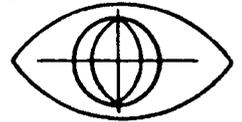


PD-ABE-930

1501/10/92



4 November, 1992

John McEnaney
Project Officer
ENE-EUR-DR-DPI
USAID
320 21st Street, NW
Room 4725 NS
Washington, DC 20523-0069

FAX: 202-647-6791

Re: Cooperative Agreement No.
EUR-0032-A-00-1032-00
Project Number: 180-0032

Dear John,

It was good to see you and to meet Linda Bernstein yesterday. As per our contract, please find two copies and one original of our Quarterly Report for the period of 1 July through 30 September 1992.

All the best in your new challenges!

Cheers,



Victoria M. Sheffield
Executive Director

cc: Gerald Zarr, AID/Sofia
Prof. Petja I. Vassileva, IEF/Sofia
Jack Blanks, IEF/Bethesda

the
International
Eye Foundation

1'

QUARTERLY TECHNICAL REPORT

Organization: International Eye Foundation

Country: Bulgaria

Project Name: Program for Prevention of Blindness and Public Eye Health in Bulgaria

Project Number: 180-0032

Project Officer: Jack B. Blanks, Director of Programs

Cognizant Technical Officer: Prof. Petja I. Vassileva

Report dates: from 1 July 1992 to 30 September 1992

PROJECT STATUS: Ongoing

PROGRESS:

PERSONNEL

Kassimir Kushev, MD, with experience in public health and epidemiology, has started work on a probation period as a Project Manager as of 1 July 1992 (see CV Attachment A).

ACCOMPLISHMENTS:

1. Meetings/IEF Bethesda

- On 7 July, Victoria M. Sheffield, IEF Executive Director, and Jack Blanks, IEF Director of Programs, met with Donna Frago, Scott Lansell, and Vera Menon at USAID for the annual review and to brief the AID officers about the progress of the project. The meeting noted that all objectives were being met successfully. Although the survey was behind schedule, all preliminary planning and design had been done with data collection expected to begin 1 October 1992.

- On 20 July, Ms. Sheffield traveled to the Dana Center for Preventive Ophthalmology at Johns Hopkins University to meet with Sheila West, PhD, principle investigator of the survey, Stephen Gieser, MD, MPH, and JoAnn Katz, PhD, to discuss the Sofia Eye Study (blindness prevalence survey) and review the design, protocol, Manual of Operations, and survey forms before they are sent out to Bulgaria for translation and printing.

2. Meetings/IEF Sofia

Prof. Vassileva continues to be extremely active in many quarters promoting the activities of the project and collaboration with other groups.

- **A.I.D.** Prof. Vassileva continues to attend the monthly meetings held at the AID/Sofia for the directors of AID-funded projects and regularly provides monthly highlights of the project for the participants.

On 29 September, Prof. Vassileva met with Mr. Zarr to specifically discuss the obstructive actions by Prof. Gugutchkova at the Institute of Ophthalmology. Mr. Zarr is understanding of the situation and realizes that the IEF has made a number of overtures for collaboration which Dr. Gugutchkova has refused.

- **National Blindness Prevention Committee** On 6 July, Prof. Vassileva attended a reception at the US Embassy where she met Dr. Kurtev, Head of International Relations with the MOH. Dr. Kurtev has been supportive of the establishment of a National Blindness Prevention Committee according the WHO guidelines and Prof. Vassileva discussed with him the policy for establishing this committee and nominating a chair who should be someone of prominence and not politically biased toward one ophthalmic group or another.

Prof. Vassileva also met with Prof. Markov, Head of the Ophthalmology Society of Bulgaria, on 27 August to discuss the establishment of the National Blindness Prevention Committee. They prepared an agenda for an organizational meeting which was to be held during the National Ophthalmology Conference in Stara Zagora on 9 and 10 October.

- **IEF Visiting Fellow** May Khadem, MD, of Chicago, one of the IEF fellows who has worked as an ophthalmologist for the IEF in Grenada and the Caribbean, visited the Center for Sight for two days on her way back from Albania where she is helping develop the eye care services in Tirana. Dr. Khadem toured the Center, visited residents, and discussed the project objectives with Dr. Vassileva. Dr. Khadem reported that she was very impressed with the project and its progress.

- **European Visitors** During this quarter, Mr. Hans Grieshaber of Switzerland visited Prof. Vassileva. Mr. Grieshaber is financially supporting the publication of the Eastern European edition of the "Highlights of Ophthalmology" and Prof. Vassileva is the editor of this edition.

A Prof. Kreissig of Germany visited the Center for Sight and discussed the eye care situation in Bulgaria, especially in the field of the retina services. She also discussed with Prof. Vassileva further needs of the Center in terms of literature, surgical instruments, training for the promotion of clinical work, and research in ophthalmology.

3. National Conference on Blindness Prevention

Prof. Vassileva met with various leaders in ophthalmology in Bulgaria including Prof. Gugutchkova and Prof. E. Filipov regarding the planning of the National Conference to take place on 9-10 October. Prof. Vassileva prepared many papers and summaries, especially about the IEF project, for presentation at the conference.

4. Baseline Survey

The priority during this quarter has been the preliminary preparation and recruitment of teams for conducting the blindness prevalence survey in Sofia District.

The Sofia Eye Study is the first visual impairment study to be conducted in Eastern and Central Europe utilizing up-to-date accepted epidemiological sampling designs, data collection, and analysis techniques. The IEF and the Dana Center are very grateful to USAID for their support of this important activity which will provide valuable data for planning purposes in Bulgaria. This experience also provides valuable experience for future activities of this sort.

The Blindness Prevalence Survey is being conducted by Prof. Petja I. Vassileva, MD, PhD, MPH and Dr. Kassimir Kushev of the International Eye Foundation/Bulgaria in collaboration with Prof. Sheila West, PhD and Stephen Gieser, MD, MPH of the Dana Center for Preventive Ophthalmology at Johns Hopkins School of Hygiene and Public Health, and Prof. Tanya Tcholakova, PhD of the National Center for Health Informatix in Sofia.

Quarterly Report
1 July - 30 September 1992
Page 4

A total of 4,500 people are being examined in six randomly selected counties, both urban and rural, in Sofia District. Approximately 750 subjects over the age of 40 years will be selected from three cluster sites in each county. Survey results will be presented at international scientific and public health ophthalmology meetings, and we are particularly concerned about timely presentations at the IAPB next year.

Preliminary planning activities began in July began in July. Activities of team recruitment, etc. began in earnest in August with meetings between Prof. Vassileva and Associate Prof. Tcholakova of the Division of Epidemiology and Statistics in the MOH.

In the original design of the survey, Sofia City was to be included. However, Prof. Gugutchkova feels that Sofia City is her responsibility and has tried to interfere if activities start there. She has not been willing to work with the IEF as mentioned earlier. This situation has been discussed with Mr. Gerry Zarr of AID and with Dr. Konstantin Trenchev, the president of one of the trade unions and an important political figure. It has been decided to proceed with the survey in the three other counties and, if at the end of this part of the survey, the political climate has improved, Sofia City will be surveyed.

A letter was addressed to the Minister of Health requesting support for the survey activities from the MOH. Authorization letters were circulated to all hospitals involved in the counties being surveyed and were prepared and signed by the Deputy Minister.

