Proposal for

USAID OPERATIONAL PROGRAM GRANT

For assistance to I/AMREF to carry out Public Health Programs in Kenya as requested by the Government of Kenya, Ministry of Health

Submitted by

International/African Medical & Research Foundation

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USAID OPERATIONAL PROGRAM GRANT (OPG) PROPOSAL

Project Title:	Assistance to I/AMREF to carry out Public Health Programs in Kenya as requested by the Government of Kenya, Ministry of Health	
Project Location:	Kenya	
Amount Requested from AID	$817,525	
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Date of this Re-submission: June 22, 1978

PROJECT SUMMARY

This is a proposal from the International/African Medical & Research Foundation to the United States Agency for International Development for a grant of $817,525.

This grant will assist the Foundation in meeting the request from the Government of Kenya, Ministry of Health to undertake the Kibwezi Rural Health Project and to continue and expand the Foundation's printing and publication of teaching materials and learning resources for rural health workers.

Summary Description of Project

The International African Medical & Research Foundation, (I/AMREF) has been requested by the Government of Kenya, Ministry of Health (GOK/MOH) to assist in the development of an integrated and comprehensive rural health service system for the Makindu Division of Kenya at Kibwezi. (Reference, attached letter). This system will serve as a model which may be replicated in other similar, dry marginal agricultural areas of Kenya.

The Kibwezi Health Center will serve as the base of operations and the system will utilize staff at the Health Center as well as community health workers at the village level to meet the health care needs of the population (approximately 100,000) of this target area.

In addition, the I/AMREF has been asked by the GOK/MOH to expand the development and production of teaching materials and learning resources for all its rural health workers, and to assist in the development and execution of training and refresher courses for MOH personnel, especially those involved with the Kibwezi Health Project.

The GOK is planning to initiate development projects in areas that are semi-desert, arid and not conducive to agricultural production. These areas will, in the near future, be forced to absord increased population due to higher birth rates and migration. These expanded populations require expanded social services - not the least of which is health care, both preventive and curative. Those areas such as Makindu/Kibwezi with scarce water supplies, scattered populations and poor roads make the delivery of social services challenging and costly.

The establishment of an integrated and comprehensive program of rural health service systems, as planned and described below, is an innovative program that will have significant impact, not only on Kibwezi, but other areas of Kenya as the model is replicated.

A key element in this innovative program is the extensive use of rural health workers at the village level. However, these workers are only as useful and competent as their training permits them to be. An essential part of the GOK/MOH overall health strategy is the training and continuing education of these rural health workers through organized courses and the supply of teaching materials and learning resources, which of necessity, must be the self-taught variety.

In order to help I/AMREF meet the requests of the GOK/MOH in these areas, a request is made to USAID for $817,525 (over 3 years). Major AID inputs will include the following:

- Program, technical and support personnel costs;
- Training and instructional material costs;
- Refresher training course costs for MOH personnel;
- Commodities costs for program support.

Personnel Costs Requested from AID

$333,355 over 3 years

AID is requested to support:

- 4 AMREF/Nairobi Senior Staff:
  - Project Director - who will have the overall responsibility for project implementation, coordination and communication with all involved in the project;
  - Project Consultant - who will oversee the health care delivery component as well as the training and health education components of the project;
  - Project Consultant - who will oversee the total planning, programming and evaluation of the project;
  - Project Consultant - who will oversee the financial management of the project.

  These 4 Senior Staff are currently in place and will devote 60% of their total work hours to the supervision, training of staff, management and evaluation of this specific project. (AID is requested to fund this 60% over 3 years).

- 3 Host Country Nationals, plus 2 secretaries:
  - Deputy Medical Director - assisting both the Project Director and the Project Consultant for health care;
  - Program/Planning Management Trainee - who will assist the Project Consultant for planning, programming and evaluation;
  - Accountant - who will assist in the financial management of the project;
  - 2 secretaries.

These 5 Host Country Nationals will also be AMREF/Nairobi based and will be responsible for the day to day liaison with the project field staff. (AID is requested to fund 60% of their total work hours over 3 years.) After the 3 years of the project, these 5 will be totally supported by I/AMREF and will assume greater responsibility for the administration and management of I/AMREF programs.

- 17 Kibwezi Health Center Staff.
  This staff will run the Kibwezi Health Center (KHC) and its community outreach programs. The cost of support of this staff is requested from AID with the MOH phasing in support costs during year 3 of the project. After the life of this project, MOH will assume all recurrent costs. (Reference letter attached. Please see the detailed financial plan for I/AMREF and MOH financial support).

Personnel Funded by I/AMREF/MOH

I/AMREF will support the Project Coordinator based at Kibwezi. This coordinator will have as a counterpart, the clinical officer. The clinical officer will, after 3 years, assume total responsibility as MOH staff, for the running of the KHC and its programs.

I/AMREF will assume the support of the 40 CHW's during years 2 and 3 of the project. I/AMREF will also support all of its Nairobi based staff involved in the production, printing and distribution of the learning resources and training materials.

Training and Instructional Material Costs

$185,145 over 3 years

AID financial input is requested for:

- The materials, production and distribution costs for 4 training manuals per annum (12 over the 3 years of the project). The titles of each manual are to be determined. These texts are to be targeted to CHW's and GOK/MOH personnel.
- The costs for materials, distribution and translation into Swahili of one training manual per annum (3 over 3 years). The manual to be translated will be at the discretion of GOK/MOH.
- The production and distribution costs for DEFENDER, a health education magazine which is circulated free to the rural, lay public in Kenya, 4 issues per annum.
- The production and distribution costs for AFYA, a rural health journal which has a circulation of 3,500 medical and health workers, rural medical aides, nurses and medical students subscribing. 6 issues per annum.

(See breakdown of material/distribution costs for all the above in detailed financial plan).

- 4 three-day refresher training courses per annum for 12-15 trainees per course. These courses are for MOH Kibwezi based staff and CHW's.
- In-service training conducted by I/AMREF medical staff for Kibwezi personnel.

Commodity Costs

$69,365 over 3 years

AID financial input is requested in order to purchase the following commodities:

- 1 IBM Electronic Composer for production of training manuals and other instructional material. A new composer is required to replace the worn out and irreparable older composer;

- 2 IBM Electric Typewriters;

- 2 filing cabinets

- 1 calculator

- Various supplies including drugs for the Kibwezi Health Center:
  - Drugs and medical supplies (3 years);
  - Laundry & cleaning materials (3 years);
  - Food (3 years);
  - Water (3 years);

The MOH will phase in on the financing of these supplies during year 3.

NOTE: All construction costs for the Kibwezi Health Center will be borne by I/AMREF as funded by the Association of Swiss Civil Servants and Norwegian Church Aid.

Other Costs (Recurrent)

$84,385 over 3 years

AID is requested to fund some recurrent costs necessary for the carrying out of the project. These costs include transportation and maintenance costs and the costs of evaluation.

These recurrent costs are not available from any other source during the first 2 years of the project, but the MOH will phase in during year 3 and ultimately assume 100% of these reccurent (running) costs.

IMRF/AMREF OPG PROPOSAL

Strengthening and Development of AMREF Rural Health Care Services

A. Project Purpose and Description

1. Project Purpose and Beneficiary Target Group

Project purpose is to:

a. Develop in cooperation with central and local health officials, community leaders, and other donors, a model system of a division health care delivery in the Makindu Division of Kenya at Kibwezi with the Kibwezi Health Centre as the base of operation and utilising community health workers at village level;

b. Develop and produce teaching materials and learning resources for rural health workers as encouraged by the Kenya Ministry of Health;

c. Improve the effectiveness and impact of these services and other related AMREF rural health services to the rural areas of Kenya, and training programs for health auxiliaries, which supplement the rural health care system of the Kenya Ministry of Health; and

d. Determine through evaluation and cost-benefit studies the value of these services and training programs as models which the Government of Kenya (GOK) can replicate over other areas of the country, especially in the dried, more marginal areas where future populations will be settling since the majority of arable land in Kenya is settled.

2. Target Group Beneficiaries

Kenya has a population fo 14 million scattered unevenly over 580,000 sq.km. The country straddles the equator on the east side of Africa. Kenya has a relatively stable economy based on agriculture. Tourism and industry are developing and the annual per capita income is rather more than $100. The infant mortality rate is 120 per 1,000. Life expectancy is around 50 years and the population growth rate is 3.2%, a high figure by any standard.

Children under 15 years of age make up almost 50 percent of the population; with a dependency ratio of about one, the productive age groups are heavily burdened.

Medical care is provided by a Government health service augmented by voluntary agencies, who provide 40% of the 18,000 hospital beds, one fourth in the capital city. Out of 557 doctors in Kenya, 220 are based in Nairobi which has a ratio of one doctor to 3,000 people. In a rural area like Kisii the average is one doctor to 231,000 people. In Lamu District only one GOK doctor serves the entire Lamu population. There are 199 hospitals in Kenya, mainly in towns, 195 health centres and 603 dispensaries. Twenty five percent of the population live more than 12 kms from the nearest health facility.

Many rural families have diets deficient in calories, protein and vitamins A, B2 and C. In the preharvest period, 25% to 30% of rural families consume less than 60 percent of estimated calorie requirements. Probably more than 25 percent of the children suffer from some form of malnutrition. Overall, the position may be worsening. Pressure on land is increasing, people are moving into marginal areas, maize has largely taken over from the more protein rich millets and sorghums, and there is no reason to believe that pulse production is going up at a faster rate than population.

Kenya is a country of enormous contrasts in people topography, climate, and soils. Conditions range from a limited Afro Alpine Zone in the centre south to the tropical coastal strip, and from near desert in the north to high rainfall forest in the southwestern highlands.

The problem of providing social services, including rural health services, and getting productive farming system into this extremely complex range of ecological conditions is made more difficult by the rapid rate of growth of population and by tribal influences on the distribution of land among people.

Over 98 percent of the population is African and is composed of 30 major and 40 minor tribes, each having its own history, language, traditions and ways of living. About 10 percent of the population lives [illegible] of 2,000 or more in size; of this group, 70 percent are in

the two main cities, Nairobi and Mombasa. Urban centres are growing at about 7 percent per year and if the current mortality and fertility rates continue, the population will reach some 34 million by the year 2,000. In fact, this figure could be exceeded if the accepted family size, now high, persists, and if the mortality rate continues to decline, as is expected.

The Government of Kenya (GOK) has drafted a family planning program with the objective of reducing the annual population growth rate to about 3 percent by 1980. About 63 percent of the health centres and 5 percent of the dispensaries offer family planning services on a part-time basis through their Maternal and Child Health units. Clients, mainly urban, totaled some 180,000 in 1971.

The vast bulk of the rural population live in three areas: around Lake Victoria, in the narrow strip along the coast and in the highlands. All three areas have a good rainfall and a high agricultural potential. These areas comprise only 15 percent of the total land area of Kenya. Population pressure is building up in all areas through natural growth and, in the marginal agricultural potential and rangeland areas (353,000 sq. km.) as a result of migration. On medium and high potential land available for small scale farming in Western, Nyanza and Central Provinces, overall densities approximate 150 to 200 persons per sq. km. on holdings averaging three hectares. There are localities, such as Vihiga Division of Kakamega District in Western Province, with densities of about 500 persons per sq. km. on holdings of no more than one hectare. On the other hand, there are areas with much lower densities, even in localities of high and medium potential.

There are two main reasons for the extreme variation in population densities. One is that most land is regarded as the exclusive domain of a particular tribe; the other stems from the colonial period, when some land was alienated for large scale expatriate farms or set aside as Government land. Trans Nzoia District, with medium to high potential land, has large scale mixed farming enterprises, now mainly in African hands with a population density near 50 persons per sq.km. Narok District, where AMREF assists the District Medical Officer as in Lamu District supervises his outlying dispensaries and operates a mobile eye unit, has land of medium to good production potential, is occupied

7 persons per sq.km. This compares with a density of about 54 per sq.km. in Machakos District including Makindu Division and Kibwezi, which has a marked lower production potential, but which is occupied by a different tribe, the Kamba.

The upshot of the present land holding situation is that in many densely settled districts able-bodied men are migrating in search of work in other rural areas or in urban centres, and whole families are moving into the Lower potential areas like Kibwezi where rights to land are not so zealously guarded. The amount of good land per capita may fall from the 1970 figure of around 0.88 hectare to some 0.36 hectare by the year 2,000. This decline of some 60 percent is startling, and makes clear the urgent need for an effective agricultural and population strategy, and improved perspective planning, including health planning and provision of rural health services to the marginally productive areas which will increase in population.

About one million people who represent the poorest of the poor now live in the less productive, semi-desert and arid bush country. The GOK is anxious to initiate development projects in these areas in order to accommodate the present and future population migration. With these expanded populations social services including health services are required, however, due to the nature of these areas - scarce water supply, scattered populations, poor roads, the delivery of social services is challenging and many times costly. Therefore innovative programs in delivering rural health services would be of considerable value.

The rural poor Kenyans living in these less productive areas, e.g. Districts of Turkana, Marsabit, Machakos, Kajiado, Samburu have been the particular target group for AMREF and the majority of its present and planned rural health services are directed at these areas and its people.

AMREF rural health services, training and health education programs will be strengthened and improved to serve the following target group beneficiaries, especially those rural poor living in the drier, marginally productive areas and the health workers serving them:

a. Kibwezi Rural Health Scheme. The target group beneficiaries will directly be the 80,000 - 100,000 people, predominantly Kamba, in the Kibwezi area who are engaged in uncertain cultivation, herding and

trading activities. If the scheme proves successful for replication, its target group beneficiaries in the future will be much greater.

b. Rural Poor Including Nomadic Tribes AMREF mobile teams in 1977 examined 28,888 patients, 730 school children and innoculated 42,522 individuals, mostly children in the remoter areas of Kenya (Districts of Kajiado, Narok, Marsabit, Lamu, Homa Bay - Rusing Island). In 1977, 677 major surgical operations were performed by AMREF's Surgical Team at 13 rural hospitals (Appendix 1) where AMREF is assisting GOK by providing the only surgical services for the particular area served. Corresponding in-service training is given by the team comprised of a surgeon, anesthesiologist, and operating room nurse.

c. Medical Radio Communications and Supervision of Remote Centres and Dispensaries. AMREF has developed a medical radio communications network linking up 43 rural health facilities in Kenya (Appendix 1). In 1977 a total of 9,619 medical radio calls were transmitted directly to AMREF where on the spot medical advice was given, drugs and medical supplies arranged, immunisation campaigns coordinated, laboratory results communicated, etc. Approximately 1,000 interstation calls per month occur on the network which represents in many cases the only communication link between these remote health facilities, which helps lessen the remote nature of working in these facilities. Over 49 dispensaries and health centres are visited regularly by air by AMREF medical teams and/or MOH supervisory health workers (Appendix 1).

d. Refresher Training for Rural Health Workers. The principal constraint to the provision of health care in the rural areas is the shortage of adequate numbers of appropriately trained staff. Training requires both relevant basic training to start with and then continuing education to maintain, develop and update knowledge and skills of all health workers throughout their working lives.

There are at the moment more than 10,000 auxiliary health workers in Kenya (Appendix 2). Some of these had no formal training but the majority received their basic training 5, 10 or 20 years ago. The opportunities for updating their knowledge have been very limited and largely confined to the few who are selected for upgrading into a higher

With the development of medical technology and the changes in practice required, the need for continuing education for all medical workers has been increasingly recognised. This is particularly true for all rural health workers whose simple basic training often did not develop the habit of self learning and who, working in isolated remote areas, have little supervision, contact with colleagues or even books or journals to read.

To maintain the morale and improve the working efficiency of those already trained and in-service is an essential part of an overall manpower development program which has yet received very little attention, but which the Kenya Ministry of Health is anxious to develop with AMREF's experience and assistance. Through the contact that AMREF already has with many rural hospitals, health centres and dispensaries, it is known there is willingness to undertake refresher courses. However, shortage of staff, lack of experience in teaching, shortage of teaching materials and pressure of other activities especially at central level lead to the idea of a course being abandoned long before it is implemented. However, AMREF is assisting GOK and district health personnel overcome these difficulties and to date has either carried out or assisted district medical teams conduct 21 refresher training courses for 414 rural health auxiliaries. (Appendix 3).

e. Teaching Materials and Learning Resources for Rural Health Workers

1) In order to successfully conduct refresher training courses, teaching materials (handouts, case studies, background data, etc). are essential including development of program guides. These materials have been and are being further developed by AMREF which are then used directly or modified according by the various MOH district health teams when conducting their own refresher training programs. More development work is required however to meet the demand for this material.

2) Correspondence courses. AMREF is developing correspondence courses in conjunction with the refresher training courses as a learning resource. Correspondence courses are very popular and play an important role in training in many fields and at various levels. Practically

represent an innovation in the field of health training. While some subjects lend themselves to learning by this method more easily than others it is increasingly recognized that correspondence courses can make a major contribution in many subjects, especially when combined with short practical courses, radio programs or tutorials.

