PN-AAJ-108

FINAL REPORT - INTERNATIONAL EYE FOUNDATION PROGRAMS:

INDONESIA AND BANGLADESH - JULY 1977

J. L. HARRIS, M.D.

TABLE OF CONTENTS

I. INTRODUCTION AND BACKGROUND 1

II. PROJECT REPORT: INDONESIA

A. SITES VISITED/PERSONS INTERVIEWED 3

B. CURRENT PROGRAM STATUS

1. FELLOWS AND VISITING PROFESSORS 4

2. EYE BANK 5

3. OPHTHALMIC ASSISTANT TRAINING 5

C. NATIONAL TRENDS INFLUENCING EYE CARE 8

D. RELATIONSHIP IEF PROGRAM TO OTHER INSTITUTIONS/ PROGRAMS 10

E. PROJECT SUMMARY. 11

III. PROJECT REPORT: BANGLADESH

A. SITES VISITED/PERSONS INTERVIEWED. 13

B. CURRENT PROGRAM STATUS

1. FELLOWS AND VISITING PROFESSORS 15

2. EYE BANK. 15

3. OPHTHALMIC ASSISTANT TRAINING 16

C. NATIONAL TRENDS INFLUENCING EYE CARE. 17

D. RELATIONSHIP IEF PROGRAM TO OTHER ISTITUTIONS/ PROGRAMS 21

E. LOCAL U.S.A.I.D. POSITION. 24

F. PROJECT SUMMARY. 24

IV. SUMMARY AND RECOMMENDATIONS 25

V. APPENDIX

A. BACKGROUND DATA: EYE CARE INDONESIA - VIKKA MOLDRUM, INTERN

B. VISITING PROFESSORS AND SURGEONS - INDONESIA

C. TRAINING PROGRAM PRIMARY HEALTH NURSES: INDONESIA (UNTRANSLATED)

D. BACKGROUND PAPERS

1. PRESENTATION COL. M. HAQUE - NATIONAL SEMINAR ON PRIMARY CARE: BANGLADESH

2. ADDRESS BY DR. E. S. HAN - NATIONAL SEMINAR ON PRIMARY CARE: BANGLADESH

3. PROPOSAL FOR MOBILE DISPENSARY UNIT - BANGLADESH

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J. L. HARRIS, M.D.

I. INTRODUCTION

In 1970 the International Eye Foundation applied to U.S.A.I.D. for financial support of an overseas program geared toward the provision of American expertise, technology, supplies, and equipment for the teaching and provision of corneal transplantation. In 1973 the program was expanded to include improving institutional capabilities of Eye Care Centers in developing countries where the potential to utilize the above technology existed. Transfer of American technology and surgical expertise to developing countries which had a high incidence of eye disease and accompanying acute shortage of trained medical personnel was buttressed by educational programs which strengthened the capability of the developing country to improve the delivery of eye health care through:

1. Training of paramedical or ophthalmic assistants to perform routine technical tasks which would free ophthalmologists to devote more of their time to patients requiring immediate or more complicated treatment.
2. "Fellows" programs in which young U.S. eye surgeons served short and long term rotations in developing countries; instructed local nurses, technicians, health officers; and helped to establish Eye Banks. Foreign "Fellows" were brought to the United States for short term observation and training.

3. Visiting Professors and Surgeons - senior surgeons and professors from leading U.S. institutions or in private practice visited the IEF overseas units to provide technical advice and continuing education to local eye surgeons.

4. Provision of eye tissue through the International Eye Bank and through establishment of local Eye Banks in the host countries.

The IEF program in the selected developing countries differed in magnitude and in program design. In part, this was a reflection of political environment, religious customs, local mores, and the availability of support resources. In both Indonesia and Bangladesh an ophthalmic assistant training program was initiated for the purpose of training paramedical assistants who would alleviate the shortage and uneven distribution of eye surgeons by expanding the availability of basic and preventive eye care to larger numbers of people over a wider geographic area. The programs were designed as short term training courses in which selected participants in the first course would continue to provide training and guidance to successive enrollees. The training would therefore become "self perpetuating" as newer individuals were trained, and in turn, by training of others, expanded the reservior of individuals skilled in the provision of basic eye care.

In addition to the paramedical training provided in both countries, Fellowships were made available to local physicians to participate in short term training in the United States. Lastly, in both countries, skilled ophthalmologists from the United States traveled abroad to provide training and experience in American techniques to interested eye surgeons in the host country.

