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PRIMARY EYE CARE DELIVERY  
AND TRAINING PROGRAM

MATCHING GRANT ANNUAL REPORT

July 1, 1981 - June 30, 1982

May 28, 1982

627

INTERNATIONAL EYE FOUNDATION  
MATCHING GRANT No. PDC-0174-G-SS-1102-00  
ANNUAL REPORT

The following report provides information relevant to activities from July 1, 1981 through June 30, 1982 under the terms of the International Eye Foundations' Matching Grant, provided for a Primary Eye Care Delivery and Training Program.

It is important to note that the IEF Primary Eye Care Delivery and Training Program as outlined in the proposal will not implement the same actions in each target country. Nor will the program implement a complete range of blindness prevention, curative services, planning, surveys, educational, and promotional actions in each of the target countries. The reasons for these differences are basically fourfold:

1. The target countries are at varying stages of development in their blindness prevention programs and therefore have need for, and requested of the IEF, only certain limited inputs;
2. A specific target country may have a nearly complete range of blindness prevention activities except for the services requested of the IEF;
3. The IEF may be providing a vital service to a regional training effort, such as in Puerto Rico which feeds trained personnel into specific countries; and
4. The size of the financial inputs necessitates targeting those countries where the complete range of blindness

prevention activities will be implemented but not all will be funded through the IEF Matching Grant Program.

The significant activities carried out in or with regard to each of the seven target areas is presented as follows:

1. Honduras - An Operational Program Grant, No. 522-0162, provided by USAID/Honduras was completed September 30, 1981. The evaluation of this Project was carried out by IEF staff and USAID. The IEF had notified the Ministry of Health that a Matching Grant would provide additional assistance monies effective October 1, 1981, and a two-year program effective on that date was mutually designed by the MOH and IEF staff during the evaluation period the first week of September. Meetings were held with the Minister of Health and his top staff, resulting in the Agreement attached as Appendix A. Continued training of nurses and auxiliaries was done; model visual acuity screening programs for schools and the selected training of ophthalmologists was added. Ms. T. Gonzalez-Oberbeck, R.N., C.O.M.T., provided educational and teaching expertise in appropriate settings.

Specific accomplishments included the provision of additional diagnostic equipment, namely slit lamps and operating microscopes to San Felipe Hospital in Tegucigalpa and Leonardo Martinez Hospital in San Pedro Sula. A visual acuity screening project was developed for use by the Ministry of Education to train Directors of Secondary Schools in one-day courses at San Felipe Hospital in "How to Do" visual acuity screening of school-

age children. In addition, the Peace Corps Nurses in Honduras were given a course in Primary Eye Care and in visual acuity screening. These nurses are posted in each of the eight regions of the country. The Director of the Finca de los Ninos was supplied with educational and training materials, and was also taught how to conduct visual acuity screening tests. The 150 children in the orphanage were then tested for visual acuity with the assistance of Ms. Oberbeck.

Progress was made with the direction and assistance of the Sub-director of the Ministry of Health in setting up the training of primary education teachers in visual screening, and 200 copies of "Signs and Symptoms of Eye Problems" (in Spanish), were provided to the Ministry of Education. A seminar was held at San Felipe Hospital in Tegucigalpa, during which 90 Primary School Directors were trained in visual acuity screening techniques.

In March a Visual Screening and Glaucoma Screening program was held in which local nurses were trained in the necessary screening techniques, and some 200 school-age children and over 100 adults were screened. Problem cases identified were referred to an ophthalmologist for intervention.

Training courses have been instituted in each of the three schools of nursing in Honduras, and training materials, including model eyes, films, filmstrips, projectors and other educational materials have been provided. Curricula outlines have been designed and distributed, and continuing education visits have been made by the IEF paramedical instructor.

In April a three day seminar was conducted by an American Consultant in Retinal Diseases, for the ophthalmologists in Honduras. Topics covered included 1) Normal and Abnormal Fundus Periphery, 2) Flouriscein Angiography, 3) Diabetic Retinopathy, and 4) Proper Use of the Indirect Ophthalmoscope. The Honduran Ophthalmologists summarized the meeting with a statement of the following points:

1. There is great need for more attention to be given to the basics of retinal diseases;
2. There is a need to spend more time and effort in reviewing continuing educational materials. This includes subscribing to ophthalmic journals and tapes.
3. There exists a very real need for a Honduran Ophthalmologist to become specialized in cornea and anterior segment work.
4. It would be beneficial for the Honduran Ophthalmologists to convene regularly scheduled meetings to discuss between themselves the latest developments in Ophthalmology which each of them has learned from the variety of sources which the IEF is attempting to provide to them.

Arrangements are being made to organize additional consultant visits to Honduras to further provide continuing educational and surgical expertise to the Ophthalmologists.

The IEF paramedical instructor was seconded to St. Lucia for four weeks in November to conduct a training course for St. Lucia nurses in Primary Eye Care. Over 100 nurses were trained. In May/June, a six week course was hosted by St. Lucia for

nurses from the surrounding islands in Ophthalmic nursing care. These activities were carried out in conjunction with an IEF Project in St. Lucia, thus enabling the IEF to draw upon the expertise of its paramedical instructor, and to replicate the training activities developed in Honduras.

It is estimated at this time that the nurses training and visual acuity screening projects will have been fully implemented by the fall of 1982, and the Paramedical Instructor will be withdrawn at that time. She will be available for short term consultancies during the remainder of the Matching Grant period. Focus will be shifted to the continuing education of Ophthalmologists, and the provision of basic science training in Puerto Rico for Residents in Ophthalmology from Honduras. Consultants will be sent to Honduras to provide updating in the latest surgical and medical techniques by IEF Consultant Ophthalmologists.

2. Haiti - Three senior Residents from Yale University have served in Haiti under the terms of the Matching Grant Program. They are: 1) Dr. Edgardo J. Ortiz; 2) Dr. Warren Fagadau; and, 3) Dr. Barry Teasley. Dr. Ortiz examined and treated over 1,500 Haitians, 72 of whom underwent surgical procedures during the period July 1 - October 31, 1981. It is estimated that each of the other two physicians will have examined an equivalent number of patients, and completed roughly the same amount of surgery. Thus, under the auspices of this project, nearly 4,500 Haitians will have been examined and treated, and some 200 patients will have undergone surgical procedures.

Due to the inability of Yale University to assist with the monetary aspect of this project, and due to the lack of responsiveness of the fellows to submit reports concerning the activities, the IEF has decided that it is no longer a viable concept to continue the placement of residents in Haiti at this time. Effective July 1, 1982, this program will be suspended, while attempts are made to locate another affiliation to take over the Haiti activities. Monies earmarked for this project will be reallocated later in the grant year as appropriate.

3. Puerto Rico - The IEF Matching Grant activity in Puerto Rico is to train and upgrade the primary eye care delivery, training, and supervisory skills of both physicians and paramedical personnel from Spanish speaking areas of the Americas. This training covers basic sciences, blindness prevention, and treatment, and the development of programs to deliver primary eye care. No other center exists in the Americas to deliver this training in Spanish. Participants have come from every Spanish-speaking area of the Americas.

Twelve physicians from selected countries of the Americas are currently undergoing training at the University of Puerto Rico Basic Science Course in Ophthalmology. An extra position was set aside for a physician from Honduras, to complement the training activities noted in the report on Honduras.