It is frequently found difficult to maintain motivation for correspondence courses, so initially, they will be combined with attendance at refresher courses, which will be the reward for completion.

3) Training Manuals. At the moment the availability of appropriate books, manuals and journals for health auxiliaries is very limited. With the expension of many training programs throughout East Africa the tremendous need for locally relevant learning resources has grown steadily. While some text books for professional cadres may be interchangeable internationally those required for lower cadres need to be much more specific to the region. Both the unsuitability and the high cost of imported material demand the production of more local books and other teaching materials.

The cooperation and local teachers and practitioners in the writing, review and production of local books and manuals provides an excellent opportunity for standardizing some teaching and practical procedures. This opportunity can only be realized by close colaboration between authors, teachers, practitioners and publishers. AMREF does this by holding workshops to consider drafts of its Rural Health Series Manuals before they are distributed. So far 6 training manuals have been produced - Child Health, Diagnostic Pathways, Health Education. Obstetric Emergencies, Pharmacology & Therapeutics and Mental Health and 1000 copies distributed free to training schools in Kenya and Tanzania (Appendix 4). Six more manuals are near completion.

4) Health Journal In 1970 AMREF began monthly publication of AFYA as a magazine for medical and health workers. It now has a circulation of 3,500 in East Africa and a small but important number of subscribers come from

libraries, schools and government health organisations outside East Africa. AFYA is printed in English and is read by medical assistants, rural medical aids, nurses and medical students and has the support of the GOK and UNICEF. AFYA is printed 6 times yearly and at a nominal subscription fee of Kenya Shillings 10/- per annum ($1.25). The possibility of increasing the subscription has been considered but the decision has been deferred for fear of frightening away subscribers, as the most important criterion has been to have the continuing ear of 3,500 rural health workers (probably more, with multiple readership per copy). Actual production and distribution cost is KShs 22/60 per annum ($2.70).

5) Health Education Magazine. Outside the main towns of East Africa newspaper are not widely circulated, and are usually not available. (One of the first questions to travellers is "Have you brought a newspaper?") As previously stated, books are generally written for a market much wider than a single 'developing' and, therefore not very print-conscious country. So that books, when obtained, usually do not relate very closely to the problems of living in rural Kenya, or in villages of Tanzania.

The dissemination fo relevant and needed health knowledge is, therefore, very limited and the percolation of information is very slow. To encourage people of reasonable education attainments to continue to live in rural areas and make an essential contribution to life, they must be kept in touch with contemporary thinking. While there is so much preventable sickness in the village communities, anxiety about the health of one's family is understandable especially when health services, if available, are very limited.

In addition, it is apparent that the burden of providing curative medicine to large masses of people is difficult in developing countries because of lack of resources and that the only way of reducing the load on curative services is by educating the population to safeguard their own health and

thereby prevent the disease which take them to clinics and hospitals. In order to make headway, a massive effort is required to induce rural people to appreciate what they can themselves do to improve their own health through their own actions and efforts, and it is in this field that AMREF is making a contribution through quarterly publication of DEFENDER, a health education magazine circulated free to the rural lay public in East Africa. To date there are over 7,000 recepients, mostly school teachers in the rural areas.

3. Conditions Expected at End of Project

a. Kibwezi Rural Health Scheme. Division integrated and comprehensive rural health service developed at Kibwezi, with Health Centre as focal point, which could be replicated in other similar dry, marginal agricultural areas, which in the future will have to absorb Kenya Population growth. Training development and performance evaluation of 40 community health workers (CHWs) which MOH has requested AMREF to develop on a prototype basis. Feasibility determined concerning training of CHWs at health centre level and locally in the field. Health Centre at Kibwezi efficiently functioning as a model rural health centre with output statistics and running costs defined and presented to GOK. Low cost health posts established in Kibwezi on a prototype basis. General health improvement of people in Kibwezi area as a result of CHWs, health centre services, and project in general.

b. Teaching Materials and Learning Resources for Rural Health Workers. Twelve more AMREF Rural Health Series Manuals produced and distributed to training schools and then made available to rural health workers at near cost price at text book centre, and bookshops for use as reference books. Translation of three manuals into Swahili upon selection recommendation of MOH. Medical and health education knowledge gained by readership of DEFENDER and AFYA. Correspondence courses developed as learning resource tool for rural health workers in developing countries.

Teaching material developed as part of overall AMREF refresher training program activities which are available for utilisation by district health teams when carrying out their own continuing education programs.

c. AMREF's rural health delivery services, training and health education programs improved and made more effective, reaching more rural poor as a result of stronger management systems and supervisory services;

d. GOK presented with cost-benefit studies and detailed reports concerning Kibwezi Rural Health Scheme, utilisation of mobile medical units in remote areas, flight clinics to remote dispensaries and health centres versus land transport, medical radio communication as an appropriate technology health care system, value / impact of continuing education training programs, for purposes of replication in other similar areas in Kenya. Six one-week workshops for 100-130 MOH and PVO health personnel to discuss above mentioned studies and reports.

B. Project Background

1. General

The International Medical and Research Foundation (IMRF) through its affiliated headquarters and operational organization in Kenya, the African Medical and Research Foundation (AMREF) has 20 years field experience in delivery of rural health services in developing countries. Throughout, the aim of IMRF/AMREF has been 'to explore and implement new methods of providing health care in developing countries and to teach others those methods which prove of value'.

IMRF is located in New York, 833 UN Plaza and is a registered charitable organization in the United States. It is also registered with USAID. IMRF has two full time staff members - Executive Director and Administrative Assistant and a Board of Directors. It is officially affiliated with and represents AMREF in America. IMRF is actively engaged in fund raising for AMREF rural health programs.

AMREF is located at Wilson Airport, Nairobi, Kenya. It is registered with the Government of Kenya as a charitable company limited by guarantee. As of 31st December 1977 AMREF had 71 employees which were engaged throughout its 9 departments and sections:

Training
Health Behaviour
Printing and Publications
Surgical and Anaesthesia
Nursing and Radio Communications
Management Services and Administration
Mobile Medicine
Research
Aviation

Reference is made to Exhibits 1 and 2, AMREF Organization Structure, and AMREF 1977 Annual Report for a description of overall program activities.

Especially for the past ten years of its 20 year history, AMREF has developed various rural health care services and training programs for rural health workers to meet felt needs in the rural areas of Kenya, particularly in the remoter arid parts of the country which have the least health facilities and manpower and whose populations are scattered over large areas, e.g., Kajiado, Narok districts, Northern Province. Programs and services have included:

- establishment of mobile ground medical units;
- medical radio communications network development;
- medical speciality services to remote areas;
- regular supervision of remote are health facilities and promotion of immunization campaigns and preventive medicine programs;
- continuing education training programs for dispensary level health workers;
- development of training manuals, teaching materials and health journals for rural health workers.

These services and training programs evolved to fill gaps in the rural health services provided by GOK. They now represent established outreach programs which supplement and complement the rural health care system and training manpower programs of the Kenya Ministry of Health. These services are fully supported by GOK which give AMREF an annual grant of K£20,000 ($50,000) towards their recurrent costs.

Even though output statistics are tabulated, the impact and cost-effectiveness of these services and programs has never been adequately determined either by AMREF or GOK due to lack of management expertise and/or time to carry out such studies. Therefore, their potential value as replicable systems and training programs has not been fully developed.

AMREF strongly feels that the time has come for each of its more important health care services, as listed above, to be thoroughly evaluated with the objective of:

a. determining present impact and cost-effectiveness on the rural population being served;

b. improving future impact and effectiveness;

c. developing the services and training programs as replicable models for GOK and voluntary health agencies to use in other areas of Kenya where similar conditions exist, e.g. scattered populations, poor transport systems, limited health resources, marginal agricultural subsistence, or nomadic groups, etc.

Systematic analysis, cost-accounting and cost-benefit studies are therefore required, this calling for management and health planning expertise. Development of this management capability will also enhance AMREF's ability for future program design, management and planning in areas of rural health care delivery and training identified by the Foundation and GOK as worthy and relevant for examination and development, e.g. improved methods of health education and dissemination of health information, more effective mother and child health services, low-cost building techniques for health facilities; surgical training programs for rural medical officers; innovative training programs for health auxiliaries, etc.

In addition, AMREF will be in a stronger position both to initiate health care projects and turn them over to the GOK, and to act more as a technical support agency to the Ministry of Health.

AMREF is striving to develop its role as an indigenous public health institute which collaborates with and quickly responds to requests from Government for examination and development of various rural health services and training programs presently beyond the capability of the Government, (which many times is too heavily committed to be able to develop new approaches to health care delivery).

Two such requests have been put forward by the Ministry

1) that AMREF continue to develop and produce teaching materials and learning resources for rural health workers;

2) that AMREF develop in cooperation with local health personnel a model division rural health service for Makindu Division at Kibwezi, the new designated division headquarters.

C. Project Analysis

1. Teaching Materials and Learning Resources for Rural Health Workers

At a meeting with the Kenya Ministry of Health in 1977 the Permanent Secretary strongly encouraged AMREF to expand its printing and

publishing activities because, according to the Permanent Secretary, the MOH does not have the capital funds, or more importantly, the management capability at this time to undertake the production of teaching materials for rural health personnel in the way AMREF has shown it can.

As stated earlier, AMREF started developing relevant teaching materials and learning resources for health auxiliaries recognizing that availability of appropriate books, manuals and journals for health auxiliaries is very limited. Besides the six training manuals that have been produced, the following manuals are in an advance state of preparation:

Community Health	Occupational Health
Communicable Diseases	Rural Health Practice (Kenya)
Epidemiology	Management Schedules for Dispensaries

In addition, Surgery at Health Centre, Skin Disease and Practical Radiology have been begun.

All the above, and more, are required. The sequence and speed at which they are completed depends on financial resources and on the availability of suitable authors or groups of authors.

The manuals so far produced have been well received. After the initial run of 1,000 free copies, additional copies have been produced to meet demand, which are available to health workers at low cost through the Kenya Text Book Centre and Moshi Bookshop.

Child Health	12,000 additional copies
Health Education	5,000 additional copies
Obstetric Emergencies	3,500 additional copies
Pharmacology	5,000 additional copies

Trainees at the various rural health training schools in Kenya are given a book allowance in order to buy teaching materials such as AMREF's Rural Health Series Manuals. There is no policy of training schools issuing required books.

Twelve manuals (4 annually) are programmed for the OPG with 1000 free copies distributed to training schools in Kenya and Tanzania as as is the standard policy for AMREF (Appendix 4). Additional copies will be produced upon demand for purchase at near cost price for rural health workers. These will be distributed through textbook centre and bookshops in Kenya and Tanzania. The manuals therefore become self-financing. Titles of 4 of the manuals would be Rural Health Practice (Kenya), Management Schedules for Dispensaries, Practical Radiology and Surgery at Health Centre. Other titles depend on available authors, however, the following health related subjects are possibilities:

- Rural Health Service Planning and Administration
- Mobile Medicine
- Continuing Education Training Programs for Rural Health Workers
- Community Health Worker Manual for Kenya

Three manuals (one annually) will be translated into Swahili and a 1000 copies distributed free to training schools. Title selection will be partly determined by MOH.

Eighteen issues of AFYA and 12 issues of DEFENDER will be produced and distributed. An effort will be made through sample issues and contact with training schools to increase distribution and interest in these two rural health related journals.

Refresher training and retraining materials will be produced for the 12 3-day refresher courses to be conducted for existing Kibwezi area staff and CHWs. Also produced will be the curriculum and a manual for CHWs at Kibwezi.

2. Kibwezi Rural Health Scheme

Kibwezi is the central point of the Makindu Division of Machakos District of Kenya. It is planned by Government to relocate the division centre at Kibwezi. The area is an arid plan with scrub bush, between the Chyulu Hills and the Athi River. It is at an elevation of 3,000 feet and comprises 1,200 square miles.(See map).

The principal health problems, similar to those of the drier rural areas of Kenya include respiratory infections, gastroenteritis, malnutrition, childhood infections, malaria, tuberculosis and leprosy, and

are largely preventable. A special but distinct problem of the area is emergency medical management of the numerous road accident casualties arising on the busy Nairobi/Mombasa road.

Existing health facilities in the area are Makindu Hospital, Kibwezi mission clinic and two rural dispensaries. The clinic though situated in the more populous centre at Kibwezi has no in-patients beds. The small Makindu Hospital has 32 general and 10 maternity beds but limited facilities with no medical officer. It is built on railway property and thought unsuitable by MOH for development. Only simple minor operations, e.g., dental extractions, and lancing abscesses, can be undertaken. The hospital is 23 kms from Kibwezi. The nearest district hospitals are Machakos - 144 kms from Makindu, and Voi - 135 kms from Kibwezi.

As presently provided, the structure of Government health services allows only limited opportunities for innovation in methods of health care provision, even though the Kenya Ministry of Health is increasingly aware of the unmet medical care needs of the mass of the population in the rural areas. The Ministry has requested that AMREF assist by helping to extend and improve its rural health services for the 80,000 - 100,000 population in the area of Kibwezi, that as can be seen has limited health resources.

a. Objectives

The overall objective of the AMREF Rural Health Scheme at Kibwezi is to provide a model for the mobilization of both community and outside resources to secure maximum health coverage within the limits of resources available.

The specific aims of the Kibwezi Project which form its plan of action are:

1) assessment and evaluation of

a) needs of rural population for curative, preventive and health promotive services through epidemiological investigations by sample house-to house enquiries, and studies of people's present knowledge and misconceptions, their beliefs and fears, customs and taboos in health related matters and of the assistance given by untrained traditional birth

attendants, herbal specialists, etc.;

b) effectiveness of present provision of health services through examination of medical records at Makindu Hospital, mission clinic at Kibwezi and rural dispensaries at Ngwata and Kalulini; sample family health surveys of immediate area of these facilities; enquiries to determine experiences of people and their responses to health emergencies and persistent less acute, health problems; enquiries to estimate effectiveness and levels of community satisfaction with traditional practitioners - both midwives and curers - to determine assistance and training such practitioners might benefit from and roles they can play.

2) preparation of plans for systematic health improvement through community consultation at central villages, consultations with MOH personnel at Machakos and staff working at existing Kibwezi area health facilities, and other development workers, e.g., district development officer, agricultural officer, community development officer, teachers, analysis of data collected concerning needs of population and effectiveness of present provision of health services.

3) providing inputs to assist existing services:

a) minor additional instruments and equipment, surgical and laboratory, to enable hospital staff to perform simple operations and laboratory procedures after receiving in-service training from AMREF staff;

b) construction, equipping and operating a rural health centre at Kibwezi with GOK participating in the recurrent costs starting in the 3rd year;

c) provision of resources e.g. building supplies and materials, box for securing drugs, etc., for self-help construction of health posts for community health workers;

d) low-cost vehicle mobile unit to operate from Kibwezi Health Centre staffed by community nurse, family health field educator, health education auxiliary to conduct MCH and Under-5s clinics, carry out immunization campaigns, school medicals, health education in collaboration with respective community health worker. In coordination with CHW, reinforce CHW village promotive activities, e.g. construction and use of pit latrines, protecting water supplies, collection and disposal of refuse, etc.;

4) basic and continuing education training program:

a) refresher training and retraining assistance to existing staff at Makindu Hospital, mission clinic and rural dispensaries based on needs to be met, but particularly to enable them to improve diagnostic and nursing skills, carry out more effective preventive medicine, health education and promotive health activities. Program would include 12 3-day refresher courses for 12 (average) health workers, including CHWs after receiving basic training, and visits from AMREF clinical, surgical and nursing staff for in-service training purposes;

b) providing training for community health workers selected by the communities to be served, in collaboration with project staff. Job description of community health work is described in detail below. Plan is for one CHW for each 2,000 - 3,000, and with the Kibwezi area population at 80,000 - 100,000 the requirement is 40 CHWs. Ten will be trained in the 2nd project year then in groups of 15.

5) implementation, supervision and evaluation by AMREF including permanent staff on site at Kibwezi - project coordinator, and health centre staff. Health centre staff

will be taken over by GOK starting in the 3rd year. AMREF management input is detailed below.

The Kibwezi Rural Health scheme represents an excellent opportunity for AMREF to demonstrate how it believes sub-district/division level health services with a health centre and small hospital should be provided; and it offers MOH a change to examine the outcome of training and utilization of community health workers.

b) Other Community Health Worker Type Programs in Kenya.

A number of different schemes involving a variety of different types of community health workers have recently been tried in Kenya. One of the first to be started was at Nangina, a voluntary agency hospital on the borders of Uganda.

In 1969 the hospital began training Public Health Aids selected and paid by the local clans. In 1973 another voluntary agency hospital, Chogoria, on the slopes of Mt Kenya started training community workers to extend the hospital coverage. Simultaneously other small scale schemes have been started mainly by voluntary agencies.

