

PROJECT EVALUATION SUMMARY (RES) - PART I

1. PROJECT TITLE <b>DS/DIU</b> Rural Blindness Prevention Phase II (IEF OPG)		2. PROJECT NUMBER 615-0203	3. MISSION/AID/W OFFICE USAID/Kenya
		4. EVALUATION NUMBER (Enter the number maintained by the reporting unit e.g., Country or AID/W Administrative Code, Fiscal Year, Serial No. beginning with No. 1 each FY) <b>615-82-0</b>	
		<input type="checkbox"/> REGULAR EVALUATION <input type="checkbox"/> SPECIAL EVALUATION	

5. KEY PROJECT IMPLEMENTATION DATES			3. ESTIMATED PROJECT FUNDING A. Total \$ <b>2,720,000</b> B. U.S. \$ <b>1,870,000</b>	7. PERIOD COVERED BY EVALUATION From (month/yr.) <b>March 17, 1980</b> To (month/yr.) <b>May 10, 1981</b>	
A. First PRO-AG or Equivalent FY <b>80</b>	B. Final Obligation Expected FY <b>81</b>	C. Final Input Delivery FY <b>83</b>		Date of Evaluation Review <b>October 4, 1981</b>	

B. ACTION DECISIONS APPROVED BY MISSION OR AID/W OFFICE DIRECTOR

A. List decisions and/or unresolved issues; cite those items needing further study. (NOTE: Indicate decisions which anticipate AID/W or regional office action should specify type of document, e.g., program, SPAN, PIO, which will present detailed request.)

B. NAME OF OFFICER RESPONSIBLE FOR ACTION	C. DATE ACTION TO BE COMPLETED
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- I. Unresolved Issues
- A. A lack of coordination between IEF and MOH activities
  - B. An absence of focal point of Authority and execution of IEF activities in MOH Headquarters.
  - C. A lack of financial support for IEF supported activities by MOH.
  - D. Insufficient steps taken by IEF and MOH to ensure continuity of project activities.
- II. Mission Recommendations:
- A. Submission of a revised implementation plan and budget.
  - B. Review of revised implementation Plan.
  - C. Establishment of a coordinator for IEF activities
  - D. Refocus project activities and resources to ensure attainment of project objectives, including institutionalization.
  - E. Final decision on IEF follow on activities.
  - F. Incorporation of funds in MOH budget for continuation of project.

IEF staff	Feb. 9, 1982
USAID Project Review Comm.	March 1, 1982
MOH/IEF	March 15, 1982
IEF/MOH	Feb-April 1982
USAID/IEF/MOH	Aug. 15, 1982
MOH/IEF	Dec. 15, 1982

9. INVENTORY OF DOCUMENTS TO BE REVISED PER ABOVE DECISIONS

<input type="checkbox"/> Project Paper	<input type="checkbox"/> Implementation Plan e.g., CPI Network	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Financial Plan	<input type="checkbox"/> PIO/T	_____
<input type="checkbox"/> Logical Framework	<input type="checkbox"/> PIO/C	<input type="checkbox"/> Other (Specify)
<input type="checkbox"/> Project Agreement	<input type="checkbox"/> PIO/P	_____

10. ALTERNATIVE DECISIONS ON FUTURE OF PROJECT

- A.  Continue Project Without Change
- B.  Change Project Design and/or  ~~Revise~~ **Revise** Implementation Plan
- C.  Discontinue Project

11. PROJECT OFFICER AND HOST COUNTRY OR OTHER BANKING PARTICIPANTS AS APPROPRIATE (Name and Title)

HNP:NMwanzia/JSlatery:2/17/82  
 Clearance:HNP:RABritanak (draft)  
 PROG:WLefes (draft)  
 PRJ:TLOfgren (draft)  
 RFMC:GRobinson (draft)

12. Mission/AID/W Office Director Approval

Signature: 

Typed Name: Allison B. Herrick, Director

Date: 2-19-82

## SUMMARY

The Scope of Work and tentative timetable for first year evaluation of the Kenya Rural Blindness Prevention Project (KRBPP) Phase II was submitted to the Mission on November 5, 1980. The copies of the Scope of Work were circulated to the Project Committee and on December 15, 1980 in a meeting, USAID/HNP pointed out the following points concerning the Scope of Work:

- i) The schedule was light on field visits to MOH institutions and officials involved in health education activities, e.g. provincial seminars, curricula for Rural Health Training Centers.
- ii) Level of project expenditures and project funding status should be examined.
- iii) Evaluation should examine if steps have been taken by IEF and GOK to incorporate future project expenditures into GOK budget system.

A revised version of the Scope of Work was received by Mission on January 6, 1981 and the only real change in the Scope of Work was the addition of a section specifically dealing with the project finances. The actual evaluation took place from May 11, 1981-May 19, 1981. The evaluators submitted their report to the Mission on July 21, 1981. The Mission Project Review Committee reviewed the evaluation on October 4, 1981.

### Results of the Evaluation Review:

Partial institutionalization of IEF's activities has taken place, e.g. training of Government Clinical Officers (Ophthalmologists) and to a limited extent the training of staff at Rural Health Training Centers in blindness prevention in rural areas. IEF must now show in the remaining period of Phase II how they plan to institutionalize fully these activities as well as remaining activities, e.g. conducting provincial and district seminars, operating Rural Blindness Prevention Mobile Units, conducting eye disease prevalence surveys and analysing prevalence data for assignment of staff and supplies.

The Mission is concerned with IEF's lack of coordination of its activities within the Ministry of Health Headquarters and a general under-emphasis of IEF resources on specific project activities that are critical to the attainment of Phase II objectives, i.e. institutionalization of a rural primary eye care program within the MOH's rural health services delivery system. Thus when IEF submitted a Phase III proposal (October 1, 1981) containing activities similar to those in Phase II, the Mission felt that it was too early in the current Phase II project to consider any additional time and funds.

The Mission has urged IEF to revise their Phase II implementation plan and specifically focus on how they plan to attain the projects goals and objectives within the existing time and resources remaining in the Phase II grant.

Also IEF should immediately begin to more closely coordinate their activities with the MOH Headquarters and to identify a coordinator who can take necessary actions to establish and fund IEF project activities within the Ministry's rural health services delivery program.

The Mission has informed IEF that we would be willing to consider a no-cost extension and/or a year extension with reasonable amount of funding, provided IEF shows significant progress to attain Phase II objectives and USAID funds are available.

*NEA July 10*  
Draft:HNP:NMwanzia/JSlattery:2/17/82

Clearance:HNP:RABritanak (draft)

PROG:WLefes (draft)

PRJ:TLOfgren (draft)

RFMC:TLOfgren (draft)

~~PD-AAJ-2H~~  
XD-AAJ-210-A  
SN. 87P

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EVALUATION REPORT

INTERNATIONAL EYE FOUNDATION  
KENYA RURAL BLINDNESS PREVENTION PROJECT

May, 1981

## EVALUATION REPORT

### INTERNATIONAL EYE FOUNDATION KENYA RURAL BLINDNESS PREVENTION PROJECT

May, 1981

#### I. INTRODUCTION

Under the terms of the Amended Operational Program Grant <sup>(New</sup> <sub>Project</sub> AID No. 615-0203 between the United States of America, acting through USAID/Kenya, and the International Eye Foundation (IEF), the second phase of the Kenya Rural Blindness Prevention Project began in April, 1980.

The Project Agreement called for an interim evaluation by the end of the 12th month of Phase II activities by specialists to be selected by both AID and the IEF. The individuals chosen for the evaluation should be employees of neither the IEF nor USAID/Kenya. The terms of references for the Evaluation Team include the following major program areas:

1. Definition of the prevalence of avoidable blindness;
2. Education and training in primary eye care and blindness prevention and development of appropriate teaching materials;
3. Development and strengthening of both therapeutic and preventive activities in eye care within the Ministry of Health's Ophthalmic Program;
4. Organizing and conducting seminars on primary eye care and blindness prevention in all districts and provinces of the country (excluding Nairobi); and

5. Development of curricula on primary eye care and blindness prevention for use in the six Rural Health Training Centers (RHTC) and other health training institutions.

For further reference on the progress of the IEF Project in Kenya since its inception, the following official documents are available:

1. The Evaluation Report of Phase I;
2. The Final Report of Phase I of the IEF Kenya Rural Blindness Prevention Project; and
3. The Combined Quarterly Report and First Annual Report of Phase II of the IEF Project.

The Evaluation Team was made up of Gunter K. von Noorden, M.D., Professor of Ophthalmology, Baylor College of Medicine, Houston, Texas; and Alfred A. Buck, M.D., Dr.P.H., Tropical Disease Advisor, USAID/Washington.

The Team arrived in Nairobi on May 10, 1981 and left Kenya on May 19, 1981.

