrain and communications and the dispersed population, the input of 40 CHWs was insufficient and the numbers trained were increased. Actual ratios of CHW: population vary from 1:250 to 1:1000. If all CHWs trained were fully active, it is estimated that around 45,000 people in the (around one-third) would be covered in primary health care.

Training of CHWs, initially by AMREF Headquarters staff, but more recently under the control of the Health Centre, involved an informal approach making much use of group discussions, practical learning, role-playing and visual aids, with a minimum of formal teaching and written material. Evaluations of the work done by CHWs have shown that this is an effective method of mobilizing skills, although it should be pointed out that most CHWs had much higher-than-average levels of education for the area.

CHWs have made positive impacts in both promotive and curative areas. Initially, it proved rather difficult to quantify these impacts but a system of information retrieval has been developed for the CHWs and appears to be working well. There is great potential for further development of this system of providing morbidity and health-related information at grass-roots level, something which is notably absent from health data in most developing countries.

Promotive activities which have been easily adopted by the communities include latrine-building, proper waste disposal, home hygiene and bush-clearing, all within the constraints put up by chronic water shortages and a materially-poor population. CHWs have been shown to be competent in the treatment of simple ailments and at persuading people to go to the Health Centre or other facility when more serious conditions are found. They have been less successful in promoting good nutrition and in MCH and family planning where economic and cultural constraints are strong.

The CHWs in Kibwezi operate in very harsh conditions. The communities have proved to be unwilling or unable to provide payments or, indeed, much support or supervision. The policy of AMREF is to discourage dependency so little material support has offered to CHWs. Bicycles have not been provided, no salary or subsistence is paid and no drugs are provided for dispensing, a

philosophy which, initially at least, reduced the credibility of CHWs in the eyes of the medicine-oriented rural communities.

These problems have been largely material in bringing about quite serious attrition of the CHWs. It is doubtful whether much over half of the 91 CHWs trained are currently active and the population effectively covered by them should be revised down to around 25,000, around one-fifth of the total population. The overly-raised expectations created a problem which was greater than anticipated and AMREF expended much effort in trying to suppress these after the disappointment of the first set of CHWs. While increased support for the current CHWs is probably needed to prevent further attrition, there are signs that the future expansion may not be so problematic. At present, two sets of CHWs are being trained in Utithi and Kisingo after a long preliminary period of discussions between the communities and AMREF/Health Centre staff. In these areas the communities rather than AMREF initiated the development and progress has been slow and steady, without the need to follow a strict timetable. The communities have, therefore, a much larger measure of understanding of CHW functions and control over their own destinies than was possible when the earlier CHWs were activated. Much hope is attached to these communities to provide a satisfactory solution to the problems encountered in the operation of the CHW component up till now.

4.2.4. Community Involvement

Active community participation is a vital element of the Kibwezi Scheme and much effort has gone into attempts to mobilize the rural people in Kibwezi to improve their own health standards. Ironically perhaps, much AMREF input in this area has had to be of a negative nature, dampening down the expectations which become raised when an outside agency involves itself in community development.

Many lessons have been learned during the development of the Kibwezi Scheme with regard to community involvement. For example, the first group of CHWs in Kai, selected by the community's self-help groups, tended to be young and ambitious, matching the community's perception of what AMREF required, rather than fitting the real needs of the community. During later pre-selection sensitization in other areas, the qualities of maturity and stability in the community were put across by AMREF as being most valuable. In the latest selections, the community is in full control and the issue of "seeking to please AMREF" does not arise.

The perception that because CHWs were trained by AMREF/Health Centre, these institutions should also be responsible for supporting them has also proved to be difficult to combat, both with respect to the communities and for the CHWs themselves. As a result, CHWs have found themselves in something of a vacuum: the communities have not been actively supporting them and AMREF has been reluctant to do so for fear of increasing dependency, and thereby reducing the possibility of replicating the model elsewhere.

What emerges is a trade-off between true community involvement and speed of implementation. AMREF has had to work with a project timetable which has not usually allowed sufficient time for communities to develop their own programmes. Instead, they have somewhat artificially formed a part of an AMREF scenario by organizing themselves into health committees and selecting CHWs. AMREF are well aware that this has been the case and this is why it is hoped that the more truly community initiated developments in Utithi and Kisingo will be successful.

In terms of replication of the Kibwezi model, two points may be made. Firstly, it may not be possible to start with an Utithi-type situation in an area where there is no demonstration

effect from neighbouring schemes. Therefore, either a much longer period of community sensitization has to be anticipated, or an initial demonstration scheme has to be set up which will not have high level of community control.

Secondly, strict timetabling is not appropriate in replicating community-initiated projects. Communities must be allowed to take their own time and clarify their own goals and ways of achieving these. This may not satisfy the programme interventions of outside agencies but will lead to better long-term results.

4.2.5 Integration, vertical and horizontal

Vertical integration is taken to mean the co-ordination of all health-related activities in the division, horizontal integration, the combining of direct and indirect activities in the health realm.

As noted above, the Health Centre has achieved a considerable success in co-ordinating the health-care facilities in the whole division. The originally envisaged addition of two dispensaries has not materialized and this has tended to centralize the Health Centre in the operation of the CHW component. Simultaneously, the long distances between the Health Centre and the corners of the division have reduced the level of support for the CHWs.

With the operation of the CHW component there are now several distinct levels of health care available to the people and the improved organization provided by the scheme allows the efficient transfer of patients from one level to the other, although some additional facilities between CHW and Health Centre/Hospital level are needed in the remoter areas.

Integration of the Ministry of Health (MOH) in the scheme is considered separately in section 4.3.

The potential, and indeed, the need for horizontal integration has been realized although comparatively little has been achieved so far. The inter-connection of nutrition, disease, water and agriculture provides many possibilities for community development planning. The second phase of the project reflects this realization, and an integrated survey of diarrhoea, nutrition and environmental health is proposed as a preliminary to providing interventions in water, agriculture and other income-generating activities. Increased liaison with other development agencies (e.g. Ministry of Co-operative Development and Water Development and Machakos Integrated Development Project) will accompany these developments.

4.2.6 Project Costs Kibwezi

The Kibwezi Project was designed as a prototype of a low-cost CBHC scheme, capable of being replicated in other parts of Kenya without resort to massive usage of foreign or local capital, particularly in the meeting of recurrent costs which are often a stumbling block for development projects.

The system for retrieving financial information at AMREF is currently being revised to meet the greatly increased scale, scope and geographical distribution of its projects. With regard to the Kibwezi Project, several problems have arisen with cost accounting procedures. In some areas, cost information is available and retrievable for individual items (e.g., cost of health centre drugs).

However, the complex nature of the project has meant that there are many areas where multiple inputs produce a single category of output, and vice-versa. AID funds used for indirect inputs to the Kibwezi Project such as general program management is an example. Often, the categories used for donor inputs do not match the desired categories of output.

The need to assess project costs is an obvious one and essential in planned replications of the scheme. Since direct cost information is available for only a few elements, estimates have been made based on assessment of personnel and material inputs into particular areas. Details are presented here on the two major operational elements of the scheme -the health centre the community health worker programme. More detailed analysis of program costs is given in the overall programme evaluation "Kibwezi Rural Health Scheme: Review and Assessment" by Ferguson, August 1983.

A. Health Centre Costs

Capital costs of constructing and equipping the health centre amounted to KShs 3,807, 950/- (approximately \$380,000 at the prevailing exchange rates), an overrun of around one million shillings on the original estimates.

A cost accounting system has been set up to detail monthly recurrent costs of operating the health centre which has been running since June 1981 at full capacity.