On recent scheme has been established by an experienced nurse working through a mission. She established herself in a locality and helps the nearby communities to select trainees and then undertakes the training on the spot. This self-help course involves a lot of home visiting and close supervision and discussion of local problems. On completion of the course each new worker is introduced to her community by the trainer and visited every six weeks for the first six months.

Four years ago when the Ministry of Health started its Rural Health Development Project it also started a major Maternal and Child Health and Family Planning program. As part of this very large program which aims to provide MCH/FP services from 400 service delivery points scattered throughout the country including health centres, a new cadre of Family Health Field Educators is being trained. in this program previous work as a community development worker, social worker, teacher or patient attendant is also called for. The training programme has had to be on a large scale and centralized, but with all trainees spending four out of the 10 weeks back in their own areas. GOK pays the FHFE nearly double the statutory minimum wage for unskilled staff in rural areas because most of the FHFEs have had a previous training. However this higher salary takes the whole program more expensive and less likely to be able to be supported from local funds.

The normal staffing pattern for a Kibwezi type health centre is 20 staff: clinical officer, 4 community nurses, rural health technician, 2 family health field educators, microscopist, 3 patient attendants, 4 general attendants,

records clerk, driver, cook and watchman. Therefore, 2 family health field educators will be posted and employed at the Kibwezi Health Centre. This will afford an excellent opportunity for MOH and AMREF to determine how this cadre of rural health worker can interrelate with the more broadly based, multi-purpose community health worker. It is felt that MOH does intend to have the FHFEs become more milti-purpose, health-promotive oriented in the future. Their present orientation towards MCH/FP activities is based somewhat on the nature of the funding sources.

By having FHFEs as part of the project, AMREF will also have the opportunity to assist MOH in developing a continuing education program for them, e.g., teaching materials, refresher training, etc. And, if so desired by MOH, AMREF can assist in the development of a training program for broadening their job specification. AMREF foresees no special difficulty in having FHFEs and CHWs in the same project area. Rather it makes the project more valuable to MOH as it can determine how these different cadres can best serve the rural poor as part of a monitored, demonstration project.

Another area where the project can benefit MOH with developing its FHFE program is with their mobility. This is a key element for success of the FHFE program if they are to reach out from their health centre/delivery points to the communities. AMREF is definitely not promoting vehicle transport in general because of its cost and maintenance complications. But in an area like Kibwezi with scattered population and limited public transport, AMREF will be experimenting with low-cost vehicle mobile unit, which will involve MCH/FP activities to be carried out by the FHFEs as a mobile unit team member.

b. Role of Kibwezi-Community Health Workers (CHWs)

1. Definition: The Kibwezi Community Health Worker (CHW) will be a member of the community, selected by that community in cooperation with the project staff. He/she will provide primary health care services to a population of approximately 2,000 - 3,000. Initially the CHWs will be paid at minimum Kenya wage ($ 310 per annum).

The ultimate objective is for the communities to financially support their CHW(s). The CHW will have completed primary school and will be allowed to carry on with his/her livelihood as a farmer, tradesman, etc., if so engaged, besides being the health promoter for the community. He/she will be supervised technically by the community nurse from the nearest dispensary, or if no dispensaries are available, by the health centre team - clinical officer, community nurse, health technician. Health posts will be established from which CHWs will operate.

The CHWs will be supervised administratively, except for renumeration initially, by the village development committee. The AMREF Project Coordinator for Kibwezi will be involved with the technical and administrative supervision of the CHWs, especially in the earlier stages of the project and will assist the communities in establishing their administrative structure for supervising the CHWs. The Project Coordinator will report to AMREF Management Nairobi who will also assist him carry out his responsibilities at Kibwezi and serve as a technical back-up service for the project.

2. Duties of CHW: The following activities will be carried out by the CHWs:

a) maintain constant contact with the community members and their leaders and other community development workers;

b) initiate and participate in community projects;

c) advise the community on promotive such as:

- water supplies
- collection and disposal of refuse
- good nutrition based on local foods
- health education
- construction and use of latrines

d) perform selected health care activities. He/she is to offer ambulatory treatment and preventive advice on the diseases given below in List 1;

e) refer to the community nurse or clinical officer all complicated cases and those suspected to have any of the disease in List 2;

List 1, Disease for prevention and treatment at health posts or in the field by the CHW:

(1) Malaria
(2) Gastroenteritis, diarrhoea and dysentery
(3) Respiratory diseases - upper and lower
(4) including asthma;
(4) Measles
(5) Wounds including minor burns
(6) Abcesses
(7) Skin diseases including scabies
(8) Mulnutrition and anemia
(9) Venereal diseases
(10) Eye infection
(11) Poisonous bites and stings (snake, scorpion, dog)

List 2 Diseases for referral to dispensary or health centre:

(1) Leprosy
(2) Tuberculosis
(3) Bilharzia
(4) CSM (report to medical assistant not necessarilly refer)
(5) Ear diseases

f) offer in conjunction with the village midwife and Family Health Field Educator, maternal and child health care, and family welfare advice;

g) record all births and deaths in the community;

h) keep safely and maintain all the equipment, instruments, drugs, supplies at individual dwelling or health posts;

i) keep records of his/her work

3. Training Program: A CHW will undergo a basic 6 week practical training course conducted by AMREF's Training Department, with participation from the Kibwezi health centre staff and other health and development workers in the division. This will be followed by regular weekly courses held once per month for the first year and also carried out by AMREF's Training Department.

The content of this training will be derived from a curriculum AMREF has developed for the training of Community Health Workers as part of its participation in the development of a Primary Health Care Program for the Southern Region, Sudan (Exhibit 3).

4. Borad Educational Objectives of Basic Training:

On completion of his/her course a CHW will be able to:

a) obtain information about customs, habits and taboos that are directly or indirectly related to the health of the community, in which he is serving;

b) discuss community problems with local leaders and help work out solutions for improving the life of the population, and to know the sources of help in the health field, including traditional healers, herbalists and traditional birth attendants;

c) describe, demonstrate and supervise villagers in constructing appropriate methods of improving the village environment in particular:

- improving water supplies
- disposing of refuse
- disposing of excreta
- improving housing
- improving food production, storage and hygiene
- control of vectors

d) in collaboration with family health field educator, (1) assist the village midwife in providing care for women during pregnancy, delivery and after birth and in giving advice on child spacing;

(2) advise mothers on the care and feeding of children, in particular by completing and maintaining a growth care for all children;

e) control communicable diseases by:

- assisting mobile vaccination teams
- improving the village environment
- identifying, treating and when necessary reporting and referring epidemics of fever, diarrhoea and respiratory diseases;

f) recognize the common causes of sickness, and give treatment for those in List 1 and refer those in List 2;

g) establish a system of registration of births and deaths, and to complete the necessary forms and returns;

h) establish and maintain an inventory of equipment and supplies in the health post or individual dwelling and to obtain further supplies; from the health centre;

i) keep the required records and submit reports.

It is recognized that this is an experimental program and liable for modification in the light of experience.

c. Kibwezi Health Centre

1) Health Care Organization inKenya

Within the context of the Kenyan National Policy, the main objectives of the current Five-year Plan are:

- to increase emphasis on health-care for the rural areas
- to increase resources for public preventive health-care
- to increase capacity and quality of staff training at all levels.

The present administrative organization of health care in Kenya, together with the size of population served, and target bed numbers, can be summarized as follows:

National Hospital 14 million population	900 beds (extended to 1,700 beds by 1979)Kenya National Hospital, Nairobi.
Provincial Hospital 1 - 2 million population	250 - 800 beds (by 1984)
District Hospital Sub-District Hospital 250,000 population	150-300 beds 100 beds
Health Centre Health sub-centre 50,000-70,000 population	12 beds no beds
Dispensary	(2-4 holding beds for dispensaries in remote areas)

2) Health Unit Area

In the Kenyan health policy, Rural Health was considered to be increasingly important during the 1960's. The first decisive step was taken in 1970 when the Ministry of Health took over the health care organization formerly run by the county councils.

The next important step was to formulate a detailed program based on the best available information of demographic characteristics, prevalent health problems and relevent technology, and taking into account manpower and financial contraints. This exercise was undertaken in 1972 with support from WHO consultants, and the result presented in a report entitled 'Proposal for the Improvement of Rural Health Services

The program was based on the concepts of 'health units' and 'health teams'. The Health Unit Area was defined as an area with an average population of 50,000 - 70,000, and was to be served by one central facility with a small ward, Health Centre peripheral services were to be provided by Health Sub-Centres and Dispensaries.

The type and location of peripheral facilities will depend on population density, disease panorama, communications, and distances to existing health facilities.

The recommended staffing requirements for MOH Rural Health Facilities are estimated at:

Health Centre	20 persons. This is the largest rural health facility comprising units for in-patients, out-patients, and service facilities. The Kibwezi Health Centre will also include a training room and hostel for training CHWs and conducting refresher training courses. These facilities will also be made available for other continuing education programs, e.g., adult literacy, etc.
Health Sub-Centre	14 persons. Comprises unit for our-patients and supporting service facilities.
Dispensary with holding beds	7 persons. Comprises a smaller unit for out-patients, and facilities for a few holding beds.
Dispensary	7 persons. This is the smallest MOH unit consisting of a small out-patient unit.

3) Structure of Health Services at Kibwezi

MOH has designated Kibwezi Health Centre as the Health Area Unit for Makindu Division. Peripheral services are provided by two rural dispensaries at Ngwata and Kalulini. At least three more dispensaries are required in order to complete the recommended coverage for a Health Unit Area. A dispensary is to serve a population of 10,000. MOH and AMREF will be seeking funds for these dispensaries.

As stated, the small Makindu Hospital has limited resources and, in fact, functions more as a health centre than rural hospital. When funds are available, MOH will build a new rural hospital for Makindu Division and at present does intend that most cases for referral from Kibwezi Health Centre will be sent to Machakos Hospital.

Community health workers will operate from health posts which will consist of a simple examination/treatment room adjoining the CHW's house. It will be made from local materials on a self-help basis. The project will contribute funds to the communities (from Norwegian Church Aid/AMREF sources) and AMREF staff will assist the communities in organizing and constructing the CHW health posts. The projected cost per health post is approximately $500. AMREF funds from Norwegian Church Aid will be used for the initial renumeration and drug/medical supplies/equipment support for CHWs.

The Machakos Medical Officer of Health is responsible for Makindu Division health services. Since MOH has approved the AMREF Kibwezi Rural Health Scheme, the Project Coordinator will function as an Assistant DMO, for Makindu Division in collaboration with the DMO Machakos. The Project Coordinator will mainly be involved however with direct project inputs, e.g., Kibwezi Health Centre, upgrading skills of existing health personnel, training, supervision, evaluation of community health workers, organizing community action for CHW program and construction of health posts, etc.

The AMREF clinical officer at Kibwezi Health Centre will be in charge of Kibwezi Health Centre activities and supervisor for the other Kibwezi Health Centre staff (4 community nurses, health technician, 2 family health field educators, microscopist, records clerk, driver, 3 patient attendants, and 4 general attendants. (See Appendix 5 for Kibwezi Health Centre personnel job description) AID OPG funds will be utilized for the recurrent costs of the Kibwezi Health Centre for the 3-year project with MOH

to operate the Kibwezi Health Centre as a demonstration health centre, AMREF strongly believes that it should employ the staff initially and provide the recurrent costs for the first two years before MOH take over begins in the 3rd year. AMREF would then train the Kibwezi Health Centre staff.

The Kibwezi Health Centre Clinical Officer will report to the Project Coordinator and serve as his counterpart concerning development and supervision of the peripheral units including CHWs. At the end of the project, the clinical officer will then assume, as MOH staff, responsibility for supervision of the Kibwezi Health Area Unit and report to the Machakos DMO.

The project coordinator will be responsible to AMREF Management and work closely with the Machakos DMO, keeping him informed about project progress. He will also report regularly to the Makindu District Officer and the Makindu Development Committee.

AMREF will be responsible for constructing, equipping and maintaining the Kibwezi Health Centre during the project period with funds from the Association of Swiss Civil Servants. It will be turned over to GOK at the end of the project period.

Since AMREF intends for the KHC to be a demonstration health centre for purposes of possible replication, the Foundation will construct and operate it at a financial level comparable to what is planned for other similar health centres. The architectural plan has been approved by MOH and MOW and, as stated, it has been named the centre for the Health Unit Area for Makindu Division.

MOH is unable to produce a defined recurrent cost for health centres since funds are allocated to district hospitals to be disbursed to each rural health facility in the district. A significant contribution of the project will be detailed cost information for operation of a rural health centre.

4) Functions of Kibwezi Health Centre

a) Out-Patients

The out-patient unit at the Kibwezi Health Centre is sufficient size to handle about 300 patients a day. The main functions within the out-patient unit are preventive, diagnostic, and treatment health care. The patient flow is arranged so that arriving patients do not interfere with departing. The layout is flexible enough to cater for various registration and referral procedures. Arriving patients will be screened by the registration clerk and sent to either the preventive or diagnostic section.

1) Preventive Section

Children under five, and maternity cases, will be directed from the registration desk to the waiting area in the preventive section. Registration cards for these patients will be issued and kept within the section. Checks on ante-natal, patients, immunizations, and general check-ups on children, will be carried out here. Family planning services will be provided in combination with post-natal care. To simplify maternity case check-ups, weighing and urine-testing will be done by a patient attendant during the waiting time before examination. Urine bottles will be collected at a place next to the waiting area in relative privacy.

Although the preventive section is not intended for sick patients, a large proportion of cases will be in need of treatment. Simpler forms of treatment, such as common injections, dressings, and the issuing of prepacked drugs, will therefore be provided. Difficult cases, though, will have to be referred to the diagnostic section.

Health Education will be given during consultations, and information to larger groups in the waiting area.

2) Diagnostic Section

Sick patients will be directed by the registration clerk to the diagnostic section, for examination by a community nurse or clinical officer. Since the clinical officer will also be occupied with other duties, most cases will be

sent to the nurse. Serious cases will be referred to the clinical officer for further examination and treatment in the minor surgery. Referred cases from the clinical officer will be examined on specified times by the Project Coordinator who is medically qualified.

3) Treatment Section

Pharmacy and laboratory facilities will be included among the functions along with rooms for injection, dressings, minor theatre, storeroom for drugs and medical supplies, two examination rooms also serving as an office for the community nurses and clinical officer.

b) In-Patients

The in-patient unit includes facilities for delivery and in-patient care. The unit is of sufficient size to cater for 12(15) patients. The normal patient categories will be maternity, emergency, and observation cases. The in-patients will be distributed between one 6-bed ward and three 2-bed rooms. The 6-bed ward is mainly intended for post-natal patients, but it may also be used for ante-natal patients depending on the occupancy of the other wards. One 2-bed room will be reserved for male patients. The remaining 2-bed rooms are intended primarily for female patients.

The delivery section will be sufficient to handle about 70 deliveries per month. Preparation of the patient before delivery will be carried out in the delivery room or in one of the 2-bed rooms. Adjacent to the delivery are utility rooms, duty room, toilet and shower.

The dirty utility room is intended primarily for rinsing and holding dirty articles for a short period. For disposal and washing up, dirty articles will be taken to a common sluice room.

The clean utility room will serve the sterilization needs of the entire health centre for large items, such as bowls, etc. Sterilization of syringes and smaller items will be carried out at the place of use. Sterilization facilities will be limited to bench sterilizers.

Access to the in-patient unit is from the open waiting area at the link between the ward and the OPD. The community nurse will have a good view of the entrance and at night this can function as entrance for casualty with the minor operating theatre being close by.

c) Service Section

The service unit is split into one block with toilets next to the out-patient unit with access also from the open waiting area, one block with toilets and showers next to the in-patient unit, one block with kitchen, laundry and general store, and one block with garage and workshop for the health technician at the service road.

d) Training Section

Next to the health centre connected by a covered way to the block where the kitchen is located is placed a dormitory for approximately 12 students with a separate toilet-shower block. Adjacent to the kitchen is a semi open dining/classroom.

e) Construction

The Foundations will be of strip reinforced concrete type at a depth of 60 cm. Floors will be of 20 mm hardcore laid over excavation of top soil, the ground will be well compacted and a heavy-duty polythene D.P.C. laid over. Construction will be 10 mm B.R.C. reinforced concrete slab with a 40 mm sand/cement screed (color red). In wet rooms 40 mm granolithic flooring replaces the screed. External walls will be 190 mm sand/cement blocks or burned clay bricks, fairfaced finish externally with joints raked out. Internally rooms such as delivery, minor theatre, etc. will be plastered and painted. Other rooms will have a wash of sand and cement finished with a white wash.