## II. ITINERARY

### Sunday, May 10:

- 8:00 a.m. - Arrival of Evaluation Team in Nairobi
- 8:00 p.m. - Dinner with Dr. Volker Klauss

### Monday, May 11:

- 9:00 a.m. - Evaluation Team meeting at USAID Headquarters, Nairobi. Questions and Itinerary changes, if any, and briefing by Dr. Slattery and Ms. Muinde, USAID/HNP Division

1:00 p.m. - Ministry of Health; briefing by Dr. A. M. Awan,  
Chief Consultant Ophthalmologist, Government of  
Kenya

4:00 - Dr. F. M. Mburu, IEF Health Planner (Designate)

Tuesday, May 12:

8:30 a.m. - Depart for Nyeri

9:30 - Meet Dr. Randolph Whitfield, Project Director,  
at Murang'a District Hospital. Inspect Eye  
Clinic and meet Mr. Eliud Kimathi, Clinical  
Officer (Ophthalmic)

11:00 - Continue on to Nyeri

11:30 - Nyeri Provincial General Hospital Eye Clinic  
and Eye Ward inspection; followed by brief dis-  
cussion with Ophthalmic Clinical Officers, Mr.  
Charles Karugu and Mr. Stephen Karanja

2:00 p.m. - Meet with Dr. Randolph Whitfield; briefing and  
overview of Project activities

Wednesday, May 13:

8:30 a.m. - Depart for Nakuru

10:30 - Meet Dr. Paul Steinkuller, Assistant Project  
Director; briefing on Project activities in  
Rift Valley Province

11:00 - Meeting with Rural Blindness Prevention Unit  
(RBP) No. 1 and observe school screening  
activities conducted by Mr. Paul Rotich,  
Clinical Officer (Ophthalmic)

2:30 p.m. - Depart for Kisumu

- 3:30 - Meet with Mr. Debono, Clinical Officer  
(Ophthalmic) at Kericho District Hospital

Thursday, May 14:

- 9:00 a.m. - Kisumu District Primary Eye Care/Blindness Prevention Seminar. Meet Dr. Kayo, Provincial Medical Officer
- 3:00 - Meet with Mr. Dennis Ross-Degnan, KRBPP Health Planner; briefing on ocular status surveys and community projects
- 4:00 - Meet with Ms. Victoria Sheffield, C.O.T., Field Training Specialist; briefing on seminars and other Project education activities
- 5:00 - Meet with Mr. Elly Oduol, Provincial Health Education Officer

Friday, May 15:

- 8:00 a.m. - Depart for Saradidi, Siaya District
- 9:30 - Inspection of Saradidi Community Health Centre and meeting with Saradidi Community Project Executive Committee
- 11:00 - Inspection of various community project activities
- 12:00 - Return to Nairobi

Saturday, May 16:

- 10:00 a.m. - Meet with Mr. Alex Mackay, IEF/Kenya Fiscal Manager, for financial briefing and review of Project expenditures
- Begin drafting report

Sunday, May 17:

- Continue drafting report

Monday, May 18:

- Continue drafting report
- 7:00 p.m. - Debriefing with Dr. Slattery and IEF Project Team
- 8:00 - Meeting with Dr. Volker Klauss

Tuesday, May 19:

- 1:40 a.m. - Departure

III. OBSERVATIONS

A. IEF FIELD TEAM

Field staff personnel and their specific assignments are listed in the Annual Report (Appended). The Evaluation Team had extensive discussions with each team member and observed their actions in the field.

The IEF Field Staff is comprised of highly competent, enthusiastic, and dedicated workers whose individual efforts are well integrated and consistent with the objectives of this Project. Mr. Dennis Ross-Degnan is expected to leave the Project in August, 1981. Arrangements have been made for his replacement by a Kenyan scientist, Dr. F. M. Mburu, presently serving as Senior Lecturer in Community Health at the Medical School of the University of Kenya in Nairobi.

Dr. Mburu appears to be uniquely qualified for this job as he combines a profound knowledge of community attitudes and the traditional and political systems at the rural level in

Kenya with teaching capacity and scientific interests, as evidenced by his numerous publications in the field of community health and primary health care.

B. MINISTERIAL CONTACTS

During their stay in Kenya, the Evaluators were given no opportunity to meet with senior members of the Ministry of Health (MOH) responsible for blindness prevention programs in their country. This lack of direct communication, further aggravated by the countrywide doctors' strike, made professional contacts at all levels extremely difficult.

The Evaluation Team did have a discussion with Dr. Awan, Chief Consultant Ophthalmologist at Kenyatta National Hospital, and was briefed regarding the structure of the health care delivery systems in Kenya.

The important role of Clinical Officers (Ophthalmic) (CO(O)) within this system was emphasized. There are currently 37 CO(O)s in the field. Approximately eight graduate each year from the Department of Ophthalmology of the Kenyatta National Hospital. The distribution and posting of CO(O)s in the provinces is recommended to the MOH by Dr. Awan.

*How many  
were there  
14, 24+5  
ago?*

In addition to the two IEF Provincial Ophthalmologists, there are currently five Government ophthalmologists stationed in the six Provincial Hospitals. Additional Government ophthalmologists work at the Kenyatta National Hospital. We were told that replacements of Government ophthalmologists in the provinces are made according to local prevalence and severity of eye diseases. Both the Provincial Ophthalmologists and

the CO(O)s are said to report their activities to the Chief Consultant Ophthalmologist.

A post-graduate training program for ophthalmologists in the Kenyatta National Hospital began three years ago. The training activities are under the direction of Dr. Volker Klauss, Senior Lecturer in Ophthalmology, National University of Nairobi, who is associated with the Eye Clinic of the University of Munich, German Federal Republic. The University of Munich has entered into a teaching affiliation with the Medical School of the National University of Nairobi.

Two ophthalmologists will graduate from this program each year. Following graduation, ophthalmologists are obligated to spend at least three years in Government service, usually in the Provincial Hospitals, before obtaining permission to enter private practice. We were told, however, that there are mechanisms to escape Government service at any time by "buy-outs" from these obligations.

#### C. TEACHING ASPECTS OF THE PROJECT

##### 1. Number and Types of Health Personnel Reached:

During Phase II of the Project, instruction in primary eye care and blindness prevention was received by a total of 238 health personnel (Clinical Officer students - 40; nurse students - 60; Clinical Officer (Ophthalmic) students - 8; Clinical Officer (Ophthalmic) - 7; village health workers - 54; rural health trainees - 44; and teachers of the blind - 25).

Medical students participated in one disease survey and are currently participating in the Saradidi Project (as explained on Page 18).

2. Curricula Development by the Field Training Specialist for Use With Different Groups:

The Field Training Specialist developed lecture outlines and curricula on the anatomy and physiology of the eye, diagnosis and treatment of common eye disorders, and blindness prevention. These outlines were addressed at health workers of different educational backgrounds and specifically prepared for:

- a. General Clinical Officer trainees
- b. Nursing students
- c. Village health workers
- d. Primary school students
- e. MCHD mothers
- f. Village elders
- g. Agricultural fairs
- h. Provincial and district hospital seminars
- i. Rural Health Training Centres
- j. Clinical Officers (Ophthalmic) from Rural Blindness Prevention Units

In addition, pamphlets on primary eye care for health workers and a booklet in a popular format containing practical information on vision, the eye, and blindness prevention were prepared and distributed. These teaching materials were presented at various regional meetings in other African countries

and judged suitable by ophthalmologists from these countries for use in their respective nations.

A booklet on the history of blindness prevention and IEF activities in Kenya (~~proofs~~ appended) and a film on blindness prevention in rural areas is in preparation.

Not so

Samples of this educational material will be mailed to IEF/Bethesda from the IEF/Nairobi office.

3. Number of School Children and MCH Attendees Reached Through the Activities of the Rural Blindness Prevention Units:

During the first year of this Project, a total of 1,748 subjects were examined. For details, see Annual Report.

1748

4. Number of Provincial and District Level Seminars Conducted:

One provincial and six district level seminars were held. For details, see Annual Report.

5. Number of Mobile Eye Units (MEU) to Incorporate Blindness Prevention and Primary Eye Care Activities Into Their Therapeutic Programs:

1 / 17

Only one out of 17 MEUs is in operation incorporating blindness prevention with primary care.

6. Number of Rural Health Training Centres (RHTC) With Primary Eye Care and Blindness Prevention Sections in Their Curriculum:

While none of the existing RHTCs have a structured section on eye care and blindness prevention in their curriculum, eight hour-long seminars were presented in two of these

only 2  
6

centers, and it is anticipated that this material will form a permanent part of the curriculum in the other RHTC. Unfortunately, these RHTCs (with excellent facilities) are only utilized during six months of the year.

7. Participation of Provincial Health Education Specialists in Primary Eye Care and Blindness Prevention Seminars and Related Activities:

One Health Education Specialist for each province of the country provides logistic support and participates in seminars and practical demonstration presented by the IEF Field Training Specialist.

8. Teaching Activities of the Two Provincial Ophthalmologists:

Both Provincial Ophthalmologists are involved in the teaching of Clinical Officers (Ophthalmic) assigned to their respective Provincial Hospital and to the outlying district hospitals. Both Provincial Ophthalmologists participated in district seminars and assisted the Field Training Specialist with the preparation of the teaching material.

with field  
+  
Steinkuller

Dr. Steinkuller presented a total of 20 lectures to General Medical Officers in the Nakuru Medical Training Centre.