Table VII Kibwezi Health Centre Monthly recurrent costs 1982*

	(KSh)
Salaries of 18 staff	26,000/-
Subsistence allowances	1,200/-
Staff uniforms	400/-
Inpatient food	7,000/-
Water	1,200/-
Drugs and medical supplies	15,000/-
Stationery	600/-
Literature and teaching material	500/-
Postage, telephone	200/-
Petrol	7,000/-
Diesel for generator	1,200/-
Gas for refrigerators	400/-
Kerosene	300/-
Maintenance and repair of buildings and equipment	2,000/-
Maintenance and repair of vehicle	1,000/-
Sanitation materials	1,000/-
Miscellaneous	1,000/-
	<hr/>
Total	66,000/-
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*These figures were obtained from the paper "The major health centre in support of a CEHC programme by Muli, Mwaloi and Nordberg, April 1983.

The cost-accounting framework established for the health centre followed the recommendations of the mid-term evaluation and is clearly of value in planning replications.

The main variable costs are salaries, drugs and fuel, all of which may be expected to rise steadily over time and with further development of the project. The mobile outreach clinics, currently operating once or twice weekly, account for much of the vehicles operating costs. Drug costs have been escalating greatly and shortages are reported regularly from the health centre, whilst further increases in staff numbers to cope with the expanded CBHC element and the rising numbers of patients are anticipated.

As recurrent costs of other health centres in Kenya are not available, there is no yardstick by which to compare the Kibwezi costs. However, given the scale and scope of operations (see section 4.2.2) the recurrent costs are eminently reasonable and indicate a very cost-effective operation.

B. Costs Of The CHW Scheme

Although the operation of the community-based elements of the project are perhaps the most important ones to cost, they are also the most elusive. Most costs surrounding the recruitment and training of CHWs are indirect, involving personnel inputs from AMREF headquarters and from the health centre for generally unrecorded time periods. Multi-purpose field trips are an added obstacle to cost estimation. For example, a good deal of community sensitization was done during the baseline survey in the first project year. Similarly, the project co-ordinator makes several multi-purpose trips, e.g., to liaise with MOH officials, meet with CHWs and discuss supplies with dispensary staff.

Estimates of the costs are therefore tentative. They have been based on incomplete monthly reports from the health centre and reports of activities of the HBED and Training Department at AMREF. Table VIII gives the details of estimated costs in the various phases of the CHW scheme for the four clusters or communities involved.

Table VIII Estimated costs per CHW

<u>Out</u>	<u>Cluster</u>		
	<u>Kai</u>	<u>Mangelete/Muthingiini</u>	<u>Ngandani</u>
Sensitization and selection	195/-	532/-	720/-
Basic training	380/-	390/-	720/-
Continuing Education and supervision	48/50	41/-	36/-

The costs differ between the clusters for several reasons. In Mangelete/Muthingiini, the higher level of sensitization compared with Kai required more manpower being used to lower expectations and explain the purpose of the scheme, following the misconceptions amongst the CHWs in Kai. Training costs are thought to be fairly accurate as records are available. In Mangelete/ Muthingiini, the costs of training are slightly higher than in Kai because of the longer basic training period.

In Ngandani, only 10 CHWs were trained and unit costs of sensitization and training were therefore higher.

For the 91 trained CHWs as a whole, the total cost of sensitization, selection and training is estimated at 77,400/-, a cost of about 855/- (\$80 at the then-prevailing exchange rates) per CHW.

Continuing education (i.e. monthly training sessions), support and supervision cost under KShs 50/- per month in all clusters, being lowest in Ngandani where CHWs were selected in pairs in the cluster nearest the health centre.

These costs are very low and are based mainly on inputs from the project co-ordinator with headquarters staff inputs being costed as equivalents of this rate which, when averaged for the project period, is costed at 9,000/- per month or 360/- per working day, including vehicle and driver. Preliminary phase activities (including the baseline survey) are estimated to have cost just under KShs 160,000/-, whilst annual costs of overall project management, research and evaluation are estimated at around KShs 140,000/-. Clearly the addition of these costs, particularly recurrent costs, to the health centre and CHW elements would give a radically different view. In replications, however, fewer evaluations would be involved and management costs would probably be considerably less, so it is considered more realistic to present the estimates of CHW (and health centre) costs without these additions.

The general impression is that the scheme is cost-effective and that the benefits produced, were they more amenable to quantitative measurement and valuations, would demonstrate that the model is financially viable and suitable for replication. Further sharpening of the cost-accounting tools on the one hand, and measurement of impacts of the other, will help give this impression a more solid basis.

4.2.7 Overall Assessment of Achievements

Overall, the project has been a success. It has generally been implemented along the proposed lines despite a long delay in construction and activation of the central facility.

The scheme has successfully been implemented as a CBHC model which has possibilities of replication in other parts of Kenya, subject to several known and unknown modifications. Coverage of the whole population at village level is not nearly complete. Unrealistic CHW: population ratios, the attrition of trained CHWs and continued growth of population in the division (now probably nearer 150,000 than 100,000) has meant that currently under 25% of the population are covered by CHWs. The second-phase proposal seek to have a total of 150 CHWs to cover the division. Even this many may be insufficient.

The Health Centre is carrying out its projected activities but staff are overworked. Given the future expansions in the level and scope of activities it appears that more staff and a different staff pattern are required. Otherwise some more conventional operations will have to be curtailed.

The attrition of CHWs and the high degree of dependency on AMREF displayed by those still active, the unwillingness or incapacity of the communities to provide material help to the CHW's the pressure of work at the Health Centre and the non-fulfillment of some sub-goals have all tended to hamper integration and diffusion. However, the soundness of the basic philosophy of the scheme and the capacity of AMREF to react quickly to problems and to change strategies have been the means through which the major goals have been successfully implemented. Evidence of higher levels of community control and involvement suggest that increased coverage of population by CHWs and true progress in community health may be achieved without these problems recurring during the second phase of the project.

Although cost-accounting procedures have been less than ideal, there is sufficient evidence to show that the scheme has achieved its aim of providing primary health coverage to a dispersed rural population in a cost-effective manner. While general project management costs and other overheads have been quite high, the costs of running the main elements of the scheme are very modest. When the project develops to cover the whole population of the division, the unit costs are likely to decrease further.

As recommended by the mid-term evaluation report, cost-accounting systems at AMREF are being improved and better financial information on the Kibwezi Project is starting to be produced.

4.3 MINISTRY OF HEALTH INVOLVEMENT

4.3.1 Project Background

As part of AMREF's efforts to supplement the Government health services, in 1977 a dialogue was started with the Ministry of Health (MOH) with a view to developing a replicable comprehensive rural development project whereby lessons would be learnt and then used as inputs into the future MOH plans for improving the health care delivery system especially for the rural areas.

The initial proposal by the MOH had been for AMREF to assist in the expansion and running of Makindu Sub-District Hospital. In the meantime, besides Makindu Hospital being on Kenya Railways land, the Makindu Divisional Headquarters were transferred from Makindu town to Kibwezi. AMREF was then invited by the MOH to develop the present community based comprehensive rural health project based at Kibwezi. AMREF was to run it for five years (1978 - 1982) and hand it over to the Ministry of Health. Although the community-based component of the scheme was implemented on schedule - and, indeed,

the original target of training 40 CHWs was more than doubled - there was a delay in construction and operationalizing of the health centre which began operating in January 1981, with its full range of activities commencing in June 1981.

MOH involvement during the three project years covered by USAID funding has been much lower than expected. At the planning stage AMREF - MOH collaboration was quite frequent but, as implementation proceeded, AMREF tended to become more autonomous with the MOH taking little executive role in the project, except in certain areas. The planned handover of control to MOH during 1982 did not materialise and AMREF agreed to continue implementing the project activities for three more years ending in February 1986. During this second phase, the smooth and proper transfer of the project activities is being made. Some progress is already evident, as described in section 4.4.3.