Prof. Vassileva met with the Deputy Governor of Sofia District to inform him personally about the survey, and received from the Governor a letter of support for distribution to all of the mayors of towns and rural counties in Sofia district to be included in the survey. This letter informs them about the goal and the main tasks of the survey for which their assistance and cooperation is needed in order to achieve success. The Deputy Governor promised his cooperation in promoting the survey. We were later told by the Mayor of Rila Country that the Deputy Governor has done exactly as he promised.

From 3 to 7 August, the recruitment of the survey teams of ophthalmologists and nurses began. It must be noted that we faced some difficulties because holidays made it difficult to reach people.

Visit of Stephen Gieser, MD, MPH

Dr. Stephen Gieser, one of the survey investigators from the Dana Center at Johns Hopkins University arrived on 12 August to meet with Prof. Vassileva, Assoc. Prof. Tcholakova, and Dr. Kushev to discuss the planning of the survey, preparing logistical plans, and correcting and finalizing the Manual of Operations and survey forms. Dr. Gieser also met with Prof. Konstantinov, Head of the Mladost University Hospital Eye Department, and gave a lecture on the main objectives and tasks of the survey. He also met with the participants in the survey to discuss logistics. Some of the survey team members field tested forms #1 and #2 at a few houses in the local neighborhood to test standardization between team members. Additionally, form #6 was tested at the Center. Modifications of forms 3, 4, and 6 were made.

Prof. Vassileva and Dr. Gieser visited the Division of Epidemiology and Statistics at the MOH where they met the staff, discussed the printing of materials, data entry, and data management procedures.

Prof. Vassileva, Assoc. Prof. Tcholakova, Dr. Gieser, and Dr. Kushev visited the Rila county where they met with the Director of the local hospital and also the Mayor of Rila County to discuss the tasks and goals of the survey with emphasis on the need for cooperation between the teams and local administration. The necessary documentation for the survey (election section lists) was requested. They also visited the hospital where they were shown around and the central examination site was located.

They also visited the sampling sites of Smochevo and Pastra, inspected the facilities available at the local health services, and had meetings with the medical staff and the Deputy Mayors. Dr. had visited Koprivshtitsa and Srednogorie.

The following points were discussed with Dr. Gieser:

1. An agreement was reached about the necessity of the formation of an additional Advisory Committee. Steps were taken for the organization of the Advisory Committee during a discussion with Prof. Konstantinov.
2. The problem related to the surveying of Sofia city was given thorough consideration.

3. The budget needs were estimated, and the preliminary time schedule for the entire survey was prepared.

Further survey-related activities include:

- Translation, correction and printing of the manual and forms.
- Mr. Gerald Zarr was invited to participate on the Advisory Committee (AC)
- Negotiations with the other members of the AC: the Deputy Minister H. Griva; the Executive Director of the NTV, Mr. Popjordanov; the Governor Mr. Prangev; and Assoc. Prof. Filipov
- Phone discussion by Prof. Vassileva and site visits of Assoc. Prof. Tcholakova and/or Dr. Kushev to Rila, Petrich, Dupnitsa, Svoge, and Pirdop to meet hospital directors and mayors.
- Final recruitment, preparation, and signing of contracts during the period of 21 through 24 September.
- Intense training of the teams by Prof. Vassileva with the assistance of Dr. Kushev.

Trip Report (Attachment B).

Visit of Assoc. Prof. Sheila West, PhD, principal investigator of the Sofia Eye Study.

Prof. Sheila West from the Dana Center for Preventative Ophthalmology visited the project in Bulgaria from 25 September through 1 October. The purpose of the visit was to meet the Bulgarian colleagues besides Prof. Vassileva, review the protocol, train the teams, and visit some of the sites. Dr. West was able to visit Koprivshtitsa and Rila where she met with the Mayor and hospital director.

On 29 September, Dr. West and Dr. Vassileva attended the U.S. reception at the Plovdiv Trade Fair where they met with Mr. Zarr of USAID; Mr. Azeddin Downe, Peace Corps Director and his successor, and Ms. Heath. They discussed the importance of the survey the progress to date.

Drs. West and Vassileva visited the Deputy Minister of Health, Mr. Chr. Griva, and discussed problems related to the epidemiological survey and eye care services in Bulgaria. Mr. Griva was very understanding and cooperative showing full support of the survey. Mr. Griva asked Prof. Vassileva to initiate the organization of an Expert Ophthalmological Committee to examine and release the survey results once they are analyzed and released.

On 1 October, the official opening ceremony of the survey was held in Rila. Drs. West, Vassileva, Tcholakova, and Kushev all made brief speeches. After the opening ceremony, the teams were driven to the sites and the field work on the survey began. Drs. Vassileva, West, and Tcholakova inspected all of the teams and checked the forms for accuracy.

When the survey was initially planned, it was expected that the Dana Center would serve in a consultant capacity. However, a great deal of basic planning and input has been needed including visits to the field. Additionally, analysis of the data will take place at the Dana Center. This was not budgeted and the IEF is seeking funds from a foundation to support this analysis of the data at Johns Hopkins. (Dr. West's Report - Attachment C).

Israel

From 30 August through 3 September, Prof. Vassileva attended the II International Symposium on Ocular Inflammation in Jerusalem where she gave a presentation on ocular herpes and took part in the meetings of the International Council of the Society. Prof. Vassileva has been elected to the Board of this Society and her expenses for the meeting were borne by the Council and not the IEF project.

During the short visit, Prof. Vassileva met with Prof. Giora Treister, President of the Ophthalmological Society and Deputy Director of the Eye Institute where he is Chief of the Vitreo-Retinal Unit. They had discussions mainly about Dr. Bojidar Madjarov's training and prospects for future cooperation in vitreal surgery and ocular trauma problems. Dr. Madjarov spent one year studying vitreo-retinal surgery in Israel.

5. Training

Visiting Professor Program

From 21 to 30 July, Gregory Brinton, MD, a vitreo-retinal specialist from Salt Lake City, Utah, was the fourth professor to visit the Center for Sight. Dr. Brinton was joined by his 12 year old son, Eric. Dr. Brinton speaks Russian fairly well and was able to have good communication with his audience.

Dr. Brinton examined and consulted many of patients, and performed surgical procedures on many of the patients. He also gave some very useful lectures perfectly illustrated with slides. The lecture subjects included: ocular trauma, retinal problems in children, retinal detachment, and diabetic retinopathy.

Dr. Brinton is one of the professors recruited through the IEF's collaboration with the LDS Church in Salt Lake City. During Dr. Brinton's visit, he met with Elder Nelson who is the LDS' representative in Sofia. He also met with Prof. Milchev, the former Administrative director of the "Mladost" University Hospital and expressed his great satisfaction from his visit the working relationship with the staff of the eye clinic. He pointed out the good perspectives for the development of this Center which plays an important role for the improvement of eye care services in Bulgaria.

Dr. Brinton also met with Prof. Gugutchkova and Prof. Tanev at the Eye Department of the Alexandrovska Hospital during which he expressed his readiness to give lectures and to see patients, but this was declined. Dr. Brinton clearly stated his eagerness to cooperate with Dr. Gugutchkova and her department in some way or another and was disappointed in the result of the meeting.

Dr. Brinton visited the eye emergency clinic headed by Assoc. Prof. Hristova. He also visited the university eye clinic in Plovdiv where he gave a lecture and saw many patients. Two of those patients were transported to Sofia to be operated on by the staff of the Center for Sight.