9. Teaching Activities of the Field Training Specialist:

These are listed in detail in the Annual Report. The Evaluation Team attended a seminar presented by the Field Training Specialist at the Chulaimbo Rural Health Training Centre, near Kisumu. This seminar was attended by

approximately 50 students, comprised of community nurses, midwives, public health technicians, nurse technicians, and nurses from mission hospitals in the vicinity. The material covered in this seminar included the anatomy and physiology of the eye, diagnosis of common eye diseases, instruction in blindness prevention, as well as practical demonstration--with student participation--in areas such as visual acuity determination, primary and emergency eye care, application of topical medication to the eye, etc. One part of the seminar was presented by a Kenyan Provincial Health Educator and included instruction on personal hygiene, sanitation, accident prevention, and nutrition. This material was considered by the Evaluation Team to be of general value for primary health care systems. The Kenyan Provincial Health Educator also participated in the practical instruction of the students attending this seminar.

The Field Training Specialist, Ms. Sheffield, impressed the Evaluation Team as an extraordinarily talented and enthusiastic teacher who was able to reach effectively an audience of various educational backgrounds. Her teaching abilities also became apparent to the Evaluation Team during a seminar conducted for village health helpers in the Saradidi Rural Health District. The Evaluation Team inspected records prepared by village helpers, previously trained by the Field Training Specialist. These reports were neat and well-kept and are appended to this report. Moreover, it has been demonstrated that village health helpers can be effectively

utilized for village screening programs (see appended Trip Report by Ms. Sheffield, dated January 16, 1981).

D. STRENGTHENING CAPABILITIES OF EXISTING THERAPEUTIC UNITS

1. Supplies and Equipment Provided:

The equipment appears to be adequate as far as this could be determined by the Evaluation Team. However, problems exist with regard to drug supplies and spectacle lenses. Both Provincial Ophthalmologists, as well as all CO(O)s with whom the Evaluation Team had the opportunity to discuss this issue, indicated that drugs supplied by the MOH were often insufficient, irregular, and inappropriate. For instance, expensive steroid medications which are rarely used in the field were often supplied in abundance. On the other hand, the most frequently used ophthalmic drug--tetracycline--is in very short supply. *Were it not for drugs supplied by the IEF, the effective functioning of the ophthalmic units at the district and provincial hospital levels would be severely jeopardized.*

Similar problems existed with regard to supplying the population with spectacles. There exists an urgent need for glasses for patients with aphakia, presbyopia, and myopia; the latter especially in the pediatric age group. The Government does not provide the public with glasses, and only 5% of the rural population needing glasses has sufficient funds for their purchase. Thus, the therapeutic units sponsored by the IEF depend to a great extent with regard to

drugs--and exclusively with regard to glasses--on supplies provided by the IEF.

2. Supervision and Clinical Support Provided by the Two Project Ophthalmologists:

Both Provincial Ophthalmologists supervise the CO(O)s attached to their Provincial Hospitals. They make frequent visits to the outlying district hospitals which are staffed by CO(O)s and supervise the school examination of the children and the operation of the MEUs.

The IEF has made significant contributions to the development of individual rural blindness prevention projects in the areas in which their own ophthalmologists are stationed. They have also served as initiators by introducing seminars in primary and secondary eye health care to personnel of different training levels in the public health care system elsewhere in Kenya. Their teams have been instrumental in assessing the prevalence, severity, and the types of eye diseases and blindness in ecologically different parts of Kenya.

*Seems to be  
Main  
Contribution*

3. In-Service Training for Therapeutic Unit Personnel:

This is provided by both Provincial Ophthalmologists to CO(O)s on a daily one-to-one basis and includes the surgical training of CO(O)s, some of whom have become competent ophthalmic surgeons and perform cataract and lid surgery without supervision.

E. INSTITUTIONALIZATION OF PROJECT ACTIVITIES

1. Degree of Support and Participation by the MOH, Including the Areas of Direct Financial, Logistic, and Personnel Support:

Participation of the Government of Kenya (GOK) in the Kenya Rural Blindness Prevention Project includes the supply of medical and paramedical personnel and of supporting manpower, allocation of funds from the budget of the MOH, logistic support, and the provision of administrative services and personnel.

Specifically, the GOK has assigned 33 CO(O)s, plus nurses, health educators, drivers, and other personnel to the Project.

Of the annual budget of \$558,360 for the first year of the Second Phase of the IEF Project in Kenya, the GOK has contributed \$205,885.82, or 36.9%, of the total budget.

Difficulties are seen in a number of different areas.

First, there is a serious lack of coordination in the planning and execution of specific field operations and in staff assignments between the IEF, the Kenya Society for the Blind, and the MOH. Second, as the various components of the Project and the contributions in-kind and money are often controlled by different administrative entities, the lack of coordination has led to interruptions and to discrepancies between the health needs as established by the eye surveys and clinical attendance records on the one hand and the corresponding assignments of CO(O)s to communities of greatest needs. Apparently erratic transfers of CO(O)s occur frequently (and against the wishes

Coord

Assignment

of the CO(O) involved) and jeopardize well established and smoothly functioning primary eye care centers.

The flow of essential drugs and medications is often interrupted and has been irregular. Vehicles needed for the Rural Eye Health Units have been immobilized, merely for the lack of small travel funds, such as the per diem (KSh100) for drivers and traveling officers.

*Flow of  
Drugs*

*function*

On the basis of the evidence available, there appears to be no central focus within the MOH where the various pieces of information from the clinics and hospitals are collated, analyzed, and from which the information is disseminated to all those concerned with the eye health care project. This continuous monitoring would facilitate coordinated planning and provide flexibility, as needed, for smooth operation of the Project.

*Central  
MOH  
Coordinating  
Function  
Requires  
work with  
IRH/FP -  
HPIP.*

2. Selection and Orientation - Training of Counterparts for the Field Training Specialist:

*what is  
the  
Province?*

Two Provincial Health Education Officers have been appointed for this purpose by Provincial Medical Officers.

3. Incorporation of Primary Eye Care and Blindness Prevention Materials Into Curricula of Institutions Training Health Personnel and Teaching of Such Materials by Faculty Members of These Institutions:

Teaching materials were disseminated to each teaching center during Phase I. These materials are currently being utilized by one nursing school in the Central Province and by the Medical Training Centre in Nakuru.

*how many*

*only?*

F. PREVALENCE, DISTRIBUTION, AND CAUSES OF BLINDNESS

Rational planning for specialized health services in eye health care at the primary and secondary levels must be based on the knowledge of the prevalence, etiology, and severity of the eye disease and of the frequency and causes of blindness in the general population. The diversity of the patterns of eye diseases in the different cultural, geographical, and ecological areas of Kenya makes it necessary that the extent and nature of blinding eye diseases in each region be determined separately. These assessments have been carried out successfully by the eye disease surveys of the IEF in different parts of Kenya. Additional eye surveys were conducted in the Kisii District in the highland area and in the Baringo District, involving sedentary and semi-nomadic population groups. The results of these two surveys are now being analyzed. Further surveys are planned among the Maasai people in Kajiado District and among the Kamba in Kitui District. These are scheduled for completion by April, 1982. The results of each of these area studies, if carefully extrapolated to populations with similar cultures and ecologies, can furnish the baseline data needed by the MOH to guide health planners in their decisions to train and assign specialized manpower, purchase and distribute specific drugs and diagnostic equipment, and to define the major public health problems that should be included in the local activities entrusted to the primary health care system at the community level.

But not  
been done

In the chain of transfer of knowledge gained from these surveys of eye diseases, from the sophisticated analyses and interpretations on the one hand to the training of health workers and to the delivery of primary eye health care, the IEF has made remarkable progress, both in the provision of preventive and curative measures. Although most of these efforts concern the two areas where the Project Ophthalmologists are stationed, the development of new teaching materials and methods have been applicable on a national scale. It can be anticipated that further knowledge about the distribution, prevalence, and severity of eye diseases in Kenya will become available during Phase II of the Project when the surveys will be extended to more remote areas of the country where blinding eye diseases abound.

The Evaluation Team had no opportunity to assess the significance of information on eye diseases that might have been provided through the analysis of data submitted routinely to the health authorities by the rural RBPUs and MEUs. The information to be expected from these units would most likely be restricted to reports of clinic attendance, the relative frequency of the diagnosis among the patients seen by the units, and the number of surgical interventions made. We were told that the IEF is presently engaged in designing a computerized surveillance system for the data on eye diseases provided by the MEUs.

The routine reporting from those district hospitals and health centers which have specialized eye services provided

by Clinical Officers are made on pre-coded reporting forms which were designed by the IEF. These reports are submitted regularly to the Senior Consultant in Ophthalmology at the Kenyatta Hospital in Nairobi. It is expected that these forms would be analyzed and the results be utilized to guide the national efforts in the prevention and control of eye diseases. The Evaluation Team has no knowledge of whether and how this surveillance system works and what its potential might be for the Kenya Rural Blindness Prevention Project.