A major step was taken through the establishment of an endowed Fellowship in Ophthalmology at the University of Puerto

Rico under the supervision of former IEF Fellow, Dr. William Townsend, a cornea specialist.

In addition, Dr. Townsend went to Guayaquil, Ecuador in September to assist in the establishment of the first eye bank in that country through sponsorship of a local Ecuadorian committee, the New York Eye-Bank for Sight Restoration, and the IEF.

See Appendix B for the complete list of Fellows who are undergoing training in the Basic Science Course this year.

4. Guinea - Dr. Samir Saleeby, a prominent ophthalmologist from Lebanon, and long-time member of the IEF's Society of Eye Surgeons, was selected to be the first ophthalmologist in the Guinea project. Dr. Saleeby arrived in Guinea the first week of February, having joined the IEF on February 1, 1982. In addition to approximately a half ton of diagnostic equipment and medical supplies which were shipped from the IEF offices through Halco Company ships to Conakry, Dr. Saleeby personally hand carried the surgical instruments which were required to set up the project. Additional equipment and supplies have been ordered and shipped, as required. Two other French-speaking ophthalmologists have been interviewed to take over the program once Dr. Saleeby completes his current tour of duty, anticipated to be completed in July, 1982.

Since Dr. Saleeby arrived in Guinea he has examined and treated some 5,200 patients, and has performed over 300 surgical procedures. In addition to the surgical duties, he has

been involved in the training of 4 general physicians in ophthalmology, particularly surgical procedures required for the major causes of blindness. He has also trained 4 ophthalmic technicians to assist the physicians. Seven nurses have been trained in the treatment of ophthalmic patients, and some 32 medical students have been given an introductory course in ophthalmology. A short course was also given to 20 Village Preventive Medicine personnel.

Following several meetings with the President of Guinea, Seko Touré, Dr. Saleeby was assigned a building, in the name of the International Eye Foundation, which will be renovated and turned into an Eye Hospital. Halco Mining Company, and Martin Marietta in the U.S. have been approached to assist with the renovation costs. (See Appendix C for country agreement.)

5. Ivory Coast - No response has been received from SHDS in Abidjan regarding the IEF plan to intergrate primary eye care training into their five training centers throughout West Africa. The intent of this aspect of the Matching Grant was for the IEF to provide a French speaking Ophthalmic Technician to the SHDS Project to carry out the instruction as well as the curricula revisions which would be necessary to ensure the inclusion of primary eye care into the overall course objectives. As it has not been possible to come to any agreement with SHDS, the IEF proposes to delete this activity from future years of the Matching Grant Program. Monies earmarked for the Ivory Coast project will be reallocated elsewhere, per the attached budget estimated for Year Two of the Matching Grant Activities.

6. Malawi - Teferra Tizazu, M.D., an ophthalmologist who has had a number of years of experience in developing countries, was recruited to carry out the IEF Matching Grant objectives in Malawi, based in Blantyre. Dr. Tizazu took up his activities in November 1981.

Appropriate diagnostic equipment and a vehicle were sent to the Project. Permanent housing has been provided by the Ministry of Health, in addition to costs of renovating the clinic.

Thus far, 11,723 new patients have been seen in the outpatient department, examined and treated; 384 patients were admitted to the Eye Ward; and 359 surgical procedures were performed.

Dr. Robert Meaders, IEF Medical Director, met with Dr. Tizazu in Blantyre in early November, and the project plans continue to proceed in an orderly, but rapid fashion.

A formal Agreement was signed at that time by the Ministry and the IEF. A copy is attached as Appendix D.

Dr. Tizazu has also been able to obtain three Yamaha motorcycles for use by Clinical Officers in Ophthalmology in the Lower Shire Valley. The motorcycles were donated by the Rotary Club of Blantyre to the International Eye Foundation, (see Appendix E).

Dr. Tizazu has trained two ophthalmic assistants to do cataract surgery. Courses for other ophthalmic assistants are currently underway. A weekend seminar was recently given to the Medical Society of Malawi, in which the IEF

program was presented, and the other physicians in the country were briefed on the ophthalmic care which is now available for the entire southern half of the country which has some 5.2 million inhabitants. The President of Malawi visited in January the Eye Department directed by Dr. Tizazu and was given a tour of the Outpatient Service and the Eye Ward.

The event has given a certain focus on eye problems in Malawi.

7. Egypt - During the first quarter of the year, the IEF training and treatment program in Cairo, staffed with volunteer ophthalmologists from the U.S. Navy, was moved from the Giza Memorial Research Institute of Ophthalmology to the Rod El Faraq Eye Hospital in North Cairo. This change obviated a number of major difficulties with local supervision and provided for accessibility to greater numbers of Egyptian patients presenting for services. The improvement was dramatic, and the program continues to expand.

The program has supplied 12 physicians to Egypt, and the volume of surgery has gone up each month, with each of the residents now performing roughly 60 sight-restoring surgical procedures each during their three months in Cairo.

Additional instruments, medications and contact lenses were forwarded to Egypt this year, valued at approximately \$375,000.

One Egyptian came to the U.S. on a short-term fellowship arranged by the IEF carried out at the Scheie Eye Institute. Three additional fellowships will be arranged during the next year of the Matching Grant.

During the second quarter, the Ministry of Health requested that Dr. Meaders travel to Cairo for further discussions on the OPG proposal which had previously been approved by USAID/Cairo. The travel was undertaken, modifications made, and an Egyptian ophthalmologist was located to direct this two-year project in accord with governmental decrees requiring the hiring of local personnel. As of this date, the OPG has yet to be signed. It is anticipated that it will be signed within the next two months, with activities distinct from, but complementing the Matching Grant activities (see Appendix F for country agreement).

8. IEF Headquarters, Bethesda

- A. The IEF staff attended the American Academy of Ophthalmology Annual Meeting during the first week of November in Atlanta. The IEF is a Scientific Exhibitor annually and provides an educational display and take-home materials concerning blindness prevention worldwide to this gathering of 12-15,000 ophthalmologists, nurses and other health professionals.
- B. The IEF began formal participation in the Combined Federal Campaign in October as a member of the International Services Agencies. Considerable amounts of informative materials were developed and supplied to provide prospective donors with background on the blindness prevention activities of the IEF.

C. In December a small reduction in force was enacted, and the consolidation of accounting/bookkeeping was implemented. The new Accounting Procedures Manual which was put into use in July was modified and strengthened. A provisional overhead rate of 19% was accepted by AID for IEF Contracts and Grants.

D. A milestone for the IEF was the establishment of the William M. and Ramona N. Carrigan Endowment for the Restoration of Sight in Latin America. This endowment, the first for the IEF, was formally established on September 16, 1981, and will, through a phased program, eventually reach a principal of \$420,000.

9. Finances - It is anticipated that the IEF will spend a total of \$115,000 during the first year of the Matching Grant. This is considerably under what was budgeted, for a number of reasons, as follows:

A. The grant was not signed until three months into the grant year.

B. Recruiting delays and hiring delays were encountered as follows:

a. Honduras - staff began working 1 October

b. Malawi - staff began working 1 November

c. Guinea - staff began working 1 February

d. Ivory Coast - no staff hired due to lack of communication from SHDS.