Louvre windows will be used in minor theatre, delivery, etc. Some blades to be painted white if needed. Other windows timber framed, un-glazed openings with steel mesh burglar proofing. Doors to be of framed, braced and ledged timber construction. Roofing will be timber construction with corrugated asbestos.

f) Outreach Activities

It is standard practice for health centres to conduct mobile units in their areas and supervise auxiliary staff working in the surrounding dispensaries. AMREF intends to strengthen these activities for the Kibwezi Health Centre for demonstration purposes. For instance, low cost mobile vehicle will be utilized to determine effectiveness in relation to the expensive Landrover. A model mobile staffing pattern will be an objective after determination of the felt health needs of the people for mobile services. In Ethiopia two health officers are assigned to a health centre, one for the health centre activities and one for the outreach services. Based on operational experience the project will determine if this is appropriate in Kenya for a Kibwezi type health centre.

The mobile unit will assist in supervision of the CHWs and help reinforce their activities in the villages. The unit will also conduct Under-5 clinics to improve ante-natal and maternity care including offering family planning services. They will conduct school medicals and increase the health knowledge of teachers and strengthen their school health education programs. A major program activity for mobile units will be mass immunization campaigns. All of these activities will be evaluated for cost effectiveness.

AMREF has had considerable experience in providing mobile medical services and along with the Project Coordinator will assist the health centre staff organise and carry out effective mobile services.

5) Financial Administration of Kibwezi Health Centre

As stated, the clinical officer will have day to day responsibility of the Kibwezi Health Centre program. Disbursement of funds for health centre recurrent expenditures including salaries will be made through the Project Coordinator who will receive funds from AMREF Nairobi. Unfortunately, there are no banking facilities in Kibwezi, therefore, the Project Coordinator will have to secure the cash in a safety box in his residence or at the office at the health centre.

Receipts and vouchers will be kept by the Project Coordinator at AMREF for accounting purposes. The accounting function will be handled from Nairobi until take over of the health centre activities by MOH and the Machakos District Medical Office.

Orders for drugs, medical supplies, food, etc., will be placed by the clinical officer and CHWs for their program and will be dealt with by AMREF through the Project Coordinator. An accurate account of the expenditures for the project will occur, besides financial control being ensured.

D. AMREF Management Services

AMREF Management Personnel will spend at least 60% of their time with planning, implementation (management/supervision) and evaluation of the project.

Especially for those key program activities, requested by MOH for action, to be successfully implemented and evaluated - Kibwezi Rural Health Scheme and developing/producing teaching materials and learning resources for rural health workers, - AMREF Management involvement is absolutely essential for technical backup purposes. The Kibwezi Centre staff, the community health workers and the African national Project Coordinator will require training and guidance to carry out their responsibilities with the end result being that having been part of a dynamic division rural health service they can sustain the momentum of the program and help replicate it in other

similar areas of Kenya. AMREF views the project coordinator position as a training one in how to plan, organise, manage and evaluate an integrated and comprehensive rural health service. AMREF felt that it was more important to Kenya to have a national in this position who could develop the appropriate expertise over time through AMREF Management assistance than engage an expatriate.

AMREF Project Management will work closely with the Machakos District Medical Office to assist it strengthen its management capability so that it will be in a stronger position to take over the responsibility for the Kibwezi Rural Health Scheme. AMREF will liaise with the MOH Administrative Support Unit concerning this activity. This Unit is presently attempting to improve the management systems at MOH and intends to start work also at provincial and district levels regarding rural health management.

The importance of the Kibwezi Rural Health Scheme is that

- it will be the first new Health Unit Area facility to be built under the MOH Rural Health Development Project. MOH is especially interested in the design and how it will function.
- it introduces community health workers to Kenya as part of an integrated Health Unit Area program.
- GOK is placing special emphasis on development of marginal low productive areas like Kibwezi. Such areas will require health services and this enhances the replication value of the project.

IMRF/AMREF strongly feel that without management backup support the Kibwezi Rural Health Scheme would be impossible to implement.

AMREF project management staff identified for the project include the project director who will have overall responsible for project implementation and coordination and communication with MOH and appropriate non-government health agencies interested in the project, e.g. WHO, UNICEF, AID, etc. Three project consultants will be assisting the national staff develop, manage and evaluate the project activities concerning medical, training and health education; planning, programming and evaluation; financial management and control.

Besides the management involvement in planning, guiding and evaluating the Kibwezi Project, these staff will also assess AMREF rural health services and training programs in order to strengthened them and improve their effectiveness with the objective of reaching more rural poor and supporting and upgrading those health workers at dispensary level who are serving the rural population.

As part of AMREF's Africanization policy, a deputy medical director and a planning/program management trainee will be engaged as part of the project and will receive participant training in the US for MPH degrees. Besides being involved with the Kibwezi Project, they will assist the project consultants in strengthening and improving AMREF rural health services and take over more supervisory and planning/evaluation responsibilities of the consultants towards the end of the project.

On completion of the programme the planning/program trainee would be able to design future health programs for AMREF based on MOH requests for AMREF involvement in particular rural health areas it desires to be developed.

E. Implementation Plan

Action		Project /Months
First Year		00-12
1.	PP submitted/approved	00
2.	Construction begins and completed on Kibwezi Health Centre and Project Coordinator's house. Equipment/vehicles/furniture ordered and received	01-09
3.	Project team personnel recruited and engaged on project (4 consultants, 5 Kenyan nationals) Kibwezi Health Centre staff taken on three months before opening of KHC (17 Kenyan nationals)	01-06
4.	Commodity items ordered and received	01-04
5.	Preparation and production of 4 training manuals	01-12
6.	MOH selects which existing manuals it prefers to be translated into Swahili. Translation and production of training manual	01-12
7.	Assessment and evaluation of needs of Kibwezi/ Makindu Division population for curative, preventive, and health promotive services	02-12
8.	Epidemiological investigations by sample house-to-house enquiries	02-12
9.	Studies commence of people's present knowledge and misconceptions, their beliefs and fears, customs and taboos in health related matters and of the assistance given by untrained traditional birth attendants, herbal specialists, etc.	02-12
10.	Effectiveness of present provision of health services ascertained:	
	a. examination of medical records at Makindu Hospital and mission clinic at Kibwezi;	
	b. sample family health surveys of immediate area of these two facilities;	
	c. enquiries to determine experience of people and their responses to health emegencies and less acute, health problems;	

d. enquiries to estimate effectiveness and levels of community satisfaction with traditional practitioners and training such practitioners might benefit from and the roles they can play. 02-12

11. Project Coordinator/AMREF staff consult communities at central villages to describe Kibwezi Project and assist in mobilizing communities to select CHWs 02-08

12. Plans formulated to provide low cost health posts and their equipment 06

13. Plans for systematic health improvement prepared firstly, for those communities which have urgent unmet needs and which are prepared to participate energetically. These communities would thus, be self-selected, and would serve as examples to encourage participation by other villages 06

14. Assistance to Makindu Division health personnel generally to enable them to improve diagnostic skills through better laboratory back-up and better instruments. (4 3-day refresher courses for 12-15 participants 03-12

15. Provision of additional equipment to enable Makindu Hospital staff to perform simple operations 06

16. Refresher training of existing Kibwezi area health personnel and retraining based upon needs to be met 03-12

17. Determination of the use and effectiveness of the 6 existing AMREF training manuals already distributed 01-12

18. Cost-accounting systems developed for Kibwezi Rural Health Scheme and other replicable AMREF rural health services 01-06

19. Evaluation studies carried out on present AMREF rural health services and training programs to determine cost-effectiveness 01-12

20. Two workshops held for MOH and PVO staff to discuss AMREF methods of rural health delivery services based on evaluation results 08-12

21. Publication of 2 reports on AMREF rural health and training program methods based on evaluation studies 06-12

22.	Publication of 4 issues of DEFENDER and 6 issues of AFYA	02-12
23.	System of continuous supervision developed and project monitoring system established including diary keeping, report filing to encourage initiative, maintain momentum and measure and evaluate the progress made	01-12
24.	Kibwezi Project Steering Committee meets quarterly to monitor and plan overall strategy. Members include representative from MOH Headquarters, Machakos DMO, AMREF staff, and donor agencies if so desired.	04-12
25.	Kibwezi Project progress reported regularly to Makindu Development Committee	01-12

Second Year

26.	Preparation and production of 4 training manuals and translation and production of 1 manual	13-24
27.	Analysis of Kibwezi epidemiological investigations and health behaviour data and surveys determining type of health services desired by rural people and effectiveness of present health services. Information utilized accordingly	13-16
28.	4 3-day for 12-15 trainees refresher training courses with correspondence courses carried out according to need. Development of teaching materials	13-24
29.	Selection of first group of 10 CHWs by communities with AMREF staff participating in the final selection process	13-15
30.	Teacher training given Kibwezi Health Centre staff who will participate in the training program for CHWs with AMREF's Training Department	13-15
31.	Training program of 10 CHWs begins at Kibwezi Health Centre	16-24
32.	Construction of health posts 10 CHWs	16-24
33.	AMREF Management carries out cost-benefit and evaluation studies of its rural health services and training programs including the Kibwezi Project	13-24

34.	Determination of the use and effectiveness of the 4 training manuals and 1 translated manual produced in 1 st year	13-24
35.	Two workshops held for MOH and PVO staff to discuss AMREF methods of rural health delivery services based on evaluation studies. Publication of 2 corresponding reports	15-21
36.	Publication of 4 issues of DEFENDER and 6 issues of AFYA	14-24
37.	Kibwezi Project information, output statistics and reports analyzed and appropriate steps taken by AMREF Management if necessary	13-24
38.	Kibwezi Project Steering Committee meets quarterly to review project progress which is also presented to Makindu Development Committee	16-24
39.	Two year project evaluation is carried out by IMRF/AMREF/USAID	23-24

Third Year

40.	Preparation and production of 4 training manuals and translation and production of 1 manual	25-36
41.	4 3-day refresher training/correspondence courses for 12-15 trainees conducted according to need	25-36
42.	Selection of 2nd/3rd group of 30 CHWs by communities with AMREF staff participating in the final selection process	25-27
43.	First group of 10 CHWs trained and deployed and supervised by AMREF staff	25-36
44.	Training program for 2nd/3rd group of 30 CHWs begins at Kibwezi Health Centre. Training periods arestaggered to accommodate both groups	28-36
45.	Construction of health posts and AMREF assistance rendered for construction on self-help basis	28-36
46.	AMREF Management carries out cost-benefit studies and evaluation studies of its rural health services and training programs including the Kibwezi Project	25-36
47.	Determination of use and effectiveness of the 4 training manuals and 1 translated manual produced in the 2nd year	25-36

48.	Two workshops held for MOH and PVO staff to discuss AMREF methods of rural health services and training programs based on evaluation studies. Publication of 2 corresponding reports	27-34
49.	Publication of 4 issues of DEFENDER and 6 issues of AFYA	26-36
50.	MOH starts to participate financial in take over for of Kibwezi Health Centre recurrent costs	25-36
51.	Evaluation studies begin and 12 month assessment made on 1st group of CHWs	25-36
52.	Assessment of effectiveness of the Kibwezi Project will be made by measurement of health improvement shown in relation to the baselines established in 1st and 2nd year. Reference would be made to changes in disease incidence as shown by the family health records, improvements at village level (protected water supplies, new pit latrines, etc.). Attention given to attitudes towards Kibwezi Project by Community Leaders	25-36
53.	End of Project Evaluation and Assessment carried out by IMRF/AMREF/USAID	35-36
54.	Kibwezi Project Steering Committee meets quarterly and reviews project progress and evaluation studies which are also presented to Makindu Development Committee	25-36

BEST AVAILABLE

F. Methodology of Evaluation

One of the primary purposes of the project is determination of the replication potential of AMREF rural health services and training programs, including Kibwezi Rural Health Scheme. A first question concerning replication is cost. Cost accounting systems to determine exact program activity costs will be developed as part of the project.

The following methods of evaluation will utilized:

Kibwezi Rural Health Scheme

Baseline and epidemilogical and health behaviour studies on present health status will be undertaken and further followup studies done throughout the project to determine improvement of health status. A reporting and information system will be developed for the community health worker program whereby CHWs will record daily promotive and preventive activities and patient diagnostic statistics. Health Centre output and outreach statistics will be recorded and analyzed, e.g. number of water sources protected, pit latrines constructed, etc.

Other AMREF Rural Health Activities and Training Programs

1. Medical Radio Communications System (MRCS). The cost of establishing a MRCS will be defined. AMREF calls to selected test areas (rural health facilities) will be monitored over a 2-3 week period and analyzed to determine how the system is used, type of calls, etc. Feedback information will obtain from user of the MRCS as to its value.

2. Refresher Training Programs.

Evaluation of the programmes will be undertaken in two ways. Both depend on baseline studies of rural health practice to measure the task to be undertaken, the facilities available (accommodation, equipment, drugs) and the quality of care given. Based on an analysis of these factors a standard of 'good practice' can be established. The objective of refresher courses is to raise the standard of practice. By means of pre and post tests an assessment of the immediate objective of increased knowledge, and sometimes skill, can be made.

However, evaluation of the long term aim, raising the quality of care, can only be done by follow up studies several months or a year

It is recognized that there are a number of severe constraints on these methods of evaluation. In short refresher courses for those who have had little formal training too much time and emphasis cannot be spent on 'tests' which are constructed as examinations and resented. The quality of care offered depends on many factors over and above the knowledge, skill and attitude of the individual worker - the suitability of equipment, maintenance of supplies, supervision, local attitudes and even droughts and epidemics. Despite the limitations imposed by all these factors an attempt will be made to evaluate the effectiveness and cost of each of the training programmes.

3. Training Manuals

The draft and experimental editions are received at workshops composed of practitioners, teachers and specialists in the subject. Recommendations are incorporated in the printed sessions.

The sale of manuals, after the first free distribution, gives a guide to its acceptance. So far the following numbers of manuals have been sold:

Child Health	12,000	additional	copies
Diagnostic Pathways	3,000	"	"
Health Education	5,000	"	"
Obstetric Emergencies	3,500	"	"
Pharmacology	5,000	"	"
Mental Health		"	"

A systematic review of the use of individual manuals in the training schools is planned, in order to prepare for new editions.

AID MAJOR COST AREAS

	1st Yr	2nd Yr	3rd Yr	Total
Project Team Personnel	$95,975	116,540	120,840	333,355
Training Costs	48,825	77,715	58,605	185,145
Commodity Costs	28,865	27,000	13,500	69,365
Other Costs:-				
Kibwezi Health Centre, Transport/travel for supervision, evaluation	21,665	32,545	30,175	84,385
Other Support/Direct Cost including contingencies	46,750	48,425	50,100	145,275
	$242,080	302,225	273,220	817,525
Cost per Man/Month for support of Project Team and Foundation support personnel in the field:	$500.90			
IMRF/AMREF Input	$379,510	91,890	104,800	576,200
MOH Direct Input			30,755	30,755
MOH Indirect Input (annual grant to AMREF)	$50,000	50,000	50,000	150,000

AMREF USAID OPG Proposal

FINANCIAL PLAN US$		AID			IMRF/AMREF/MOH*			TOTAL			Three year Total for category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
PROJECT TEAM PERSONNEL-SENIOR STAFF											
1. Project Director	22	13,500	14,850	16,200				13,500	14,850	16,200	44,550
2. Project Consultant - Medical, Training Health Education	22	12,000	13,200	14,400				12,000	13,200	14,400	39,600
3. Project Consultant - Planning, Programming Evaluation	22	12.000	13,200	14,400				12,000	13,200	14,400	39,600
4. Project Consultant - Financial Management and Control	22	12,000	13,200	14,400				12,000	13,200	14,400	39,600
Fringe benefits estimated at 15% annual salary. Costs include health insurance, gratuity, mileage etc.											
1. Project Director		2,025	2,230	2,435				2,025	2,230	2,435	6,690
2. Project Consultant - Medical, Training, Health Education		1,800	1,980	2,160				1,800	1,980	2,160	5,940
3. Project Consultant - Planning, Programming Evaluation		1,800	1,930	2,160				1,800	1,930	2,160	5,940

*Represents MOH contribution, other contribution is from IMRF/AMREF

		AID			IMRF/AMREF/MOH°			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
4. Project Consultant - Financial Management and Control		1,800	1,930	2,160				1,800	1,930	2,160	5,940
2R/T economy airfares at $1,700 each based on fares for US personnel - (1) Project Consultant and wife. Other staff East African based. Also includes provision for 35% inflation for return in 3rd year		1,700		2,295				1,700		2,295	3,995
Shipment of personal and household effects		2,800		3,780				2,800		3,780	6,580
Host Country Nationals											
5. Deputy Medical Director	22	6,000	6,600	7,200				6,000	6,600	7,200	19,800
6. Programme/Planning Management/Trainee	22	5,100	5,610	5,120				5,100	5,610	6,120	16,830
7. Accountant	22	4,875	5,365	5,855				4,875	5,365	5,855	16,095
8. Secretaries (2) at $6,000	44	7,200	7,920	8,640				7,200	7,920	8,640	23,760
Fringe benefits estimated at 15% annual salary:											
5. Deputy Medical Dir.		900	990	1,080				900	990	1,080	2,970
6. Programme/Planning Management Trainee		765	845	925				765	845	925	2,535