A routine form of reporting diseases at the district and sub-district levels is sent out by the MOH to all hospitals and health centers. A copy of this reporting form is appended. It provides for only two entries of eye diseases, namely cataract and acute eye inflammation. While perhaps of limited value to some, these forms are completely inadequate to guide health programs on the control and prevention of eye diseases because they do not include entries for the many leading causes of blindness in Kenya which are adequately diagnosed by the rural health services in the provinces. Unfortunately, these reporting forms do not even include entries for gross deformities and incapacitations, including blindness itself.

*Review  
Reporting  
Forms  
inadequate*

G. COMMUNITY-BASED PRIMARY EYE CARE PROJECTS

At the time of the visit by the Evaluation Team, the IEF Project had one fully operational Community-based Primary Eye Care (PEC) Project and two others in preparation. The former is located in Saradidi, Bondo Division, Siaya District; and

the latter are situated in the Nyambene Hills of Meru District and in the Kajiado District, respectively.

The Primary Health Care (PHC) Project in Saradidi was developed through the initiative of the community leaders themselves who were assisted in their efforts by medical students from their area. These met first in Nairobi to discuss the technical aspects of the Project with faculty members of the Department of Community Medicine of the University of Kenya, Medical School, and the MOH. Later, these students volunteered their time to serve the new Community Health Centre.

The Saradidi Project serves about 15,000 people. Because of the large distances from their villages to the nearest district hospital or dispensaries, the community built its own health center for curative and preventive medical services.

By now the community has established its own health insurance project. At present, about 400 families are enrolled; each pays an insurance of KS25 annually, for which they are entitled to receive free medical care. In order to raise money for the operation of the PHC center, to install local water supply systems, build latrines, train volunteer village health workers, and purchase essential drugs and medical equipment, the community has developed a number of cash-generating projects in animal husbandry, chicken farming, vegetable growing, and others.

The building of the Community Health Centre and the houses of the more affluent members of the community have

metal roofs with gutters and downspouts by which rain water can be collected for household use in large protected concrete containers of 500 to 1000 liter capacity. The cost for construction of a 500 liter tank, including fittings and adequate spillway, is estimated at about KS700, and for the 1000 liter tank at KS1,500. All labor is provided by masons in the community.

At present, the Saradidi Community Health Project receives considerable financial assistance from a number of different external sources, which include the FPIA, the Welcome Trust Fund, various missionary groups, the IEF, the MOH, and probably many others. The assistant manager of the Project is salaried and, at present, fully supported by the Welcome Trust Fund for their study of the prevalence and causes of hypertension in urban and rural communities in Kenya.

The IEF has succeeded in developing and integrating primary eye care and blindness prevention into the local community PHC system. There are now 25 village health workers in the Saradidi project. The instruction and training projects of the IEF go far beyond the mere teaching of specific eye disease and include basic elements of personal hygiene, accident prevention, rural water supply, and first aid. With all the efforts made by the different external organizations and by the community itself, there are not yet organized efforts to control and prevent malaria, as perhaps the most serious public health problem in that area. Likewise, the Saradidi project does not yet use oral rehydration therapy for the frequent diarrhea on an

organized basis. This omission is of great importance because of the reported cholera outbreaks in the area. It appears that the IEF component is the most effective project in what appears to be a potpourri of uncoordinated individual projects controlled by many small donors which do not seem to address the major public health problems in the area, i.e. malaria, respiratory diseases, diarrhea, and skin infections. The significance of the Saradidi project to the work of the IEF in primary eye care and blindness prevention is adequately summarized in the first Annual Report of the IEF Project as follows:

*While IEF involvement in Saradidi has been positive as the main starting point for their activities, this is for the most part due to the fact that support for Saradidi has come from a variety of organizations, all with different basic interests. It is planned that the two community projects to be undertaken in the future will focus more closely on primary eye care and blindness prevention as the starting point.*

The Evaluation Team had no access to documents to show the significance of the community-based eye care project in reducing the incidence and prevalence of eye disease and of blindness. A comparative study of a community before and after the systematic mass treatment of school children for trachoma is in preparation and expected to be ready in August, 1981. With the lack of adequate baseline data on the prevalence and distribution of eye diseases, it will be impossible to obtain more than crude estimates from most PHC projects. It will, however, be possible to assess the impact of the various eye health care projects systematically

in all those areas in which epidemiologic surveys for eye diseases have been carried out by the IEF. The identification system of individuals used by the IEF in their surveys permits both the follow-up of cohorts, including persons seen in the first and subsequent surveys and the use of narrow age-specific prevalence rates for comparison.

The GOK has actively supported the community-based primary eye care projects through financial contributions, assignment of manpower, development and utilization of training programs, and by providing supplies, logistic support, and administrative services.

#### H. REVIEW OF ORIGINAL CONTRACT

In reviewing the original contract, it appears that all objectives set forth for Phase II as described in the Operational Program Grant Agreement between AID and the IEF have been met already at the time of this interim evaluation with one exception. This exception concerns item six of the activities listed on Pages Two and Three of the Document which deal with the instruction of graduate and undergraduate medical students and CO(O)s in primary eye care and blindness prevention. CO(O)s receive instruction in these subjects during their training as generalists in Nakuru; the training of ophthalmology residents occurs at Kenyatta National Hospital. So far, IEF input into the training of medical students has been minimal. We understand, however, that in the future the field of primary eye care and blindness prevention will be recognized as an area to be included in the formal curriculum

→ what extent?

and that the medical students will be sent into the field to receive practical instruction and experience in these areas.

At this time there is no reason for changes in the composition and number of personnel and administrative staff in the IEF Project.

The Evaluation Team found that the reports required in the contract have been delivered on time. The Evaluation Team doubts the need for reporting on a quarterly basis and feels a comprehensive and detailed Annual Report suffices.

*Suggest only annual Report.*

One area needing improvement is in the intermural and intramural communication between Washington, Nairobi, and the field, as well as with participating national and international agencies. Some of these difficulties are caused by lack of adequate communication facilities, such as working telephone lines and adequate postal service in Kenya. These problems will become worse as the service is extended to the more remote areas of the country. The Evaluation Team recommends purchase of a modest two-way radio system with a base and a single mobile unit for the field team.

*IEF - discuss this idea a year ago*

I. FINANCIAL STATUS

The Evaluation Team feels unqualified to judge the adequacy and accuracy for accounting procedures at Project levels allocated to the IEF program. The Project Director indicated that all scheduled Project activities could be carried out within the present budget.

*Have CONF. with a list of needs.*

#### IV. CONCLUSIONS AND RECOMMENDATIONS

##### A. DEFINITION OF THE PREVALENCE AND CAUSES OF AVOIDABLE BLINDNESS

The Evaluation Team considers the eye surveys carried out by the IEF as a basic prerequisite for reasonable planning of eye health care services at all levels in Kenya. For the first time, the information provided by these surveys has enabled the health authorities to allocate funds and medical manpower to areas of need, as established by prevalence data of specific eye diseases in different parts of the country.

*thought  
MOH was  
main the*

Recommendations: That the IEF continue to carry out surveys of eye disease in those areas of Kenya from which such information is not yet available, especially in the Northern and Eastern Provinces of the country where eye diseases appear to be frequent and severe. It is also recommended that study protocols and methods used by IEF epidemiologic teams be made available to other countries contemplating the conduct of similar eye health care surveys.

##### B. TRAINING HEALTH PERSONNEL (INCLUDING MEDICAL STUDENTS, CLINICAL OFFICERS, NURSES, EDUCATORS, COMMUNITY LEADERS, AND CITIZENS) IN PRIMARY EYE CARE AND BLINDNESS PREVENTION

The objectives of the program have been reached with the exception of teaching of medical students. The reason for this omission must be seen in the general lack of coordination--referred to elsewhere in this report--between the MOH, the medical school, and the blindness prevention program in Kenya.

*EOP  
for the  
year?*

The test scores included in the appended Annual Report do not adequately reflect the effectiveness of the teaching program as initially tests of different levels of complexity were used before and after presentation of the seminars. This deficiency has now been corrected. Dr. von Noorden has agreed to send instruction material to the Field Training Specialist on how to construct meaningful multiple choice questions. He will also attempt to enlarge the slide collection currently used for conducting seminars. Innovative training and instruction curricula in primary health care have been developed by the IEF and are now being evaluated and applied in selected community health projects and elementary schools.

A formalized system for continuing education of CO(O)s does not appear to exist at this time.

Recommendations: That the effectiveness of the curricula and teaching programs referred to above need to be evaluated.

*Evaluation was summa to do this!*

C. DEVELOPMENT OF EFFECTIVE EDUCATIONAL MATERIALS IN THE AREA OF PRIMARY EYE CARE AND BLINDNESS PREVENTION

A great wealth of different educational material directed at health workers at various levels of eye health, diagnosis, treatment, and prevention of common eye disorders has been developed by the IEF. These materials include eye charts, instruction booklets for primary health care workers, visual aids, coded record forms for use in computerized surveillance systems, posters, newsletters, and standard lectures and seminar outlines. The Evaluators understand that part of this material will be utilized in other areas of the world and has

been translated into Spanish and French and consider this material unique in the world to further primary eye care in a general primary health care system.