II. PROJECT REPORT: INDONESIA

A. Sites Visited/Persons Interviewed

1. Dr. Izak Salim
   Eye Department
   School of Medicine
   University of Indonesia
   AND
   Director - National Eye Bank - Indonesia

2. Dr. S. M. Akman
   Chief: Department of Ophthalmology
   School of Medicine
   University of Indonesia

3. Dr. A. Shahab
   Chief: Eye Department
   Capital Health Service
   Jakarta

4. Ms. "Tati" Soeroso
   Nursing Supervisor
   Eye Department
   General Hospital
   School of Medicine
   University of Indonesia

5. Mr. S. M. Azman
   Eye Technician
   General Hospital
   Jakarta

6. U.S.A.I.D.

   a. Ms. Sarah Littlefield
      Deputy Director

   b. Dr. Charles Vandihoff
      Chief: Health and Population

   c. Mr. Bernie Salvo
      Chief: Office of Private and Voluntary Organizations

   d. Ms. Ann McNamarra
      Health Economist: Health Research and Development

   e. Ms. Vikka Moldrum
      Intern

7. Dr. Al Sommers
   Helen Keller International
   Bandung, Indonesia

All attempts to reach either the Minister of Health or Dr. Jan Magaka, Chief of Eye Service, Ministry of Health were futile. Neither was available the week during which the Consultant was in Indonesia. Attempts to reach them were further hampered by a religious holiday falling in the middle of the week.

B. Current Program Status

The first day was spent in orientation with U.S.A.I.D. staff, most of whom had not been aware of the IEF program until so advised of my arrival by U.S.A.I.D. Washington. The staff was quite supportive of attempts to identify individuals key to the original project. This proved to be extremely difficult since telephone communications are difficult in developing countries and because Dr. Izak Salim is an extremely busy man with very little free time. A background data paper, developed by Vikka Moldrum (Appendix A), assisted in identifying projects currently operative in Indonesia and set in perspective the current U.S.A.I.D. interest in, and support of, the Helen Keller International Program activity. (The U.S.A.I.D. Mission currently has approximately $40,000 invested in the Vitamin A project).

1. Fellows and Visiting Professors:

There are currently 200 "qualified" eye doctors for 150 million people and 53 ophthalmologists in training. Three Indonesians physicians were funded by IEF for travel/study in the United States; Dr. Salim; Dr. Sidrata Ilyas, Chief of Clinic, Eye Department, University of Indonesia; and Dr. Istiantoro who attended an IEF International Congress at Athens en route to the United States. Dr. Ilyas and Dr. Istianoro are the "specialists in corneal transplantation"

in Jakarta. Seven visiting professors and surgeons have been to Indonesia in the past several years (see attached list Appendix B).

2. Eye Bank:

The majority of eye tissues received for transplantation arrive from Sri Lanka. There are currently four to five eyes per week being received for use in Jakarta. Dr. Salim is Chief Executive of the National Eye Bank. Cultural mores and religious taboos in a predominantly Moslem country limit local availability of fresh tissue.

3. Ophthalmic Assistant Training Program:

Met with Dr. Izak Salim, Faculty of Medicine, University of Indonesia; Dr. S. M. Akman, Chief, Department of Ophthalmology, School of Medicine, University of Indonesia; and Dr. A. Shahab, Chief of Eye Department in the Capital Health Service (Municipal services) and toured the General Hospital. Dr. Salim now functions as Chief Executive of the National Eye Bank in addition to his practice and teaching responsibilities at the University. He was able to provide very little data on the status of previous trainees but indicated that the thrust of the IEF project changed after IEF withdrawal principally due to new directives from the government relating to health priorities identified below. Just about the time that Mrs. Soeroso returned from her training in the United States, the government embarked upon a massive program to construct health facilities in rural communities and to develop a more organized approach to provision of health services in smaller and rural communities. Scarce manpower resulted in a rush to paramedical training by both the Ministry of Health and the

Ministry of Interior (see below). Ms. Soeroso was hired as a nurse in the Eye Department at the University teaching hospital. Her skills as an ophthalmic assistant were only recently tapped when the government embarked upon the training of Primary Health Nurses. Only one class of nurses has been trained "because of a shortage of funds". Ms. Soeroso developed and taught that portion of the curriculum dealing with the diagnoses and treatment of simple eye diseases.

The thirty-five individuals trained under the original IEF program are scattered over Indonesia. No follow-up has been done as to their current activities although Salim had written to regional hospitals or to their last known address in an attempt to locate individuals prior to my visit. Responses had not been received at the time of review.

The Department of Ophthalmology in the General Hospital has four ophthalmic assistants. There has been no further training of OAs since the IEF program. At the time of Ms. Soeroso's return there was "no money" available to continue the program so it was dropped until three months ago when the Minister of Health offered to train thirty registered nurses as "primary health nurses" under the direction of Dr. Shahab. Ms. Soeroso participated in this training venture. Nurses were recruited into the program for service in hospitals, health centers, and field posts. Training took place over a two month period and included nutrition, sanitation, "public health", industrial health, diagnoses and treatment of simple disorders including diseases of the external eye.