4.3.2 MOH Involvement During The First Phase

As mentioned above, AMREF was to develop the Kibwezi RHS as a prototype for other primary health schemes implemented by MOH. Government policy in health has changed markedly recently, from the policies of the seventies which emphasised the quantitative expansion in health facilities, particularly in the rural area, strategy which involved more decentralization and changed the emphasis to primary health care, particularly health promotion and disease prevention. The new strategy is detailed by the Director of Medical Services in the pamphlet "Health Strategy for Kenya", (MOH 1982).

Whilst MOH support for community based health schemes (CBHCs) is now standard policy, the concrete inputs from MOH into CBHCs in Kenya have been small, Kibwezi included. Whilst the policies have

changed, it is less easy for middle level staff in MOH, possibly with fixed ideas and without the freedom to innovate, to change their orientation from conventional health service operations to CBHCs.

Non-government organizations (NGOs), with less bureaucratic constraints and more attuned to innovation, have been responsible for all the on-going CBHC projects in Kenya so far.

In the Kibwezi scheme, MOH input has mainly centred around health centre operations. The physical planning and equipping of the health centre required MOH approval. The staffing pattern was provided by the Ministry and nurses, technicians and auxiliary staff were seconded to Kibwezi during 1981 by MOH. Co-operation of the Ministry was also needed for the Health Centre's efforts in co-ordinating the activities of all health facilities in the division. During the project period a good working relationship built up between the health centre and Makindu Hospital with co-operation on transport, mobile clinics and drugs. The health centre has been referring cases to Makindu and Machakos District Hospital and monthly reports from April 1981 were forwarded to MOH at Machakos Hospital and copied to AMREF. Up till that time the reports had been sent only to AMREF.

MOH involvement in the community-based component has been very small, despite this being the most innovative part of the scheme. The key figure in the implementation of the CHW component is the project co-ordinator who is an AMREF employee and is therefore not directly responsible to the MOH. This was perceived of as a "missed opportunity" by one of the mid-term evaluation team, for expertise in implementation and administration of a CBHC scheme is exactly what is lacking amongst MOH personnel. However, the operation of the scheme called for standard health-centre staffing patterns and the position of project co-ordinator was not one which existed in MOH job categories.

Administratively, the MOH had two representatives on the Steering Committee which met two to three times a year. There were very few occasions when both representatives attended the meetings.

The mid-term evaluation of the project noted that: "Although the formal means of co-ordinating and sharing information exist, they have not been fully utilized by MOH and that "Contacts at the district level will need to be improved to assure not only that the district medical officer is informed of AMREF's activities in his area, but also to encourage more active participation of district health teams".

The dilemma for the MOH seems clear on the one hand, it is committed to support of and, eventually, take-over of the CBHC scheme while, on the other, the MOH personnel are not experienced in the implementation of such schemes. Given the already-stretched resources of the MOH, it is hardly surprising that little initiative was forthcoming from MOH to effect the planned take-over. AMREF; for its part, was not satisfied that the project had fully developed by the planned phase-out period and, having called most of the shots from the outset, was probably quite satisfied to retain a high degree of control over the project beyond the first phase. Indeed, it was recommended by one of the evaluation consultants that the project be extended by one year to allow effective implementation, and a non-funded extension of six months was agreed on by AID.

4.3.3 Current developments in MOH involvement

During the second phase of the project, AMREF has been more actively involving MOH participation with a view to implementing the phase-in. A phase-in schedule for all activities has not yet been defined, as the preliminary goal is to concentrate on promoting MOH involvement in day-to-day management of the scheme.

The orientation of the two clinical officers is becoming more geared to the MOH in-charge of Makindu Division and information on the project activities is being presented at the regular divisional meetings attended by MOH officials, chiefs and other departmental heads. The MOH Makindu and the MOH Machakos are soon to start representing the Ministry on project Working Committee meetings and will thus participate actively in the day-to-day issues of the project.

Recurrent costs of the health centre are to become the gradual responsibility of the MOH. The planned allocation of donor funds for 18 health centre staff declines from Ksh 193, 780/- in 1982/80 to KSh 142,815/- in 1983/84 and 79,065/- in 1984/85. Funds allocated for other health centre costs are reduced from Ksh 265,500/- to Ksh 192,755/- to Ksh 105,135/- over the three second-phase project years.

The cost-accounting framework established by AMREF shows recurrent monthly costs at the health centre to be running at about Ksh 72,000/-, not including the project co-ordinator. The MOH therefore has the financial information required to plan its take-over of the health centre.

One of the largest expenditure areas is drugs. By December 1983 the MOH will start the implementation of a new system of drug distribution and will therefore assume direct control of this area of the Kibwezi scheme at this time.

Pressure of work on the health centre staff has led to the relaxation of the "standard pattern" requirement and AMREF - MOH discussions on the role of existing manpower and future needs have involved the PMO in allocating extra staff. The rather sensitive issue of dealing with the change of staff services from AMREF to MOH has also involved consultations.

4.3.4 Observations On The Phase-In Procedures

More urgent efforts are now being made, initiated both by AMREF and by MOH, to effect the phase-in smoothly. The deployment of additional health centre staff to cope with the expansion of the project is timely. No major problems are anticipated in the take-over of health centre activities by the MOH. Perhaps the most difficult phase-in area is the continued development of the CBHC component, particularly since diffusion of this activity is still continuing and with some variations in the form of organization. This is the main area in which MOH experience and expertise is lacking the brings into focus, again, the position of project co-ordinator who has a vital role in this component.

It seems certain that such a scheme cannot function properly or will not be replicated successfully without an additional clinical officer or community nurse to act solely as project co-ordinator. In Kibwezi, as many as 200 CHWs may eventually be required to cover the population of the division. Continuing education, support and co-ordination (e.g. with mobile outreach services) of this scale of CBHC scheme is far too much to expect of a C.O. in charge of the health centre and, indeed, many require full-time attention of more than one project co-ordinator even if community support reaches the hoped-for levels.

More consultation between AMREF and MOH is therefore required on the operation of the CBHC component and particularly the role of the project co-ordinator both in the Kibwezi scheme and in other possible replications. The secondment of an additional C.O. or experienced community nurse as an assistant to the project co-ordinator would help develop the badly needed expertise in this field.

Assuming that financial and manpower constraints can be overcome by the Ministry, and that sufficient attention is given to the CBHC component, the phase-in should be effected smoothly. AMREF

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expertise in the latter area will, however, probably be needed from time to time for training, organization and evaluation and should be anticipated by both parties.

4.4 INDICATORS FOR EVALUATION

4.4.1 Evaluation Methodology

In the original proposal, one of the four stated principle purposes was to mount "evaluation and cost-benefit studies" of the projects to be implemented with a view to assessing the feasibility for replication. In the specific set of objectives for Kibwezi, three out of the six objectives specifically mentioned evaluation activities. Two of these identified particular studies which were to be done, while the third mentioned the need for overall evaluation of the project.

The first phase of evaluation involved the gathering of a great deal of basic information - the baseline survey with its socio-economic and nutrition components is characteristic of this phase. In the second phase, the impact of the programme, or parts of it, have been assessed.

Throughout the span of the project, evaluation has been stressed as a vital component. Apart from the evaluation procedures identified in the plan of action, however, no set programme of evaluation was produced, nor was a methodology of evaluation generalized, with the exception that the baseline survey was intended to provide the bench-marks from which impacts would be measured. In the event, the baseline survey proved to be inadequate for this task and most evaluations of the scheme were made indirectly through surveys of community health workers.

Despite these shortcomings of the evaluation procedures, several useful indicators are available for measuring the impact of the scheme on rural health.

4.4.2 CHW Records

In 1981 the CHWs in Kibwezi were issued with registration books and record books. Registration books are used for recording the composition of each individual household, plus the timing of home visits and the standard of house construction, facilities, etc. Record books contain sections for entering curative and promotive activities, problems and achievements.

A recent evaluation survey of CHWs showed that despite the absence of formal instruction in the use of these books, most CHWs were recording information correctly. The main problem seemed to be that not all CHW activities were being recorded, particularly during home visit.