Recommendations: That the effectiveness of this material be evaluated by standard criteria in a number of selected African countries with eye health care programs. The seminars presented in rural health training centers should be carefully reviewed for a most effective collection of slides to be used for training elsewhere inside and outside of Kenya, using the example of the TRD program of WHO. Series of 35mm slide collections can be reproduced economically and reduced to a quasi-microfiche format. These single 80-slide sheets can be viewed through an inexpensive and sturdy plastic magnifier for self-teaching, together with a small instruction booklet. We recommend that similar material be prepared and that WHO be consulted for economic methods of reproduction.

This is  
suggested  
in the  
file

D. INCORPORATION OF PREVENTIVE ACTIVITIES IN THE THERAPEUTIC PROGRAMS OF CLINICS, HOSPITALS, AND MEUS

This part of the program has only been partially successful. While preventive activity has been successfully introduced into some health centers and dispensaries at the sub-district levels as well as into the Saradidi Community Project, they have not yet had a measurable impact on activities in most hospitals and clinics elsewhere in the country. This is partially due to the great variety of independent agencies which control their own budget and have narrow project objectives.

Inch?

This lack of coordination on the operational level prevails in almost every project activity of the IEF program.

Recommendations: Establishment of a stronger headquarter- <sup>FID</sup>  
based advisory committee on eye health care with executive <sup>should</sup>  
function to be organized by the MOH with regularly scheduled <sup>visit</sup>  
sessions of all pertinent parties, including the IEF, the Kenya <sup>there!</sup>  
Society for the Blind, the Senior Consultant in Ophthalmology  
at the Kenyatta National Hospital, as well as other organiza-  
tions and agencies that have substantial control over important  
segments of the national blindness prevention program in Kenya.

E. STRENGTHENING CAPABILITIES OF EXISTING THERAPEUTIC UNITS

CO(O)s in district hospitals are currently over-utilized due to lack of an existing health care infrastructure. CO(O)s are inundated by patients with minor eye problems that can be effectively managed by village health workers. Moreover, as the rural population is becoming increasingly aware of the availability of CO(O)s at the district hospital level, it tends to circumvent the health care infrastructure wherever it exists. It was also the Evaluation Team's impression that CO(O)s are not always exclusively performing ophthalmological duties but are used for general medical services.

The need for supervision of CO(O)s by existing staff must be stressed. It is currently deficient in areas due to lack of transportation. It was also noted by the Evaluation Team that there appears to be no advancement opportunities for CO(O)s to reward meritorious service and to provide status. As mentioned <sup>Career</sup>  
<sup>structure</sup> above, the capabilities of existing units is weakened by the

abrupt transfer of CO(O)s ordered by the MOH and by an erratic drug and nonexistent Government-supported spectacle supply system.

F. REACHING MCH CLINIC ATTENDEES AND SCHOOL CHILDREN THROUGH THE ACTIVITIES OF THE RURAL BLINDNESS PREVENTION UNITS

Objectives of reaching MCH Clinics and school children to teach prevention of eye diseases and administer treatment for those in need have been met by the Project. Various deficiencies, however, became apparent. For instance, due to the complicated multi-donor administration of the MEUs, no regular services are possible. An outstanding example was observed in Nakuru where the service of one MEU was interrupted due to lack of funds from the MOH to defray the modest per diem rate of KSh100 for driver and health officer. The quality of teaching blindness prevention in primary schools could be considerably improved by large colorful posters as visual displays instead of improvised cardboard material.

G. INSTITUTIONALIZATION OF PROJECT ACTIVITIES THROUGH INCORPORATION AND CONTINUATION IN GOVERNMENT PROGRAMS

The institutionalization of IEF Project activities into the Government services is, of course, the most essential concern of the current phase of the Project. Unfortunately, there are a number of serious constraints which make the utilization of all achievements of the various IEF Projects difficult. Although many of these factors have been identified in various parts of this report, the major constraints for integration are repeated here. They are: lack of coordination at the

Ministerial level; absence of a focal point of authority and execution in the MOH; lack of financial support for IEF-sponsored educational activities; and, at the peripheral level in the rural areas, complete complacency with the status quo. Most important to the Evaluators appears to be the absence of a comprehensive health plan in Kenya for the identification and prevention of blinding eye diseases.

H. ORGANIZATION AND CONDUCTING SEMINARS ON PRIMARY EYE CARE AND BLINDNESS PREVENTION IN ALL PROVINCES AND DISTRICTS OF RURAL KENYA

The current status of teaching of primary eye care and blindness prevention programs is most encouraging. Seminars and instruction programs now being given by IEF personnel will be utilized to an increasing extent in other provinces through Kenyan health educators.

*using will do the rest of IEF.*

I. ESTABLISHING A TEACHING BLOCK ON PRIMARY EYE CARE AND BLINDNESS PREVENTION AT EACH OF THE SIX RURAL HEALTH TRAINING CENTRES

With the exception of two RHTCs, formal inclusion of teaching blocks on primary eye care and blindness prevention has not been made into the curriculum in other health centers. It is thought that by the time of the final evaluation of Phase II at least two additional RHTCs will have integrated this material into their teaching programs.

*why not all six?*

J. ESTABLISHING AT LEAST TWO COMMUNITY-BASED PRIMARY EYE CARE PROJECTS STRESSING INTEGRATION WITH BROAD-BASED COMMUNITY HEALTH PROJECTS

With the exception of the Saradidi Project in which primary eye care forms an integral part of the broad-based community health activities, there are at this time no others. As indicated in the context of this report, IEF teams have begun preparations in two other areas for the development of an integrated community-based primary eye care project.

K. CONDUCTING ON-THE-JOB TRAINING FOR KENYAN COUNTERPARTS-- PARTICULARLY FOR THE FIELD TRAINING SPECIALISTS

With the prospect of Dr. F. M. Mburu, Senior Lecturer at the Department of Community Health at the Faculty of Medicine, joining the IEF as a full time staff member, it can be expected that the number and quality of Kenyan health educators and community health workers will increase substantially.

L. DEVELOPMENT OF CORNEAL SURGERY IN KENYA

Even though there is a great need for a keratoplasty unit in Kenya, corneal transplantation is only infrequently performed at the Kenyatta National Hospital. In spite of the establishment of a local eye bank supported by the Lions Club, donor material is practically unavailable, unless obtained on rare occasion by clandestine means. It is felt that a short term IEF-supported team of corneal surgeons, stationed at Kenyatta National Hospital and equipped with preserved corneas or supplied with fresh corneas through the

International Eye Bank may increase public awareness of the benefits of corneal surgery through media coverage of these activities, stimulate donation of local donor material, as well as provide training in corneal surgery at the Kenyatta National Hospital. Negotiations to initiate such a program should include the Senior Consultant in Ophthalmology at Kenyatta National Hospital and the Senior Lecturer of Ophthalmology, Dr. Volker Klauss. This activity would also have to be sanctioned by the Chairman of the Department of Surgery at the National Medical School, Kenyatta Hospital, Prof. Ambrose Wasunna, who is presently also Dean of the Faculty of Medicine. Dr. Klauss informed the Evaluation Team that he has a waiting list of 300 blind patients who could be helped by keratoplasty.

M. IMPROVEMENT OF DIAGNOSIS OF EXTERNAL EYE DISEASES

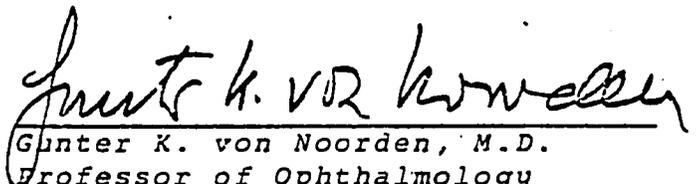
The treatment of trachoma and the determination of its prevalence in rural primary school surveys is currently made on a presumptive basis by the presence of follicles in the upper or lower tarsal conjunctiva. Therapy is initiated whenever follicles are present in such children. As it is necessary to differentiate between follicles produced by trachoma in its initial stages and follicular hypertrophy from a number of other causes, the Evaluation Team recommends an IEF-supported link with a U.S.-based microbiological laboratory specializing in tropical diseases, such as that operating at the Proctor Foundation in San Francisco. Conjunctival smears and scrapings should be obtained during

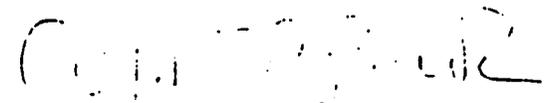
field surveys and sent to that laboratory for identification of the etiological agent(s). This mechanism would increase the value of data from surveys designed to study the distribution of trachoma in different parts of Kenya. Moreover, it would avoid unnecessary and potentially harmful treatment (sensitization of conjunctival microflora to tetracycline) of benign folliculosis.