	AID				IMRF/AMREF/MOH			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
7. Accountant		730	800	870				730	800	870	2,400
8. Secretaries (2)		540	590	640				540	590	640	1,770
Kibwezi Health Centre											
1. Clinical Officer	30	2,500	5,000	3,000			2,000*	2,500	5,000	5,000	12,500
2. 4 Community Nurses at $1,875	120	3,750	7,500	4,500			3,000*	3,750	7,500	7,500	18,750
3. Rural Health Technician	30	940	1,875	1,125			750*	940	1,875	1,875	4,690
4. 2 Family Health Field Educators at $1,250	60	1,250	2,500	1,500			1,000*	1,250	2,500	2,500	6,250
5. Microscopist	24		1,500	900			600*		1,500	1,500	3,000
6. 3 patient attendants at $875	72		2,625	1,575			1,050*		2,625	2,625	5,250
7. 4 general attendants at $675	96		2,700	1,620			1,080*		2,700	2,700	5,400
8. Records clerk	24		1,500	900			600*		1,500	1,500	3,000
9. Driver	24					1,250	1,250*		1,250	1,250	2,500
10. Cook	24					1,000	1,000*		1,000	1,000	2,000
11. Watchman	24					800	800*		800	800	1,600

		AID			IMRF/AMREF/MOH			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
AMREF Contribution - Personnel Learning Resources Training Manuals											
AMREF Printing and Production Staff 50% of time spent on producing training manuals:											
Medical Editor	18				14,800	16,280	17,910	14,800	16,280	17,910	48,990
Medical Secretary	18				3,235	3,560	3,920	3,235	3,560	3,920	10,715
Printers (2)	36				2,330	2,560	2,790	2,330	2,560	2,790	7,680
Lithographer	18				2,070	2,280	2,510	2,070	2,280	2,510	6,860
Medical Illustrator	18				3,880	4,270	4,700	3,880	4,270	4,700	12,850
Binder	18				425	470	520	425	470	520	1,415
Medical Experts (3) to review draft manuals one month per manual, 4 manuals per year	36				1,000	1,100	1,210	1,000	1,100	1,210	3,310
Training Department staff 25% of time spent on training manuals:											
Training Director	9				7,500	8,250	9,000	7,500	8,250	9,000	24,750
2 Medical Officers	18				6,960	7,660	8,360	6,960	7,660	8,360	22,980

		AID			IMRF/AMREF/MOH			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
Public Health Nurse	9				1,860	2,050	2,240	1,860	2,050	2,240	6,150
Public Health Officer	9				1,200	1,320	1,440	1,200	1,320	1,440	3,960
Clerical support personnel (7)	63				4,000	4,440	4,800	4,000	4,440	4,800	13,240
Kibwezi Rural District Health Scheme											
Project Co-ordinator	36				15,000	16,500	18,000	15,000	16,500	18,000	49,500
40 Community/Village Health Workers(10 in 2nd year; 30 in 3rd year) at $310	600					3,100	12,400		3,100	12,400	15,500
Sub-Total Personnel Cost	1,632	95,975	116,540	120,840	64,260	76,890	102,930	160,235	193,430	223,770	577,435
			333,355			244,080			577,435		

		AID			IMRF/AMREF/MOH			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
TRAINING COSTS											
Training Manuals for Rural Health Auxiliaries											
Production and distribution of 4 manuals per annum at $5,380 per manual:		21,520	23,670	25,820				21,520	23,670	25,820	71,010
2 workshops at $1,880 each $3,760											
production cost for 1,000 250-page manual:											
paper 625											
plates 315											
printing press, ink, maintenance 300											
manual covers 50											
contingency 10% 130											
$ 1,420											
Distribution cost of 1,000 free copies postage, handling $20/copy $ 200											
Translation into Swahili of 1 manual per annum at 2,870 per manual		2,870	3,160	3,450				2,870	3,160	3,450	9,480

	AID				IMRF/AMREF/MOH			TOTAL			Three-year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
Translation cost 1,250 Production cost 1,250 Distribution cost of 1,000 free copies, postage, handling 1,420 200 $2,870											
Health Journals for Rural Health Workers and Rural Lay Public											
DEFENDER Health Education Magazine											
4 issues/annum for 7,000 recipients		5,700	6,270	6,840				5,700	6,270	6,840	18,810
production cost/ issue $ .15 postage, handling .05 cost per issue $.20											
development cost to increase circulation by sample issues 500 at $.20/ issues $100											

		AID			IMRF/AMREF/MOH			TOTAL			Three year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
AFYA Rural Health Journal											
6 issues/annum for 3,500 rural health workers		5,475	6,025	6,575				5,475	6,025	6,575	18,075
production cost/ issue $.35											
postage, handling $.10											
$.45											
less subs. rate $.20											
cost per issue $.25											
development cost 500 samples issues at $.45 issue $225											

		AID			IMRF/AMREF/MOH			TOTAL			Three year per Category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
Kibwezi Rural Health Scheme											
Refresher training courses for existing Kibwezi health personnel and CHWs after training											
4 3-day courses/yr for 12-15 trainees @$1,165/course trainee travel /subsistence $750; trainers(2) travel/ subsistence $200		4,660	5,130	5,600				4,660	5,130	5,600	15,390
teaching materials $115 overhead & contingency $100											
In-service training days x 24/yr by 2 AMREF clinical, surgical, nursing staff for Kibwezi health personnel		2,100	2,310	2,520				2,100	2,310	2,520	6,930
trainers(2) travel/subsist. $175 x 12 two-day trips Nbi-Kibwezi-Nbi											
Dissemination of Information											
Workshops											
2 one-week workshops per annum for MOH & PVO health agencies to discuss AMREF rural health systems & training programs as replicable models $3,000 each workshop for 12 participants		6,000	6,600	7,200				6,000	6,600	7,200	19,800

	M/M	AID			IMRF/AMREF/MOH			TOTAL			Three Year Per Category
		1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
Reports											
2 reports per annum on workshops and/or AMREF @$250 each for 100 copies		500	550	600				500	550	600	1,650
Dep. Medical Director for MPH Degree			12,000						12,000		12,000
Planning/Program Management Trainee for MPH Degree			12,000						12,000		12,000
Sub-Total Training costs		48,825	77,715	58,605				48,825	77,715	58,605	185,145
			185,145						185,145		

AMREF USAID OPG Proposal FINANCIAL PLAN		AID			IMRF/AMREF/MOH			TOTAL			Three Year Total per category
	M/M	1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
COMMODITY COSTS											
(2) 4-wheel drive vehicles spare parts for Kibwezi H/C and Project Coordinator					22,750			22,750			22,750
(1) Low-cost mobile unit vehicle					6,000			6,000			6,000
(1) IBM Electronic Composer for production of training manuals to replace worn-out older composer		12,500						12,500			12,500
(2) IBM Electronic typewriters @$960 each for drafting manuals and reporting purposes for use by 2 project secretaries		1,920						1,920			1,920
(2) filing cabinets @$160 each		320						320			320
(1) calculator for project accountant		625						625			625
Kibwezi Health Centre[1]											
Drugs & medical supplies		6,250	12,500	6,250			6,250*	6,250	12,500	12,500	31,250
Laundry & cleaning mat.		1,000	2,000	1,000			1,000*	1,000	2,000	2,000	5,000
Food		5,000	10,000	5,000			5,000*	5,000	10,000	10,000	25,000
Water		1,250	2,500	1,250			1,250*	1,250	2,500	2,500	6,250
Furniture & Equipment					15,000			15,000			15,000
Sub-Total, Commodity Costs		28,865	27,000	13,500	43,750		13,500	72,615	27,000	27,000	126,615
			69,365			57,250			126,615		

AMREF USAID OPG Proposal
FINANCIAL PLAN

	M/M	AID			IMRF/AMREF/MOH			TOTAL			Three Year Total per category
		1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
CONSTRUCTION COSTS											
Kibwezi Health Centre (Association of Swiss Civil Servants)					212,500			212,500			212,500
Health Posts (Norwegian Church Aid)					20,000			20,000			20,000
Housing and office for Kibwezi Project Coordinator (NCA)					19,000			19,000			19,000
Sub-Total CONSTRUCTION					251,500			251,500			251,500

[1] Opens 6 months after start project

*GOK

	M/M	AID			IMRF/AMREF/MOH			TOTAL			Three year Total per category
		1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
OTHER COSTS											
Kibwezi Health Centre											
Vehicle maintenance		375	750	375			375*	375	750	750	1,875
Equipment/Bldg maintenance		500	1,000	500*			500*	500	1,000	1,000	2,500
Posts, telephone, forms		250	500	250*			250*	250	500	500	1,250
Miscellaneous		500	1,000	500*			500*	500	1,000	1,000	2,500
Transport/travel expenses											
Kibwezi Health Centre outreach programs		2,500	5,000	2,500*			2,500*	2,500	5,000	5,000	12,500
Epidemilogical investigations and health surveys for Kibwezi Project					20,000	15,000	15,000	20,000	15,000	15,000	50,000
Field work evaluation and improvement of AMREF rural health services/training programs											
20,000 miles per annum @$.50 per diem - $15/day x 4sr. project staff x 84 days		10,000	11,000	12,000				10,000	11,000	12,000	33,000
		5,040	5,545	6,050				5,040	5,545	6,050	16,635
25 flying hours per annum @$100/hr evaluation of remote area programs for purposes for improvement, reporting replication		2,500	2,750	3,000				2,500	2,750	3,000	8,250
Evaluation of project and related research by AID and IMRF project holder staff member		5,000	5,000						5,000	5,000	10,000
Sub-Total, OTHER COSTS		$21,665	32,545	30,175	20,000	15,000	19,125	41,665	47,545	49,300	138,510
			84,385			54,125			138,510		

	M/M	AID			IMRF/AMREF/MOH			TOTAL			Three Year Total per category
		1st year	2nd year	3rd year	1st year	2nd year	3rd year	1st year	2nd year	3rd year	
Other Support Costs											
IMRF Project Holder Headquarters and Material Costs											
Executive Director (20%)		$ 5,000	5,500	6,000				5,000	5,500	6,000	16,500
Administrative Asst(20%)		2,500	2,750	3,000				2,500	2,750	3,000	8,250
Fringe benefits (20%)		1,500	1,650	1,800				1,500	1,650	1,800	4,950
Other direct costs											
Light, water, rents, telephone, telegraphs		4,500	4,950	5,400				4,500	4,950	5,400	14,850
Office materials/supplies		2,500	2,750	3,000				2,500	2,750	3,000	8,250
Printing equipment maintenance		500	550	600				500	550	600	1,650
General expenses		250	275	300				250	275	300	825
Contingency cost		30,000	30,000	30,000				30,000	30,000	30,000	90,000
Sub-Total, Other Support/ Direct Costs		46,750	48,425	50,100				46,750	48,425	50,100	145,275
			145,275						145,275		
TOTAL PROJECT COSTS		$242,080	302,225	273,220	379,510	91,890	135,555	621,590	394,115	408,775	1,424,480
			817,525			606,955			1,424,480		

ADDENDUM

AID/W has raised some questions and made some comments concerning certain aspects of this proposal as previously submitted. Reference is made to the 6 April, 1978 memorandum from Thomas O'Keefe, AID/W to Lois Richards, AID/Nairobi which arose from a Project Review Board Meeting regarding the I/AMREF Kenya Proposal. Pp 10-12 of that memo seek elaboration in certain specific areas. These pages have been reproduced and are immediately following. The I/AMREF responses follow those pages.

I/AMREF has chosen to respond to these specific points as they have been raised in the O'Keefe memo, as well as to incorporate the elaboration into the main body of the revised proposal.

The following addresses the points raised and questions asked and cites references to the body of the proposal for further discussion and clarification.

IMPLEMENTATION PLAN (O'Keefe Memo, pages 10-12)

The plan of action is to:

*1. reinforce the primary health care presently available, by providing training for Community/Village Workers

-- (explain statement on page five of Draft OPG(traditional) birth attendants and herbalists (cure and esp., by providing training for c/vhw's".)

-- (describe methodology)

How is it envisioned that the network in Kibwezi - and the District in general - will be developed and how will it operate? (This in conjunction with 2. Below).

2. develop mobile ground units to link together activities in the villages

-- to conduct "Under-fives" clinics

-- to improve pre-natal and maternity care-including:

i offering family planning services, and

ii. to improve school health and village sanitation

(describe methodology for each)

3. "Close cooperation will be established with other development workers," and the family health field educators posted to the Kibwezi area.

(elaborate this section - who are these other workers)

4. "AMREF will develop a multi-purpose Health Centre at Kibwezi to serve as the medical referral, training and administrative centre for the program. Funds to AMREF for construction of the Health Centre are from," a Swiss or Swedish, according to Drahman) "donor agency".

(elaborate on this assistance)

"The Ministry of Health will assist with the recurrent costs for the health centre". (Establish commitment of MOH; has MOH contacted Min. Finance re recurrent costs).

(elaborate as to time-table for above)

---through the training of present birth attendants and herbalists

5. AMREF will provide coordination and overall administration as well as:

   a. survey

   b. training, and

   c. planning and evaluation services for the project area as a whole

      (detail how these will be accomplished and provide time-frames)

6. Provide responsibility breakdowns and types of personnel to be utilized for:

   a. developing Kenya's and AMREF's health service capabilities; and

   b. developing Health Centre at Kibwezi (as well as ancillary activities) and development of 1,000 teaching manuals (Specify how many volunteers, consultants, Kenyan nationals, and/or paid staff to be utilized - - for latter can part of salary costs be charged to non-AMREF/Kenya activities?) Also, provide detailed information regarding proposed disbursement and procurement procedures, and related controls; schedule of actions required, their timing and interrelationship and the points of responsibility for carrying them out; description of how AMREF/KENYA plans to monitor the implementation plan as well as waiver information as detailed in Handbook No. 3).

Reference O'Keefe Memo page 10 - 12

#1 I/AMREF RESPONSE:

As described on pages 15-16 of the I/AMREF Proposal (Kibwezi Rural Health Scheme), the Kibwezi area has very limited health resources and most of the rural population must seek maternal and curative health services from traditional birth attendants (TBA's) and herbalists (or traditional healers). Many of these indigenous "health workers", especially the traditional birth attendants are in a position to provide important village level maternal and child health services. All they need is some formal training. There are numerous examples of TBA training programs (i.e., Sidamo Province, Ethiopia). This project will assess and evaluate the effectiveness of present provision of health services and these traditional healers, (page 17). Also inquiries will be made to estimate the effectiveness and levels of community satisfaction with modern traditional practitioners, both midwives and curers, to determine what assistance and training such practitioners might benefit from and what roles they might play in the overall health delivery system of the area. These individuals will then receive appropriate training at the Kibwezi Health Centre by the I/AMREF Training Department and KHC staff. Post-training supervision and evaluation will be done by I/AMREF staff and the KHC staff and the responsible CHW in the area.

I/AMREF believes that this village level health worker, selected in part by the community, can aid in the improvement of the health status of the rural poor population. In addition, the Kenya Ministry of Health has requested that I/AMREF train and deploy CHW's in Kibwezi on a prototype basis. (See proposal, page 19, Other Community Health Worker Type Programs, and pages 21-25 concerning CHW methodology).

Reference O'Keefe Memo page 10, # 2

2/AMREF RESPONSE:

(See I/AMREF proposal page 33, f - KHC Outreach Activities)
It is standard practice for each Kenya health centre to be provided a Landrover mobile unit vehicle. The vehicle is used for mobile preventive/ immunization and curative activities for the 50,000 - 70,000 people in a health centre service area. Other important activities for the mobile unit include supervision and evaluation of dispensary staff and CHW's in the field.

For valid demonstration purposes, I/AMREF's strategy for the Kibwezi Rural Health Scheme is to improve the standard rural health service practices within the capability of the MOH. I/AMREF will utilize a strong but smaller and less expensive vehicle in place of the Landrover as the mobile unit vehicle. The composition of the mobile team will be standard - community nurse, rural health technician and family health field educator. Activities will include immunizations, health education, maternal and child health including family planning services. Schools will be visited regularly by the Kibwezi Mobile Team. Immunizations and medical exams will be given to the students. The team will work with the teachers in order to upgrade their public health knowledge. The health technician will work with village leaders, dispensary staff and CHW's to promote and improve village sanitation, including the construction of pit latrines, protection of water sources, rodent and insect control etc

The mobile team, working with the CHW's will provide the link for the promotive health services on an area wide basis. The Kibwezi Project Coordinator, in cooperation with the Kibwezi Health Centre Clinical Officer, will have overall responsibility for the Mobile Team. I/AMREF Staff will provide technical support for the Mobile program and assist in evaluating its overall effectiveness including an evaluation of CHW activities.