At the conclusion of the meeting, Dr. Akman arranged to have Mr. Asman, a former IEF trainee currently working as a

"refraction technician" as well as specializing in retinal photography, take me to the home of Ms. "Tati" Soeroso. Met with Ms. Soeroso and Mr. Asman both former IEF trainees, at Ms. Soeroso's home. Ms. Soeroso a charming, pretty young woman with a two week old baby girl, completed training in the United States and successfully completed her Boards as an ophthalmic assistant in the U.S. Returning to Indonesia she found a dearth of funds for continuation of the training of Ophthalmic Assistants. She subsequently worked as Nursing Supervisor in the Eye Department at the General Hospital, failing to fully utilize her skills until the recent training program for Primary Health Nurses three months ago under the aegis of the Ministry of Health. She states :"there is no money" and "no further plans for another training session" at present. (Underscoring similar statements made by Dr. Shahab and Dr. Salim relating to future training of any type..." The Ministry of Health has no money"...).

Ms. Soeroso shed considerable light on the fate of past graduates of the program. Of 34 original trainees: 21 still function as Ophthalmic Assistants in institutions and with private practitioners throughout Indonesia. Two have independent practices as optometrists. Three "retired" as housewives. One is an administrator of an eye unit in a local hospital. One has left the field for other interests. One has enrolled in the University in a course of engineering to improve his financial status. One is moving to Kalimantan as an optometrist. Two are unaccounted for (possibly "moving to Germany"). Of 12 known to be in Jakarta, three are married and no longer in practice. One of the two selected to become instructors, Mr. Asman, became interested in photography and now specializes in photography of the eye. Mr. Asman also performs refractions in the Eye Department of General Hospital.

C. Present National Trends and Health Interests Influencing Eye Care:

Financing of health care in Indonesia is a "mixed bag". The central government has created an "Inpres" fund which supplies buildings, sanitation, pumps, wells, latrines, drugs, and physicians for the new health programs. The government's Forward Plan, '74-'79, calls for specialized training of Primary Health Nurses to work semi-autonomously in sub-districts making house calls, and in to-be-created community health centers (Puskesmas) which are programmed to serve a 30-50,000 population base. Three thousand Puskesmas are to be created by 1979. Projected Puskesmas staffing will be:

1 - Physician
2 - Nurses
3 - Midwives
1 - Sanitarian

The program is just getting off the ground and staffing is currently incomplete due to maldistribution of manpower, inadequate types of manpower, and inadequate physical resources. With implementation of the new Plan, the provincial governments are expected to fund all personnel except physicians, who will be supported by the central government. One of the most important keys to the provision of personal health services at the local level will be the Primary Health Nurse. The Primary Health Nurse will work at the sub-center and "post" (village) level.

In addition to the training program for Primary Health Nurse, supported by the Ministry of Health, there are four pilot projects to train "Village Health Workers". Village Health Workers are initially volunteers who are given general skills and knowledge about rudimentary health education and sanitation. The

village health workers may also dispense selected drugs including aspirin, sulfur drugs, and "otamyl". The Ministry of Interior is supporting the training of "Village Health Workers". The ultimate goal is to have these workers paid from local funds.

While the Minister of Interior is training Village Health Workers, the Ministry of Health is supporting the training of "health educators" at the village level to do approximately the same tasks thereby creating some confusion in authorities, responsibilities, and general organization of health personnel. Problems identified at the village level which cannot be handled at that level will be referred into the sub-district, Kecamatan. The Kecamapan refers to the "regency level", Kapupaten. At the Kapupaten level there will be a simple general medical hospital. Surgical problems and more complex medical problems will be referred to the Provincial Hospital which also offers surgery. In addition to the Provincial Hospitals, there are eight "central hospitals" which are fairly categorical, e.g. leprosy, tuberculosis - or teaching hospitals. There are also municipal hospitals (but where they fit into the overall health scheme is unclear). The health services organization outlined above is in its embryonic phases. The base is not fully in place and the system appears somewhat haphazard, both in organization, funding and coordination between governmental agencies at the top level.

The important points to be gleaned are (1) the recent shift of national interest toward the training of paramedical and auxillary personnel with responsibility for providing personal health services of a "primary care" nature, and (2) the move toward a more organized approach to the provision of such care. Within this context eye care may be encompassed at two different, but very

important, levels. The first level is indoctrination during basic preparation of Primary Health Nurses who will be functioning at the sub-district and "post" (village) level. These nurses should be trained in general hygiene, diagnosis, and treatment of disorders of the external eye. The second level is a more sophisticated preparation of highly skilled ophthalmic assistants attached to institutional settings or private practitioners. Training programs for this group would closely approximate the previous IEF training experiences.

A further important consideration is the new civil service status being given to the emerging paramedical personnel. Not only does this augur well for longevity and committment to such programs at the national level, but assures placement or absorption of personnel into the emerging national health system. None of these factors were in evidence at the time of the initial IEF project.

D. Relationship of IEF Program to Other Institutional Programs:

Dr. Al Somers was interviewed about the project in Bandung. At one point the Helen Keller Program trained nurses in the diagnoses and screening of eye disorders. This program has been discontinued for logistical reasons relating to the functioning of the field teams. Nurses are now doing enumeration, dietary histories, etc. while physicians see each child. The eye teams are seeing 10,000 different children every two months.