On 29 July, Prof. Vassileva held a party at her home to celebrate her birthday and in honor of Dr. Brinton. The entire staff of the Center for Sight as well as two directors of AID-funded projects in Bulgaria attended.

There are still some vitreo-retinal instruments needed to complete the service. Dr. Brinton met with Dr. Vassileva and staff to determine which instruments are critical. (See Trip Report - letter (Attachment D)). These instruments are small, but delicate and very expensive, approximately \$4,000. The IEF recognizes the importance of these instruments and is determining when they can be bought as all of the requested equipment and instruments have already been procured.

Quarterly Report
1 July - 30 September 1992
Page 9

On 8 September, Dr. Brinton met with the Deputy Dean of the Medical Faculty about arranging two-day teaching courses during the next specialist visit from the USA. A letter was sent to all the hospitals in the country through the Medical Faculty offering a course on intra-ocular lenses.

The schedule for future visitors is: 16-29 October 1992, Douglas Felt, MD, oculo-plastics/cataract specialist.

6. Procurement of Supplies

On 29 September, 1992, a shipment arrived containing Optimed equipment - 3 sets of KOWA SL-7 lamp microscope with eye-fixation, and 3 pieces RX-H Neitz streak retinoscope. This equipment, and some more which is expected to arrive shortly will be used in the field during the survey.

7. Service Delivery

During the annual review meeting with Donna Frago, Ms. Frago asked that the quarterly totals of patients seen include a year-to-date total as well. Therefore, these have been added.

Additionally, Ms. Frago requested a description of procedures and their impact on either the restoration of sight or the prevention of blindness. Dr. Robert Butner, IEF's first visiting professor who went to Sofia in February, returned at the end of September to visit the Center for Sight and attend the National Conference on Ophthalmology. He kindly prepared this document (Appendix E).

CLINIC OUTPATIENTS:

Bulgarians	1314	4256
<u>Foreigners</u>	<u>129</u>	<u>414</u>
TOTAL	1443 (this quarter)	4670 (to date)

Breakdown:	Bulgarians	Foreigners
July	495	42
August	414	49
<u>September</u>	<u>405</u>	<u>38</u>
TOTAL	1314	129

SURGICAL OPERATIONS:

Bulgarians	257	859
<u>Foreigners</u>	<u>53</u>	<u>272</u>
TOTAL	310 (this quarter)	1131 (to date)

Breakdown:

cataract extraction	13	1
cataract extraction w IOL	64	5
glaucoma procedures	14	2
retinal detachment	25	3
vitrectomy	11	1
cryo application	10	1
keratoplasty (corneal transplant)	4	3
strabismus surgery (squint)	40	4
lid procedures (plastic surgery)	2	1
<u>others</u>	<u>74</u>	<u>32</u>
TOTAL	257	53

Treatment with Argon Laser (purchased by IEF):

Bulgarians	241
<u>Foreigners</u>	<u>0</u>
TOTAL	241

Treatment with Friedman Analyzer:

Bulgarians	19
<u>Foreigners</u>	<u>0</u>
TOTAL:	19

8. Collaboration

The IEF's project in Bulgaria is currently collaborating with the following institutions:

Division of Statistics at the MOH

LDS Church, Salt Lake City and Sofia

Eye Institute in Tel Aviv, Israel

9. Principle Issues and Problems

- Political problems related to the inclusion of Sofia City in the survey have necessitated discussions with the USAID office and other relevant individuals. It was decided not to include Sofia City at this time, but wait until the survey in the three counties is completed before reconsidering this option.
- The B-Scan probe which was repaired by Sonomed in the US still has problems and will be returned for further repair. Similarly, the Zeiss microscope electric chip plate was sent to the US for repair, but will be returned in October. Currently, these two pieces of equipment are out of use.
- Problems related to the continuously increasing amount of work as more and more patients are seen at the Center for Sight, but salaries are not increased. The IEF provided some monetary incentives to the staff during the visit of Dr. Brinton in order that he may work as long as he wished and see the maximum number of patients during this visit. This issue can only properly be addressed once the Eye Department/Center for Sight is independent, able to charge a fee for service, and pay its own staff accordingly.
- Problems related to the delay of transfer of funds. Twice during the period, emergency loans had to be taken in order to prevent the blocking of activities on the project, and a delay in the time-table of the survey. These problems were related to a transfer delay from IEF headquarters and the learning curve of the new Project Manager learning the draw-down schedules and requests for funds from headquarters. Both problems are being addressed.
- Funds are being sought to support the cost of the data analysis at the Dana Center once the survey is completed.

10. Planned Actions Next Quarter

- Continuation of the survey - field work and the start of data entry
- Visit of Dr. Douglas Felt, a plastics/IOL implantation specialist from 17-29 October and organization of a post-graduate teaching course.
- Continued organizational planning of the NBPC.

Quarterly Report
1 July - 30 September 1992
Page 12

ATTACHMENTS:

- A. CV of Dr. Kassimir Kushev
- B. Trip Report - Stephen Gieser, MD, MPH
- C. Trip Report - Sheila West, PhD
- D. Trip Report - Gregory Brinton, MD
- E. Description of Clinical and Surgical Procedures and Their Objectives.
- F. Financial Statement.

C U R R I C U L U M V T A E

Dr. KRASSIM PAVLOV KUSHEV, M.D.

I was born on 28.10.1951 in VELIKO Tarnovo City.

University Medical Academy, Sofia - M.D. - 1975

EMPLOYMENT:

1976-1978 General Practitioner in the outpatient department,
District Hospital, Pernik City.

1978-1982 Residency in Institute of Social Medicine and Public
Health Organization.

1982 State certification in Social Medicine and Public Health
Organization.

1982-1986 Senior Research worker in Institute of Social Medi-
cine and Public Health Organization.

1986-1989 Head of Bulgarian Medical Team in Africa.

1989-1992 Senior Research worker in Institute of Public Health.

BOARDS AND COMMITTEES

Bulgaria

1990 Board of Bulgarian Society of Social Medicine

1978 Member of Bulgarian Society of Social Medicine.

1980 Member of Bulgarian Society of Medical History.

PUBLICATIONS:

I have about 30 publications in the area of epydemiology of
chonic diseases, primary care and hospital organization and
management.

31 August 1992

TO: Executive Committee, Sofia Eye Survey
Dr. Sheila West
Dr. Joanne Katz
Ms. Victoria Sheffield
Dr. Petja Vassileva

FM: Dr. Stephen C. Gieser

RE: Sofia Site Visit, August 12-19, 1992

The purpose of the first site visit for the Sofia Eye Survey was to make initial preparations for the field work, recruit field workers and assess their abilities for the designated jobs, and pilot test the data collection forms. To this end, the trip was successful. I met with the participating ophthalmologists and observed them examining patients at the Center for Sight. I went with the field workers to a neighboring apartment complex and observed the pilot testing of the forms. I also visited four of the six counties that we selected for sampling.

However, I encountered several problems. The inclusion of the city of Sofia may jeopardize the entire project, due to professional differences of certain local ophthalmologists in the community. In addition, Drs. Vassileva, Kushev, and Tcholakova all had considerable reservations about various aspects of the study, particularly in cluster sampling and in the house-to-house method of screening visual acuity. These problems will be addressed below.