Assuming that recording by CHWs can be standardized, several useful indicators may be developed from these books.

Firstly, changes in some health-related practices of the communities may be assessed by reference to the changes in the household facilities. Records of latrines built, rubbish pits used and general cleanliness are given in the registration books. The changes over time in "CHW areas" can be monitored and comparisons made between areas having and not having CHWs.

Secondly, the books serve as a record of morbidity in the villages. Examination of the record books may reveal changing disease patterns over time: changes in the incidence of preventable diseases, e.g. bilharzia, malaria, diarrhoea, may then be related to CHW activities. Similarly, the CHW's role in health education may lead to a reduction in the recorded cases of trivial ailments such as headaches and childhood diarrhoeas, which can easily be monitored from a sample of record books.

Thirdly, demographic change may be monitored over longer periods through examination of the CHW registration books and monitoring of child nutrition could be easily organized at any given time through the CHWs data, thus providing comparative possibilities with nutritional status in non-CHW areas.

4.4.3 Health Centre Records

The Health Centre keeps its own records and collates those of the other facilities in the division. Until CHW coverage of the division is increased substantially, no major changes may be expected in the disease patterns. In the long term, however, records should show a decline in the relative numbers of cases of trivial illnesses (which would either be self-treated or handled by CHWs) and also in the incidence of the major preventable diseases. Periodic monitoring of attendances at MCH-FP and immunization clinics (both static and mobile) would give another indicator of health impact of the scheme. One problem is that population is growing rapidly in the division and so the relative patterns of disease rather than the absolute numbers involved would have to be used.

Additional records of CHW - referred patients should be kept at the Health Centre and other facilities both as a backup to the records of the CHWs and as a source of information on the CHWs activities.

4.4.4 Other Indicators

Other indicators of use in impact evaluation may be developed from the second-phase project. Surveys designed on a CHW-non-CHW area basis can give some measure of the impact of the scheme at community level without direct involvement of the CHWs. It is

suggested that environmental health, nutrition and MCH-FP are areas from which indicators of this kind may be usefully developed.

The extent of coverage of the scheme may be usefully monitored through periodic aggregation of the basic data contained in the CHW registration books. Mapping of areas covered by CHWs, along with other relevant information, would give a visual impression of the degree of coverage and would complement other indicators.

Cost benefit analysis has not been feasible for a number of reasons. However, estimates of costs of various parts of the programme have been made (see section 4.2). As the program continues to develop, further monitoring of costs will be useful in assessing the magnitude of economies of scale, total costs of health coverage and changes over time in the costs of individual elements (e.g. training of CHWs). All of these indicators of cost would be valuable in replication.

4.5 MID-TERM EVALUATION RECOMMENDATIONS AND RESULTS

Recommendations made on the Kibwezi R H S by the mid-term evaluation team appear in several forms but have been distilled into a list of seven recommendations of which six were for AMREF consideration. These six recommendations and AMREF actions are summarised below.

	<u>RECOMMENDATION</u>	<u>ACTION</u>
1.	AMREF establish CHW performance criteria	a) Monitoring of attrition rate b) Examination of CHW record and registration books c) Enumeration of promotive actions d) Enumeration of patients treated and/or referred
2.	AMREF delineate linkages between MOH staff and community	a) Refresher courses for health personnel in division b) Participation in mobile outreach programme
3.	AMREF develop method to measure projects health impact	a) Monthly reports from health centre and other facilities b) Periodic monitoring of CHW records c) Regular surveys
4.	AMREF to submit budget expenditure broken down by donors	Not implemented but available on request
5.	AMREF to submit revised implementation plan and budget	Submitted with AMREF mid-project evaluation
6.	AMREF to continue explaining to community their responsibility for CHW support	Communities now approaching AMREF for extension of scheme

In general, several of the recommendations require a longer time frame than the end of the project to implement successfully. Monitoring and evaluation of CHW rate has been more formally executed recently (see Ferguson, "Kibwezi RHS: review and assessment", Chapter 4 Part II).

The means now exist to provide more objective methods of assessing CHW performance and health impacts and some possible future indicators are discussed in section 4.6.

Health Centre (MOH) staff have been more oriented towards the community based elements of the scheme and with the beginning of the new phase-in period, MOH is becoming increasingly involved with the whole project (see section 4.4).

With regard to continued community sensitization, it has proved difficult to find ways that the communities can provide material support, for dependency on AMREF is fairly entrenched in the first set of clusters. However, much more community control at the early stages is in the offing at Kisingo and Utithi and it is hoped that the support of CHWs by the communities will be more complete in these areas.

4.6

COMMENTS AND RECOMMENDATIONS

The foregoing analysis of the achievements of the Kibwezi RHS has indicated that the scheme has gone far in reaching its target population and meeting its goals. It has not been plain sailing and several changes of strategy have been made. The scheme is still developing and a complete conclusion on its effectiveness must await the further expansion of the community-based element and the phase-in of the MOH.

Some recommendations to guide the completion of the scheme may be made at this stage. Most of these concern the relaxation of what has, up till now, been a fairly strictly-applied low-cost model. It is thought that, while this can achieve considerable results, the marginal benefits of relaxing some of these constraints will outweigh the marginal costs incurred. Recommendations are made in four main areas of operation and are as follows.

4.6.1 Health Centre Operations

- Drop the constraint of a standard health centre staffing pattern and expand staff complement to cope with envisaged expansions in patient numbers, mobile outreach activities and CHW activities;
- Give priority to the role of the project co-ordinator. Consider the secondment of a clinical officer or experienced community nurse as a MOH counterpart or as an assistant project co-ordinator.
- Give priority to patients referred by CHWs and keep separate, additional records of such patients.
- Expand the role of the health centre into community education on health-related matters.

4.6.2 Community Health Workers

- Increase the targeted numbers of CHWs to at least 200 to cover the probable population growth of the area.
- Continue with the training methods used previously but incorporate more material on MCH-FP, nutrition and data collection.

- Provide each CHW with a bicycle and assist the village committees in organizing a system of control or community purchase.
- Involve the health committees in areas already having CHWs in more active participation in support and supervision.
- Maintain the "no-drugs" philosophy but reconsider the possibility of co-operative stores stocking the most commonly-needed drugs, especially in areas where these are not available commercially.
- Consider the possibility of providing small subsistence payments to CHWs for home visit days.
- Encourage and investigate possibilities of communal enterprise to raise funds for community support CHWs and other health-related projects.

4.6.3 Integration

- Actively involve the MOH in the programme and ensure that the phase-in procedures progress smoothly.
- Co-operate with appropriate Ministries and NGOs during the special studies of nutrition, environmental sanitation and disability.
- Promote income-generating activities in association with the local health committees.

SCOPE OF WORK FOR FINAL EVALUATION OF USAID-15 OPG AID/AFR-6-1560
=====

Assess and document how technical and managerial resources were used to achieve the overall purpose to "strengthen the capability of AMREF to plan, manage and evaluate its rural health care services and training programs in Kenya". In particular, analyze specific outputs such as papers and reports, proceedings, workshops, and seminars, field visit reports and other project documents.

Assess achievements of Kibwezi Rural Health Scheme.

Assess the quality of project management at AMREF including financial monitoring and cost analysis capability and capacity.

Assess involvement of Ministry of Health at Kibwezi and recommend a strategy and timing for phase-out of AMREF and phase-in of the Ministry of Health.

Analyse and document AMREF's achievements in developing and distributing learning materials.

Document types of indicators that should be further developed to permit evaluation of impact on health at a later date.

Assess to what extent recommendations of the mid-term evaluation have been implemented.