Twelve years ago the Minister of Health had a project to train highly qualified nurses in general eye care. Although this program was discontinued twelve years ago, Dr. Somers has seen some of the work done by former graduates and states that it was "very good". He feels there is a great need for more "ophthalmic assistants", both at the field and the institutional levels.

The Helen Keller Foundation training programs are conducted in

conjunction with the Ministry of Education. A summary statement of the Helen Keller Foundation activities in Indonesia is included (Appendix A).

Dr. Shahab and Dr. Akman addressed the current planning of a joint venture between volunteer optometrists, the Eye Department of the University of Indonesia, and "Municipal Health Care" to establish a private academy for opticians. Estimates are that one-third of the population, or 14 million people, need spectacles. With only two hundred ophthalmologists for a population of 150 million, there is a crying need for refraction technicians. A "soft touch" plea for assistance in establishing this academy was made.

E. General Impressions/Project Summary:

1. The Helen Keller program currently dominates present eye care interest in Indonesia. Cursory reading of the protocols for the Helen Keller Vitamin A Definiciency Pilot Project and the Vitamin A Intervention Program indicates a well thought out and designed epidemiological program and study which effectively "dove-tails" with the current governmental thrust at the grass roots level toward improved nutrition. The World Bank has 15 million dollars involved in nutritional programs in Indonesia. UNICEF, the National Planning Agency, the local U.S.A.I.D., are all involved. There is a great need for coordination. The Ministry of Health is supposed to be coordinating these activities but it is weak. U.S.A.I.D., therefore, has become involved in informal coordination of efforts directed toward nutrition intervention programs.

2. Whereas training as originally defined by the IEF has not transpired (i.e. continued training of new OAs by IEF trained instructors), the IEF program, in fact, met a large portion of its

original goals: a) two-thirds of the assistants originally trained continue to practice in the role as originally defined; b) four out of thirty-four (12%), have upgraded their status while remaining within the general field of eye care.

3. In the past, financial support for continuing the paramedical training program was sublimated under other central governmental priorities, thereby aborting the IEF initiated training program through assignment of a lower priority. Recent shifts in governmental policy have created a new opportunity to participate in the preparation of paramedical personnel with enhanced or specialized training in disorders of the eye.

4. Ophthalmologists supported by IEF for training in the United States are making a significant contribution to ophthalmology in Indonesia. The contribution is hampered by the small number of individuals offered the opportunity for this experience and by the lack of ready access to eye tissues.

5. There is potential opportunity for continuing and/or modifying earlier work in training medical assistants through support of the budding "Academy for Training of Optometrists".

Important barriers to continuation of the IEF program initiated in 1973 included:

1. Government interest in organizing existing resources in a more effective health delivery system initially diverted funds into construction rather than manpower development.

2. Absence of indigenous funds to support training because of #1 above.

3. Lack of clarity as to authority and responsibility for training of paramedical individuals for future health programs at the national level.

4. A need for coordination of eye care and other health interest, both at the governmental level, and among the private and voluntary agencies and organizations (e.g. Ministry of Education has been involved in the training of eye care people in Dr. Somers program. Ministry of Health was involved in the training of the Primary Health Nurse).

III. PROJECT REPORT: BANGLADESH

A. Sites Visited/Persons Interviewed

1. Islamia Eye Hospital

   a. Dr. S. A. Wadud
      Professor of Ophthalmology
      Bangladesh Medical College
      Chief Ophthalmic Consultant
      Islamia Eye Hospital

   b. Dr. M. Ayazuddin
      Consultant in Ophthalmology
      Islamia Eye Hospital
      Dacca

   c. Mr. M. A. Ispahni
      Administrator and Founder
      Islamia Eye Hospital

   d. Ophthalmic Assistants -
      A. Hussaiu and P. Pashi

2. Dacca Medical College Hospital

3. Kumudini Hospital and School of Nursing -
   Mirzapur, Bangladesh

4. Mrs. Beatrice Bina Shaw
   Director Nursing Services and Education
   School of Nursing - Kumudini Hospital

5. Ms. Akhtar Banu
   Matron: Dacca Medical College Hospital

6. Col. (Retd) M. M. Huque
   Minister of Health, Labour, and Social Welfare
   Bangladesh

7. Dr. E. S. Han
   WHO Representative
   Bangladesh

8. Mr. Joardar
   Assistant Director: Health Services
   Ministry of Health

9. Rural Thana Health Complex

10. National Seminar on Primary Health Care Sponsored by the Government of the People's Republic of Bangladesh, UNICEF, and WHO University of Dacca

B. Current Program Status

As in Indonesia no formal program had been developed prior to arrival of the Consultant. The first day was spent in developing a general concept of the context in which the IEF activity had been conducted. Dr. S. A. Wadud, Professor of Ophthalmology, Bangladesh Medical College, Chief Consultant, Islamia Eye Hospital, and Dr. M. Ayzauldin, Consultant in Ophthalmology, Islamia Hospital; and Mr. M. A. Isphani, Administrator and Founder Islamia Hospital, provided the general orientation.