C. Managerial trips have not been made during the first year, due largely to the lateness of the start-up of each project, and the fact that there was really

nothing to be gained by visiting this soon. Furthermore, the IEF Medical Director has been able to conduct administrative visits under the terms of a WHO consultancy, and thus has saved the project several thousands of dollars in travel, per diem and other costs connected with administrative visits.

Now that all programs have been fully staffed, administrative visits, as well as the scheduled evaluation of program activities, will significantly increase costs during year two. This is estimated at this time to be approximately \$300,000. This does not include figures for expansion of program activities in Malawi. A separate proposal is appended (see Appendix ~~III~~<sup>Financial Report</sup>) to shift funds from Ivory Coast and Haiti to cover the increased activities in Malawi. If this is agreeable, then the costs for Year Two will total \$400,000. Projected costs for Year Three will be at this level, with a 10% inflation factor to be added. Thus, the total level of support required by the IEF for its Matching Grant for Years Two and Three, as revised, is \$1,000,000, requiring from AID in Year Two \$200,000 and in Year Three \$300,000.

10. Fund Raising - Major efforts were undertaken this year to ensure and enhance the participation of the International Eye Foundation in the Combined Federal Campaign. Participating for the first year as one of the 15 charitable organizations of the International Service Agencies group, the IEF was approved by the Office of Personnel Management to receive contributions from both the domestic and overseas campaigns. At the time of this writing, final results are not available,

but early data from the overseas campaign indicate that the IEF is doing about 500 per cent better than anticipated and that total contributions for the first year may top \$100,000 from both the overseas and domestic campaigns.

Significant support from foundations was provided by the Public Welfare Foundation (\$30,000), the Bunker Foundation (\$25,000); the Barzin Foundation (\$11,000), and International Humanities (\$3,500). Many other foundations were approached, and it is anticipated that several additional contributions may be forthcoming.

Corporate cash contributions were not as high as had been forecast, \$18,788, but major support was provided for a specific matching grant country activity by Martin-Marietta Corporation and its related Halco (Mining) Inc. Shipping of project supplies to Guinea, housing and board in-country, and a vehicle resulted in a total contribution of \$17,500.

Other individual contributions and regular supporters of the IEF provided \$21,476 in cash. The annual charity dinner-dance, the Eye Ball, scheduled for early June 1982, was being re-cast in a cost-saving format so that the total receipts of \$36,000 could be matched or exceeded.

In-kind donations of medical equipment, supplies and pharmaceuticals were less than the previous year's extreme high, but nevertheless totalled \$245,000 in value.

The Carrigan Endowment, established in late 1981, thus far has a fund balance of \$37,751.

The Society of Eye Surgeons of the IEF provided \$13,000 in dues and fees during this past year for the purpose of advancing training for the treatment and prevention of eye disease.

11. Lessons Learned - In the implementation of matching grant activities in the past year, it has become apparent that the greatest successes have been those involving close cooperation with and participation in program activities by host governments. By assuming a significant portion of the costs of such programs, the host governments are committing themselves to a process of institutionalization ultimately.

Likewise important has been the provision of technical assistance to building the support structure necessary for the proper function of a primary eye care system. Primary health care of any sort can only exist when there is a system of training, support, supervision, and referral for the most peripheral village workers. See Appendix H for a more detailed discussion of these salient points.

12. Plan of Work July 1, 1982 - June 30, 1983

- Egypt - Provision of up to four fellowships for Egyptians to participate in short-term (up to three months) fellowships in selected institutes in the U.S.
- Provision of additional surgical and medical supplies as required
  - Formulate plan for Blindness Prevention in conjunction with the Ministry of Health.

- Honduras - Complete training of counterpart instructors
- Provision of ophthalmic consultants
  - Complete training of training staffs.
- Puerto Rico - Continue provision of training in Basic  
Science for physicians from Latin America
- Malawi - Adaptation of educational materials for local  
village use
- Provision of second ophthalmologist to serve  
northern half of the country
  - Train PHC instructors in PEC.
- Guinea - Continue training of Guinean physicians in  
prevention of blindness
- Continue training of nursing staff
  - Where possible assist with PHC program of MOH.
- Haiti - Drop this aspect of the Matching Grant Program
- Ivory Coast - Drop this aspect of the Matching Grant  
Program
- Bethesda/Home Office - Continue to assist in the  
development and implementation  
of field projects
- Continue management and back-  
stopping of field projects
  - Continue collaboration with WHO,  
international agencies, and  
other PVOs in prevention of  
blindness strategies and resource  
development

- Continue to obtain in-kind donations of equipment and pharmaceuticals
- Continue and expand fund raising activities from the private and corporate sector.

13. Evaluation - By the eighteenth month of project activity, the IEF will submit a full evaluation proposal to AID, as the basis for the evaluation scheduled to be undertaken by the 24th month of project activity. See Appendix G for details of the basic monthly reporting format submitted by each of the country projects. This report will serve as baseline data for the evaluation, along with the country-wide assessments of blindness, where available.

## INTERNATIONAL EYE FOUNDATION

## FINANCIAL STATUS

## MATCHING GRANT REPORT

A. Financial Statement Year One  
July 1, 1981 - June 30, 1982

<u>Income</u>	<u>IEF</u>	<u>USAID</u>	<u>TOTAL</u>
International Eye Foundation	\$111,138		\$111,238
AID Matching Grant Funds		\$110,668	110,668
	<u>\$111,138</u>	<u>\$110,668</u>	<u>\$221,906</u>
 <u>Expenses</u>			
Egypt	\$ 1,525	\$ 4,476	\$ 6,001
Guinea	25,494	19,351	44,845
Haiti	2,103	7,246	9,349
Honduras	13,033	11,284	24,317
Ivory Coast	-0-	-0-	-0-
Malawi	15,780	37,061	52,841
Puerto Rico	9,842	12,043	21,885
Bethesda/Home Office	<u>43,461</u>	<u>19,207</u>	<u>62,668</u>
TOTAL EXPENSES	\$ 111,238	\$ 110,668	\$ 221,906

B. Budget - Year Two  
July 1, 1982 - June 30, 1983

<u>Income</u>			
International Eye Foundation	\$ 200,000		\$ 200,000
AID Matching Grant Funds		\$ 200,000	\$ 200,000
	<u>\$ 200,000</u>	<u>\$ 200,000</u>	<u>\$ 400,000</u>
 <u>Expenses</u>			
Egypt	\$ 7,500	\$ 7,500	\$ 15,000
Guinea	35,000	35,000	70,000
Honduras	15,000	15,000	30,000
Malawi	75,000	75,000	150,000
Puerto Rico	15,000	15,000	30,000
Bethesda/Home Office (+ eval.)	<u>52,500</u>	<u>52,500</u>	<u>105,000</u>
	<u>\$ 200,000</u>	<u>\$ 200,000</u>	<u>\$ 400,000</u>

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SECRETARIA DE ESTADO  
EN LOS  
DESPACHOS DE SALUD PUBLICA Y ASISTENCIA SOCIAL  
REPUBLICA DE HONDURAS, CENTRO AMERICA

No. 562-81

Tegucigalpa, D.C., 6 de noviembre de 1981.

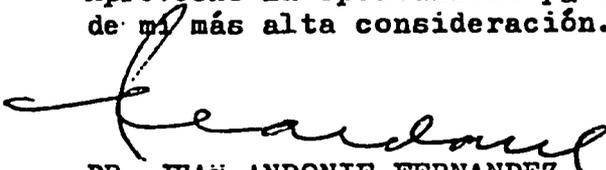
Mr. JOSEPH M. DEERING  
Director Ejecutivo International  
EYE FOUNDATION  
7801 NORFOLK AVENUE  
Bethesda, Maryland 20014.