N. POST-GRADUATE EDUCATION FOR PROJECT OPHTHALMOLOGISTS

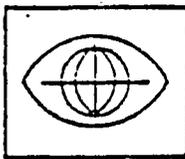
Not in  
summary  
of report

The Evaluation Team recommends that IEF Project ophthalmologists be given the opportunity to attend the American Academy of Ophthalmology Meeting at least once every two years to keep abreast of new developments in ophthalmology, to participate in instruction courses, and to maintain their medical licenses through CME credits.

  
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Professor of Ophthalmology  
Baylor College of Medicine  
Houston, Texas

  
Alfred A. Buck, M.D., Dr.P.H.  
Tropical Disease Advisor  
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Agency for International Development  
Washington, D.C.

APPENDIX I  
Annual Report



# INTERNATIONAL EYE FOUNDATION kenya rural blindness prevention project

PD-AAJ-212 7/11-7/23  
✓ 212-110-B

6/15/81

GRANT NO. AID/615-0203

## COMBINED QUARTERLY REPORT (January, February, March 1981) and FIRST ANNUAL REPORT

This report combines the fourth in a series of quarterly reports and the first annual report submitted to USAID on the International Eye Foundation's Kenya Rural Blindness Prevention Project (Phase II) and outlines the activities and progress of the Project.

### I. GENERAL

The contract for Phase II of the Kenya Rural Blindness Prevention Project (KRBPP) was signed in Nairobi in March, 1980 and covered an initial period of 18 months. An amendment to this contract, which extended the Project for an additional 18 months and provided funding to cover that period, was signed in December, 1980. Activities under the current grant commenced in April, 1980.

The specific objectives for Phase II are outlined in the grant contract (Attachment A, pp. 1-3). Briefly, these include:

1. Definition of the prevalence of avoidable blindness;
2. Education and training in primary eye care and blindness prevention and development of appropriate teaching materials;
3. Development and strengthening of both therapeutic and preventive activities in eye care within the Ministry of Health's Ophthalmic Program;

4. Organizing and conducting seminars on primary eye care and blindness prevention in all districts and provinces of the country (excluding Nairobi); and
5. Development of curricula on primary eye care and blindness prevention for use in the six Rural Health Training Centres (RHTC) and other health training institutions.

IEF Field Staff for Phase II were partly carried over from Phase I but were largely recruited for Phase II specifically. Names and titles of the Field Staff are as follows:

1. Randolph Whitfield, Jr., M.D., Provincial Ophthalmologist, Central Province - Project Director;
2. Paul G. Steinkuller, M.D., Ophthalmologist, Rift Valley Province - Assistant Project Director;
3. R. Douglass Arbuckle - Director of Field Operations;
4. Alex Mackay - Fiscal Manager;
5. Victoria M. Sheffield, C.O.T. - Field Training Specialist; and
6. Dennis G. Ross-Degnan, M.P.H. - Health Planner.

## II. ACTIVITIES

A. Blindness Prevalence Surveys: During the quarter under review, arrangements for the next blindness prevalence survey to be held in Baringo District in April were finalized. This survey will cover Olkokwe, Kabarak/Kabasis, Nginyang, and N'Gambo locations.

During the first year of the Project, one blindness prevalence survey was conducted in Kisii District, Nyaribari Chache and West Kitutu locations. During the survey, a total of 1,748

subjects were examined, and it was found that the blindness prevalence (visual acuity of 6/60 or less in the better eye) was about 1.0%. Leading causes of visual loss included cataract (32%) and refractive error, mostly myopia (40%).

B. Seminars on Primary Eye Care and Blindness Prevention:

During the fourth quarter, the first of these seminars was held in Eastern Province at provincial and district levels. Due to scheduling difficulties, it was only possible to hold one of the seminars at the Eastern Province RHTC at Karurumo. A total of seven seminars were held in the province (one provincial and six district-level seminars), with a total of 299 participants. Participants at the district-level seminars included medical officers of health, nursing officers, enrolled/community nurses, Clinical Officers, public health workers, MCH workers, and Family Health Field Educators. The seminars were conducted by the Field Training Specialist and the Eastern Provincial Health Educator, assisted by Ophthalmic Clinical Officers when they were present in the district concerned. Feedback on these seminars from the participants has been positive, with most indicating that they would find the information conveyed useful in their day-to-day activities. A copy of the report on these seminars is attached to this report.

C. Education: During the fourth quarter, the Field Training Specialist continued her teaching activities at various facilities. In January, she spent a day conducting a training session for village health workers in Embu as part of a training program being conducted by the Church of the

Province of Kenya for community health workers. The Project Director assisted in this session. In addition, the Field Training Specialist also spent a week lecturing in ophthalmology, primary eye care, and blindness prevention to 40 Clinical Officer students at the Machakos Medical Training Centre in March. These lectures were done in cooperation with Mr. Simon Kangethe, CO(Ophth), Tutor for the Clinical Officer training program at the Medical Training Centre in Nairobi. Assistance has also been given to Mr. Kangethe by various staff members in developing his curriculum for the general clinical officer students.

Over the course of the year under review, various courses dealing with ophthalmology, primary eye care, and blindness prevention have been given by the Field Training Specialist and other staff members to such groups as village health workers, enrolled and community nursing students, Ophthalmic Clinical Officers, general and Ophthalmic Clinical Officer students, and teachers of the visually handicapped. The Project Director was to have lectured to the graduate students in ophthalmology at the University of Nairobi, Faculty of Medicine, in March, but due to the closure of the University, this has had to be postponed to a later date. The Assistant Project Director has been lecturing regularly at the Nakuru Medical Training Centre since last summer.

Various educational materials developed by the Project have been widely distributed throughout the country and, in addition, to such places as Mengo Hospital, Kampala, Uganda;

the Ministry of Health, Zimbabwe; and a district hospital with an ophthalmic assistant training program in Malawi. The Ministry of Health of Zimbabwe has recently requested 250 copies of the Primary Eye Care Manual for Health Workers for use in its training program for primary health care workers.

### III. FINANCES

Local expenditures for the fourth quarter totaled KS 460,683.55. Expenditures from IEF/Bethesda totaled \$70,495 for this quarter. Local expenditures for the entire first year totaled \$205,885.82, while those from IEF/Bethesda totaled \$352,470. The total figure for the year (rounded to the nearest dollar) was \$558,356. Financial summaries for the quarter and for the whole year are attached to this report.

### IV. PROJECT VEHICLES

The project now has 13 vehicles. These include five Datsun 120Y Station Wagons, one Subaru 4WD Station Wagon, four long wheelbase Toyota Landcruisers, one Toyota Landcruiser pick-up truck with Matatu body, and two short wheelbase Land Rovers. In the third quarterly report, submitted in January, 1981, the Subaru was, by oversight, not included in the listing of Project vehicles. This vehicle is left from Phase I and is assigned to the Fiscal Manager in Nairobi. One of the short wheelbase Land Rovers was involved in an accident in December and is still off the road being repaired. This vehicle had been assigned to Machakos as a prevention unit.

## V. COMMUNITY-BASED PRIMARY EYE CARE PROJECTS

During the fourth quarter, visits were made to possible project sites in Kajiado District and in the Nyambene Hills of Meru District. These were exploratory visits in which the Health Planner and the Project Director met with local leaders to attempt to gauge local interest in such projects. Both areas gave positive response to the idea, but nothing further has to date been accomplished. Further visits will be made in May.

The first of the Community-based Primary Eye Care Projects was undertaken in Saradidi, Bondo Division, Siaya District early in the Project year. Extensive support has been given in the areas of equipment and training. There are now about 25 village health workers active in the Saradidi project, all of whom have been instructed in Primary Eye Care and Blindness Prevention by the Field Training Specialist. Further training programs are planned for the next quarter for both old and new village health workers in Saradidi.

Project involvement in Saradidi has been largely used as a learning tool for Project staff, primarily in the areas of developing and channeling community support for such projects. With what has been learned from Saradidi, it is hoped that future projects can be more easily established. While IEF involvement in Saradidi has been positive, it has not been possible to use primary eye care and blindness prevention as the main starting point for their activities. This is for the most part due to the fact that support for Saradidi has

come from a variety of organizations, all with different basic interests. It is planned that the two community projects to be undertaken in the future will focus more closely on primary eye care and blindness prevention as the starting point.

#### VI. BLINDNESS PREVENTION AND HEALTH EDUCATION ACTIVITIES

During the fourth quarter, the Rural Blindness Prevention Units (RBPU) continued with their MCH and school screening programs. The RBPU, Nyeri District, visited 15 schools, examining just under 5,000 children. Of these, 126 were found to have trachoma (2.5%). This unit also examined 3,554 people in MCH clinics, of whom 207 (5.8%) had trachoma. The RBPU in Machakos District was off the road during this quarter as a result of an accident involving their vehicle in December. The Nakuru RBPU has not yet submitted reports for this quarter. This information will be included in the next report. The Meru RBPU visited 26 schools, screening 11,402 children. Of these, 885 were found to be suffering from trachoma (7.5%). This unit also examined 2,098 children and 1,179 mothers at MCH clinics.