INFORMAL INTERVIEWS
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AMREF Staff:

Ms. Caroline Agola, Editor
Ms. Nyambura H. Githagui, Field Research Officer
Mr. Peter Godwin, Education Officer
Dr. Katjià Janovsky, Director of Project Management
Mr. Douglas E. Lackey, Deputy Director General
Mr. Victor Masbayi, Projects Officer
Ms. Wamucii Njogu, Field Officer HBED
Mr. Nyuka Oendo, Field Officer, HBED
Mr. Omondi-Owuor, Field Officer HBED
Mr. Peter R. Schulter, Planning and Evaluation Officer
Mr. Norman Scotney, Head, HBED
Dr. R. Shaffer, Head CHW Support Unit
Mr. Denis J. White, Director Finance Planning & Administrative Services
Mr. A. Michael Wood, Director General
Dr. Christopher Wood, Medical Director

Donors:

David Campbell, Oxfam
Michael Cleary, CIDA
Cecilia Gjerdrum, SIDA
Roy Cowling, British High Commission

MOH:

Numerous attempts were made to set up an interview with Dr. Maneno, however, he was not available.

Kibwezi:

Mr. S. Muli, Project Co-ordinator
Mr. K. Mwolloi, Clinical Officer in charge
Community Health Workers.

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Date: 17 September 1982.

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MEDICAL/TECHNICAL DIVISION

Appendix D

Project Leadership & Management Support

COMMUNITY HEALTH DEPARTMENT

<u>Code</u>	<u>Name</u>	<u>Location</u>	<u>Project Leader</u>	<u>Projects Officer</u>
CH01A	Kibwezi R/H Scheme	Kenya	CWood (acting)	Masbaya
CH02A	Mobile R/H Services	Kenya	RSandercock	Masbaya
CH03A	Rural Workshops Dareda	Tanzania	JSowinski	Mbugua
CH04A	Mobile Eye Units	Kenya	PRees	Masbaya
CH06A	Immunization Support Services	Regional	WRobinson	Masbaya
CH07A	CHV Support Unit	Regional	RShaffer	Masbaya
CH08A	Environ. San. Support Unit	Regional	NGreenacre	Masbaya

CLINICAL DEPARTMENT

CL01A	Mobile Surgery	Regional	JTotten	Schluter
CL02A	Leprosy & Rec. Surgery	Regional	BAdams-Ray	Schluter
CL03A	Emergency Services	Regional	PRees	Mbugua
CL04A, B C, D	Kenya Clinic Flights	Kenya	ASpoerry	Schluter
CL09A 7 B	Tanzania Clinic Flights	Tanzania	ASpoerry	Schluter
CL11A	NE Prov. Specialist Outreach	Kenya	ASpoerry	Schluter
CL12A	KCMC Specialist Outreach	Tanzania	ASpoerry	Schluter
CL13A	Muhimbili Specialist Outreach	Tanzania	ASpoerry	Schluter
CL15A	Medical Radio Communication System	Regional	ASpoerry	Schluter
CL16A	Dental Outreach Project	Kenya	PRees	Schluter
ID03A	Turkona R/H and Research Scheme	Kenya	PRees	Masbaya

TRAINING DEPARTMENT

TR01A	Continuing Education Kenya	Kenya	MMigue	Schluter
TR02A	Continuing Education Tanzania	Tanzania	SBhachu	Mbugua
TR03A	Continuing Education Uganda	Uganda	MMigue	Masbaya
TR04A	Learning Materials	Regional	PGodwin	Mbugua
TR05A	Afya	Regional	MMigue	Mbugua
TR06A	Distance Teaching	Regional	SKarangwa	Mbugua
TR07A	Library Development	Regional	MMigue	Mbugua

HEALTH BEHAVIOUR AND EDUCATION DEPARTMENT

HB01A	Defender	Regional	CWood (acting)	Masbaya
HB02A	Community-based health care Studies	Kenya	CWood (acting)	Masbaya
HB03A	Health Behaviour & Edu Prog.	Regional	CWood (acting)	Mbugua

INTER-DEPARTMENTAL PROJECTS

ID01A	So Sudan Primary Health Care	Sudan	TLopez	Mbugua
ID02A	So Sudan Rural Health Support	Sudan	TLopez	Mbugua
ID04A	Health Training and Planning Uganda	Uganda	Shillingford	Masbaya
ID05	Luuq District Health Project	Somalia	CWood (acting)	Masbaya

DIVISION OF PROJECT MANAGEMENT

Project Support & Monitoring Assignments

<u>Code</u>	<u>Name</u>	<u>Location</u>	<u>Project Leader</u>	<u>Projects Officer</u>
CH-1	Kibwezi R/H Scheme	Kenya	CWood (acting)	Masbayi
CH-2	Mobile R/H Services	Kenya	RSandercocK	Masbayi
CH-4	Mobile Eye Units	Kenya	PRees	Masbayi
CH-6	Imm. Support Serv.	Regional	WRobinson	Masbayi
CH-7	CHW Support Unit	Regional	RShaffer	Masbayi
CH-8	Environ. Sanit. Support Unit	Regional	NGreenacre	Masbayi
TR-3	Cont. Edu. Uganda	Uganda	MMigue	Masbayi
TR-5	Afya	Regional	MMigue	Masbayi
HB-1	Defender	Regional	CWood (acting)	Masbayi
HB-2	Community-based Health Care Studies	Kenya	CWood (acting)	Masbayi
ID-3	Turkana R/H and Research Scheme	Kenya	PRees	Masbayi
ID-4	Health Training and Planning Uganda	Uganda	Shillingford	Masbayi
ID-5	Luuq District Health Project	Somalia	CWood (acting)	Masbayi
CH-3	Rural Workshops Dareda	Tanzania	JSowinski	Mbugua
CL-3	Emergency Services	Regional	PRees	Mbugua
TR-2	Cont. Edu. Tanzania	Tanzania	SBhachu	Mbugua
TR-4	Learning Materials	Regional	PGodwin	Mbugua
TR-5	Afya	Regional	MMigue	Mbugua
TR-6	Distance Teaching	Regional	SKarangwa	Mbugua
TR-7	Library Development	Regional	MMigue	Mbugua
HB-3	Health Behaviour and Education Programme	Regional	CWood (acting)	Mbugua
ID-1	Southern Sudan Primary Health Care	Sudan	TLopez	Mbugua
ID-2	Southern Sudan Rural Health Support	Sudan	TLopez	Mbugua
CH-9	MCH/FP/Nutrition Unit	Regional	CWood (acting)	Mbugua
CL-1	Mobile Surgery	Regional	JTotten	Schluter
CL-2	Leprosy and Reconstructive Surgery	Regional	BAdams-Ray	Schluter
CL-4 A, B, C&D	Kenya Clinic Flights	Kenya	ASpoerry	Schluter
CL-9 A & B	Tanzania Clinic Flights	Tanzania	ASpoerry	Schluter
CL-11	NE Prov. Specialist Outreach	Kenya	ASpoerry	Schluter
CL-12	KCMC Spec. Outreach	Tanzania	ASpoerry	Schluter
CL-13	Muhimbili Spec. Outreach	Tanzania	ASpoerry	Schluter
CL-15	Medical Radion Comm. System	Regional	ASpoerry	Schluter
CL-16	Dental Outreach Project	Kenya	PRees	Schluter
TR-1A & B	Cont. Edu. Kenya	Kenya	MMigue	Schluter