Estimado Señor Director:

De la manera más atenta adjunto estoy enviando a usted una copia del Convenio celebrado entre la Fundación Internacional del Ojo de los Estados Unidos de Norte América y el Ministerio de Salud Pública y Asistencia Social.

Estamos sumamente complacidos con la labor desarrollada -- por la Fundación en beneficio del pueblo hondureño y brindaremos todo el apoyo que sea necesario para que se realice el Programa que se describe en el Convenio arriba mencionado.

Aprovecho la oportunidad para saludarlo con las muestras -- de mi más alta consideración.



DR. JUAN ANDONIE FERNANDEZ  
MINISTRO DE SALUD PUBLICA Y A.S.

cc: Arch.  
POM-JAF-vl.  
1 adjunto



SECRETARIA DE ESTADO  
EN LOS  
DESPACHOS DE SALUD PUBLICA Y ASISTENCIA SOCIAL  
REPUBLICA DE HONDURAS, CENTRO AMERICA

No. **CONVENIO ENTRE EL MINISTERIO DE SALUD PUBLICA Y ASISTENCIA SOCIAL Y THE INTERNATIONAL EYE FOUNDATION.**

Nosotros, JORGE A. RAPALO, mayor de edad, casado, Médico y Cirujano y vecino de este Distrito Central, actuando en su condición de Ministro de Salud Pública y Asistencia Social por Ley, quien en lo sucesivo se denominará "EL MINISTERIO" y JOSEPH DEERING, mayor de edad, Administrador de Empresas con Pasaporte No. A-1004160 y con domicilio en Bethesda, Maryland, U.S.A. y en tránsito en esta ciudad capital actuando en su condición de Director Ejecutivo de la FUNDACION INTERNACIONAL DEL OJO DE LOS ESTADOS UNIDOS DE NORTE AMERICA, que en lo sucesivo se denominará "LA FUNDACION" hemos convenido en celebrar, como en efecto celebramos el Convenio que se expresa en las Cláusulas siguientes:

PRIMERA: "EL MINISTERIO" expresa su interés en la capacitación de personal Médico y Paramédico para que preste sus cuidados básicos de los ojos en las áreas rurales.

SEGUNDA: "LA FUNDACION" se compromete a cooperar con "EL MINISTERIO" en la prevención y curación de la ceguera a través del adiestramiento oftálmico especializado de médicos, enfermeras supervisoras y auxiliares de enfermería, seleccionadas siguiendo los lineamientos de la política de Salud de "EL MINISTERIO" en la forma siguiente:



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(2)

No.

**I. ADIESTRAMIENTO DE MEDICOS.**

1.-Gestionando una o dos becas, para adiestrar Médicos en el curso de Ciencia Básica, en la Universidad de Puerto Rico, con una du ción de cuatro (4) a cinco (5) meses.

2.-Proporcionando periódicamente educación médica continuada para oftalmólogos en Sub-especialidades apropiadas a las necesidades del país, según lo determine el Jefe de Servicios de Oftalmología del Hospital General San Felipe y gremio de Oftalmólogos de Honduras.

**II. PROGRAMAS MODELOS.**

Desarrollando Programas Modelos de detección de enfermedades visuales en las escuelas primarias del país.

**TERCERA:** "EL MINISTERIO" se compromete a lo siguiente:

- a) Gestionarle a "LA FUNDACION", cuando le sean solicitados los permisos necesarios para introducir a la República de Honduras, libre de impuestos, gravámenes o cargas impositivas de cualquier naturaleza, las medicinas equipo y suministros requeridos para la ejecución del programa.
- b) Gestionar ante las autoridades respectivas los Permisos de Residencia y aquellos que fueron necesarios para que el personal del Programa pueda llevar a cabo sus obligaciones profesionales sin obstáculo alguno en la República de Honduras.

**CUARTA:** Ambas partes se comprometen a contribuir en la ejecución del Programa, en la forma siguiente:



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No.....(3)

**I. Contribución de El Ministerio, proporcionando:**

1. Personal apropiado y el apoyo del mismo mientras esté involucrado en las actividades del Programa.
2. Facilidades, equipo y suministros según se encuentren disponibles para las actividades del Programa.
3. Dirección y supervisión global de las actividades del Programa.

**II. Contribución de "La Fundación" proporcionando:**

1. Personal para ayudar en la educación médica continuada.
2. Asistencia en el adiestramiento de enfermeras y oftalmólogos.
3. Medicinas y equipo seleccionados para complementar los aportes del Ministerio de Salud.

**QUINTA:** Este Convenio tendrá una vigencia de dos años, contados a partir del primero de octubre del presente año y podrá darse por terminado por mutuo consentimiento de las partes o por voluntad de una de ellas, siempre que lo comunique por escrito a la otra con tres (3) meses de anticipación.

En fe de lo cual firmamos el presente documento, ante testigos en la ciudad de Tegucigalpa, Distrito Central, a los veintiocho días del mes de septiembre de mil novecientos ochenta y uno.

DR. JORGE A. RAPALO.

TESTIGO:

vl.

JOSEPH DEERING.

TESTIGO:

*Joseph Deering*  
*Jacob...* 23

XV Basic Course in Ophthalmology - 1982

Fellows Supported by IEF

Bolivia

Dr. Eduardo Camargo Baya

Brasil

Dr. Wagner Francisco Nunes Higa

Chile

Dr. Jorge Schliapnik Brill

Colombia

Dra. Monica Quevedo Celsi

Ecuador

Dr. Jose Roberto Proano Santana

El Salvador

Dr. Mario Tevez Molina

Guatemala

Dr. Sigfrido Rodas Diaz

Haiti

Dr. Amedee-Francois Romain Ravix

Honduras

Dr. Dennis Espinal Guillen

Paraguay

Dr. Julio Bonnin Figueredo

Dominicana

Dr. Luis Garrido Jansen

Venezuela

Dra. Nancy Marin-Molina

ACCORD ENTRELE MINISTERE GUINEEN DE LA SANTEETLA FONDATION INTERNATIONALE POUR LES YEUX

A la demande du Ministère Guinéen de la Santé et avec le support financier de la C.B.G., une courte étude conjointe a été complétée sur les moyens préventifs, présents et futurs, dans le domaine de la cécité en Guinée.

La mise en oeuvre du programme proposé dépendra en partie de l'obtention des fonds nécessaires. Une collaboration avec d'autres agences dans le domaine de l'aide, telles que l'OMS et l'USAID sera encouragée.

Un programme d'une durée d'un an est présenté pour la phase initiale. Les programmes de développement futurs seront préparés avec l'assentiment des deux parties.