During the year under review, the Meru RBPU visited a total of 91 schools, screening a total of 40,608 children. Of these, 3,201 (7.9%) had trachoma. The Nyeri RBPU visited 88 schools, examining 19,642 children of whom 774 (3.9%) were suffering from trachoma. The Machakos RBPU, in the period April through December, visited 63 schools, examining 14,818 children, of whom 2,210 (14.9%) had trachoma. The Nakuru RBPU has not submitted reports for the whole period, but for the period

April through September, the unit visited 11 schools, screening 5,853 students, of whom 426 (7.3%) had trachoma.

Two prevention units are currently unassigned. It has been hoped to have these reassigned by the present date, but this has not been possible largely due to lack of adequate supervision in possible assignment locations and also due to a shortage of qualified Clinical Officers to man them. Hopefully, these problems will be resolved in the near future and these units reassigned.

#### VII. CLINICAL ACTIVITIES

Throughout the first year, Dr. Whitfield has continued his activities as Provincial Ophthalmologist, Central Province, supervising one RBPU, one Mobile Eye Unit (MEU), and several static eye clinics throughout the Province. During the fourth quarter, Dr. Steinkuller was formally notified that he has not been appointed Provincial Ophthalmologist. This, however, has had no major effect on his ability to continue his duties with the Project, and he has continued to supervise the Nakuru RBPU, five MEUs, and several static eye clinics in Rift Valley.

#### VIII. PROJECTED ACTIVITIES

During the first quarter of the second year, seminars have been planned for Nyanza Province at provincial and district levels. Preliminary arrangements are also being made to conduct these seminars in Western Province in June/July, probably to be followed by Rift Valley and Coast Provinces. Further seminars will also be held in Eastern and Nyanza

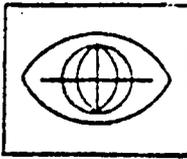
Provinces at sub-district level. These will hopefully be conducted entirely by the Provincial Health Educators for these provinces and Ophthalmic Clinical Officers where possible.

The next Ocular Status Survey will be held in Baringo District in April.

Other Project activities will continue as before.

ATTACHMENT ONE

Seminar Report



INTERNATIONAL EYE FOUNDATION  
kenya rural blindness prevention project

~~PD-AAJ-213~~

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REPORT ON A SERIES OF SEMINARS ON PRIMARY EYE CARE AND  
BLINDNESS PREVENTION HELD IN EASTERN PROVINCE

JANUARY - FEBRUARY 1981

- I. Eastern Provincial Seminar
- II. Embu District Seminar
- III. Meru District Seminar
- IV. Isiolo District Seminar
- V. Marsabit District Seminar
- VI. Machakos District Seminar
- VII. Kitui District Seminar

Appendix: Statistical Summary

I. EASTERN PROVINCIAL SEMINAR

January 20, 1981

The seminar was held at the Embu District Development Centre and lasted approximately two and one-half hours. The target audience was made up of representatives of the various Ministries at the Provincial level, and the content of the seminar was, therefore, non-technical for the most part. In fact, there were fewer participants than expected, apparently due to failure to communicate the exact time, place, and nature of the seminar adequately.

Twelve people attended the seminar, representing the following Ministries: Culture and Social Services, Housing and Urban Development, Water Development, Higher Education, and the Office of The President (Provincial Commissioner's Office). In addition, a representative of the CPK Community Health Project, which is running in Eastern Province, also attended. The seminar was primarily an information exercise.

Asked in an evaluation form to comment on the seminar, all of the participants indicated that they thought the information would be useful to them in their work.

II. EMBU DISTRICT SEMINAR

January 21, 1981

This seminar was held at the Karurumo Rural Health Training Centre and lasted from 9:30 a.m. to 5:00 p.m. There were 41 participants, all of them health workers. The breakdown according to job category was as follows:

- 4 Kenya Registered Nurses/Midwives
- 1 Physician
- 8 Enrolled Nurses
- 5 Public Health Nurses

- 11 Community Nurse Students
- 2 Public Health Officers
- 3 Family Health Field Educators
- 5 Clinical Officers
- 2 Nutritionists

The participants represented government and mission hospitals and health centers in the district. These included Embu District Hospital, Siakago Health Centre, Runyenjes Health Centre, Ishiara Cottage Hospital, and Karurumo Rural Health Training Centre/Health Centre. The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases (both countrywide and in Embu District), diagnosis and treatment of eye disease, safety and hygiene, testing visual acuity, and application of eye drops and ointments. Instructors for the seminar were the IEF Field Training Specialist, the Eastern Provincial Health Educator, and the Ophthalmic Clinical Officer for Embu.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score among the participants for the pre test was 72.8%, while for the post test, it was 83.2%. In the pre test, 23.5% scored 80% or above, and in the post test, 76.5% scored in this range.

### III. MERU DISTRICT SEMINAR

January 27, 1981

This seminar was held at the Meru County Council Hall and lasted from 9:30 a.m. to 4:00 p.m. There were 77 participants representing Government and mission health centers and hospitals, including Meru District Hospital, Chogoria PCEA Hospital, Maua Methodist Hospital, Miathene Health Centre, Marimanti

Health Centre, Timau Health Centre, and Githongo Health Centre.

The breakdown according to job category was as follows:

- 7 Kenya Registered Nurses/Midwives
- 2 Medical Officers
- 11 Enrolled Nurses/Midwives
- 1 MCH/FP Educator
- 45 Community Nursing Students
- 1 Family Health Field Educator
- 8 Clinical Officers (2 with Ophthalmic specialty)
- 2 Nutritionists

The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases, diagnosis and treatment, safety and hygiene, testing visual acuity, and application of eye drops and ointments. The instructors for this seminar were the IEF Field Training Specialist, the Eastern Provincial Health Educator, and two Ophthalmic Clinical Officers from Meru.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score on the pre test was 78.6%, while for the post test, it was 83.8%. The percentages scoring 80% or above was the same for both tests.

#### IV. ISIOLO DISTRICT SEMINAR

January 28, 1981

This seminar was held at the Isiolo Police Station Officers' Mess and lasted from 9:30 a.m. to 4:00 p.m. There were 47 participants representing Government and mission hospitals and health centers, including Isiolo District Hospital, Isiolo Mission Health Centre, Archer's Post Mission Health Centre, Merti Health Centre, and Garbatulla Health Centre. In addition, one person from Kangundo Hospital, Machakos District,

attended. The breakdown according to job category was as follows:

- 8 Kenya Registered Nurses/Midwives
- 1 Medical Officer
- 14 Enrolled Nurses/Midwives
- 6 Community Nurses
- 3 Public Health Officers
- 4 Family Health Field Educators
- 1 Public Health Technician
- 2 Public Health Technician Students
- 5 Clinical Officers
- 3 Non-medical hospital employees

The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases, diagnosis and treatment, safety and hygiene, testing visual acuity, and application of eye drops and ointments. The instructors for this seminar were the IEF Field Training Specialist, the Eastern Provincial Health Educator, the Meru District Ophthalmologist, and an Ophthalmic Clinical Officer from Meru.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score on the pre test was 77.4%, while for the post test, it was 80.8%. On the pre test, 50% of the participants scored at 80% or above, while on the post test, 60% scored in this range.

#### V. MARSABIT DISTRICT SEMINAR

January 30, 1981

This seminar was held at the Marsabit District Hospital Social Hall and lasted from 9:30 a.m. to 4:00 p.m. There were 31 participants drawn from Government and mission hospitals and health centers, including Marsabit District Hospital,

Moyale District Hospital, Laisamis Health Centre, Loglogo Mission Health Centre, Kalacha Mission Health Centre, and other health centers in the district. The breakdown according to job category was as follows:

- 9 Kenya Registered Nurses/Midwives
- 1 Medical Officer
- 6 Enrolled Nurses/Midwives
- 4 Community Nurses
- 2 Public Health Officers
- 2 Public Health Technicians
- 2 Family Health Field Educators
- 3 Clinical Officers
- 1 Nutritionist
- 1 Information Officer

The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases, diagnosis and treatment, safety and hygiene, testing visual acuity, and application of eye drops and ointments. The instructors for the seminar were the IEF Field Training Specialist and the Eastern Provincial Health Educator.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score on the pre test was 82.9%, while for the post test, it was 87.4%. On the pre test, 65.3% scored at 80% or above, while on the post test, 80.8% scored in this range.