PROJECTS AS AT 1ST JULY 1983

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COMMUNITY HEALTH DEPARTMENT		
CH01A	Kibwezi Rural Health Scheme	USA-1, NRD-2, NCA-2, ROT-1
CH02A	Mobile Rural Health Services	OXF-2, EJH-1, HTA-2
CH03A	Rural Workshops Dareda	HIV-1, HIV-2
CH04A	Mobile Eye Units	CEM-1
CH04A	Immunization Support Services	ODA-1, JER-1
CH07A	CHW Support Unit	ODA-1, SID-1, OXF-1, WNB-1
CH08A	Environmental Sanitation Support Unit	ODA-1, SID-1
CH09A	MCH/FP/Nutrition Support Unit	USA-5
CLINICAL DEPARTMENT		
CL01A	Mobile Surgery	HTA-1, GOK-1, GOT-1, USX-2
CL02A	Leprosy and Reconstructive Surgery	SCS-1, GLR-1
CL03A	Emergency Services	FDS-1, AUS-1
CL04A	Lamu Clinic Flights	GOK-1, SRH-2, USX-2
CL05A	Marsabit Clinic Flights	GOK-1, SRH-2, USX-2
CL06A	Rusinga Clinic Flights	GOK-1, BHF-1
CL07A	Kajiado Clinic Flights	
CL09A	Loliondo Clinic Flights	LOL-1, COD-1
CL10A	Kilimatinde Clinic Flights	GOT-1, USB-1
CL11A	NE Province Specialist Outreach	GOK-1
CL12A	KCMC Specialist Outreach	GOT-1
CL13A	Muhimbili Specialist Outreach	EEC-1
CL15A	Medical Radio Communication System	GOK-1, GOT-1, LEO-1
CL16A	Dental Outreach Project	HTA-1
TRAINING DEPARTMENT		
TR01A	Continuing Education Kenya	DAN-1, BFW-1, SID-3
TR01B	Health Management Training	SID-3
TR02A	Continuing Education Tanzania	USA-4
TR03A	Continuing Education Uganda	CDG-1, CID-1
TR04A	Learning Materials	USA-1, SID-1, ODA-1
TR05A	Afya	GOK-1, GOT-1, USA-1
TR06A	Distance Teaching	SID-3
TR07A	Library Development	SID-1, NOV-1, STI-1, KFN-1, OBC-1
HEALTH BEHAVIOUR AND EDUCATION DEPARTMENT		
HB01A	Defender	GOK-1, GOT-1, SID-4, USA-1
HB02A	Community-based Health Care Studies	SID-2
HB03A	Health Behaviour and Education Programme	SID-4, CID-5
INTER-DEPARTMENTAL PROJECTS		
ID01A	Southern Sudan Primary Health Care	USA-2
ID02A	Southern Sudan Rural Health Support	USA-3
ID03A	Turkana Rural Health and Research Scheme	EEC-2, LEV-1, CIM-1
ID04A	Health Training and Planning Uganda	CID-4
ID05A	Luuq District Health Project	ICR-1

PROJECTS AS AT 1ST JULY 1983

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	ADMINISTRATIVE SUPPORT	
AS01A	Regional Facilities	EEC-3
	CONSULTANCY	
CY01A	Kisumu PHCP	KEN-1
CY02A	SIDA Health Sector Review	SID-5
CY03A	Infant Feeding Study	POP-1
CY04A	Dr AMREF - The Standard	

CLOSED PROJECTS AS AT 1ST JULY 1983

COMMUNITY HEALTH DEPARTMENT

CH05A Turkana Rural Health Scheme (now ID03A)

CLINICAL SERVICES DEPARTMENT

CL08A Narok Clinic Flights (discont)

CL14A Hydatid Disease Research (now ID03A)

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HQ MANAGEMENT, ADMINISTRATION AND SERVICE UNITS

DGEN1	Director General	EEC-3
DGEN2	Deputy Director General	
MEDIC	Medical Director	
PROJM	Division of Project Management	
ADMDR	Director of Administrative Services	
INFDR	Information Director	
FINDR	Finance Director	
COUNT	Accounts section	
SUPLY	Supplies section	
ADMIN	HQ Administration	
AVOPS	Aviation Operations	
AMAIN	Aviation Maintenance	
VMAIN	Vehicle Maintenance	
BOOKD	Book Distribution Unit	SID-1,00A-1
PPREP	Printing Production and Photographic	
PWORK	Printing Workshop-	
LIBRY	HQ Library	
DEVEL	New Project/Grant Development	
(CH00A	Community Health Dept Office)	
(CL00A	Clinical Department Office)	
(TR00A	Training Department Office)	
(HB00A	Health Behaviour and Education Dept Office)	

ACCOUNTING COST CENTRES

BALAN	Balance Sheet transactions (assets/liabilities)
CONTR	Suspense account transactions
ALLOC	Allocation account transactions

GRANTS AS AT 1ST JULY 1983

Page 1

KENYA		
FDS-1	Emergency Services	CL03A
GOK-1	Kenya Block Grant	CL01A, CL04A, CL05A, CL06A, CL11A, CL15A, TR0
ICR-1	Luuq District Health Project	ID05A
KEN-1	Kenya - Other grants/donations	CY01A
KEN-2	Kenya - Jubilee Appeal	
ROT-1	ESSU at Kibwezi	CH01A
TANZANIA		
GOT-1	Tanzania Block Grant	CL01A, CL10A, CL12A, CL15A, TR05A, HB01A
LOL-1	Loliondo Clinics	CL09A
TAN-1	Tanzania - Other grants/donations	
USA		
NLF-1	Mobile Rural Health Services	
POP-1	Infant Feeding Study	CY03A
USA-1	Operational Programme Grant	CH01A, TR04A, TR05A, HB01A
USA-2	Southern Sudan PHC	ID01A
USA-3	Southern Sudan Rural Health Support	ID02A
USA-4	Continuing Education Tanzania	TR02A
USA-5	MCH/FP/Nutrition	CH09A
USB-1	FD Services to Protestant RH Facilities	CL10A
USX-1	USA : Other grants/donations	
USX-2	USA : Jubilee Appeal	CL01A, CL04A, CL05A
UK		
BWH-1	Mobile Rural Health Services	CH02A
LEV-1	Research and Control of Hydatid Disease	ID03A
ODA-1	Child Health Programme	CH06A, CH07A, CH08A, TR04A, BOOKD
OXF-1	Community Health Worker Support Unit	CH07A
OXF-2	Mobile Rural Health Services	CH02A
UKX-1	UK : Other grants/donations	
GERMANY		
BFW-1	Continuing Education for RH Workers	TR01A
BHF-1	Airbridge Against Disease	CL06A
CBM-1	Mobile Eye Units	CH04A
CDG-1	Continuing Education Uganda	TR03A
GER-1	Germany - Other grants/donations	
GLR-1	Leprosy and Reconstructive Surgery	CL02A
NETHERLANDS		
GON-1	RH Development/Services Prog Support	
HIV-1	Rural Workshops Dareda	CH03A
HIV-2	Rural Workshops Dareda	CH03A
LEO-1	MRCS	CL15A
NED-1	Netherlands - Other grants/donations	
NOV-2	Library Development	TR07A
STI-1	Library Development	TR07A

GRANTS AS AT 1ST JULY 1983

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DENMARK		
DAN-1	DANIDA MoH Training	TR01A
DEN-1	Denmark - Other Grants/donations	
CANADA		
CAN-1	Canada - Other grants/donations	
CID-1	Continuing Education Uganda	TR03A
CID-2	Development of Health Programmes	
CID-3	Uganda Health Planner	
CID-4	Health Training and Planning Uganda	ID04A
CID-5	Health Behaviour & Education Programme	HB03A
HTA-1	Surgical/Dental Support for the Elderly	CL01A,CL16A
HTA-2	Mobile Medical Unit, Kajiado & Narok	CH02A
KFN-1	Library Development Zanzibar	TR07A
OBC-1	Library Development	TR07A
SWEDEN		
JER-1	Immunisation Support	CH06A
SID-1	SIDA Rural Health Development	CH07A,CH08A,TR04A,TR07A,BOOKD,LIBRY,PWOF
SID-2	Community-based Health Care Studies	HB02A
SID-3	Continuing Education Kenya	TR01A,TR01B,TR06A
SID-4	Health Behaviour & Education	HB01A,HB03A
SID-5	SIDA Health Sector Review	CY02A
SRH-1	Swedish Aid through Broadcasting	(See SID-1)
SRH-2	Clinic Flights	CL04A,CL05A
SWE-1	Sweden - Other grants/donations	
SWITZERLAND		
SCS-1	Leprosy and Reconstructive Surgery	CL02A
SWI-1	Switzerland - Other grants/donations	
NORWAY		
NOR-1	Norway : Other grant/donations	
NRD-1	Turkana Surveys	
NRD-2	Kibwezi Rural Health Scheme II	CH01A
NCA-2	Kibwezi Rural Health Scheme II	CH01A
EEC		
EEC-1	Muhimbili Specialist Outreach Programme	CL13A
EEC-2	Turkana Rural Health & Research	ID03A
EEC-3	Regional H Services Improvement Programme	AS01A
OTHER COUNTRIES		
AUS-1	Emergency Services - Equipment	CL03A
XYZ-1	Other countries - Grants/donations	