Following orientation I was taken on a tour of the Hospital by Mr. Isphani, a spry, delightful octogenarian (82 years of age) as bright of wit and keen of mind as any individual one might meet. The hospital operates 6 days a week and sees 300 patients per day between the hours of 7:00 a.m. to 2:00 p.m. Ten staff physicians perform 40 corneal extractions <u>each</u>, per day. The hospital is currently in an expansion program from 250 to 550 beds plus 2 suites for "visiting physicians". Construction of the second floor is scheduled to be completed within the next 9 months but is currently hampered by inability to obtain cement. Equipment in evidence in the completed portion of the hospital appeared adequate, but not excessively so, by American standards. Equipment probably meets current hospital utilization/demand. Two major operating suites, clean but sparsely equipped; plus 1 additional operatory for minor surgery. The outpatient department is crowded by 8:30 a.m. with people lining the walls, corridors, steps, etc. Also toured Dacca Medical School Hospital. Originally constructed for 1,000 beds and stretched to contain 1,500 beds, Dacca Medical

School Hospital now holds somewhere between 2,000 - 2,500 patients. Beds occupied corridors, wards, and every conceivable space, with patients sleeping on pallets on the floor, in hallways, closets, etc. Of the 2,000 plus beds, only 42 beds are devoted to eye. On the day of the visit, there was only one house officer in charge of all 42 beds. (Current staffing calls for 4 house officers, but at present 3 are serving in foreign countries). Dacca Medical Hospital has an Eye Bank and it is the only place besides Islamia which is doing transplants. Made ward rounds and reviewed some of the cases.

1. Fellows and Visiting Professors:

   There have been no visiting professors or other exchange of American talent since the IEF program ended in 1974. Wadud is the only Bengali surgeon who has trained in the United States (three months). Wadud performs 40 to 50 surgical procedures per day. Corneal Transplants, however, are limited by the availability of tissues (received 6 tissues last month). Islamia now has a 500 case backlog for transplants with little hope in the immediate and foreseeable future of ever catching up.

2. Eye Bank:

   Recent passage of the "Eye Donation Law" legalizes donation of eye tissue. However, strong Moslem tradition still inhibits removal of bodily tissues so that the supply of fresh tissue remains limited and will increase only very slowly over time. Dacca Medical School Hospital produces an intermittent supply of eye tissue from "unclaimed bodies" and serves as the "Eye Bank" in Dacca. Six eyes were shipped to Islamia last month. There is a dire shortage of suture

materials and other eye care supplies. The problem with obtaining suture materials is so acute that sutures are saved for transplants. Other ocular surgery-especially extractions - are done without suturing if at all possible. Suturing in such instances is done sparingly and on selected cases.

3. Ophthalmic Assistant Training Program:

Talked with two of the three graduates of the original Ophthalmic Assistant training program, Mr. Ali Hussain and Mrs. Pridi Lata Pashi. Both have participated in training other individuals. Hussain has taught 9 additional ophthamological assistants: 5 in operating room techniques, and 4 in outpatient care. Two former students are now in Dacca Medical School Hospital; one in Chittagong and one in Bangladesh with the Bangladesh National Blind Society (Lions).

Pashi, a nurse, spends her time in the operating room. She has trained six other individuals, one of whom is currently at Dacca Medical College; one with BNBS; one with the Red Cross, one in another local hospital. All persons entering the program do so at the secondary level. Not all are nurses. There is no charge for the training. The government does not provide support nor civil service recognition. All present graduates are employed in the "private" sector.

Although more ophthalmologic assistants could be used, training is limited by physical space at Islamia; the time available for existing personnel to train additional individuals, and by the small number of personnel involved in training. (Hussain took two of six applicants for OA training recently). The current training program is approximately six months in length

and uses the syllabus, protocol, etc. from the 1974 session. Graduates assist in the operating room at Islamia, do visual fields, tonometry, visual acuity, instrument care, etc.