Après consultation avec les Docteurs BAH, SULTAN, SYLLA, YAYA et d'autres, certains secteurs d'un programme collectif de développement furent déterminés comme suit:

I Renforcement des Services Curatifs Centraux

A. Une assistance de douze mois par un professeur d'ophtalmologie affecté à l'Hôpital de Donka, plus particulièrement au Service d'Ophtalmologie, dans les domaines suivants:

1. aider la formation de huit docteurs diplômés en médecine, dans le domaine du traitement médical et chirurgical des causes prédominantes d'incapacités visuelles en Guinée, telles que cataractes, glaucome, infections de la conjonctive et de la cornée, et complications provenant de trachome non soignée. Ces docteurs ainsi formés deviendront des "médecins formés sur-le-tas pour procurer certains soins en ophtalmologie" et seront utilisés pour intensifier les services curatifs dans les hôpitaux et pour former, en autant que leur compétence le permet, d'autres docteurs dans le domaine de certains soins des yeux.

2. Aider la formation d'équipes de soins préventifs en incluant les premiers soins des yeux et la formation de techniciens au niveau des arrondissements. Après avoir observé et participé à cette formation, le "médecin formé sur-le-tas pour procurer certains soins en ophtalmologie" fera lui-même ce travail.
  3. Superviser et participer à la formation de personnel paramédical adéquat afin qu'il puisse aider le "médecin formé sur-le-tas pour procurer certains soins en ophtalmologie" et les autres qui seront en stage de formation. Ceci inclura la formation pour assistance dans les cliniques, les chambres d'opération et les salles. Ce personnel aura aussi la responsabilité d'assumer le rôle d'enseignant pour compléter la formation et l'entraînant.
- B. Un aide ophtalmologue certifié sera affecté, pour une année, à la formation du personnel paramédical sur les méthodes techniques et les façons de procéder dans les cliniques, les chambres d'opération et les salles. Cette formation permettra aux assistants de tester et d'enregistrer l'acuité visuelle et la pression intra-oculaire, de prendre quelques données historiques, de préparer le patient pour l'examen par le docteur, et d'effectuer les traitements prescrits par le médecin.
- Un des assistants paramédicaux sera formé dans la réfraction et l'ordonnance de lunettes. Les étudiants particulièrement doués prendront le rôle d'enseignants après avoir complété leurs études et entraînement.
- C. Un approvisionnement d'équipement pour diagnostics et thérapeutique et de médicaments sera fourni pour l'utilisation du personnel impliqué dans ce projet. Ceci inclura des articles tels que lampes à fonte, ophtalmoscopes, lampes-tempête (rechargeables), tonomètres, loupes, un phoroptère, un microscope pour opération portatif, les instruments de chirurgie nécessaires pour les opérations intra-oculaires et extra-oculaires, et les médicaments nécessaires disponibles.
- 20

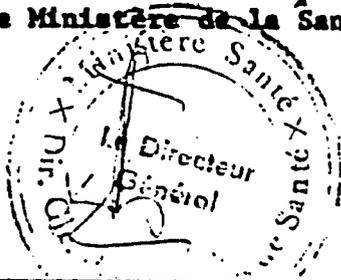
## II Projet Pilote - Premiers Soins aux Yeux

- A. Une aide est prévue pour la surformation d'une équipe spécialisée dans les soins préventifs. Cette formation permettra à l'équipe d'inclure le soin des yeux dans le "cœur" des "techniciens" travaillant au niveau des arrondissements. Ces techniciens seront à leur tour, responsables pour la formation et la supervision des travailleurs sociaux au niveau village dans le domaine du soin des yeux. La formation de ces travailleurs sociaux consistera à l'identification et au <sup>traitement</sup> ~~soin~~ des troubles oculaires et permettra d'obtenir les références appropriées. Quelques méthodes simples autant sur le plan personnel que communautaire, seront enseignées pour la prévention de la cécité. Une équipe de professeurs en médecine préventive avec une certaine expérience dans ce projet, formeront d'autres personnes dans l'accomplissement de ce travail dès que la portée et l'étendue de ce projet s'élargissent.
- B. L'équipement de formation nécessaire sera fourni pour ce projet pilote initial, tel que projecteur à diapositives, équipement pour formation audio-visuelle, et autres articles nécessaires et appropriés.
- C. Une provision suffisante de médicaments de base qui seront utilisés par les travailleurs sociaux niveau village pour les premiers soins des yeux seront fournis pour ce projet. Ceci inclura les <sup>préparations</sup> ~~salves~~ antibiotiques (tétracycline), collyre, et argyrol (nitrate d'argent à 1%) pour les soins de prophylaxie chez les nouveaux-nés.

La proposition conjointe décrite dans ce document est approuvée en principe par les signataires dont les noms apparaissent ci-dessous :

Fait à Conakry le, ... 11 Novembre 1980.

Pour le Ministère de la Santé  
RPRG



Pour International Eye Foundation  
LE DIRECTEUR MEDICAL.

*Robert H. ...*

THIS AGREEMENT IS MADE THE FIFTH DAY OF DECEMBER 1981

BETWEEN

THE GOVERNMENT OF MALAWI

AND THE

INTERNATIONAL EYE FOUNDATION

Bethesda, Maryland, U.S.A.

The Government of Malawi, hereinafter referred to as the Ministry of Health, and the International Eye Foundation referred to hereafter as the Foundation, express and mutually agree to the following concerning the blindness prevention and treatment project for Malawi.

The Ministry expresses its interest and high priority in developing and implementing a blindness prevention and treatment project.

The Foundation expresses its interest and commitment to assist the Ministry in their immediate and long-range blindness prevention and treatment programme and the establishment of a sub-regional intercountry training centre for eye health workers.

Based on studies and surveys conducted by the Ministry and WHO, and previous collaborative seminars held in conjunction with the Foundation, the project referred to above shall consist of two components; the National Programme and the Southern Africa Ophthalmic Training Centre.

### NATIONAL PROGRAMME

In order to assist the Ministry in the further development and implementation of a country-wide programme to decrease the high incidence and prevalence of blindness, the Foundation proposes to second to the Government of Malawi a full-time ophthalmologist for a period of up to three years. The ophthalmologist will have the status and privileges customarily accorded on expatriate seconded from technical assistance agencies. His salary shall be paid by the Foundation. Appended to this agreement is the Job Description for this ophthalmologist, formulated by the Ministry.

The implementation of this agreement will be dependent on the Foundation's securing adequate funding from various sources.

Financial responsibility for this portion shall be shared by the Ministry, the Foundation, and other donor sources. The Ministry agrees to support such requests for funding to the fullest extent.

### NATIONAL PROGRAMME INPUTS

- A. Approach various sources for funding necessary to implement this agreement.
- B. Recruit, orient, and assign the necessary project ophthalmologist on behalf of the Ministry.
- C. Supply administrative, technical, and professional support from the Foundation Headquarters to the project, including on-site consultation, and assistance on a regular basis.

- D. Assist in obtaining diagnostic and therapeutic equipment and supplies for successful programme implementation.
- E. Assist in long-range planning for further Blindness prevention and treatment activities intergrated into the present and planning health care delivery system, emphasizing preventive activities in areas of highest need through Village Health Worker training, support and supervision.
- F. Provide transportation expenses for project consultations.

The Ministry will:

- A. Provide suitable housing for the project ophthalmologist;
- B. Provide office space, and clinic, theatre, and ward space and support personnel;
- C. Provide air and ground transportation for project-related travel for personnel connected to or acting in consultation for the project. Hotel accommodation in Malawi for consultants will be provided;
- D. (i)(a) The Project Ophthalmologist shall be liable to pay duty imposed in Malawi under the law relating to Customs and Excise except in respect of equipment, spares, fuel and other materials required for the purposes of the Project and lawfully either imported, or

removed from a bonded warehouse or obtained from a local manufacturer.