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CLOSED GRANTS AS AT 1ST JULY 1983

USA
LNB-1 Community Health Worker Support Unit

UK.
DUL-1 Computer
NUF-1 Improvement of AMREF Medical Radio Comms. System

NETHERLANDS
JUR-1 Research and Control of Hydatid Disease, Turkana
MEM-1 FDS Catholic Rural Health Facilities
NOV-1 Medical Radio Communications System
WGS-1 Nursing

CANADA
GCH-1 Flight Clinics A Spoerry

NORWAY
NCA-1 Kibwezi Rural Health Scheme I

AMREF BUDGETARY CONTROL AND FINANCIAL ACCOUNTING SYSTEM
STANDARD LINE-ITEM HEADINGS

PAGE 1
06/7/83

A00 PERSONNEL

- A10 Technical staff
- A20 Support staff
- A30 Technical consultants
- A40 Temp/casual staff

B00 TRAINING

- B10 Fellowships : Long term
 - B11 East Africa
 - B12 Other country
- B20 Fellowship : Short term
 - B21 East Africa
 - B22 Other country
- B30 Courses
 - B31 Basic training courses
 - B32 Extension courses/Orientation Courses
 - B33 Training surveys
 - B34 Refresher courses
 - B35 Correspondence courses
 - B36 Workshops/seminars
 - B37 Other courses

C00 CONSTRUCTION

- C10 Office buildings
- C20 Staff housing
- C30 Training schools
- C40 Health units
- C50 Other construction

qu

D00 COMMODITIES (CAPITAL)

D10 Equipment

- D11 Medical, lab, X-ray
- D12 Training equipment
- D13 Workshop equipment
- D14 Office equipment
- D15 Radio, comms equipment
- D16 Camping equipment
- D17 Tools
- D18 Other equipment

D20 Furniture

- D21 Office furniture
- D22 House furniture
- D23 School furniture
- D24 Health unit furniture
- D25 Other furniture

D30 Transport

- D31 4-wheel drive vehicle
- D32 2-wheel drive vehicle
- D33 Truck, lorry
- D34 Motorcycle
- D35 Bicycle
- D36 Aircraft
- D37 Other vehicles

E00 SUPPLIES (RECURRENT)

E10 Medical supplies

E20 Training, office supplies

- E21 Training materials
- E22 Office supplies
- E23 Books, periodicals
- E24 Printing, photocopies, photographs

E30 Printing materials

- E31 Print, pack supplies
- E32 Photo, graphic supplies

E40 Fuel purchase

- E41 Vehicle fuel
- E42 Aircraft fuel
- E43 Other fuel

E50 Spare parts

- E51 Vehicle spares
- E52 Aircraft spares
- E53 Other spares

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- E60 General supplies
 - E61 Uniforms
 - E62 Housekeeping materials
 - E63 Other materials (inc. food)

F00 MAINTENANCE

- F10 Equipment
 - F11 Medical equipment
 - F12 Training equipment
 - F13 Workshop equipment
 - F14 Office equipment
 - F15 Radio equipment
 - F16 Camping equipment
 - F17 Other equipment
- F20 Furniture
 - F21 Office furniture
 - F22 House furniture
 - F23 Training school furniture
 - F24 Health unit furniture
 - F25 Other furniture
- F30 Transport
 - F31 Vehicle maintenance
 - F32 Cycles
 - F33 Aircraft maintenance
 - F34 Maintenance provisions
- F40 Buildings
 - F41 Offices
 - F42 Staff housing
 - F43 Training schools
 - F44 Health units
 - F45 Other buildings

G00 TRAVEL

- G10 Fares, per diem
 - G11 Fares, per diem: East Africa
 - G12 Fares, per diem: Other country
- G20 Vehicle running
 - G21 4-wheel drive vehicle
 - G22 2-wheel drive vehicle
 - G23 Truck, lorry
 - G24 Motorcycle
- G30 Aircraft running
 - G31 Single-engine aircraft
 - G32 Twin-engine aircraft

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H00 OTHER COSTS

- H10 Utilities**
 - H11 Rents, rates
 - H12 Water, electricity
 - H13 Airfield costs

- H20 Communications**
 - H21 Telephone, telex
 - H22 Postage charges
 - H23 Freight, storage

- H30 Professional services**
 - H31 Legal expenses
 - H32 Audit fees
 - H33 Bank charges
 - H34 Security

- H40 Public relations**
 - H41 Entertainment
 - H42 Advertising

- H50 Insurance**
 - H51 Aviation insurance
 - H52 Vehicle insurance
 - H53 Staff insurance
 - H54 Other insurance

- H60 Licences, permits**

- H70 Finance charges**
 - H71 Interest paid
 - H72 Depreciation
 - H73 Imprest Advance

- H80 Miscellaneous costs**

I00 OVERHEAD/CONTINGENCY/INFLATION

- I10 Overhead**
- I20 Contingency**
- I30 Inflation**

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J00 INCOME
J10 Grant/donation
J15 Credit from Grant
J20 Recovery within AMREF
J30 Revenue outside AMREF
J40 Interest on staff loans
J50 Interest on deposits
J60 Other income

K00 FIXED ASSETS
K10 Land, buildings
K20 Aircraft
K30 Motor vehicles
K40 Radio equipment
K50 Surgical equipment
K60 Camping equipment
K70 Printing equipment
K80 Aircraft equipment
K90 Furniture, fixtures

L00 INVESTMENTS

M00 CURRENT ASSETS : STOCKS
M10 Book Distribution Unit
M20 Printing Department
M30 Aviation Maintenance
M40 Vehicle maintenance

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N00 CURRENT ASSETS : CASHBOOK

N10 Barclays Bank Local

N20 Barclays Bank External

N30 Barclays Bank Jersey

N40 Barclays Bank Kampala

N50 NBC Moshi

N60 Petty Cash

N70 Foreign Currencies

N80 Exchange

P00 CURRENT ASSETS : OTHER

P10 Debtors control

P20 Short-term deposits

P30 Project expend. recoverable

Q00 CURRENT LIABILITIES

Q10 Creditors control

Q20 Provisions

Q25 Doubtful Debtors

Q30 Grants unexpended

Q40 Bank Overdraft

R00 FUNDS

R10 Capital Fund

R20 General Fund

R30 Training Reserve Fund

R40 Special Fund

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AMREF BUDGET 1983
(March 1983)