C. National Health Trends and Priorities Influencing Eye Care: The national government is in process of marshalling resources for a more organized approach to the provision of health services - particularly in the rural communities where 92% of the population resides. The country is administratively divided into four major divisions comprising 19 districts which are further subdivided into sub-districts with progressive divison into thanas, unions, and villages. The backbone of current planning will be the rural health center at the Thanna level. These centers will be manned by four physicians and 20 other paramedical personnel and nurses and will serve a population of approximately 250,000 people. At the union level there will be one sub-centre staffed by one "multipurpose" medical assistant and four "paramedics" per 25,000 population plus one "family welfare worker" per 4,000 population. At the village level there are to be "voluntary health squads" trained to render first aid and simple treatment, environmental sanitation, and nutritional counselling. The government has taken a recent big interest in cataracts, but is lagging behind in the broader context of eye care. In March, 1977, the director of Social Welfare convened the "National Coordinating Council for the Blind", involving all those agencies organizations, schools involved with eye care. The purposes of the Coordinating Council are as follows:

"5. The objectives of the national plan be as under:

5.1 To provide curative services including cataract operation for restoration of sight, the number of such operations be increased to 60,000 a year by end of '80

5.2 To promote measures for protection of all children below five years of age from blinding malnutrition through distribution of vitamin capsules and other nutritional rehabilitation

5.3 To promote practical measures for the prevention of blindness as part of the structure of basic health services now being set up by government and through other community action programs

5.4 To promote education and training of blind children for gainful rehabilitation, etc.

5.5 To promote employment visually handicapped."

The Council is administratively housed under the Minister of Health, Labor and Social Welfare. It is still in the process of formation, but has initiated a massive field camp operation for cataract extraction. The field camps do 100 cataracts per day and usually stay 10 days in one place. Poor sanitary conditions, lack of pre- and post-op care results in an estimated loss of 1/3 of the eyes; leaving 1/3 with no improvement; and 1/3 with sight restored. The

operations are performed in schools, churches, tents, etc. under unsterile conditions (flies, etc.). Personnel at Islamia, both profesional and paramedical, have participated in the Eye Camps.

Colonel M. M. Haque, Minister of Health, pledged full support of the government to any programs increasing health manpower. Haque expressed little concern about where training programs would be located. He offered housing in the Post-Graduate Medical Institute, the Paramedical Training Institute, Islamia, Dacca Medical School, or wherever space could be located. He set forth procedures under which training programs would be recognized by the government:

1. Formal syllabus or other texts
2. Formalized curriculum
3. Defined period of training
4. Competence of graduates certified by appropriate accrediting body (School of Medicine, "School of Nursing", etc.).

The National Coordination Council does not enter into negotiations on training programs excepting in its role as a coordinating group parcelling out principle responsibilities to key institutions with appropriate resources. No government clearance is necessary to initiate training programs, but for national recognition, conditions 1 through 4 above must be satisfied.

Visited a rural Thana Health Complex. All health providers were engaged in the Primary Health Care Conference in Dacca so there was little activity in the facility on the day of visit. Unexpectedly discovered that the Thana Health Complex includes a limited number of inpatient beds for general medical, surgical,

ob/gyn, plus a full time emergency room. Physicians and nurses live on the premises. Mr. Joardar, Assistant Director of Health Services who accompanied me, presented the grand scheme of government organization for health services as though it were in actual practice. His presentation was in contrast to information obtained from other reliable informants.

Wadud has been very active in trying to establish a residency exchange program as a joint effort with Dr. Norman Katz, Assistant Chief of Ophthamology Service, Walter Reed Army Hospital. In April 1977, at the suggestion of Dr. Katz, he applied to the Minister of Health for clearance for the training program. He received a positive response to his query, June 1977..."No objection to implementation of proposed program"... "No expenditure from the government side including foreign exchange should be involved"... In June 1977, the Ministry also published a proclamation relating to training of paramedical personnel which includes the language..."to organized training of para-ophthalmologist and other connected staff"... This interest is directly related to the big Eye Camp field operations and the push to organizing at the village level.

There is one Paramedical Training Center established which trains "chemist" to dispense pharmaceuticals and to provide some nursing assistance. This is purely didactic training; no patient contact. The graduates are attached to institutions or to physicians.

Dr. Ayazuddin has proposed a mobile dispensing unit as a more efficient method of conducting the Eye Camps. (See Appendix C). Staff at Islamia expressed concern over the quality of care capable of being provided in the field. Furthermore, there is no coordination between the field operations and other health

resources which might be available in the community. Ayazuddin's paper proposes closing this gap and also instituting a program for Vitamin A distribution. There has been no reply to his proposal by the National Coordinating Council as yet.

D. Relationship of IEF Program to Other Institutions/Programs: A free wheeling discussion with Drs. Wadud and Ayazuddin indicates Dr. Wadud to have been (and continuing to be) the prime mover between the IEF program and the host country. The relationship between Islamia, the only private hospital in Dacca, and other institutions such as the Post-Graduate Institute, Dacca Medical School, etc. appears fragile. Both groups invite each other to functions, but other than the first general training session in 1974 for Ophthamologists, none of the other Eye groups have participated in Islamia programs. There is, however, an informal relationship between Islamia and Dacca Medical School Hospital, under which Dacca provides tissue donations to Islamia for its transplant program. Islamia also accepts "junior doctors" for training from the medical school at the rate of 3 to 4 per year. However, most of these physicians immigrate to the Middle East after 6 months because "the salaries are so low".*

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*The government has an official policy of exporting medical/nursing talent to other developing countries in exchange for foreign currency. Part of the salaries of these ex-patriated health personnel are returned to Bangladesh as international currency to be used at the discretion of the government. This cache is reputed to be one of the single largest sources of foreign currency available to the government. The policy is obviously at cross purposes with other governmental policies to provide adequate health services to its 80 million people. Currently, 8 medical schools are graduating 1,200 physicians per year. An unknown number of these immigrate each year to other countries especially the Middle East, Libya, etc.