(b) Notwithstanding sub-paragraph (a), on the expiry of a period of 90 days after the date of completion of the Project the Project Ophthalmologist shall forthwith be liable to pay such duty in respect of any equipment, spares, fuel and other materials not incorporated in or expended on the Project which remains in Malawi and has not by that date become the property of the Republic of Malawi.

(c) Attention is drawn to the procedures set out in Public Notice No. 8/9171, issued by the Malawi Customs and Excise Department, which must be observed where applicable.

(ii) The Malawi Customs and Excise Department permits the duty-free admission of certain personal possessions of employees who are not citizens or permanent residents of Malawi. Details of such privileges may be obtained from the Customs and Excise Department.

F. Exempt the emoluments of the Project Ophthalmologist from Malawi taxes.

SOUTHERN AFRICAN OPHTHALMIC TRAINING CENTRE

In accordance with recommendations of the Sub-regional Blindness Seminar held in Malawi in September 1980, the Ministry and the Foundation, in collaboration with the World Health Organisation, the Royal Commonwealth Society for the Blind, and other agencies propose to establish an inter-country ophthalmic training centre for the health care workers in the sub-region.

This centre will train selected, qualified health care workers from Malawi and participating countries in:-

1. Blindness prevention and treatment programme development, implementation, and management.
2. Theory and practice of Primary Eye Care as an integral component of Primary Health Care.
3. Diagnosis and treatment of a wide range of eye disorders, stressing those prevalent in this sub-region. This will include the performance of extra-ocular surgery for most trainees, and intra-ocular surgery for carefully selected participants, based on specific requests from their Governments.
4. Public health and preventive ophthalmology.
5. Basic education, including techniques and methodologies of instructing medical and non-medical workers in eye health care.

SIGNED by

*J. Phakabalo Chizya*

in the presence of:-

Witness: J. R. Phiri

Address: Box 30049, LILONGWE 3, MALAWI

Occupation: CIVIL SERVANT

SIGNED by

*Robert H. Mwachisi M.D.*

in the presence of:-

Witness:

*M. C. Chirambo*

M. C. CHIRAMBO M.D.

Address:

Ministry of Health  
Lilongwe

Box 30377

Occupation: MEDICAL OFFICER

26th April, 1982

The Secretary for Health  
P. O. Box 30377,  
Lilongwe 3.

Attention: Dr M. C. Chirambo

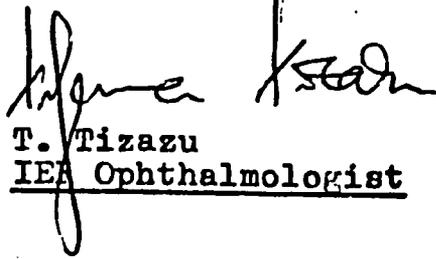
Through: The Senior Medical Superintendent,  
P. O. Box 95,  
Blantyre.

✓ copy: IEF  
7801 Norfolk Av.  
Bethesda, Md.20814,  
U. S. A.

Dear Sir,

THREE MOTOR CYCLES DONATED BY ROTARIANS  
IN BLANTYRE TO IEF FOR THE PREVENTION  
OF BLINDNESS IN LOWER SHIRE

Please refer to your letter 653A/IV/2. I have now got a donation of three motor cycles (worth K2,790.00 two thousand seven hundred and ninety kwacha, duty free), from Rotary Club, Blantyre, for our work in Lower Shire. This will make it possible for our ophthalmic medical assistants to reach the villages from their district hospitals. I believe it is the cheapest and most effective way of working in the Prevention of Blindness. Looking forward for your approval.

  
T. Tizazu  
IEF Ophthalmologist

*The Ministry has approved!*  


Agreement for Cooperative EYE Health Care  
Program Between the Ministry of Health of the Arab  
Republic of Egypt and the International Eye Foundation  
Bethesda, Maryland, U.S.A.

The purpose of this Agreement is to establish a system of cooperation between the Ministry of Health of Egypt, the Giza Memorial Institute for Ophthalmological Research and the International Eye Foundation U.S.A. to cooperate in upgrading the facilities and sharing in the eye health care programs in Egypt.

The cooperative program will be started during 1980 at the Giza Memorial Institute of Ophthalmology.

The program will consist in its 1st phase of, an exchange of ophthalmological training programs for Egyptian and American ophthalmologists and the establishment of diagnostic and treatment services at the Giza Memorial Institute of Ophthalmology.

When the program is well underway, a second phase (Phase II) will be added when further funding is secured. Its components are to be integrated into the overall health plan of the Ministry of Health. These components will consist basically of:

1. the collection of data on the changing picture of eye disease in Egypt;
2. the implementation of eye health care delivery to rural and urban populations in need of preventive and curative services; and
3. the training of primary eye care personnel.

## Cooperative Eye Health Care Program, Phase I

**PURPOSE:** To establish an advanced outpatient clinic and surgical unit in Egypt. Included will be exchange programs for subspecialty training of Egyptian ophthalmologists in U.S. training institutions and rotation of U.S. senior ophthalmologists and senior ophthalmic surgical residents to Egypt. Assistance will be given in the formation of a Retina diagnostic and treatment unit, contact lens clinic and an eye bank.

### OBJECTIVES:

1. To assist in upgrading outpatient diagnostic and treatment facilities at the Giza Memorial Institute of Ophthalmology.
2. To provide training via an exchange program for Egyptian ophthalmologists in the fields of:
  - a. Microsurgery and Corneal Transplantation
  - b. Retina and Vitreous Disease and Fluorescein Angiography
  - c. Contact Lens Technology
  - d. Eye bank Procedures
3. To assist in the establishment of a referral center at the Institute of Ophthalmology where technology gained under the exchange program will be put to clinical use in Egypt.

### IMPLEMENTATION:

The program will be a cooperative effort between the Ministry of Health (MOH), represented by the Giza Memorial Institute of Ophthalmology, and the International Eye Foundation, USA. The initial agreement is for a three-year period for Phase I of the ~~comprehensive~~<sup>cooperative</sup> eye care program for Egypt.

The IEF will arrange for exchange programs in which Egyptian ophthalmologists selected by the Ministry of Health will be brought to the U.S. Naval teaching hospitals and other teaching hospitals in the United States for short term <sup>training</sup> ~~(three-month)~~ fellowships in the following fields;

1. Microsurgery and Corneal Transplantation
2. Retina and Vitreous Diseases and Fluorescein Angiography
3. Contact Lens Technology
4. Eye Bank Procedures

While undergoing subspecialty training in the U.S., Egyptian ophthalmologists will engage in observation, teaching, and research if desired, patient consultation, pre and post-operative care, and participation as an active member of a surgical team.

As the Egyptian ophthalmologists trained in subspecialties return from their training in the United States, the International Eye Foundation will assist the Ministry of Health in the development of subspecialty clinics at the Institute of Ophthalmology.

The IEF will arrange for U.S. senior ophthalmic surgical residents well versed in surgery from U.S. Naval Training Centers to be sent to Egypt. They will be accorded the same privileges given to Egyptian ophthalmologists during their training in the U.S.

The IEF may also arrange for visiting U.S. Senior Ophthalmologists to work and train in the referral center at the Institute of Ophthalmology.