I. PROBLEMS WITH SOFIA

Drs. Vassileva, Kushev, and Tcholakova do not want to include the city of Sofia in the sampling. After reviewing the current political problems, I would agree with them that the inclusion of Sofia city may jeopardize the entire project.

Petja showed me numerous letters written by Dr. Guguchkova, the director of the ophthalmology department at the Medical College. Dr. Guguchkova is extremely threatened by Petja and has tried

vigorously to take the USAID money and equipment away from her. Dr. Guguchkova has written letters of protest to the US Ambassador in Bulgaria, the USAID representative in Bulgaria, the Bulgarian Ambassador in the US, and the Bulgarian press. The letters are ridiculous, but they indicate a major rivalry between these two ophthalmologists. What makes the situation dangerous to the study is the fact that Dr. Guguchkova is married to the mayor of Sofia.

My recommendation is to randomly select another urban county. Vassileva and Kushev heartily concur with this recommendation. The table below was used for the initial selection of the counties. To be consistent with our original selection methodology, if we were to select another county, we should select a random start in the urban counties, and then choose the 10th urban county.

	SOUTH	MIDDLE	NORTHEAST	NORTHWEST	SOFIA
URBAN	GOTZE DELTACHEV SANDANSKI	JAKORUDA BOBOVDOL BANSKO KOSTENETZ IHTIMAN RAZLOG SAMOKOV DUPNITZA KJUSTENDIL BLAGOEVGRAD	ETROPOLE SREDNOGORIE BOTEVGRAD	BREZNIK SLIVNITZA KOSTINBROD RADOMIR PERNIK	SOFIA
RURAL	KRESNA STRUMJANI HADJIDIMOV GARMEN SATOVTCHA PETRITCH	RILA BOBOSHEVO NEVESTINO KOTCHERINOV SAPAREVA BANJA BELITZA SIMITLI	KOPRIVSH- TITZA GORNAMALINA PRAVETZ ELIN PELIN	TREKLJANO KOVATCHE- VTZI ZEMEN TRAN GODETCH DRAGOMAN BOJURISHTE SVOGE	

Of course, it would be ideal to have the capital city in our sample. No other city comes close to Sofia in terms of medical resources, level of education, etc. However, to try to include the city in our initial sample may incite the wrath of Dr. Guguchkova and the mayor of Sofia.

Once data collection is completed in the six counties, we can then try to sample Sofia city.

17

II. MANUAL OF OPERATIONS

A few minor changes have been made to the text of the Manual of Operations. These changes are appended to the end of this report.

Translation of the manual into Bulgarian is underway. Once the manual is translated, they will send it via DHL back to Dana Center, where we will have it counter-translated to check its accuracy. Thirty copies of the Manual of Operations (Bulgarian) will be printed.

III. ORGANIZATIONAL STRUCTURE

We have added several people to the Field Operations Committee and have proposed the formation of a new committee, the Advisory Committee, which will give local leaders the opportunity to participate in the project.

Field Operations Committee

Dr. Krasimir Kushev, manager of the Center for Sight, has been added to the field operations committee. His background is in epidemiology and public health. Dr. Tanya Tcholakova has also been added to this committee.

Advisory Committee

Due to the considerable political obstacles that face this study, we propose to add a new committee. The "Advisory Committee" will consist of local political and ophthalmology leaders. While this committee will not have the authority to make changes in the protocol, it may make recommendations in all aspects of the study in order to facilitate this project.

The advisory committee will be chaired by Professor Nichola Konstantinov, head of the Department of Ophthalmology at the eye clinic of the Center for Sight. Other proposed members include: Assoc. Prof. M. Milanov, Deputy Minister for Health; Jerry Zarr, USAID representative for Bulgaria; L. Prangev, Governor of Sofia district; E. Filipov, IAPB representative for Bulgaria; member from the press.

~~IV~~ III. SAMPLING DESIGN

There is disagreement on the method of Sampling. Drs. Kushev and Tcholakova both express concern about our selection of counties.

Despite the fact that these counties were selected randomly, they are worried about the close proximity of some of the counties (e.g., Rila and Dupnitsa; Sofia and Svoge). Furthermore, they insist that cluster sampling is not a statistically valid method of sampling.

The address lists will be difficult to obtain. They are only available in the form of election lists (everyone over the age of 18 years) and in the hands of the local mayors. Kushev thinks that some of the mayors may refuse to release the address lists for "security reasons."

IV. SCREENING DESIGN

Drs. Vassileva, Tcholakova, and Kushev all strongly favor to modify the visual acuity screening design. They do not think that it is appropriate in Bulgaria to go house-to-house. They want to send letters to all subjects requesting that they come to the central examining site for the eye exam. They are quite sure that "over 80%" of the subjects will participate.

We discussed problems such as noneligible subjects coming for the eye exam; subjects that have visual acuities greater than 20/70 wanting a complete eye exam; the expense of mass mailing; noncompliance; time lag between mailing and exam.

I still favor the house-to-house approach. However, the Bulgarian physicians strongly disagree. We will need to decide on this important point within the next couple of weeks.

Another important issue about the screening involves the ability of the technicians to perform accurate refractions. I do not believe that the technicians are capable of performing accurate refractions in households. I favor modifying the protocol to have the technicians perform pinhole acuities, and then refer those with better eye worse than 20/70 to a central examining site for refraction, then definitive eye exam. To be sure, the ophthalmologist at the central examining site will have to see many more patients. However, it is a compromise that I think we have to make.

V. PILOT TEST

Forms #2, 4, and 6 were tested in the community surrounding the Center for Sight. A sample of the completed forms is attached as an appendix to this report. Six of the field workers went as a group and visited ten apartments. I went along as an observer. From the few households that we visited, I found the inhabitants

willing to participate.

I am concerned with the inaccuracy of the forms. Despite training sessions, virtually all of the forms contained errors or were incomplete. Part of the problem was that the Manual of Operations (in Bulgarian) was not available to them. Another problem was that some of the questions on the form were poorly written, and will need to be rewritten.

I observed four of the ophthalmologists perform the eye examination. There is a wide range of understanding of the ophthalmological form. Some of the ophthalmologists do not know basic eye findings (e.g., relative afferent pupillary defect) or basic techniques (e.g., applanation tonometry, indirect ophthalmoscopy). We will need to spend a significant amount of time training the field workers to insure accurate and reliable data.

~~VII.~~
~~VI.~~ FIELD WORKERS

PARTICIPANTS

Petja has recruited five ophthalmologists and three visual acuity technicians. She will recruit the remaining ophthalmologist and nine technicians within the next couple of weeks.

OPHTHALMOLOGISTS

Dr. Maria Nikova
Dr. Aneta Petrova Adamova
Dr. Veneta Ivanova Geleva
Dr. Stoianka Angelova Hadjiska
Dr. Sonya Stanchovska

VISUAL ACUITY TECHNICIANS

Mrs. Vessa Ivanova Jovkova
Mrs. Milka Stoianova Georgieva
Mrs. Vesela Dimitrova Koinova

SKILLS REQUIRED FOR THE JOB

Certain basic skills are necessary for the accurate collection of data. The following problems were identified:

1. APPLANATION TONOMETRY IS UNAVAILABLE IN BULGARIA

According to Petja, the Center for Sight has one of the only applanation tonometers in the county. Therefore, most of the ophthalmologists will not know how to use one. However, it is a relatively easy instrument to learn how to use, and I think

with proper training, all will be able to measure IOP accurately with a Goldman applanation tonometer. We should decide to use either Goldman or Schiotz--not both.