The Post-Graduate Institute only takes physicians with at least 2 years of training and accepts patients only by referral. There is no formal relationship between Islamia and the Post-Graduate Institute or the Dacca Medical School.

Met with Mrs. Akhtar Banu, Matron, Principle Nurses Training Center, Dacca Medical College. Mrs. Banu received a B.S. and M.S.N. from Boston University and has been active in training nurses for the government programs. She states she cannot produce nurses fast enough. The government program is now "bogged down" because of manpower problems. Nursing recently branched out into specialized areas such as othopedics, public health etc. She believes that they could take on a larger component of eye care at the Thana level. Ms. Bano is also training nurses "who will teach health workers at the union level". The government program is "mostly on paper" - "it has barely begun to scratch the surface".

Traveled to Mirzapur and toured Kumudini Hospital and its School of Nursing. Kumudini is a 750 bed hospital which is short of staff. One hundred fifty eye beds recently closed because there was no physician. General medical, surgical, pediatric, obstetrical, and "under five" clinic. Talked with Mrs. Beatrice Shaw, Director of Nursing Services and Education, Kumudini Hospital School of Nursing. Mrs. Shaw has been training "family welfare workers" for the thanas. She underscored Ms. Banu's remarks about manpower training needs and problems.

Met with Mr. E. F. Han, WHO representative in a very informative session. In essence, Bangladesh has "not quite got it all together", although this year, the country appears finally to be on

the way toward marshalling its resources in a more organized and coordinated fashion. Various interest groups continue to war with each other, even within the various Ministries. Pitting of groups against one another results in loss of energy, wasted resources, and the absence of a well defined plan. A pertinent example of this is the four Bangladesh National Societies for the Blind. WHO has been trying to unite the four into one "national society" over the past year. WHO has also been working with the Coordinating Council in trying to develop a national concept for eye care. Rules and regulations have been developed after 9 months of hard labor but are still setting on someone's desk for clearance.

The government focus has been on the number of cataract operations that can be completed in specific time frames to the exclusion of all other types of eye care. There is no follow-up on the Eye Camps which have been held, and no information as to the success/failure rate or other eye care needs. WHO has lobbied to have the government reduce its goal of cataract extractions from 60,000 to a more manageable and realistic 48,000 extractions this year.

The big need of course is manpower. The second is cohesion, coordination, and submersion of professional jealousies. Islamia would be an ideal spot for training. WHO has proposed Islamia be converted into a National Institute with appropriate recognition of Isphani as founder. This recommendation has met with lukewarm reception at Islamia, although the grandson of Isphani who lives in Chittagong, thinks that it is an acceptable idea. The biggest problem Islamia faces is obviously long range. Unless it comes under some governmental umbrella, the chances of its being able

to continue as an independent, private, charitable organization is questionable.

E. Local U.S.A.I.D. Position:

Met with U.S.A.I.D. Staff, Mr. Dave Wilson, Deputy Director, Mr. Dallas Voran, Health and Population, and Mr. Burt Kurlan, Institutional Development. The concensus at U.S.A.I.D. is that the past failure of the IEF Program reflected smouldering jealousies between the "public" and "private" sectors. The government felt "up-staged" by person to person contact between Islamia and the IEF. At that time, however, this method was probably the only feasible way in which IEF could have operated, since the government was not organized to handle activities of this type. Subsequently, the climate and circumstances have improved. The government is more organized and has developed a sense of direction. It could, at this point, assume a role in any forth coming program, but sensitivities to the success of Islamia as a private institution could make negotiations difficult. The current Minister of Health, would most likely be sensitve and responsive to a prominent role for Islamia if the subject were approached with diplomacy. Accreditation issues are most important. The Mission currently has a proposal in Washington to support training of paramedical personnel at the union level. WHO has been active in training Medical Assistants in Bangladesh.

F. Project Summary:

Retrospectively, the IEF presence in Bangladesh for 6 months in 1974 may be viewed as productive of positive change:

1. The IEF Program served as an impetus for the recently enacted Eye Donation Law.
2. New equipment donated by the program,

brought Islamia hospital up to compliance for its present committments and performance.

3. Surgical procedures previously done spasmotically have now been "institutionalized". Other colleges are now beginning to emmulate Islamia and ophthamologists in private practice are now beginning to do transplants - whereas prior to '74 ophthamologists did not consider corneal transplantation.

4. Dr. Kamazui, a Bengali surgeon trained at Islamia, is the third surgeon at that hospital doing kerato plasty.

5. Junior doctors rotating through Islamia are provided with training in corneal transplantation according to the availability of tissues.