Reference O'Keefe Memo page 10, # 3

#3 I/AMREF RESPONSE:

(See I/AMREF proposal page 17)

The Project Coordinator and Kibwezi Health Centre Clinical Officer will represent the project team on the Makindu Division Development Committee. Project team members and CHW's will collaborate with, among others, the following Makindu Division development workers: agricultural extension agents, school teachers, community development workers and the district development officer. In addition, the medical team will coordinate all activities with the various local chiefs in the area.

Please see I/AMREF proposal pages 20-21 for a description of family field educators and their relationship to the project and other CHW's.

Reference O'Keefe Memo page 10, #4

#4 I/AMREF RESPONSE:

Construction funds for the Health Centre at Kibwezi will be provided by the Swiss Association of Civil Servants and for the health posts by the Norwegian Church Aid (NCA). NCA will also provide recurrent costs beginning in the 3rd year. Support for the Project Coordinator will come from NCA. AID is requested to provide funds for I/AMREF technical assistance staff for the Kibwezi Project.

Reference O'Keefe Memo page 11, #5

#5 I/AMREF RESPONSE:

Details of how I/AMREF personnel will coordinate, administer and manage this project may be found in the proposal pp 34-36; reference is also made to the Introductory Project Summary at the beginning of the proposal. The projected timing of the phases of the project is laid down in the Implementation Plan pp 37-42 of the proposal.

I/AMREF staff will have responsibility for conducting mid-term and final evaluations of the project using the Methodology of Evaluation described in the proposal, pp 42-43. It is essential that IMRF be included in the evaluation and consultation of the project since it will be the project holder and will assume a direct liaison role with AID/W.

Reference O'Keefe Memo page 11, #6

#6 I/AMREF RESPONSE:

AID supported I/AMREF project management staff (Project Director, 3 consultants - 1 for medical/training/health education, 1 for planning/evaluation, and 1 for financial management/control - plus 5 host country I/AMREF management personnel - a deputy medical director, a program/planning/management trainee, an accountant and 2 secretaries) - will develop those I/AMREF rural health services described on pages 5-10 of the proposal which will supplement MOH rural health care services. The I/AMREF management team will have overall responsibility for developing the Kibwezi Rural Health Scheme and Health Centre, the functions of which are described on pages 15-34 of the proposal. The Financial administration of Kibwezi Health Centre is described on page 34.

These activities will involve 60% of the time for the above mentioned I/AMREF management staff. The remaining 40% of management time will be funded from other project activities.

Reference O'Keefe Memo Cover Letter page 2, paragraph 2

#7 I/AMREF RESPONSE:

The immediate demand for I/AMREF training manuals and teaching materials are the 112 training schools in Kenya and Tanzania. This demand requires initial production runs of approximately 1,000 copies. This run would be twice as expensive if produced by outside printers because of its small order size. Also, based on demand, I/AMREF is able to run off additional copies as required, sometimes only another 1,000 copies which are sold at just above cost to textbook centres in Kenya and Tanzania. The buyers are usually health workers. The funds cover the additional production costs, making the manuals self-financing once they have been developed as a result of the initial grant to produce the 1,000 copies. Demand has been substantial for additional copies totalling 25,000 additional copies for 4 manuals to date. (See pg 14 of the proposal).

Appendixes

1. Kenya Hospitals, Health Centres and Mobile Units visited by AMREF Surgical and Medical Teams, and linked by radio

2. Medical Staff of Kenya

3. Courses conducted for Rural Health Workers by AMREF Training Department

4. AMREF distribution list for manuals

   Summary of job description of Kibwezi Health Centre

5. MOH letter of request for Kibwezi Rural Health project

   Map of Kibwezi

Appendix 1

A. Kenya Rural Hospitals Regularly Visited by AMREF Surgical Team

1. Kilgoris
2. Hola
3. Lamu
4. Lodwar
5. Kakuma
6. Ortum
7. Kapenguria
8. Wamba
9. Loitokitok
10. Marsabit
11. Maralal
12. Kajiado
13. Narok

B. Kenya Rural Hospitals, Health Centres and Mobile Units Linked to AMREF Medical Radio Communications Network.

1. Alupe
2. Baragoi
3. Beresford
4. Chogoria
5. Garissa
6. Hola
7. Kajiado
8. Kajiado Mobile Unit
9. Kakuma
10. Kapenguria
11. Kapotia Mobile Unit
12. Kataboi
13. Kilgoris
14. Lamu
15. Liboi
16. Lodwar
17. Loirinyak
18. Lorogumu
19. Maikona
20. Mandera
21. Maralal
22. Marsabit
23. Masalani
24. AMREF Mobile Medical Unit
25. AMREF Mobile Eye Unit
26. AMREF Mobile Health Edu. Unit
27. Maralal Mobile Unit
28. Turkana Mobile Unit
29. Moyale
30. Mutomo
31. Ngao
32. North Horr
33. Ombo
34. Ortum
35. Rusinga Island
36. Sololo
37. Wajir
38. Wamba
39. Wamba Clinic
40. Loitokitok
41. Lokitaung
42. Isiolo
43. Garbatulla

B. Remote Health Centres and Dispensaries Visited by AMREF Medical Teams and/or Kenya MOH Medical Teams by Air

District	Health Centre	Dispensary
Garissa	Liboi	Dadaab
	Modogashe	Mbalambala
	Masalani	Bura
		Hulugho
Wajir	Buna	Habasweni
		Griftu
		Gurar
Mandera	Rhamu	Takaba
	Elwak	

District	Health Centre	Dispensary
Kajiado		Olkiramatian
		Oloika
		Oltukai
		Oltiasika
Narok		Emarti
		Keekorok
		Mosiro
		Olmesutye
Marsabit		North Horr
		Illeret
		Maikona
		Loyangealane
Homa Bay	Tom Mboya Memorial H/C at Rusinga Island	
Lamu		Siyu
		Shanga
		Kiungwe
		Mkokokoni
		Bodhei
		Kipini
		Kiunga
		Ndau
		Pate
		Pandanguo
		Chalaluma
		Mtanga
		Mtanga Wanda
		Bultu
		Basuba
		Mkunumbi
		Mpeketoni
		Katsaka
		Mambosasa
		Mapenya
		Matondondi
		Moa
		Kipungani

APPENDIX 2

MEDICAL STAFF OF KENYA - 1973

Field of activity*	Kenya
Nurse and/or midwives	5,061
Medical practitioners	1,440
Sanitarian	783
Laboratory	480
Pharmacy	363
Dental	96
Physiotherapy	94
X-ray	177
Other scientific specialists	39
Others	3,768
TOTAL	12,301

*Each field of activity includes professional, assistant and auxiliary staff.

(Source. Kenya W.H.O. reports on Medical/Health staff)

APPENDIX 3

COURSES CONDUCTED FOR RURAL HEALTH WORKERS BY AMREF TRAINING DEPARTMENT MARCH 1975 - MARCH 1978

List excluded those conducted by Health Behaviour and Education Department

No	Course	Students No. participants	Duration	Date	Remarks/ Organisers
A.	Refresher Courses Rift Valley Province				
1	Kajiado District Dispensary staff - at AMREF	11	3 days	4-6 June 1975	Course conducted by AMREF. Rural health team used in the exercise for their teaching practicals. Min. H. Q. staff as organisers
2.	Kajiado District Dispensary staff - at AMREF	8	3 days	6-8 Oct. 1976	- AMREF staff and Dr Thomas the MOH organised course handouts given
3.	Kajiado Dispensary staff - at ISINYA rural training centre	8	3 days	24-26th Nov '76	- Dr Thomas and his hospital staff, AMREF staff - Child Health & H. Education manuals to all participants
4.	Baringo District Dispensary & H. Centre staff - at Baringo Develop. Training Centre	35	4 days	1-4th Dec. '76	- Dr Keokor the MOH Baringo District, his staff AMREF staff Dr Bhachu & Dr Kagimba. Child Health & H. Ed. manuals to all
5.	Elgeyo/Marakwet District Dispensary & Health Centre staff. at - Tambach Secondary School	18	3 days	5-8th Jan '77	- Dr Mulder, MOH his staff & AMREF staff handouts & Child Health manual to all

No.	Course	Students No. participants	Duration	Date	Remarks/Organiser
6.	CENTRAL PROV. Muranga District Disp. & H. Centre in charges - at Maragua rural health training centre	48	3 days	16-18th Feb '77	- Dr Apuli MOH, Dr Mueke PMO, & AMREF staff & Dr Kanani conducted the course Rural health teachers helped in the course.
7	Nyeri District Disp & H. Centre in charges at - Nyeri Seminary	30	4 days	1-4th March '77	The PMO Central, Dr Mueke, the DMO & his staff AMREF staff - Child Health & Obs. Emerg manuals to all participants, free, Dr Kanani, Deputy Director of Medical Services participated
8.	Kajiado District 4th course for Disp. & H. Centre staff - at Isinya rural Training Centre	8	3 days	24-26th Aug. '77	Dr Thomas his staff & AMREF staff
9.	Nyandarua District Dispensary & Health Centre staff	20	3 days	25-27th July '77	Dr Mueke PMO Central, Dr Kanani DDMS, all Drs in District & Dr Oyoo the DMO & AMREF & district senior staff. Child Health manual to all

NOTE:

10	Kiambu District:	30 participants
	also Central province	The District themselves with the help of the Government have held courses recently for these 8 participants.
b.	Remaining staff Kajiado District Rift Valley Province	

No.	Course	Students No. participants	Duration	Date	Remarks/ Organisers
11	Kajiado district Dispensary & H. Centre staff	7	3 days	24-26th Aug. 77	Kajiado District staff and AMREF staff
12.	Swedish voluntary staff in charge of Dispensaries throughout Tanzania + Nking Hospital staff	22	5 days	19-24th Sept. '77	AMREF staff and Dr Wingnen the Medical Officer Nkinga Hospital
13.	Baringo District Disp and H. Centre in-charges	36	4 days	29th Nov. -5th Dec.	AMREF staff and Dr Blom the District Medical Officer, Baringo District & his staff
14	Kirinyaga District survey for basic line data on the Medical facilities & on the medical knowledge & skills the rural health workers have			6-13th Jan '78	AMREF staff accompanied by District headquarters staff. (Reports available)
15	Refresher course for Kirinyaga District staff visited in the Dispensaries & H Centres above.	25	4 days	20-25th Jan '78	AMREF staff, Dr Kazibwe the MOH Kirinyaga and his staff, Dr Mueke the PMO Central Province, the Provincial Matron & Chief Drug Inspector & Dr Kanani the Deputy Director Medical Services Ministry Headquarters Evaluation results of course impact available

No.	Course	No. of participants	Duration	Date	Remarks/organiser
B.	EXTENSION COURSES				
1.	Health Service Management course for senior medical, nursing, admin. staff from Government Health Services - at AMREF	17	63 days	10-22 Mar. '75	Dr Wood, AMREF Dr Schluter E.A. Cmm. Management staff & MOH & Public Admin. Staff
2.	Teaching methodology course for Rural Health training centre staff (teachers) - at AMREF	8	14 days	June '75	AMREF staff and MOH Staff
3.	Rural health training centre staff - at AMREF	8	5 days	Dec. 1st-5th '75	Review of curriculum for their course and planning of course
4.	Rural Health Training staff + Embu Public health nurses PRACTICAL FIELD WORK in - Rural areas	8 20	14 days	Jan. '76	Drs Wood & Kagimba of AMREF staff on Central & Nyanza Pronvincial & District teams & Min. of Health H.Q staff
5.	Assistant Medical Officers Community Med. courses - at KCMC Moshi, Tanzania	33	Every Friday 20 days 7 days	Jan - June 1976	Drs Wood & Kagimba of AMREF Handouts & Remarks given
6.	Sudanese Medical Assistants to be tutors of Community Health Workers of AMREF	11	25 days	19th July 19th Aug. 1976	Drs Wood & Kagimba, Dr Bhachu had given them a course of 2 months in Juba Did - Teaching methodology - Developed teaching manuals. Dr Pacifico, Director M. S. South Sudan helped.

No.	Course	No. of participants	Duration	Date	Remarks/organisers
7.	Health Education Coordinators from Kenya & Tanzania - at AMREF	6 then 6	8 days 8 days	Aug. '76 Sept. '76	Drs Wood & Kagimba AMREF together with Health Education Department
8.	Tanga Medical Assistant Training School - Tanga Tanzania	50 1st yr 30 3rd yr	6 days	Oct. '76	Dr Kagimba AMREF gave 1 week course on Introduction to Communicable diseases and Vector Borne diseases to 1st & 3rd year students
9.	American Peace Corps Nursing tutors on - site orientation course - AMREF	10	14 days	21st Dec.'76 6th Jan '76	Drs Kagimba & Wood gave a tropical disease orientation course to the tutors before being posted.
10.	M. A. assistants giving anaesthesia in rural hospital - Anaesthetic course at AMREF and hospitals visited by surgical team	6	14 days	Feb. '76	Dr Papwroth the surgical team anaesthetist
11.	Assistant Medical Officer environmental health and Behavioural Science course - KCMC Moshi, Tanzania	46	21 days	April 18th - May 7th	Drs Wood, Kagimba & Scotney (AMREF) in conjunction with KCMC and Ministry of Health Tanzania. Theory and Practicals
12.	America Peace Corps Volunteers	12	1 day	12th Sept 1977	AMREF staff conducted a short orientation course for medical workers being posted to rural areas

No.	Course	No. of participants	Duration	Date	Remarks/organisers
13.	Rural Health Tutors Ministry of Health	12	6 weeks	28th Feb -10th Apr. 1978	AMREF staff conducted a course on teaching methodology theory, organised a practical teaching exercise and practical field work for these tutors
14.	Embu public health nurse	15	14 days	24th Mar. 8th April	- AMREF staff + Rural Health Tutors organised practical field work in form of medical surveys for Kakamega, Nandi and Embu districts. Survey reports prepared by these students available.
15.	American Peace Corps Volunteers Orientation Course	15	3 days	10-13th April	AMREF staff on a 3 day orientation programme on medical problems in Kenya for these workers

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No	Course	Students No. participants	Duration	Date	Remarks/Organisers
16.	Kwale District Medical facilities survey + Assessment of skills or rural health workers at their places of work			13-20th Feb '78	AMREF staff accompanied by District H. Quarters staff Report available
17	Kwale District Dispensary & H. Centre staff	24	5 days	20-25th Feb '78	AMREF staff & Kwale District H. Quarters staff. - Results of the evaluation of the impact the course had on the knowledge of the participants available
18.	Kwale District Public Health technicians	20	4 days	6-10th Mar '78	AMREF & District H. Quarters staff.
19.	Kiambu District Dispensary & Health Centre in charges	20	5 days	13 - 18th March '78	AMREF staff & the Medical Officers from Thika, Kiambu and Gatundu Hospital. Exercise combined with the teaching practice for the tutors for the new Rural Training Centres
20.	Machakos District Public Health technicians			10-14th April '78	AMREF and district H. Quarters staff
21.	Mombasa town & Port Health Workers	36	5 days	8-12th May '78	Mombasa Port Health authorities and AMREF staff - course on mosquitoe and snail & Rodent Control - Exercise covered by Port Authority

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No.	Course	No. of participants	Duration	Date	Remarks/ Organisers
C.	CURRICULUM DEVELOPMENT				
1.	Rural Health team curriculum - Revision - Kenya	8	5 days	Dec. 1st -5th '75	Just reviewing Drs Kagimba & Wood & Rural Health Team from Min. of Health
2.	Community Health Workers - Curriculum S. Sudan	12		Nov. '76	Drs Wood & Bhachu worked on it plus Dr Pacifico in Southern Sudan
3.	Medical Assistant (Clinical Officer) curriculum - Kenya at Nakuru	24 at Nakuru	2 days	19-20th Jan '77	Dr Wood was elected chairman of the curriculum committee.
		10 at Nakuru	1 day	2nd Mar.'77	
		12 at Kisumu	3 days	15-17th Mar.'77	Dr Kagimba on committee & did all the editorial work.
		10 at Nakuru	3 days	4-6th Apr.'77	
		10 at Nakuru	3 days	27-29th Apr.'77	600 copies now made available to the Government & teaching institutions.
		15 at Nairobi	3 days	28-30th July '77	

APPENDIX 4

AMREF Manual Distribution List For KENYA

REGISTERED NURSE TRAINING SCHOOLS:

1. Kenyatta National Hospital, Nairobi
2. The Naitobi Hospital
3. H. H. The Aga Khan Platinum Jubilee Hospital, Nairobi

REGISTERED MIDWIFERY TRAINING SCHOOLS:

4. Pumwani Maternity Hospital, Nairobi
5. Obstetric Unit, Kenyatta National Hospital
6. Mater Misericordiae Hospital, Nairobi

REGISTERED PUBLIC HEALTH NURSE TRAINING SCHOOL:

7. Kenyatta National Hospital

ENROLLED NURSE TRAINING SCHOOLS:

GOVERNMENT:

8. Provincial General Hospital, Nyeri
9. District Hospital, Muranga
10. Provincial General Hospital, Machakos
11. Provincial General Hospital, Nakuru
12. District Hospital, Kisii
13. Provincial General Hospital, Kakamega
14. Coast Province General Hospital, Mombasa

Non Government:

15. P.C.E.A. Hospital, Tumutumu
16. P.C.E.A. Hospital, Chogoria
17. P.C.E.A. Hospital, Kikuyu
18. Consolata Hospital, Nyeri
19. Consolata Hospital, Nkubu
20. Consolata Hospital, Kyeni
21. Maua Methodist Hospital
22. St Clare's Hospital, Kaplong
23. Kendu Mission Hospital
24. Friends Hospital, Kaimosi
25. St Joseph's Hospital, Kilgoris
26. St Luke's Hospital, Kaloleni
27. Catholic Hospital, Wamba

ENROLLED MIDWIFERY TRAINING SCHOOLS

GOVERNMENT:

28. Provincial General Hospital, Kisumu
29. District Hospital, Muranga
30. Lady Grigg Maternity Hospital, Mombasa

ENROLLED MIDWIFERY TRAINING SCHOOLS

Non Government:

31. Consolata Hospital, Nkubu
32. Consolata Hospital, Nyeri
33. Pumwani Maternity Hospital
34. Thika Maternity Hospital
35. Maua Methodist Hospital
36. Kendu Mission Hospital
37. Lourdes Hospital, Mutomo
38. Ortum Catholic Hospital

ENROLLED MENTAL NURSE TRAINING SCHOOL:

39. Mathare Hospital, Nairobi

ENROLLED HEALTH VISITORS TRAINING SCHOOLS:

GOVERNMENT:

40. Kisumu Training School
41. Embu Training School (now moved to Machakos)

Non Government:

42. Parklands Training School, Nairobi

COMMUNITY NURSE TRAINING SCHOOLS:

43. St Joseph's Hospital, Nyabondo
44. New Nyanza General Hospital
45. Coast Province General Hospital
46. Thika School of Community Nursing
47. St. Elizabeth's Hospital, Mukumu
48. Eastern Province General Hospital, Machakos
49. Medical Training Centre, Nairobi
50. Medical Training Centre, Nakuru
51. 6 Rural Health Training Centres c/o Ministry of Health

AMREF Training Manual Distribution List for Tanzania

1. Medical Assistant Training Schools (5)

   Tanga
   Mwanza
   Ifakara
   Bumbuli
   Moshi

2. Rural Medical Assistant Training Schools (11)

   Kibaha
   Sengerema
   Kilosa
   Iringa
   Mbeya
   Songea
   Kigoma
   Mkomaindo
   Mvumi
   Pangani
   Bukoba

3. Training Centre for Pharmaceutical Assistants and Dispensary Auxiliaries, Muhimbili Hospital, Dar es Salaam

4. Training Centre for Health Education Officers, Muhimbili Hospital

5. Training Centre for Nutrition Instructors Muhimbili Hospital

6. Training Centre for Nurses, Section A (3)

   Muhimbili Hospital
   KCMC, Moshi
   Mwanza

7. Training Centre for Nurses, Section B (16)

   Tanga
   Kiomboi
   Mkomaindo
   Magila
   Bukumbi
   Shinyanga
   Shirati
   Kabanga
   Rubya Hospital, Bukoba
   Sumve
   Mvumi
   Kilimatinde
   Sengerema
   Ndareda
   Ilembula
   Ndolage

8. Training Centre for Midwives, Section B (17)

Kiomboi
Mkomaindo
Newala
Magila
Bukumbi
Kola Ndoto
Makiungu
Shirati
Mvumi
Kilimatinde
Sengerema
Ndanda
Peramiho
Ilembula
Ndolage
Bukoba
Sumve

Appendix 4

Summary Job Descriptions of Kibwezi Health Centre Staff°

CLINICAL OFFICER

1. General Definition

The Clinical Officer is the senior paramedical staff member in the health services. His overriding technical function is to deliver medical care (primarily diagnostic and curative activities) within hospital and other health facilities. In rural health facilities (health centres and health subcentres) which operate without full-time medical officer supervision, the Clinical Officer is responsible for the overall administration of the service and as such will provide leadership and supervision to the staff assigned within his responsibility area. He is responsible to Project Coordinator.

2. Specific Duties

A. Administration - Directs the overall administration of the service in a defined area. This includes supervisory responsibility for the following:-

1. Buildings and grounds
2. Transport
3. Stores
4. Information Management
5. Finance
6. Staff
7. Correspondence

B. Medical Care - Provides supervision for and direct performance of diagnostic and treatment activities in facilities within his defined operational area.

1. Has overall responsibility for diagnosis
2. Directs overall treatment activities
3. Supervises patient management

In the Clinical Officer's absence from the health centre, his supervisory and decision-making responsibilities pass to the most senior Community Nurse.

C. Community Health Provides overall supervision of preventive, promotive, diagnostic and curative activities in the communities and rural areas within his responsibility area.

° For further information reference is made to the Ministry of Health document. Appendices to a Proposal for the Improvement of Rural Health Services and Development of Rural Health Training Centres in Kenya. Nairobi, Kenya, 1st April 1973.

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1. Manages the overall immunization programme

2. Co-ordinates, schedules and supervises various types of community contacts of promotive and preventive nature, including -

   (a) maternal care;
   (b) nutrition classes;
   (c) school health services;
   (d) child health services;
   (e) family planning services;

3. Can accompany mobile teams and provide specified diagnostic and curative tasks.

4. Co-ordinates and supervises the environmental sanitation programme in his defined responsibility area.

5. Promotes and participates in all local health committees

3. Organization Relationships

A. The Clinical Officer in the Kibwezi Health Centre is responsible to the Project Co-ordinator.

B. The Clinical Officer receives guidance and support from the following-

   1. The Project Coordinator and AMREF staff who will give technical and procedural advice to the rural health unit;

   2. The District Public Health Nurse for purposes of technically guiding the Community Nurses in the Health Unit;

   3. The District Health Inspector for purposes of technically guiding the health assistants in the Health Unit;

C. The Clinical Officer administratively supervises and controls all staff assigned within his Rural Health Unit

D. The Clinical Officer maintains contact and effects co-ordination with community leaders and representatives of other government agencies at the local level

COMMUNITY NURSE

1. General Definition

The Community Nurse is an "all purpose nurse" trained to perform curative, preventive and promotive activities within rural health centres, sub-centres and mobile clinics. As such the Community Nurse carries out duties in general nursing, midwifery, public health nursing (including health education and family care) under the supervision of the Clinical Officer and with technical guidance of the Project Coordin ator, AMREF staff and the District Public Health Nurse.

2. Specified Duties

A. Curative Services

1. history-taking;
2. clinical examinations;
3. diagnosis of common diseases;
4. routine treatment and medication
5. in-patient nursing care;
6. recommendation of hospital referral;
7. approval of hospital referral (when designated by the Clinical Officer to so act in his absence).

B. Preventive Services:-

1. Ante-natal services
2. Delivery
3. Post-natal services
4. Child Health Services
5. School Health Service and Day Care Centres
6. Mobile Services

C. Additional Responsibilities

1. Care and sterilization of equipment
2. Participation in staff meetings
3. Preparation of monthly reports

3. Organizational Relationships

A. Primarily responsible to the Clinical Officer in charge of the health centre

B. Works in close co-operation with other staff members assigned to the rural health unit team

C. Acts for the Clinical Officer in his absence when so designated

D. Provides supervision and training for subordinate and ungraded staff

E. Receives technical guidance from Project Coordinator and the district public health nurse

F. Participates in mobile activities when assigned

G. Co-operates with community development officers, teachers, social workers, agriculture extension workers for the improvement of joint health and welfare activities at the local and district level.

HEALTH TECHNICIAN

1. General Definition

The Health Technician is the member of the rural health services team with primary function of supporting the improvement of environmental factors such as water supply, waste disposal and food hygiene. His role is disease prevention through

the interruption of transmission, through increasing public immunity and through health education. The Health Technician activities may be described under the following headings:-

A. Surveys
B. Inspection and sampling
C. Health education
D. Construction of sanitary facilities
E. Maintenance and treatment of sanitary facilities
F. Communicable disease activities
G. General Administration

2. Specific Duties

A. Survey

1. Prepare and maintain up-to-date maps showing:-

(a) villages
(b) markets
(c) health facilities

2. Maintain up-to-date information as to-

(a) water sources (protected and unprotected)
(b) location and number of excreta disposal units (latrines, septic tanks)
(c) location and number of food premises
(d) existing or potential vector and rodent breeding places
(e) infectious diseases
(f) post some of this information on the maps such as location of water sources

B. Inspection Sampling

1. Excreta disposal
2. Sources of water supply for domestic use
3. Food Hygiene
4. Meat
5. Housing
6. Vectors and Rodents
7. Schools

C. Health Education

Education in the following areas -

1. water supply:
2. waste disposal:
3. food hygiene:
4. general hygiene:
5. housing:
6. control of vectors and rodents:

Education is to be provided through lectures and demonstrations at community gatherings, schools, community groups, patient groups in health facilities and to individuals.

D. Construction

1. Settlement and labour camps
2. Water
3. Excreta disposal
4. Housing
5. Drain (in connection with malaria control)
6. Compost pits

E. Maintenance / treatment

1. Assist in maintenance of water supply schemes, housing and latrines
2. Maintain chlorine level in small rural water supplies

F. Communicable disease investigation

1. Investigate cases referred by the health facilities such as TB, leprosy, outbreaks of communicable diseases
2. Investigate existance of nuisances such as rodents, offensive smells, water pollution, etc.
3. Participate as and when needed in checking for skin diseases such as scabies, and lice
4. Participate as and when needed in the immunization programme
5. Participate in distribution of drugs for TB and leprosy cases along with follow-up.

G. General administration

3. Organizational Relationships

As a member of the rural health services team the Health Technician reports administratively to the Clinical Officer who directs the Rural Health Unit to which he is assigned.

STATISTICAL CLERK

1. General Definition

Clerical Assistant with statistical ability assigned to the rural health unit. Activities include data recording, filing, abstracting, report preparation, stores and financial control accounting, budget follow-up (staff, equipment, expendables). Supervises record-keeping in subordinate facilities, maintains some overall health unit records centrally (personnel, financial, central inventory).

2. Specific Duties

A. Epidemiological records and statistics

1. Prepares disease returns
2. Compiles and submits designated vital statistics (to be determined)
3. Assists Health Technician in maintaining area environmental presentation
4. Supports expeditious reporting of notifiable conditions/diseases

B. Operating records and statistics

1. Records and summarizes service output indices (attendances, immunization, prenatal contact, etc).
2. Administers out-patient registration, record maintenance and retrieval systems.
3. Records mobile service activities (may be required to accompany mobile units).
4. Supports information interchange between members of the rural health unit team (oversees information flow between service activities).

C. Administrative

1. Provides clerical support for stores inventory, including drugs, vaccines, clerical supplies and forms.
2. Follow-up (and typing) of vehicle records (deployment, fuel, maintenance).
3. Preparation (typing) of monthly reports prepared by designated team members.
4. Maintenance of personnel records of all health unit staff.
5. Prepares staffing position report.
6. Maintains equipment inventory, maintenance replacement records, building maintenance.
7. Performs budget follow-up, maintains expenditure control records - CO supervises.
8. Supports referral/follow-up procedures.

3. Organization Relationship

1. Reports to the Health Centre Clinical Officer ant.
2. Serves specified reporting functions carried out by other members of the team (CN, HT).
3. Communicates with district administrator or District Health Statistician
4. Assists and supervises recording activities in subordinate facilities.

ATTENDANT (ATD)

1. General Definition

The ATD is a supporting staff of the Rural Health Unit team.

2. Specific Duties

1. Clinical duties-

(a) pre-clinic preparations (including sterilization, cleaning of equipment and materials):

(b) temperature taking;

(c) height/weight measuring:

(d) collection of specimen (stool, urine, sputum)

(e) simple laboratory tests (eg. urine test):

(f) dressing;

(g) assists CN in observations of patients:

(h) assists CN in delivery:

(i) assists in health education (nutrition demonstration):

(j) assists in distribution of drugs.

2. Duties of patient care -

(a) bed-making
(b) bathing of patients
(c) serving of food
(d) attending infants and children (feeding, bathing, potting, changing)
(e) accompanies patients to hospitals

3. Administrative duties -

(a) registers incoming patients
(b) undertakes filing
(c) performs simple statistical compilation
(d) assists in control and distribution of linen within the health centre
(e) assists in stock-keeping of drugs

3. Organizational Relationships

The ATD works under the direct supervision of the Community Nurse.

FAMILY HEALTH FIELD EDUCATOR (FHFE)

(Also known as Family Health Educator)

1. General Definition

The FHFE is a person trained to carry out informational, educational and motivational activities aimed at the general improvement of the health and welfare of all members of the family, particularly that of women in the reproductive age group Although not necessarily a clinical worker, FHFE should be a respected and acceptable member of the local community in which she/he works.

2. Specific Responsibilities

1. Public Information on Family Health and Family Planning -

   Co-operation with mass media workers, lectures during community meetings, individual talks, distribution of literature, etc.

2. Educational Activities on Family Health and Family Planning -

   Identification, organization and co-ordination of educational activities to specific target audiences, eg women's club, schools, etc.

3. Motivation and Recruitment of Clients for the FW Clinics

4. Follow-up Activities of Family Planning Acceptors, particularly dropouts.

5. Distribution of conventional contraceptives approved by the Ministry of Health.

6. Liaison and public relations activities aimed at providing a link between the public and the RHU.

7. Co-operation with other government or non-government workers in organizing and preparing seminars, meetings and conferences on family health and family planning.

Other duties

1. Participation in meetings or other joint activities of the RHU

2. Preparation of monthly reports

3. Organizational Relationships

1. The FHFE is primarily responsible to the CO in charge of the RHU to which she/he is assigned

2. The FHFE works in close co-operation with other members of the RHU and provides a link between them and the public

3. The FHFE receives guidance from the DMOH and his staff on district level

4. The FHFE may participate in mobile group activities with other members of the RHU when assigned.

5. The FHFE co-operates with other organizations or individuals with similar or related objectives in the field of family welfare such as community development officers, teachers, social workers, agricultural extension workers, etc.

Appendix 5

MINISTRY OF HEALTH

AFYA HOUSE
PERSONNEL DIVISION
CATHEDRAL ROAD
P. O. BOX 30016
NAIROBI

Ref: DEV/15/2/262

28th July 1977

Mr Wood,
African Medical & Research Foundation,
Flying Doctor Services,
P O Box 30125,
NAIROBI

Dear Mr Wood,

The Ministry of Health asked the African Medical and Research Foundation to undertake the Kibwezi Rural Health Project. I believe that this is a most important venture and fits in well with the overall policy of the Ministry. The Ministry is anxious that this project should now get under way as soon as possible and looks forward to co-operating with AMREF to make it a success.

Yours sincerely,

DR S. KANANI

for: PERMANENT SECRETARY

INTENTIONALLY

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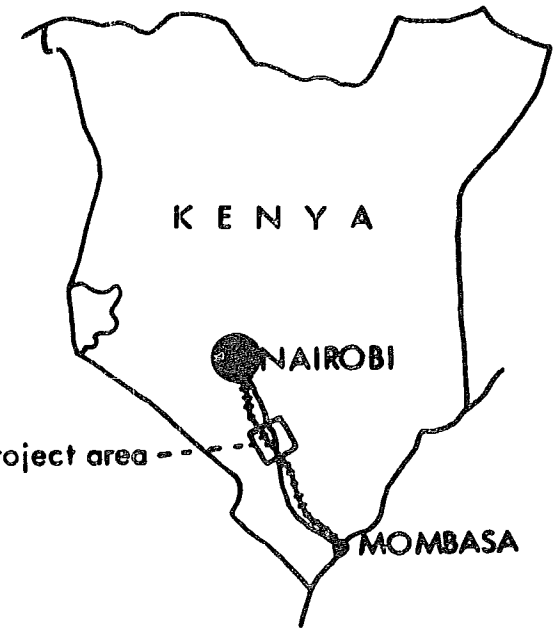
KIBWEZI

PROJECT AREA



■ Site of New Health Centre

✕ Site of Existing Health Facilities

TO NAIROBI
110 miles

TO KITUI

Kiboko River

MAKINDU ✕
Hospital

YATTA PLATEAU

✕ Kalulini

✕ KIBWEZI

Kibwezi Mission Clinic

Athi River

TSAVO NATIONAL PARK

NGWATA

50 miles

CHYULU HILLS

DARAJANI

KATHEKANI

Mtito Andei River

MTITO ANDEI

WEST CHYULU
GAME RESERVE

TO
MOMBASA

25 miles

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UNCLAS NAIROBI 12375

AIDAC

E.O. 11652: N/A
SUBJ: AMREF OPG

1. MISSION HAS REVIEWED AMREF'S REVISED OPG SUBMISSION OF JUNE 1978 AND ADDITIONAL MATERIAL SUPPLIED BY LACKEY TO RUGH LETTER OF JULY 3. MISSION ENDORSES SUBJECT PROJECT.