2. GONIOSCOPY IS NOT ROUTINELY PERFORMED

Some of the study ophthalmologists are not familiar with gonioscopy. Because of this, even if we teach them how to use a goniolens, I do not think that they will be able to learn the angle anatomy and pathology in the limited time of our study. Therefore, I recommend that we drop gonioscopy from the protocol.

3. INDIRECT OPHTHALMOSCOPY IS NOT PERFORMED

Few Bulgarian ophthalmologists use an indirect ophthalmoscope. Indeed, at least one department chairman believes that it is a "whim of American ophthalmology." I think that we will have to limit the fundus exam to that done with a direct ophthalmoscope.

~~VIII.~~

~~VII.~~ DATA COLLECTION FORMS

The following problems with the data collection forms arose during the pilot testing:

1. Form #1: There is no place to record the date and time a technician should return to a house, in cases where an incomplete screening occurred.
2. Form #1: Vassileva and Kushev think that questions 1 through 3 are unnecessary, because the list of addresses will be from residential units only. I still think that we need these questions in the cases of abandoned buildings, new homes, etc.
3. Form #2: Several field workers listed the Householder as a spouse (informant code, line 1). This needs to be clarified in the manual. While it is true that he is often a spouse to someone in the household, he should be always designated as "1" and all relationships are in relation to him (or her).
4. Form #2: We should list the final disposition codes at the bottom of page two.
5. Form #6: We are going to need to simplify this form, based on the abilities of the ophthalmologists. The final page is very confusing.

~~IV~~,

~~VIII~~. INFORMED CONSENT

It is the unanimous opinion of the Bulgarian physicians that the wording of the informed consent regarding the risks is too strong. They have proposed to delete the paragraph of RISKS/DISCOMFORTS.

We will need to reach a compromise so that we can meet JCCI requirements.

~~V~~.

~~IX~~. DATA ANALYSIS

Petja would like the data analysis to remain in Bulgaria. The data will be analyzed at the Center for Health Informatics. The center has the following equipment:

Mainframe IZOT 1014 (a Bulgarian analogue of IBM 4341)
14 MB RAM, 2.4 GB disk storage
VSE/SP, POWER, ICCF, SQL, BMDP statistical package

40 PCs with microprocessors ranging from 8088 to 80486
MSDOS 5.0, DRDOS 6.0, dBASE IV/CLIPPER 5.0
Laserjet printers

I think that if we help them "clean the data" before it is analyzed, they appear to have the ability to perform the data analysis.

XI.

X. BUDGET

Petja has requested additional funds to perform the survey. We estimate that approximately \$30,400 is needed.

PERSONNEL

DR. VASSILEVA	\$ 200
DR. TCHOLAKOVA	\$ 300
DR. KUSHEV	\$ 300
DRIVER	\$ 180
OPHTHALMOLOGISTS (6)	\$3900
VISUAL ACUITY TECHS (12)	\$4680
LOCAL NURSES	\$ 180
TRAINING FIELD WORKERS	\$ 900

TRAVEL

HOTEL	\$4000
TRANSPORTATION	\$4940

SUPPLIES

PRINTING COSTS	\$2500
POSTAGE	\$1500
TELEPHONE/FAX	\$ 500
DATA ENTRY/COMPUTER COSTS	\$2500
TRANSLATION OF OPERATIONS MANUAL	\$ 120
PUBLICITY	\$1000
INCENTIVES FOR LOCAL PHYSICIANS	\$ 200
MISCELLANEOUS	<u>\$2500</u>

TOTAL \$ 30,400

XII.

XI. BUDGET JUSTIFICATION

PERSONNEL

DR. VASSILEVA
\$10 per diem x 20 days to cover the cost of meals and miscellaneous expenses.

DR. TCHOLAKOVA
\$10 per diem x 30 days to cover the cost of meals and miscellaneous expenses.

- 21 -

DR. KUSHEV

\$10 per diem x 30 days to cover the cost of meals and miscellaneous expenses.

DRIVER

\$6 per diem x 30 days to cover the cost of meals and miscellaneous expenses.

OPHTHALMOLOGISTS

\$10 per diem x 65 working days x 6 ophthalmologists. This will cover the salary of the physicians and the cost of their meals.

VISUAL ACUITY TECHNICIANS

\$6 per diem x 65 working days x 12 technicians. This will cover the salary of the technicians and the cost of their meals.

LOCAL NURSES

\$180 to be divided among nurses from the study areas to help with identifying addresses, encouraging participation, etc.

TRAINING FIELD WORKERS

\$5 per diem x 10 days x 18 persons for the initial training.

TRAVEL

HOTEL

Field workers: \$5 per night x 40 nights x 18 persons. The number of 40 nights was selected because some of the study locations are close enough to permit commuting from home.

Dr. Vassileva/Dr. Tcholakova: \$5 per night x 10 nights x 2 persons.

Dr. Kushev/driver: \$5 per night x 30 nights x 2 persons.

TRANSPORTATION

\$76 per day for vehicle rental x 65 days.

SUPPLIES

PRINTING COSTS

The Manual of Operations (Bulgarian) will be translated into Bulgarian. Thirty copies will be printed in Sofia. This cost will also cover printing of data collection forms and other study materials.

POSTAGE

Letters to study participants.

TELEPHONE/FAX

This study will increase the amount of telephone calls and faxes to the United States (Dana Center and International Eye Foundation).

DATA ENTRY/COMPUTER COSTS

The data entry and analysis will be performed at the National Center for Health Informatics in Sofia.

PUBLICITY

Newspaper and radio advertisements, posters, etc.

INCENTIVES FOR TO LOCAL PHYSICIANS/POLITICIANS

\$200 to be allocated to small gifts of appreciation to the local physicians and politicians who helped with the survey.

~~XIII~~,

~~XII~~. **INSPECTION OF CENTRAL EXAMINING SITES IN SELECTED COUNTIES**

RILA COUNTY

RILA

Rila is the largest town in the county of Rila, with a population of 3,300. Located in the Balkan mountains, most of the inhabitants live in small wood and stone houses with red tile roofs. The people work on small farms, with tobacco as the chief crop. There is running water, central sewage, and electricity to most homes. Most of the roads are paved. We met with the mayor of Rila, Ivan Ramichkov, and the chief of the County hospital, Dr. M. Vassev. The central examining site for this cluster will be the in the centrally located county hospital (100 beds).

PASTRA

Just up the valley from Rila is the tiny, picturesque village of Pastra, nestled in a narrow valley in the Balkan mountain range. The town is approximately 2 kilometers long and no more than 300 meters wide. Most of the homes have electricity. There is no central sewage. Water is from wells or the river which runs through the center of town. They are currently constructing a central water supply. We met with Medical Assistant Moutafchiev, and looked at the central examining site, a small, one-room health clinic heated by a wood-burning stove.

SMOCHEVO

Smochevo is located on a plateau above Rila town. The village is more compact than either Rila or Pastra. Most of the inhabitants have electricity and water. There is no central sewage system. Most roads are paved. We examined the central examining site, a two-story health clinic in the center of

23

town.