## Financial Inputs

Responsibilities for program inputs are as follows:

### International Eye Foundation:

1. Fellowship training for Egyptian physicians in the U.S.
2. Transportation and per diem for Egyptian ophthalmologists to the U.S. and American ophthalmologists to Egypt
3. Equipment for two outpatient diagnostic lanes and surgical instrumentation for one ophthalmic operating suite at the Giza Memorial Institute of Ophthalmology
4. Assistance in establishing subspecialty clinics in fluorescein angiography, contact lens, and eye bank at the Giza Memorial Institute of Ophthalmology

### Ministry of Health:

1. Clinic facilities
2. Inpatient facilities
3. Operating rooms
4. Medicines
5. Already salaried paramedical personnel
  - a. outpatient clinic personnel
  - b. operating room personnel
  - c. ward attendants/nurses
6. Housing for American physicians

For the Ministry of Health of the Arab Republic  
of Egypt:

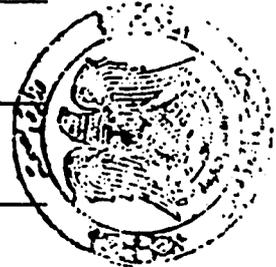
Name           mahmoud *Mahmoud K. Gabr*            
          Dr. Mahmoud Gabr

Title           Minister of Health          

Date \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_



For the International Eye Foundation:

Name           *John Harry King Jr M.D.*            
          John Harry King, Jr., M.D.

Title           Senior Medical Director          

Date \_\_\_\_\_

Name           *Lawrence M. King, Jr.*            
          Lawrence M. King, Jr., M.D.

Title           Associate Medical Director          



## PROJECT REPORTING FORMAT

## 1. Project Status

- A. Major activities undertaken during the past month
  - 1. Patients seen (new, repeat & follow-up)
  - 2. Surgery performed (major & minor)
  - 3. Teaching
  - 4. Training
  - 5. Technical assistance
  
- B. Comments on Implementation
  - 1. Assessment of progress towards achievement of project objectives
  - 2. Personnel changes
  - 3. Consultants utilized
  
- C. Problems and Delays in Implementation
  - 1. Personnel
  - 2. Procurement problems
  - 3. Shipping delays
  - 4. Maintenance problems
  
- D. Major Activities Expected next Month
  - 1. Teaching
  - 2. Training
  - 3. Consultants expected
  - 4. Commodity procurement
  - 5. Evaluations planned
  - 6. etc.

## Eye Health Care Delivery Systems

Robert H. Meaders, M.D.  
International Eye Foundation

The term Eye Health Care (EHC) reflects a comprehensive, integrated system to provide promotive, preventive, and therapeutic services to persons in danger of or suffering from eye disease and/or injury.

A National Eye Health Care Delivery System (EHCDS) should consist of a continuous system of training, supervision, support, and referral services extending from the level of the most rural villages up to the central referral hospital(s). Promotive, preventive, and therapeutic/eye health services should be integral components of the general health services provided.

### GOAL

The goal of an eye health care delivery system is to reduce the prevalence and incidence of preventable and/or curable visual loss to a level acceptable by the community and country.

### EYE HEALTH SERVICES;COMPONENTS

#### Promotive:

- to assist communities to recognize the extent of visual loss present and its socioeconomic impact!
- to make the population aware that eye disease and visual loss can usually be prevented or cured.
- to encourage early self-referral to proper care for patients suffering from eye disease, injury, or visual loss.
- to stimulate community desire to take positive action in the

field of prevention of avoidable blindness.

Preventive:

- to assess the nature, extent and cause of eye disease, blindness, and visual loss at the National and local community level (community diagnosis).
- to educate the community in those individual and group practices and actions necessary to eliminate or reduce avoidable eye disease and visual loss. The proposed activities must be simple, practical, affordable, and culturally acceptable to the community.
- to assist the community in planning a program of intervention in accordance with the wishes, goals, and priorities of the community.
- to provide appropriate training for a member of the community who will coordinate and direct the group effort aimed at reducing or eliminating avoidable visual loss.

Therapeutic:

- to train a member selected by the community in the recognition, simple treatment, or appropriate referral of common eye diseases and injury.
- to provide basic supervision, support, and referral services by the staff of the responsible health facility. This may include such related disciplines as malaria control workers, leprosy and TB control teams, teachers, agriculture extension workers, and others.
- to ensure adequate "secondary" specialty eye services as a referral source within the larger administrative or geographic

regions of the country. In addition to providing an appropriate range of specialty eye care (therapeutic) services, such secondary level eye health workers also provide training, supervision, and support to the staff of the peripheral health facilities, by means of regularly scheduled local clinics and teaching seminars.

- to provide definitive medical and surgical care as close as possible to where the need is greatest. The rural areas usually contain the vast majority of the population, but only a small fraction of medical manpower and facilities. Patients with eye problems are thus faced with traveling long distances to compete for eye care in crowded central facilities at a relatively enormous cost in time and money for the patient and his family.
- to provide adequate "tertiary" specialty care at more central locations by properly qualified eye specialists (ophthalmologists). The central referral hospitals provide regular supervision, support, and refresher training for staff at the secondary level facilities by means of regularly-scheduled consultation visits.

#### Training:

- to assist in the development and utilization of appropriate training aids and curricula to train general and specialized health workers in eye health care.

#### Advisory:

- to advise the Ministry of Health as to the needs and resources available in the field of eye disease and visual loss.

- to assist the Ministry of Health in the development, implementation, and on-going administration of a National blindness prevention and treatment program integrated into the general health services.
- to stimulate involvement by political, business, social and other leaders in the National program by the establishment of Blindness Prevention Committees or other non-governmental organizations.

#### Levels of Eye Health Care:

Eye health care consists of four levels; primary, basic, secondary, and tertiary.

#### Primary Eye Care:

Primary Eye care refers to practical recognition, simple treatment, and appropriate referral provided by a member of the community who has undergone a short training course. Such a primary health worker is taught to recognize and treat simple infections such as conjunctivities and foreign bodies, and to recognize and refer all cases with significant eye disease, injury or visual loss to the nearest static or mobile health facility.

#### Basic Eye Care:

Basic Eye Care is provided by health center or clinic staff, usually medical auxiliary personnel who have had a practical course in recognition, more advanced treatment of wider range of eye disorders, and referral of more severe cases to a secondary level facility providing specialty eye care. These personnel provide the training, supervision, support, and referral for the primary eye care worker.

### Secondary Eye Care:

Suitably-trained general physicians or ophthalmic medical auxiliaries stationed in district or provincial hospitals are expected to conduct routine eye clinics, provide mobile consultation visits to peripheral health facilities, and to gather patients needing surgery to be operated on by or with the supervision of the attending ophthalmologist. In their mobile "rounds", the consultation clinics are utilized as training opportunities. In addition, the secondary level staff assist local clinic staff in the proper training and supervision of the primary health workers delivering primary eye care. The secondary level staff also are responsible for the preventive activities in their area of responsibility. Typical services provided at the "secondary" level would include definitive management for conditions such as trauma, cataract, corneal ulcers, pterygium, intraocular infections, glaucoma, and the complex lid disorders, especially as related to treatment failures for previous procedures done for trachoma.