2. COMMENTS:

A. POINTS RAISED IN O'KEEFE/RICHARDS' MEMO HAVE BEEN ADEQUATELY ADDRESSED;

B. FOCUS OF PROJECT NOW ON KIBWEZI OPERATIONAL ELEMENT SUCH THAT PAST AID/W CONCERNS AT DPG-TYPE ASSISTANCE SHOULD BE ALLEVIATED.

C. USAID DID EXPRESS CONCERN TO AMREF RE AID FUNDING 60PERCENT OF COST OF FOUR NAIROBI-BASED PERSONNEL BUL WE HAVE BEEN ASSURED THAT THIS NECESSARY TO ENSURE PROPER MANAGEMENT, INCLUDING TECHNICAL PLANNING, EVALUATION, AND FINANCIAL
CONTROL.

D. ENRIVONMENT: USAID WILL BEGIN PREPARATION IEE FOR TRANSMITTAL TO AID/W. PER OUR CONSULTATIONS WITH REDSO/RLA, IEE THRESSHOLD DECISION MUST BE BASED ON ALL ELEMENTS OF PROJECT, I.E. IEE MUST ADDRESS IMPACT OF CONSTRUCTION OF KIBWEZI HEALTH CENTER, WHICH FINANCED BY OTHER DONOR FUNDS;

3. USAID DISAPPOINTED AT PROPOSAL'S LACK OF BASELINE INFORMATION ON IMMEDIATE PROJECT IMPACT AREA. NOTE THAT IMPLEMENTATION PLAN CALLS FOR "ASSESSMENT" OF KIBWEZI AREA NEEDS AND EPIDEMIOLOGICAL SURVEY DURING MONTHS 2-12 OF PROJECT. NOT CLEAR WHO TO DO OR PRECISE SCOPE OF STUDY.

F. WOULD SUGGEST BUDGET INCLUDE CONTINGENCY/INFLATION FACTOR THROUGHOUT.

G. MISSION BELIEVES OBJECTIVE OF ACHIEVING COMMUNITY FINANCINCING TO SUPPORT THEIR CHWS IS CRITICAL TO FUTURE REPLICABILITY. SUGGEST BUDGET CONTAIN PROVISION FOR CONSULTANT SERVICES, IF NECESSARY, TO HELP DEVELOP APPROACHES THAT COULD BE EXPLORED WITH THE COMMITIES. SUCH SERVICES, E.G. OF ANTHROPOLOGIST OR ECONOMIST, BEST PROVIDED BY KENYAN SOCIAL SCIENTIST.
LE MELLE

Telegrams: "Medicinist", Nairobi
Telephone: Nairobi 27281
When replying please quote
Ref. No. DMH/13/2/220/97
and date

AFYA HOUSE
CATHEDRAL ROAD
P.O. Box 30016, NAIROBI

13th August 1977

Mr. A.H. Wood, CBE, FRCS,
Director General,
African Medical & Research Foundation,
P.O. Box 30125,
NAIROBI.

Dear Mr. Wood,

RE: PROPOSED KIBWEZI HEALTH CENTRE

This is to confirm that the Ministry of Health will budget for the recurrent cost of the proposed Kibwezi Rural Health Centre to be constructed by the African Medical Research Foundation.

Yours sincerely,

DR. Z. ONYANGO
for PERMANENT SECRETARY

BEST AVAILABLE DOCUMENT

BEST AVAILABLE DOCUMENT

AGREEMENT

Between

THE FOUNDATION DES FONCTIONNAIRES SUISSES EN FAVEUR DES LEPREUX (SWITZERLAND),

THE AFRICAN MEDICAL AND RESEARCH FOUNDATION (KENYA)

and the

GOVERNMENT OF KENYA

Concerning the Construction of a Rural Health Centre at Kibwezi

WHEREAS at the request of the Government of Kenya, the African Medical and Research Foundation (hereinafter called AMREF) has agreed to plan, construct and manage a Rural Health Centre at Kibwezi,

AND WHEREAS the Fondation des Fonctionnaires Suisses en Faveur des Lepreux (hereinafter called the Fondation) has agreed to contribute a total of Five hundred thousand Swiss Francs towards the setting up of the Health Centre including staff quarters and ancillary buildings;

The Contracting Parties to the present Agreement have agreed to the following:

ARTICLE 1: Project Description

The Kibwezi Health Centre Project (hereinafter called the Project) is described under Section III of the Kibwezi Rural Health Scheme Description which is attached to the present Agreement.

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ARTICLE 2: Implementation

The construction, equipping and running of the Health Centre will be carried out according to the Project Description and take place under the general supervision of the Ministry of Health (hereinafter called the MoH). For this purpose a Steering Committee will be established. This will consist of two representatives from the MoH, two from AMREF, one of which shall be chairman, the Swiss Ambassador or his nominee and a representative of Merchurchaid. The committee will meet at least 4 times a year.

During the first five years, the Health Centre will be run by AMREF. It will then be handed over to the Kenya Government which will take over the full responsibility for the staffing and the running of the Health Centre.

ARTICLE 3: Responsibilities of AMREF

AMREF will be responsible for

a) the preparation of detailed construction, equipment and work plans for the Health Centre including the staff quarters and ancillary buildings, approved by the MoH,

b) the preparation of the revised construction and equipment budget,

c) the invitation and adjudication of tenders for the construction and equipment of the Health Centre,

d) the staffing and the running of the Health Centre for a period of five years,

e) the preparation of a smooth handing over of the Project to the Ministry of Health at the end of the five year period.

AMREF commits itself to using the grant of the Fondation exclusively for the execution of the Project as described in the Project Description.

ARTICLE 4: Contribution of the Fondation

The Fondation will contribute a grant not exceeding Swiss Francs 500,000.- towards the realisation of the Project. These funds will be transferred in instalments to AMREF as follows:

a) a first instalment of Swiss Francs 30,000.- after
   - signing of the present Agreement, and
   - submission by AMREF of a detailed construction and equipment budget,

b) a second instalment of Swiss Francs 130,000.- after the selection of the

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main contractor for the construction of the Health Centre,

c) a third instalment of Swiss Francs 150,000. - after submission of a detailed statement of accounts indicating that the first and second instalments have been fully utilized,

d) a fourth and final instalment of Swiss Francs 150,000 - after submission by AMREF of a comprehensive final report together with detailed final accounts for the construction and equipment of the Health Centre.

ARTICLE 5: Reports

AMREF will forward progress reports together with statements of accounts to the Fondation every three months until the fourth and final instalment is made, and thereafter on a six monthly basis.

ARTICLE 6: Accounting

AMREF will keep separate accounts for the Project and allow any inspection which the Fondation might require.

ARTICLE 7: Consultations

In the event of any difficulties arising in the implementation of the terms of the present Agreement, the Contracting Parties shall consult each other with a view to taking appropriate remedial measures.

The terms of the present agreement can be changed only if the Contracting Parties mutually agree to do so.

ARTICLE 8: Role of the Embassy of Switzerland

On request of the Fondation the Ambassador of Switzerland in Kenya has agreed to assist in supervising the financial administration of the Project. AMREF will, therefore, provide him with all information about the Project that he may require.

ARTICLE 9: Appendix

The Contracting Parties agree that the Project Description which is attached to the present Agreement forms an integral part of this Agreement.

Day of 19

SIGNED by President ... and on behalf of the Foundation

Secretary

SIGNED by ...A Michael Wood... and on behalf of MMRF

SIGNED by ..... on behalf of the Commonwealth of Virginia

Witness ... in the presence of the witness

BEST AVAILABLE DOCUMENT

KIBWEZI RURAL HEALTH SCHEME

I. Description of the Scheme

The Government of Kenya, increasingly aware of the unmet medical care needs of the mass of population in the rural areas also recognizes that the structure of services at present provided allows only limited opportunities for innovation in methods of health care provision. As part of its programme it has asked the African Medical and Research Foundation (AMREF) to assist by helping to extend and improve its rural health service for a population of about 120,000 in the area of Kibwezi, south-central Kenya.

Kibwezi is the central point of the old Iveti sub-district of Machakos District. The area is an arid plain in semi-bush, between the Chyulu Hills and the Athi River. It is at an elevation of 3,000 feet and a population of 1,200 square miles (see map). The population, estimated at 1,000,000 is predominantly Kamba and is engaged in a limited amount of uncertain marginal cultivation, but lives mainly by herding goats and cattle, and by trading.

A. Principal Health Problems

The principal health problems, similar to those of the other rural areas of Kenya include respiratory infections, perinatal health, malnutrition, childhood infections, malaria, leprosy and tuberculosis and accidents, poisonings.

B. Leprosy and Tuberculosis

A major programme activity of the Project originating from the Rural Health Centre will be a tuberculosis survey, mobile treatment and surveillance for leprosy and tuberculosis patients in the Kibwezi area.

All leprosy and tuberculosis patients in the area will be identified through examination of medical records at Makindu Hospital and the district clinics at Kibwezi and through field visits or talks with community leaders.

Leprosy patients requiring reconstructive surgery will be referred to either Mutomo Mission Hospital or Kitui Hospital where they will receive surgery from AMREF's Reconstructive Leprosy Surgeon, Dr Shady Jackson, TCC.

The present treatment procedures will be assessed and, if feasible, a more effective system of drug distribution and supervision will be tested, and be extended to other districts. The village health workers will be trained in the delivery of the project. The village health workers will be the key individuals [illegible] the project will be the key individuals [illegible] slightly [illegible] health education to the community [illegible] patients, [illegible] health education to the community [illegible] patients, [illegible] follow-up physiotherapy exercises, activity [illegible] rehabilitation [illegible]. They will be trained [illegible] Centre staff and [illegible] Fund.

[illegible]'s Health [illegible] and [illegible] will [illegible] patients [illegible] and [illegible] authors and [illegible] [illegible] sites. Based [illegible] these studies, a program [illegible] will be [illegible] for village health workers [illegible] programme for existing staff.

Although evaluation of the project's work with leprosy and tuberculosis patients will be undertaken and documented for use by government and other voluntary [illegible] [illegible] will be established with [illegible] [illegible] Leprosy [illegible] [illegible].

C. Existing Health Facilities

Only one small hospital and dispensary presently serving the [illegible] sub-district area of [illegible]. The [illegible] Hospital has [illegible] beds, but [illegible] facilities [illegible] leprosy from [illegible]. The nearest district hospital [illegible] from [illegible] and [illegible] from [illegible]. The [illegible] [illegible] centre [illegible] hospitals.

D. Objectives of the Scheme

The objectives of the [illegible] Rural Health Scheme will be to provide comprehensive and appropriate health care to the population [illegible] low population density areas, [illegible] will [illegible] for the modification of [illegible] and [illegible] to [illegible] [illegible] population [illegible].

The specific aims of the Scheme are in sequence:-

1. To assess the effectiveness of the severely limited services both traditional and [illegible] at present available;
2. To make limited inputs calculated to improve - at minimal cost and without significant capital expenditure - the [illegible] existing services;
3. To assess the needs of the population for curative and especially preventive and health promotive assistance and to agree with them on ways in which they can [illegible] contribute to their own health improvement through community action;
4. To develop, in the first place for selected areas, plans for the [illegible] of the welfare services;
5. To retrain existing staff and, specially, to select and train additional personnel working with community leaders, to implement the programme in the selected areas following the pattern planned;
6. To implement the programme in half-villages and communities selected and then progressively over the whole area;
7. To assess the effectiveness of the various aspects of the programme, so that it can be modified as seems appropriate and to produce its own [illegible].

II. Utilisation of the contribution of the Foundation of Swiss Civil Servants in favour of Kenya

The Scheme's centre of operations will be a Rural Health Centre located at Kilivezi. The contribution of the Foundation of Swiss Civil Servants in favour of Kenya Francs [illegible], as requested by AMREF will be used for the construction and equipment of this Rural Health Centre. Upon completion of the Rural Health Centre, a dedication ceremony will be performed with a cornerstone placing presented jointly by the Foundation of the Swiss Civil Servants as the donor agency for the Kilivezi Health Centre. Participants would include the Embassy of Switzerland, Kenya Ministry of Health, AMREF and local community leaders and development authorities.

III. Description of the Rural Health Centre at Kibwezi

A. Building Design and Layout

The Health Centre is subdivided into three units:

1. Outpatient unit includes preventive diagnostic and treatment section.
2. Inpatient unit includes general wards, delivery and maternity ward.
3. Service unit includes toilet facilities, kitchen, laundry sluice and garage. Physically the Health Centre has been split up in 5 separate building blocks. The blocks are connected to each other by pathways running through the buildings and adjoining the verandah communications in a spine pattern.

In between the preventive and diagnostic/treatment building blocks there is a covered waiting area enclosed by dwarf walls. The buildings are designed with a verandah on one side which is used for waiting and communication zone.

B. Capacity and Patient Flow

1. Outpatient Unit

The outpatient unit is designed to cater to a maximum of 300 patients per day. When arriving the patients are received by a clerk at the registration counter and sent either to the diagnostic or preventive section. Sick patients are seen by a community nurse or clinical officer. After diagnosis the patient is sent back for registration at the counter and directed for treatment or injection, dressings or pharmacy.

Difficulty cases are referred to a clinical officer for further investigations and may be treated or observed in the Minor Theatre.

Mothers and children under 5 years of age are seen by a community nurse in either of two equal consultation rooms. Family Planning services are made in an adjoining room in between. Some patients also at this section are sick and need simpler treatment. Common injections, dressings and dispensing of prepacked medicine is to be done by the Community Nurse at this section.

Routine checks are made in a bay adjacent to the waiting area. The waiting area is subdivided for primary waiting for registration on the benches along the walls at the main entrance area; waiting for diagnosis; waiting at the treatment rooms, pharmacy or laboratory; or waiting at the preventive section.

2. Inpatient Unit

The unit has capacity for 12 inpatients. Three 2-bed rooms and one 6-bed room to be used as one male general ward, one female general ward, one ante-natal ward and one post-natal maternity ward. The delivery should handle about 70 deliveries per month. Adjacent to the delivery are utility rooms, toilet and shower. The nurse bay is centrally positioned within the unit.

3. Service Unit

The unit is split up into one block with toilets, garage and workshop next to the outpatient unit and one block with toilets, showers, kitchen, laundry and sluice room next to the inpatients. The blocks are intended to be used by the adjacent units but laundry and sluice room should serve naturally also the outpatient unit.

C. Room Layout and Room Functions

The rooms are generally designed equally as multipurpose rooms. Thus the functions of the rooms can be interchanged by rearranging equipment and furniture. There is an internal door connection for staff between the rooms at the outpatients unit. At rooms next to the corridor this arrangement gives a possibility for a through flow of patients, e.g. in the injection room.

D. Maintenance

Finishing materials have been selected with consideration to both economy and maintenance. Floors are generally of screed finish but with granolithic flooring in wet areas. External walls are of fairfaced blockwork, internally plastered and painted with gloss paint for ease of cleaning. Walls in wet areas have granolithic finish. Partitions about door frame height and ceilings are emulsion painted.

E. Staffing Pattern

Clinical Officer	1	Patient Attendants	3
Community Nurses	4	General Attendants	4
Public Health Technicians	1	Microscopist	1
Family Health Educators	2	Driver	1
Records Clerk	1	Cook	1
		Watchman	1
		Total	20

F. Health Centre Cost

		KShs.	$
1. Health Centre Building		530,000	66,250
2. Staff Housing	KShs.		
- 1 Type C1 Clinical Officer	108,000		
- 1 Type E4 Community Nurses	320,000		
Public H. Techn.	99,000	503,000	62,875
3. Site Works - drainage, sewage, fencing, landscape		200,000	25,000
4. Additional Costs			
- Generator	85,000		
- Water Treatment	25,000		
- Pump and Pipes	90,000		
- Tank and Tower	71,500	271,500	33,940
5. Provincial Engineers Supervision		15,500	1,910
6. Equipment			
- Furniture	23,410		
- Pharmaceutical and surgical Sundries	12,075		
- General equipment	32,415		
- Surgical Instruments	2,410		
- Operating Theatre Equipment	18,200		
- Contingencies	11,290	100,000	12,500
7. Landrover for Rural Health Centre Mobile Services including Leprosy and Tuberculosis services		90,000	11,250
TOTAL COST, RURAL HEALTH CENTRE		1,710,000	213,755

500,000 Swiss Francs equivalent to KShs.1,710,000

1 Swiss Franc to KShs. 3.42 as of 15.7.1977.