STANKE DIMITROV COUNTY

The name of Stanke Dimitrov has been changed to Dupnitsa. A literal translation of Dupnitsa is "rear end" (honestly). It is an industrial city of 40,000, with several large pharmaceutical plants. Most of the inhabitants live in large concrete apartment houses or individual houses. We visited two potential central examining sites, the hospital and the polyclinic.

SREDNOGORIE

The industrial city of Srednogorie is inhabited by 20,000 people. It is a heavily polluted area, and smokestacks from the Copper Smelting plant dominate the skyline. We visited the central hospital.

~~XIV.~~
~~XIII.~~ **TIMETABLE**

AUGUST

- 24 Meet with mayor of Petrich and Dupnitsa to obtain election lists. (Kushev)
- 25 Meet with the mayor of Srednogorie to obtain election lists. (Kushev)
- 26 Meet with the mayor of Svoje to obtain the election lists. (Kushev)
- 28 Deadline for obtaining cluster information of urban centers of Srednogorie and Dupnitsa. Fax information to the Dana Center. (Kushev)
- 31 Complete translation of the Manual of Operations into Bulgarian and send to Dana Center via DHL. (Vassileva)

SEPTEMBER

- 5 Rewrite all forms with corrections and fax to Center for Sight. (Gieser)
- 7 Translate final version of all data collection forms and fax to Dana Center. (Vassileva)
- 8 Prepare final list of all equipment for survey and fax to IEF. (Gieser)
Order all equipment. (Sheffield)
Pilot testing of forms (minimum ten households) in neighborhood of Center for Sight and fax any difficulties to Dana Center. (Vassileva)
- 10 Start counter-translation of Manual of Operations (Bulgarian) at Dana Center. (Gieser)
- 15 Complete counter-translation of Manual of Operations and fax corrections to Center for Sight. (Gieser)
Deadline for complete address lists of all study areas. (Kushev)
- 17 Duplicate Manual of Operations (Bulgarian)--30 copies. (Kushev)

- 19 Complete recruitment of all field workers. (Vassileva)
- 21 Meeting of all field workers at Center for Sight; sign all contracts; distribute Manual of Operations to all field workers. (Vassileva and Kushev)
- 22 Preliminary training of field workers. (Vassileva and Kushev)
- 23 Preliminary training of field workers. (Vassileva and Kushev)
- 24 Preliminary training of field workers. (Vassileva and Kushev)
- 25 Preliminary training of field workers. (Vassileva and Kushev)
- 27 Sheila West arrives in Sofia.
- 28 Training of field workers. (West, Vassileva, and Kushev)
- 29 Training of field workers. (West, Vassileva, and Kushev)
- 30 Training of field workers. (West, Vassileva, and Kushev)

OCTOBER

- 1 Opening day for data collection--Rila county. (Field workers) Meeting with Mayor of Rila and Chief of Rila County Hospital; examine central examining sites in Rila, Pastra, and Smochevo. (West, Vassileva, Kushev)
- 2 Visit central examining sites in Petrich (West, Vassileva, Kushev)
- 4 Sheila West departs.
- 14 Completion of data collection for Rila County.
- 15 Examine data for completeness, accuracy. (Tcholakova)
- 16 Meeting of Field Operations committee to discuss any problems with data collection in Rila County; fax report to Dana Center. (Vassileva, Kushev, Tcholakova)
- 19 Begin data collection in Petrich county.
- 31 Complete data collection in Petrich county. Examine data for completeness and accuracy; fax report to Dana Center. (Tcholakova)

26

NOVEMBER

- 2 Begin data collection in Svoje county.
- 14 Complete data collection in Svoje county.
Examine data for completeness and accuracy; fax report to Dana Center. (Tcholakova)
- 16 Begin data collection in Dupnitsa county.
- 30 Complete data collection in Dupnitsa county.
Examine data for completeness and accuracy; fax report to Dana Center. (Tcholakova)

DECEMBER

- 1 Begin data collection in Srednogorie county.
- 4 Submit abstract to ARVO
- 15 Complete data collection in Srednogorie county.
Examine data for completeness and accuracy; fax report to Dana Center. (Tcholakova)

JANUARY

- 4 Begin data collection in urban (to be determined) county.
- 17 Complete data collection.
Examine data for completeness and accuracy; fax report to Dana Center. (Tcholakova)
- 20 Review all data. Identify missing data. Fax report to Dana Center. (Vassileva, Kushev, Tcholakova)

FEBRUARY

Data entry and analysis. (Tcholakova, Katz)
Survey areas with missing data. (Vassileva)

MARCH

Optional survey of Sofia City.
Data entry and analysis (Tcholakova, Katz)

APRIL

Final analysis, preparation of manuscripts.

MAY

Presentation of data at ARVO.

JUNE

Submit manuscripts.

~~XIV~~
IV. PRELIMINARY SCHEDULE FOR DR. SHEILA WEST

27 SEPT ARRIVE IN BULGARIA

28 SEPT TOUR OF THE EYE CLINIC AND CENTER FOR SIGHT
TRAINING OF FIELD WORKERS

29 SEPT TRAINING OF FIELD WORKERS

30 SEPT TRAINING OF FIELD WORKERS
SIGHTSEEING IN SOFIA

1 OCT VISIT TO RILA COUNTY
OBSERVE OPENING DAY OF THE SURVEY
MEET WITH MAYOR OF RILA AND CHIEF OF HOSPITAL
EXAMINE CENTRAL EXAMINING SITES IN RILA, PASTRA, AND
SMOCHEVO
TOUR RILA MONASTERY
MEET WITH PRINCIPAL OF RILA MONASTERY
OVERNIGHT IN RILA

2 OCT VISIT PETRICH
EXAMINE CENTRAL EXAMINING SITES
MEET WITH MAYOR
RETURN TO SOFIA

3 OCT COMPLETE WORK ON SURVEY

4 OCT DEPART BULGARIA

Site Visit for Sofia Eye Survey

September 25th - October 1st, 1992

The purpose of this visit for the Sofia Eye Survey was to complete training of the three teams in preparation for launching the study on October 1st, observe the first days of field work and finalize the cross translation of the forms, manual of operations, and detailed schedules and procedures.

The trip was highly successful. We completed training and pilot testing of all procedures on Wednesday, September 30th and the teams began field work on October 1st in Rila with an official launching of the project. Dr. Kushev had carried on most of the training prior to my arrival and my activities centered on completing training for Forms 4 and 5, practice sessions using all the forms together, and simulated tests runs of all forms with "problem" participants. This included training doing visual acuities with uncooperative patients and visual acuities in those with visual impairment. We had intended to devote an entire day to training the ophthalmologists in the use of Form 6 and to standardize them on the use of the equipment. However, most of their equipment did not arrive in time for such training while I was there and conflicting schedules with clinical demands on Dr. Vassileva did not permit training of the use of Form 6 while I was there. However, Dr. Vassileva has planned to go to the field to review all examination procedures and use of equipment, at least twice per week during the entire survey. Prior to the beginning of the actual definitive exam, the ophthalmologist will receive instruction on all of the equipment and Dr. Vassileva will discuss with them proper filling in of Form 6.