#### VI. MACHAKOS DISTRICT SEMINAR

February 3, 1981

This seminar was held at the Machakos Medical Training Centre and lasted from 9:30 a.m. to 4:00 p.m. There were 64 participants from Government hospitals and health centers in

the district, including Machakos Provincial General Hospital, Makindu Hospital, Kalawa Health Centre, Mukueni Health Centre, and Athi River Health Centre. The breakdown according to job category was as follows:

- 11 Kenya Registered Nurses/Midwives
- 1 Medical Officer
- 8 Enrolled Nurses
- 4 Community Nurses
- 1 Public Health Educator
- 1 Family Health Field Educator
- 4 Clinical Officers
- 30 Clinical Officer Students
- 4 Community Nurse Students

The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases, diagnosis and treatment, safety and hygiene, testing visual acuity, and application of eye drops and ointments. The instructors for the seminar were the IEF Field Training Specialist, the Eastern Provincial Health Educator, and one Ophthalmic Clinical Officer from Machakos.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score for the pre test was 88.4%, while for the post test, it was 88.7%. On the pre test, 81.4% scored 80% or above, while on the post test, 81.5% scored in this range.

#### VII. KITUI DISTRICT SEMINAR

February 5, 1981

This seminar was held at the Kitui Better Living Institute and lasted from 9:30 a.m. to 4:00 p.m. There were 27 participants drawn from Government and mission hospitals and health centres, including Kitui District Hospital, Mutomo Mission

Hospital, Ikutha Health Centre, Mutito Health Centre, Mui Health Centre, and Migwani Health Centre. The breakdown according to job category was as follows:

- 3 Kenya Registered Nurses/Midwives
- 3 Community Nurses
- 2 Enrolled Nurses
- 1 Ungraded Nurse
- 1 Public Health Officer
- 1 Public Health Educator
- 1 Public Health Technician
- 1 Family Health Field Educator
- 4 Clinical Officers
- 10 Other, non-medical

The seminar covered the following areas as related to Primary Eye Care/Blindness Prevention: anatomy of the eye, common eye diseases, diagnosis and treatment, safety and hygiene, testing visual acuity, and application of eye drops and ointments. The instructors for the seminar were the IEF Field Training Specialist and the Eastern Provincial Health Educator.

The effectiveness of the seminar in conveying information about primary eye care and blindness prevention was measured by pre and post tests. The mean score on the pre test was 78.3%, while on the post test, it was 88%. On the pre test, 50% scored at 80% or above, while on the post test, 81.2% scored in this range.

EASTERN PROVINCE DISTRICT-LEVEL PRIMARY EYE CARE/BLINDNESS PREVENTION SEMINARS

Statistical Summary

	Embu	Meru	Isiolo	Marsabit	Machakos	Kitui
Number of Participants	41	77	47	31	64	27
Mean Pre-Test Score	72.8%	78.6%	77.4%	82.9%	88.4%	78.3%
Pre-Test Score Distribution						
90% - 100%	8.8%	15.6%	13.3%	19.2%	59.2%	18.8%
80% - 89%	14.7%	46.7%	36.7%	46.1%	22.2%	31.2%
70% - 79%	47.0%	13.3%	26.6%	23.1%	7.4%	31.2%
60% - 69%	20.6%	13.3%	10.0%	11.5%	3.7%	6.3%
50% - 59%	-	11.1%	6.7%	-	-	-
Less than 50%	8.8%	-	6.7%	-	7.4%	12.5%
Mean Post-Test Score	83.2%	83.8%	80.8%	87.4%	88.7%	88.0%
Post-Test Score Distribution						
90% - 100%	29.4%	26.7%	16.7%	57.7%	51.9%	56.2%
80% - 89%	47.1%	35.5%	43.2%	23.1%	29.6%	25.0%
70% - 79%	5.9%	26.7%	16.7%	11.5%	7.4%	6.3%
60% - 69%	8.8%	11.1%	16.7%	3.8%	7.4%	12.5%
50% - 59%	5.9%	-	6.7%	3.8%	3.7%	-
Less than 50%	2.9%	-	-	-	-	-

8

ATTACHMENT TWO

Financial Summaries

IEF KENYA RURAL BLINDNESS PREVENTION PROJECT

Expenditures Summary - Year One

<u>Line Item</u>	<u>Bethesda</u>	<u>Kenya</u>	<u>Total</u>
Salaries & Fringe	182,924.00	45,779.58	228,703.58
Travel & Transportation	90,613.00	62,540.99	153,153.99
Subsistence & Per Diem	2,095.00	53,963.64	56,058.64
Evaluation	-0-	-0-	-0-
Surveys	-0-	7,909.95	7,909.95
Surgical Equipment	1,280.00	-0-	1,280.00
Teaching Materials	455.00	2,105.24	2,560.24
Drugs & Medications	2,814.00	1,773.93	4,587.93
Office Equipment	990.00	29,095.50	30,085.50
Other Direct Costs	<u>71,299.00</u>	<u>2,716.99</u>	<u>74,015.99</u>
TOTALS	352,470.00	205,885.82	558,355.82

Rounded Total Figure: 558,356.00

NOTE: All figures in \$ U.S.

IEF KENYA RURAL BLINDNESS PREVENTION PROJECT

Quarterly Financial Report, January - March, 1981

Grant Budget Line Items/Amount	Total Expended This Period	Expense Billed AID This Period	Cumulative Expenses Billed AID	Project Expenses To Be Billed AID Next Period
1. Salaries & Fringe \$375,000	\$ 44,442.00 KS 94,083.40	\$ 46,425.00 KS 85,000.00	\$ 182,924.00 KS 344,606.80	\$ 51,075.00 KS 93,500.00
2. Travel & Transport \$198,000	\$ 37,967.00+ KS 154,754.35	\$ 3,000.00 KS 180,000.00	\$ 90,613.00 KS 475,092.30	\$ 10,000.00 KS 180,000.00
3. Subsistence/Per Diem \$109,000	\$ -0- KS 148,276.45	\$ -0- KS 110,300.00	\$ 2,095.00 KS 405,856.45	\$ 3,000.00 KS 150,000.00
4. Evaluation \$ 16,000	\$ -0- KS -0-	\$ -0- KS -0-	\$ -0- KS -0-	\$ -0- KS -0-
5. Surveys \$ 9,000	\$ -0- KS 20,000.00	\$ -0- KS 40,000.00	\$ -0- KS 60,574.60	\$ -0- KS 2,000.00
6. Surgical Equipment \$ 5,000	\$ (10,056.00)* KS -0-	\$ -0- KS 19,000.00	\$ 1,280.00 KS -0-	\$ -0- KS -0-
7. Teaching Materials \$ 16,000	\$ 173.00 KS 3,539.80	\$ 200.00 KS 9,000.00	\$ 455.00 KS 15,940.55	\$ -0- KS 9,000.00
8. Drugs & Medications \$ 5,000	\$ (22,176.00)# KS 3,201.45	\$ -0- KS 6,000.00	\$ 2,814.00 KS 13,382.90	\$ -0- KS 3,000.00
9. Office Equipment \$ 23,000	\$ -0- KS 35,578.10	\$ -0- KS 22,000.00	\$ 990.00 KS 218,684.70	\$ -0- KS 40,000.00
10. Other Direct Costs \$144,000	\$ 20,145.00 KS 1,250.00	\$ 22,800.00 KS 4,500.00	\$ 71,299.00 KS 20,377.40	\$ 25,000.00 KS 5,000.00
TOTAL \$900,000	\$ 70,495.00 KS 460,683.55	\$ 72,425.00 KS 475,800.00	\$ 352,470.00 KS 1,554,515.70	\$ 89,075.00 KS 482,500.00

\$ - indicates Dollar expenditures from IEF/Bethesda

KS - indicates Shilling expenditures in Kenya

+, \*, # - see attached sheet

In January, 1980, it became necessary to forward to Kenya \$44,000 in order to purchase four Project vehicles for Kenya Phase II. Since Phase II was not operational in January, 1980, and the related funding had not been received, the vehicles were purchased from Phase I funds which were available.

The Phase I Project had cash-on-hand of approximately \$44,000 due to the fact that various medical supplies which were to be purchased under Phase I were not delivered until after June 30, 1980, thus producing a favorable cash flow of approximately \$44,000.

When the above transactions were originally recorded, the vehicles were incorrectly charged to Phase I. To further complicate the accounting, the medical supplies ordered for which Phase I was legally responsible were never accounted for under the Phase I final accounting, whereas they should, in fact, have been encumbered expenses.

When the medical supplies ordered under Phase I were received, they were incorrectly paid for and charged to Phase II.

In summary, Phase II had a debt to Phase I for the vehicles which it, in fact, repaid by paying for the medical supplies, therefore it is necessary to reclassify the vehicle expense to Phase II and the medical supplies expense to Phase I.

Schedule of Phase I Reclassification  
Error in Expense Classifications

Line Items Adjusted

Drugs	\$ 22,176
Medical Equipment	10,205
Shipping	10,910
	<u>\$ 43,291</u>
Vehicle Expense	<u>(\$ 44,000)</u>
Difference	\$ 709

+ Travel & Transportation:

Previously Reported

52,646  
-10,910  
41,736  
+44,000  
85,736

This Period

4,877  
90,613 T/D

\* Surgical Equipment:

Previously Reported

11,336  
-10,205  
1,131

This Period

149  
1,280 T/D

# Drugs & Medications:

Previously Reported

24,990  
-22,176  
2,814

This Period

-0-  
2,814 T/D