6. The Dacca Medical College Hospital has established an Eye Bank and is involved in corneal transplants.

IV. SUMMARY AND RECOMMENDATIONS

In both Bangladesh and Indonesia, a great deal has been achieved with minimal assistance and resources. In both instances, the greatest cost/benefit from the IEF Program has been the continued functioning of, and expansion of eye care through, a small but dedicated group of ophthalmic assistants.

Training in Bangladesh has been a "boot strap" operation in which interested individuals requesting training, have received the necessary experiences at no cost to the individual, and have been successfully placed with interested institutions or physicians.

In Indonesia, training was delayed because of a change in governmental policy - an unforeseen, unpredictable event. Recently 30 professional nurses received the benefit of Mrs. Tati Soeroso's skills when the

government elected to train its first cadre of Primary Health Nurses for work at the sub-district and village level. The funding for such future training programs remains in doubt.

Further value has accrued from the exchange of visiting professors and surgeons from America with colleagues in the developing countries. This exchange has resulted in an increase in the quantity and quality of surgical procedures and techniques available to the population. Unfortunately, the number of skilled professional manpower remains small compared to the burgeoning population and its needs - thus continuing to limit patient access to this level of care.

One of the major accomplishments of the IEF presence in Asia was the passage of the Eye Donation Law in Bangladesh in 1975. Passage of this law was a major achievement in a Muslim country in which local mores and religion mitigate against the utilization and "mutilation" of human tissue. Passage of this law, even though slow in implementation, will facilitate the availability of fresh tissue for surgical use in future years.

Both countries are moving toward an organized approach to the provision of health services down to the village level where 90% of the population reside. In order to provide health services at this level, it is essential that the reservoir of health manpower be rapidly increased. It is obvious that the total number of physicians that can be produced annually mitigates against current government health strategies over the next ten years. Thus, in both countries, there is a strong move toward the training of paramedical personnel who will facilitate the distribution of health care to smaller communities. If U.S.A.I.D. supports IEF programs in either country in the future, serious consideration should be given to the type and scope of training made available for eye care. The pros and cons of training highly

skilled technicians for institutional use as opposed to more broadly trained generalists with reinforced skills in eye care working at the village level, needs to be debated. It would appear on the surface that both types of individuals are needed, but that the later, i.e. broadly trained generalist with special focus on eye care, will reach larger numbers of people, and will be the type of individual more in line with present governmental policies.

If U.S.A.I.D. is to continue IEF activities in the above countries, it should also carefully examine the present efforts of existing agencies and groups involved in Eye care, e.g. the Bangladesh National Society for the Blind, Helen Keller Foundation, etc. All future efforts should be coordinated and integrated with on-going programs to avoid and reduce reduplication of effort.

Past IEF programs were hampered by immaturity of the governmental structure in both countries. The climate today is decidedly improved and will facilitate any programs currently introduced into either country. Both countries are focusing on getting care down to the grass roots levels and U.S.A.I.D. missions in both countries are already involved in programs either directly, or indirectly, affecting eye health. With appropriate design, IEF programs could "piggyback" on existing activities thereby receiving greater "payoff" in any future efforts.

Instruments, sutures, microscopes for corneal surgery, were in short supply in both countries, but particularly so in Bangladesh. There are four main eye surgery centers in Dacca: the Eye Department at Dacca Medical College (University affiliated, government run), the Mitford College Eye Department (government run), Post Graduates Institutes Eye Department (government run - patients seen by referral), and the Islamia Eye Hospital (private). Of these four, the Islamia Eye

Hospital still appears to be the best site for any future training programs, both by virtue of location, facilities, interest, staff support, cleanliness and access to patients. However, in order to effectively utilize Islamia, it will be necessary to effect more formal and cordial working relationships between the central government, the government run hospitals and teaching facilities, and Islamia. It is the consultant's opinion that these relationships can be effectively worked out, although initially, negiotations may be somewhat delicate due to past antagonisms. It is important that in such negotiations the government be given recognition for its interest and effort in improving eye care throughout the country and be included as a "partner" in the program in order to insure recognition (and accreditation) of future graduates as eligible for civil service appointments.

The Mobile Unit for ophthalmic care proposed by Dr. Ayaduzzin is an attractive concept. However, the feasibility of supporting such a unit would have to be carefully scrutinized in a country where transportation is seriously hampered by inadequate and poor roads. Nevertheless, as an alternative method or supportive mechanism for expanding eye health services to rural population it is deserving of consideration.

In summary, through the IEF Programs, a nucleus of trained paramedical and professional individuals has been established in both Indonesia and in Bangladesh. It is possible, utilizing this nucleus, to expand current teaching programs and to: 1) establish a network of screening clinics utilizing paramedical personnel with referral to more sophisticated hospital and teaching centers for complex eye problems and/or 2) to integrate eye care at the local level into projected and existing governmentally supported evolving health care programs.