I also had the opportunity to meet with the following individuals: Mr. Gerald Zarr, USAID Representative to Bulgaria. I met Mr. Zarr at a reception held by the American Embassy in Plovdiv for an International Trade Fair. Mr. Zarr seemed pleased that the survey was going ahead as scheduled and that all the training and pieces were in place. I understand he has lingering concern about the political situation in Sofia and I hope that my discussion with him, and subsequent letter (see enclosure), have assured him of the ongoing support for the activities at the Center for Sight. In my opinion, USAID is being overly skittish about the situation and should take a longer range view of the best way to manage reforming the ophthalmic infrastructure.

I also met with Dr. H. Griva, the Deputy Minister of Health. I informed him of the purpose of my visit and how pleased we were to begin the survey of visual impairment and blindness in Sofia District. He asked what the Ministry of Health might do in this endeavor and I informed him, quite frankly, that it was clear that his office should not only be the recipient of the report from this survey, but should take the lead in hosting a meeting to discuss the ramifications of the findings and the best way to proceed in terms of designing ophthalmic intervention strategies for the future. Dr. Griva was pleased that we were clearly looking at this survey as a guide for future activities and not simply as a research study, and he pledged his support. I consider this a very positive pledge of support, particularly if his office will take the lead on dissemination of the report and organizing committees to discuss the next stage. I

recommend that IEF follow up this visit and suggest possible ways they might support his office in carrying out these activities. This would clearly defuse any suggestion of politicalization of the report if Center for Sight were to present it alone.

I also met with Dr. Peter M. Amudjev, Director of the National Center for Health Informatix, together with Dr. Tcholakova and Dr. Kushev. After reviewing the capabilities of their system, we agreed on the following frame work for data entry and data analysis: Dr. Kushev would review all forms, every evening, and return the forms to the nurses or the ophthalmologist if problems arose. At the end of each county, he would certify that the data were complete and accurate and present them for entry to Dr. Tcholakova. The Dana Center would design the data entry format, as ASCII files, to be followed by the Center for Health Informatix. They would receive the data from the county, enter all data using a double entry system, and return any problems to Dr. Kushev for resolution. We agreed that the first set of data from Rila county would then be sent to the Dana Center with a copy of the disc with the data entered from the Center for Health Informatix so that the Dana Center could also enter this data and compare with findings from the Center for Health Informatix. In addition, it would assure us of the capability of reading files generated by the Center for Health Informatix. Any discrepancies would be discussed with Drs. West and Tcholakova. Ultimately, we would hope to invite Dr. Tcholakova to the Dana Center for preparation of a Plan of Analysis and an outline for the analysis itself. Then, Dr. West would join Dr. Tcholakova at the Center for Health Informatix to complete data analysis and write the report. This plan is subject to the approval of the Executive Committee and the availability of support.

I also had the opportunity to meet Professor Konstantinov, Head of the Eye Department at MLADOST. Dr. Konstantinov graciously donated some visual acuity charts to enable us to begin the survey and was clearly pleased that we were proceeding on schedule. Dr. Vassileva has spent considerable time with Dr. Konstantinov in clinical activities and this relationship is clearly important to both of them.

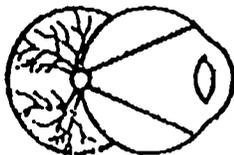
I also met with Dr. Vasiv, the Physician in charge of Rila Hospital for Rila County and the Mayor. Both were very supportive of the survey and both participated in the inauguration of the survey. Dr. Vasiv has donated his ambulance to assist in transporting the team around and has offered to serve as back-up in case any medical questions arise. He has also pledged the support of his local nurses to assist us in locating patients.

There continue to be problems that need to be addressed. First, communications between Sofia and the United States continue to be problematic, especially regarding budget and equipment procurement. The lack of funds in Bulgaria, for contingencies such as clearing equipment from customs, or securing a bus in advance of the survey, were exceedingly problematic during my visit and only resolved with the assistance of Dr. Vassileva's husband. In the future, I would recommend that IEF simply send monthly allowances to the office in Bulgaria, money that they can count on in advance, and that would help them should difficulties arise. Because both fax and telephone communication is so difficult, this survey and other activities should not be held up while communications proceed. Dr. Kushev is an exceedingly able manager and quite cost conscious and there is no reason that some cushion should not be available in country against such emergencies.

Secondly, the equipment for the central examination site had still not been cleared by customs before I had to leave. So I am not sure if the ophthalmologists are clear on how to use the tonometer, slit lamps, streak retino scopes, lensometers, or direct ophthalmoscopes, or how to set up this equipment efficiently in the field. This may well result in a delay in the survey while appropriate training proceeds. In addition, I anticipate some delay in completing this survey because of the delay of the arrival of the equipment for doing visual acuities. We started the survey, anyway, on October 1st, because the field team was ready as was the population. This meant that the field teams did not begin with enough visual acuity charts and pinholes for each nurse. Rather, each team went door to door altogether. Fully 60 to 70% of Dr. Kushev's time, while I was in Bulgaria, was spent at various banks and custom offices, airline offices, and shipping offices in an attempt to locate equipment and clear them. It is clear to me the enormous toll on manpower that this sort of activity takes and it is clearly an inefficient use of Dr. Kushev's time. I would strongly recommend that, in the future, clear planning dates for shipment and arrival, etc., be worked out well in advance of the activity for which they would be required.

Third, the lists provided by Dr. Tcholakova, of those over 40 in each rural village, appeared to accurately reflect the population over 40. Some of the people on the list have died, but in very few instances has anyone been identified in the village, who is not on the list. It is clear that the nurses are searching for the people on the list as the basis for this population study, rather than identifying an area and going house to house. I believe this system will work well in the rural areas, but I am very concerned once we move to an urban area. I believe that we may need to bring the nurses in for training on how to go to house to house within a defined area and simply use the list as a check off that no one was missed, rather than as the sampling frame. I will be sending instructions to Dr. Kushev suggesting that some period of re-training be undertaken to make sure that the sample is truly population based.

We have resolved all concerns with the sampling design and the screening design and concerns related to the location for data analysis. However, it is clear that the members of the Dana Center have been and will continue to be asked to play far more than a consultative role to this survey. In particular, Dr. Gieser and myself have invested considerable time and effort beyond the actual visit in order to insure that the eye survey is carried on. It will not be possible for us to undertake the data entry, data analysis, and report writing, necessary to complete this project, without consideration of some financial support. The original conceptualization of the Dana Center involvement was simply one of minor consultative role. However, it is clear from both Dr. Gieser's visits and mine that considerably more effort and activity was needed by us in order to plan, carry out, and analyze this field survey. Further discussions of this issue are needed.



Diseases and Surgery
of the Retina and Vitreous

Retina Associates of Utah

GREGORY S. BRINTON, M.D.
KIRK E. WINWARD, M.D.

August 20, 1992

Victoria Sheffield
International Eye Foundation
7801 Norfolk Ave.
Bethesda, MD 20814

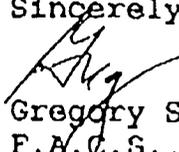
Dear Victoria:

I had an excellent trip to Bulgaria. I was treated very well and was impressed with Professor Vassileva and her staff. I was particularly impressed with her degree of knowledge, skill, and hard work and their ability to accomplish the goals in Bulgaria. There is no question that there is a desperate need for complex vitreoretinal work to be done there. The work done by you, Petja, and the others have brought them close to being able to do it. I have enclosed a list of the extra equipment they need as soon as possible. I have gone over this list carefully with Petja and the other doctors there. Every item on the list is necessary. I am firmly convinced that when they receive this equipment, they will be able to operate on the very complex vitreoretinal cases that are so prevalent in Bulgaria. Without the extra equipment, however, they will continue to be strictly limited in what they can do.