OVERALL SUMMARY

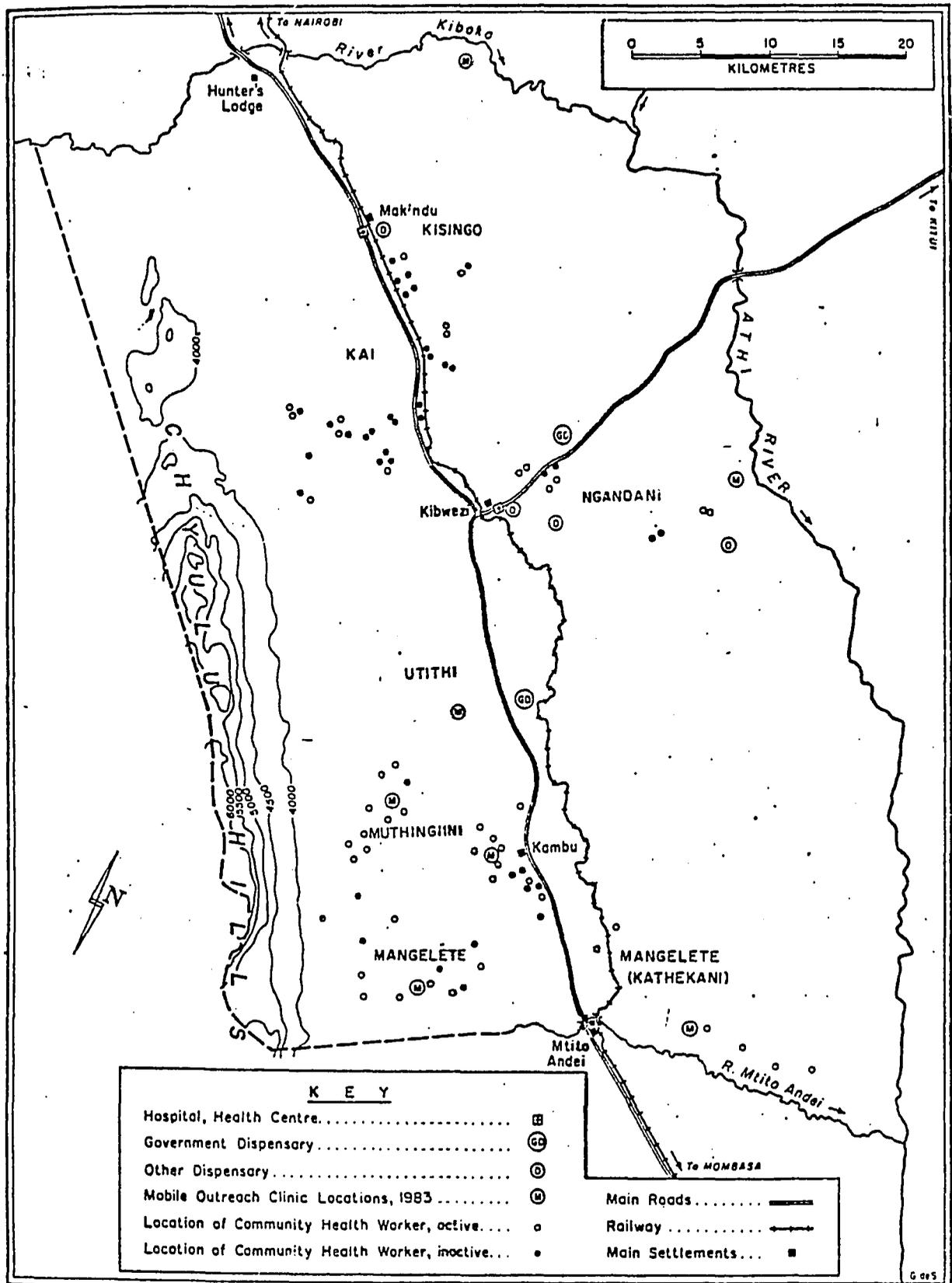
		EXPENDITURE (K£)		INCOME (K£)						
		Gross Internal expend.	Internal recovery	Net expend.	Approved grants	Requested grants	Other income	Total income	Internal recovery	Surplus/ shortfall
MANAGEMENT										
DGEN1	Director General	40700		40700	18000			18000	22700	0
DGEN2	Deputy Director General	23400		23400	6840			6840	16560	0
MEDIC	Medical Director	28715		28715	10780			10780	17935	0
PROJM	Director of Project Management	51250		51250	24535			24535	26715	0
FINDR	Director of Finance/Admin.	35100		35100	17190			17190	17910	0
INFDR	Director of Information	22540	4000	18540				0	22540	0
PROGRAMME UNITS										
(details on next page)		3583973	605419	2978554	3306138	122458	6000	3434596		-149377
INFORMATION SERVICES										
PPREP	Info Div : Preprint/Graphics	32783		32783				0	20000	-12783
PWORK	Info Div : Print Production	92100	100	92000			15000	15000	82800	5700
LIBRY	Info Div : Library	8700		8700				0		-8700
FINANCE/ADMIN SERVICES										
COUNT	Finance : Accounts	76000		76000	12715			12715	63285	0
SUPLY	Admin : Supplies	11800	300	11500	1200			1200	10600	0
ADMIN	Admin : Personnel/HQ Admin.	178300	12000	166300	9000			8000	146074	-24226
BOOKD	Admin : Book Distribution Unit	102000	57800	44200	20345		102000	122345		20345
AVOPS	Aviation : Aircraft Operations	240800	48200	192600				0	217700	-23100
AMAIN	Aviation : Aircraft Maintenance	117450		117450			70000	70000	48200	750
VMAIN	Aviation : Vehicle Maintenance	41900		41900			30000	30000	14800	2900
RMAIN	Aviation : Radio Maintenance	6100		6100	4500			4500		-1600
TOTAL : K£		4693611	727819	3965792	3430243	122458	223000	3775701	727819	-190091

AMREF BUDGET 1983
(March 1983)

PROGRAMME UNITS

		EXPENDITURE (K£)		INCOME (K£)						
		Gross expend.	Internal recovery	Net expend.	Approved grants	Requested grants	Other income	Total income	Internal recovery	Surplus/shortfall
PROGRAMME UNITS										
CH00A	Community Health Dept : Office	16440	50	16390	11138			11138		-5302
CH01A	Kibwezi Rural Health Scheme	73773	9826	63947	73773			73773		0
CH02A	Mobile Medical Unit	28406	1219	27187	28406			28406		0
CH03A	Dareda Rural Workshops	56375	2250	54125		50375	6000	56375		0
CH04A	Mobile Eye Units	8618		8618	8618			8618		0
CH06A	Immunization Support Services	47330	7150	40180	47330			47330		0
CH07A	CHW Support Unit	33900	5025	28875	33900			33900		0
CH08A	Environmental Sanitation SU	52267	7018	45249	52267			52267		0
CL00A	Clinical Dept : Office	21750	2750	19000						-21750
CL01A	Mobile Surgical Unit	57333	24100	33233	57333			57333		0
CL02A	Leprosy/Reconstructive Surgery	36700	16350	20350	36700			36700		0
CL03/15	Nursing Services Unit	72825	54500	18325	50000			50000		-22825
CL04-10	Medicine by Air/Flight Clinics	60500	45000	15500	20500			20500		-40000
CL11-13	Medical Specialist Outreach	48966	41786	7180	48966			48966		0
CL16A	Dental Outreach Programme	2163		2163	2163			2163		0
TR00A	Training Dept : Office	37250	12200	25050				4000		-33250
TR01A	Continuing Education: Kenya	130750	24300	106450	130750			130750		0
TR02A	Continuing Education: Tanzania	364850	69725	295125	364850			364850		0
TR04A	Health Learning Materials Unit	74583	29900	44683	2500	72083		74583		0
TR06A	Distance Teaching Unit	38750	4500	34250	12500			12500		-26250
HB00-03	Health Behaviour/Education	115641	19000	96641	115641			115641		0
ID01A	S Sudan PHC Project	27173		27173	27173			27173		0
ID02A	S Sudan RH Support Project	1259680	207320	1052360	1259680			1259680		0
ID03A	Turkana Rural Health Scheme	112550	3000	109550	112550			112550		0
ID04A	Uganda Training/Planning	585000	18450	566550	585000			585000		0
AS01A	Regional Facilities (Nbi/Dar)	220400		220400	220400			220400		0
TOTAL : K£		3583973	605419	2978554	3306138	122458	6000	3434596	0	-149377

KIBWEZI RURAL HEALTH SCHEME



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