### Tertiary Eye Care:

Tertiary eye care units are usually established in major urban or capital areas, and may be associated with a medical school. These centers provide a wide range of sophisticated diagnostic and therapeutic services in addition to providing routine eye care for the immediate urban area. This latter function may detract seriously from the ability of tertiary centers to provide necessary referral services, unless the routine clinics are assigned to less highly-trained eye health workers. The ophthalmologists in the tertiary care facilities should be intimately concerned with the supervision and recurrent training of health workers in the secondary and basic centers. Close cooperation and communication between all levels of eye health care delivery helps to ensure that the coordinated program makes available diagnosis, treatment, and referral services appropriate to the needs and resources of

the country.

In addition to the full range of services of a secondary level center, the tertiary centers may provide such sophisticated services as corneal transplantation, retinal and vitreous surgery, oculoplastics, and ocular oncology (cancer treatment). In addition, research into the nature and extent of eye disease and blindness should be developed and coordinated by the tertiary centers. Once the problems causing visual loss are identified, priorities can be set for applied research and strategic interventions as an integral component of overall health services.

#### Personnel:

In order to appropriately staff various levels of eye health care delivery points, certain considerations should be kept in mind. While ophthalmic specialists are necessary to provide central consultative services, a National PBL program may in fact be coordinated, administered, and supervised by a non-ophthalmologist. This may be a general physician or a specially trained medical auxiliary.

The success of a National PBL program depends on a continuous chain of training, supervision, support, and referral services, extending in an unbroken fashion from the central referral hospitals, through provincial and district hospitals, through the peripheral health facilities, and include the village eye health workers. The role of the various cadres of health care workers may be summarized as follows:

#### Ophthalmologists: Tertiary Level Care

Ophthalmologists stationed in central referral and provincial level hospitals must be oriented toward the appropriate utilization of either general physicians or specially trained ophthalmic auxiliaries

(OMA's) to provide care for the bulk of the cases presenting for eye care both in the central hospitals and in the more peripheral health units.

In addition to providing specialty consultation, the ophthalmologists must teach, supervise course delivery and curriculum development, advise the Ministry as to needs and program objectives and accomplishments, and provide overall supervision of the eye health care workers peripheral to the referral centers.

#### Support Personnel:

The non-ophthalmologist eye health workers in the referral hospitals should be given the responsibility to handle the routine eye clinics, in the same fashion as those in secondary facilities. All too frequently, ophthalmologists in central referral settings wind up spending more than 50% of their time conducting routine eye clinics which should in fact be delegated to others. Under supervision, the ophthalmic medical auxiliaries in these central facilities should diagnose, treat, follow and, when necessary, refer for consultation the majority of patients presenting for care. Well-qualified non-ophthalmologist eye health workers should also assist in surgery, and provide the routine post-operative care of these patients. When they are rotated to the field, they will be more qualified to arrange for definitive surgery during the ophthalmologists' supervisory training and referral visits to the peripheral facility. Under special circumstances with proper training and supervision, they may be given authority to perform routine cataract surgery and other procedures.

#### General Physicians or Ophthalmic Medical Auxiliaries: Secondary Level Care

General physicians and/or well qualified ophthalmic medical

auxiliaries may provide specialty eye care in more peripheral health facilities. For simplicity of discussion, this category will be referred to in this paper as Ophthalmic Medical Auxiliaries (OMA's).

In the more peripheral facilities, OMA's conduct routine eye clinics. Cases beyond their capability are either referred to the central hospital or held for the regularly scheduled visits of the supervising ophthalmologist. Surgical candidates are gathered and operated on either by the visiting ophthalmologist or by the OMA under his supervision.

The OMA visits the peripheral static health facilities to conduct regular eye clinics, utilizing the opportunity to continually train and retrain the staff in recognition, treatment and appropriate referral of patients with eye disease or injury. In conjunction with the staff of the peripheral units, the OMA's assist in the practical training of village health workers in primary eye care.

The OMA's also conduct regular in-service training for the staff of the "secondary" facility in which they are stationed. This will include such other workers and disciplines as Maternal and Child Health Teams (MCH), immunization teams, specific disease-control teams, nutritionists, agriculture extension workers and others. The health staff serving in the general outpatient clinics should receive regular seminars on recognition, treatment, and appropriate referral of patients with eye problems.

#### Support Personnel:

The OMA will usually require assistance in the form of a nursing assistant, eye orderly, or clerk who will be responsible for cleaning, logging in patients for clinic, keeping records, checking visual acuity, and performing specific treatments under supervision. Stocking and re-ordering of needed supplies is best done by the OMA to ensure timely replenishment.

In the mobile clinics conducted in the peripheral facilities, the local clinic staff should be involved to the maximum extent possible so the occasion may be used as a teaching practical session as well as a referral clinic. The vehicle driver can also be taught to assist in testing visual acuity and orderly conduction of the clinic.

#### Peripheral Health Facilities: Basic Eye Care Level

The medical assistants, clinical officers, nurses, and sometimes physicians staffing the most peripheral static clinics should be given practical training in the recognition, treatment, and appropriate referral of patients presenting for care or referred by the village health worker. Simple, clear visual aids to augment and refresh the training received should be available for constant reference.

The village health workers supervised by the staff should be given a short, practical course in primary eye care with the assistance of the visiting OMA. The VHW's basic medications should be routinely checked and resupplied. Problem cases should be examined together on the regular supervisory visits of the clinic staff.

It is important that these peripheral facility staff know and understand the referral network for patients with eye problems beyond their capability to handle.

#### Village Health Workers: Primary Eye Care Level

As detailed in previous publications, the VHW should be given a short, practical course in primary eye care. This course should have two main objectives. The first is to teach the VHW and the villagers what the root causes of eye disease and blindness are in their community. If the community so desires, assistance should be

given to tackle these specific problems. The second objective is to train the VHW to recognize and provide basic treatment for common simple eye problems, and to recognize and refer serious eye problems.

#### Support Personnel:

In conjunction with the supervising staff from the peripheral health facility and such other trainers as appropriate, the entire community should be encouraged to recognize eye problems and to consult the VHW for proper care. It is important to include the traditional medical practitioners in the health planning, and even utilize them as VHW's in order to ensure community acceptance and compliance.

#### Vertical Vs Integrated Programs

In the foregoing discussion, it should be noted that the eye health workers peripheral to the central specialty hospitals are in fact general duty physicians and medical auxiliaries who receive additional training to enhance their capability to handle ocular injury, disease, and visual loss. The routine treatment of patients presenting with eye complaints is still the responsibility of the regular health workers, integrated into the care of the "whole patient". Only patients with eye problems beyond their capability are referred to the OMA (Secondary level). This ensures a continuity of basic eye services in the absence of a full-time OMA or in between their visits to rural facilities.

If special intervention is required, as in areas with blinding trachoma or nutritional eye disease, the health care staff in frequent contact with the population must be involved in the provision of preventive and curative measures.

So-called "vertical" programs are characterized by usually highly-trained eye health workers providing all eye care and

functioning rather independently of the overall health care system. Such a program requires a large number of eye health care specialists, provides for only intermittent coverage, and traditionally excludes local clinic staff from the "mobile" visits of the specialist teams. In the absence of the team, eye patients are either ignored or simply told to return when the "specialists" team is due to arrive, without any screening or basic treatment being given. As the root cause of many of the blinding conditions encompasses multiple disciplines (agriculture, water supply, sanitation, nutrition, etc.), it is important that eye health care services be integrated into the overall health sector services, and coordinated with related disciplines.