I find that they are very thankful for all of the equipment and help you have given them. They are meticulous with their equipment and work hard to keep it in good condition. With all of the demands on your time and resources, I am amazed at how much you have been able to do to help them. They are most grateful for what you have done. If you can somehow help them get this extra equipment they need, great things will happen. If not, I fear that much of what has been done already may be wasted.

I admire the excellent work that you are doing. This world is a much better place because of people like you.

Sincerely,


Gregory S. Brinton, M.D.,
F.A.C.S., Associate Professor
of Ophthalmology

GSB/mde/cc: Prof. Petja Vassileva, M.D., Ph.D., M.P.H.
Country Director, International Eye Foundation
19, Dobar Junak
1421, Sofia, Bulgaria

Page Two

List of Necessary Equipment for Vitreoretinal Work in Sofia,
Bulgaria:

Intraocular air pump (Greishaber)

✓ Sutherland intraocular horizontal scissors (Greishaber 612.22)

✓ Sutherland intraocular vertical scissors (Greishaber 612.25)

? ✓ Sutherland intraocular pick-forceps (Greishaber 612.98)

✓ Charles suction cannula (D.O.R.C. 1281B)

✓ Machemer diamond-dusted intraocular forceps (Greishaber 335.00)

✓ Ultrasonic instrument cleaner

Laser shutter for Zeiss microscope

Gas instrument sterilizer (I think this may be obtainable in
Bulgaria)

C3F8 (perfluoro-octane gas)

Other items that would be helpful:

Intraocular retractable magnet (Greishaber 612.10)

Video for indirect ophthalmoscope (since they are in a unique
teaching situation there and since the introduction and
use of the indirect ophthalmoscope is so important there,
this would be a very valuable important item)

Zeiss microscope foot pedal with light switch

Coaxial viewing arm for the Wild microscope

Foot pedal for the Wild microscope with light switch

Subscriptions to American Ophthalmology journals including
Archives of Ophthalmology, American Journal of Ophthalmology,
Retina, and Ophthalmology

34

ATTACHMENT E

DESCRIPTION OF CLINICAL AND SURGICAL PROCEDURES AND THEIR OBJECTIVES

DESCRIPTION OF PROCEDURES

Diagnostic:

1. Visual field testing: the measurement of the peripheral vision in an effort to diagnose such conditions as glaucoma, retinal detachment, optic nerve disease, and brain tumor.
2. Fluorescein angiography: photography of the retina after intravenous injection of dye to determine the status of the retinal blood vessels and to detect the presence of retinal degeneration.
3. Fundus photography of the retina to establish a baseline for future comparison of such retinal disorders as tumors and vascular abnormalities.
4. Ultrasonography: the use of sound waves to determine intraocular structure and dimension.

Surgical:

1. Cataract extraction: the removal of an opaque lens from the eye to enable rays of light to reach the light - sensitive retina.
2. Cataract extraction with intraocular lens implantation: replacement of an opaque lens with an artificial lens after cataract extraction.
3. Filtering procedure: an operation to reduce elevated pressure within the eye to prevent blindness from glaucoma.
4. Scleral buckling: an operation to re-attach a detached retina to prevent blindness.
5. Vitrectomy: the removal of the jelly-like substance that fills the rear portion of the eye, so as to remove opacities or to cure certain types of retinal detachment.
6. Laser photocoagulation: the use of a fine beam of high-intensity light to destroy abnormal retinal blood vessels that threaten to bleed and obscure vision.
7. Cryopexy: the use of an ultra-cold probe to seal retinal breaks or to reduce the pressure within the eye in certain types of glaucoma.

Description of Procedures and Objectives - Page 2

8. **Strabismus surgery:** the surgical re-positioning of the eye muscles, so as to straighten the eyes.
9. **Keratoplasty:** the replacement of an opaque cornea with a clear donor cornea to enable rays of light to reach the light - sensitive retina.
10. **Oculoplastics:** surgical procedures involving the eyelids and the tissues surrounding the eye, such as the removal of tumors, the correction of drooping eye lids, and the correction of disfiguring scars.

SURGICAL OBJECTIVES

1. **To restore sight:** the following surgical procedures are undertaken to restore sight:
 - a. Cataract extraction
 - b. Cataract extraction and intraocular lens implantation
 - c. Keratoplasty
2. **To prevent blindness:** The following surgical procedures are undertaken to prevent blindness:
 - a. Filtering procedure
 - b. Scleral buckling
 - c. Vitrectomy
 - d. Laser photocoagulation
 - e. Cryopexy
 - f. Strabismus surgery

36

FINANCIAL STATUS REPORT

(Short Form)

(Follow instructions on the back)

1. Federal Agency and Organizational Element to Which Report is Submitted Agency For International Development	2. Federal Grant or Other Identifying Number Assigned By Federal Agency EUR-0032-A-00-1032-00	OMB Approval No. 0348-0039	Page 1	of 1 pages
--	--	-------------------------------	-----------	------------------

3. Recipient Organization (Name and complete address, including ZIP code)
International Eye Foundation
7801 Norfolk Avenue, Suite 200
Bethesda, Maryland 20814

Revised

4. Employer Identification Number 52-0742301	5. Recipient Account Number or Identifying Number 553021783	6. Final Report <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Basis <input type="checkbox"/> Cash <input checked="" type="checkbox"/> Accrual
---	--	--	---

8. Funding/Grant Period (See Instructions) From: (Month, Day, Year) 04/16/91	To: (Month, Day, Year) 04/15/94	9. Period Covered by this Report From: (Month, Day, Year) 04/01/92	To: (Month, Day, Year) 06/30/92
--	------------------------------------	--	------------------------------------

10. Transactions:	I Previously Reported	II This Period	III Cumulative
a. Total outlays	201,338	37,537	238,875
b. Recipient share of outlays	7,276	(130)	7,146
c. Federal share of outlays	194,062	37,667	231,729
d. Total unliquidated obligations			-----
e. Recipient share of unliquidated obligations			-----
f. Federal share of unliquidated obligations			-----
g. Total Federal share (Sum of lines c and f)			231,729
h. Total Federal funds authorized for this funding period			525,000
i. Unobligated balance of Federal funds (Line h minus line g)			293,271

11. Indirect Expense	a. Type of Rate (Place "X" in appropriate box) <input checked="" type="checkbox"/> Provisional <input type="checkbox"/> Predetermined <input type="checkbox"/> Final <input type="checkbox"/> Fixed			
	b. Rate 17.55%	c. Base 30,345	d. Total Amount 4,323	e. Federal Share 4,323

12. Remarks: Attach any explanations deemed necessary or information required by Federal sponsoring agency in compliance with governing legislation.

upon recommendation by our auditors, we have adjusted the OH rate to 17.55% for the year.

13. Certification: I certify to the best of my knowledge and belief that this report is correct and complete and that all outlays and unliquidated obligations are for the purposes set forth in the award documents.

Typed or Printed Name and Title Victoria M. Sheffield, Executive Director	Telephone (Area code, number and extension) 301-986-1830
Signature of Authorized Certifying Official <i>Victoria M. Sheffield</i>	Date Report Submitted 10-28-92

37