

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: Victoria M. Sheffield, Executive Director

Cognizant Technical Officer: Prof. Petja I. Vassileva

Report dates: from 1 October 1992 to 31 December 1992

PROJECT STATUS: Ongoing

PROGRESS:**PERSONNEL**

Ms. Yordanka Koleva, with a university degree in linguistics (Polish and English) and experience in secretarial work has started work on a probationary period as the project Secretary as of 1 December 1992 (See CV Attachment A). Miss Ekaterina Shekerdjiiska resigned to take up a position with a private company.

ACCOMPLISHMENTS:**1. Meetings/IEF Bethesda**

16 October 1992

Sheila West, PhD, of the Dana Center for Preventive Ophthalmology (DCPO) at Johns Hopkins School of Hygiene and Public Health in Baltimore, principal investigator on the Sofia Eye Survey, and Dr. Stephen Gieser, also of the DCPO and one of the investigators, traveled to Bethesda to visit with Ms. Sheffield and discuss the preliminary progress of the survey. So far, progress is good and the training of the teams has been completed. Initial data collection was taking place in Rila County.

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3 November 1992

Ms. Sheffield met with Linda Bernstein, IEF's new Project Officer at AID/EUR in Washington to brief her on the project before she left the following day to visit a number of Eastern European countries including Bulgaria. During her visit, she was able to meet with Prof. Vassileva and the project staff to review activities.

6-13 November 1992

Prof. Petja Vassileva, IEF Country Director, and Dr. Bojidar Madjarov, a young vitreo-retinal specialist working in the Center for Sight and very active with the project, participated in the annual American Academy of Ophthalmology (AAO) meeting held in Dallas, Texas. Dr. Madjarov was sponsored to the meeting by one of the American "visiting professors", Dr. Douglas Felt, who had recently visited the project in Sofia. Prof. Vassileva also was part of the AAO's "Host an Ophthalmologist" program (the IEF can only bring in one ophthalmologist through the "host" program). See Attachment B.

Prof. Vassileva attended continuing education courses and participated in a panel discussion in the course titled "Management Issue for Prevention of Blindness where she discussed the Sofia Eye Survey. Prof. Vassileva met with ophthalmologists who are scheduled to visit the project during 1993, a number of ophthalmic specialists, and staff of ORBIS International which is also providing short-term teaching missions in Bulgaria and collaborating with the IEF's project. Dr. Madjarov attended courses on retina and vitreous surgery. Both physicians visited many of the pharmaceutical and ophthalmic equipment booths to get acquainted with new developments in diagnosis and treatment in ophthalmology.

Prof. Vassileva had a meeting with the faculty of Surgical Eye Expeditions (SEE), International, and discussed the planning of an educational program in collaboration with the IEF's project.

Prof. Vassileva and Dr. Madjarov also participated in the IEF's Annual Society of Eye Surgeons Breakfast with Drs. Brinton and Felt who served as visiting professors to the Center for Sight in Sofia during 1992. Dr. Brinton gave a slide presentation on his visit to Sofia to those in attendance.

16-19 November 1992

Prof. Vassileva visited IEF Headquarters in Bethesda for management meetings with staff. She and Dr. Madjarov visited the National Eye Institute (NEI) where they were given a guided tour of the NEI and the National Institutes of Health (NIH). A meeting was held with Dr. Carl Kupfer, Director of the NEI to discuss eye care in Bulgaria and the IEF project. Ms. Sheffield joined an additional meeting with the epidemiologist and statistician to discuss the progress of the Sofia Eye Survey. Ms. Sheffield arranged for Dr. Madjarov to attend surgery at the Georgetown University Center for Sight to observe.

17 November 1993

Ms. Sheffield, Prof. Vassileva, and Dr. Madjarov visited Mr. Frederick N. Griffith, President and CEO of Tissue Banks International in Baltimore, to explore the possibility of establishing an Eye Bank in Bulgaria. Mr. Griffith was very enthusiastic and supportive of the IEF's initiative in this area. Although not an objective of the project, the project is facilitating the process for the establishment of an Eye Bank in the country.

18 and 19 November 1993

Ms. Sheffield, Prof. Vassileva, and Dr. Madjarov traveled on the 18th to Johns Hopkins University in Baltimore to meet with Dr. Stephen Gieser at the DCPO to discuss the survey. Prof. Vassileva delivered the original data collection forms from Rila County, the first county surveyed, for data entry and analysis. Discussions were held on the preliminary survey results. Dr. Madjarov toured the Wilmer Eye Institute and observed ocular surgery. On the 19th, Prof. Vassileva traveled again to the DCPO in Baltimore to meet with Dr. Sheila West who had just returned from South America, and Dr. Gieser, to discuss progress and plans for Dr. Gieser's upcoming visit to Sofia to monitor the survey.

2. Meetings/IEF Sofia

Upon Prof. Vassileva's return to Sofia, she gave a presentation to the clinic ophthalmologists of the scientific program of the AAO meeting in Dallas.

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's teaching courses and survey progress for the participants and visitors.

Visit of Associate Prof. Robert Butner - 1-10 October 1992

Dr. Butner, a vitreo-retinal specialist from Baylor University in Houston, was the IEF's first visiting professor to the project in January 1992. During this visit, he made consultations, examined a series of patients, and presented a lecture on the "Early Treatment of Diabetic Retinopathy" study being conducted in the US. He then traveled with Prof. Vassileva and others to Stara Zagora to attend the National Conference on Problems of Blindness.

Visit of Prof. Dr. I. Kreissig, MD, Director of the Retinal Department of Tuebingen University - 12 and 13 October 1992

Prof. Kreissig attended the National Conference in Stara Zagora and then visited Sofia for two days. She delivered a lecture to the Sofia Ophthalmological Society and visited the Center for Sight to discuss collaboration with the Retinal Clinic in Tuebingen.

Visit of Ian McMichael, MD, FRCS, DO - A consultant with ORBIS International - 14 October 1992

Dr. McMichael discussed with Dr. Vassileva the current status of relationships and achievements of the ORBIS teaching programs which were held prior to the fall of the Communist regime in Bulgaria and in consideration of the AID evaluation of ORBIS activities which was conducted in March 1992 by a US team. Plans for future collaboration of the IEF in Bulgaria with ORBIS in the area of teaching programs was discussed.

Visit of Linda Bernstein, Project Officer, AID/Washington - 4 November 1992

Ms. Bernstein toured the Center for Sight. She and Prof. Vassileva had a detailed discussion about the project and current issues with emphasis on the problems of the Center for Sight and the Eye Department in which it is housed.

[Handwritten mark]

Visit of Ms. Marsha Baird, Peace Corps of the United States of America - 18 December 1992

Ms. Marsha Baird, a Business Advisor with the Peace Corps in Varna, visited the Center for Sight at the suggestion of Ms. Sheffield. She met with a number of the ophthalmologists and toured the Center for Sight. They discussed the project in detail and future IEF plans in Bulgaria including the current difficulties in the country such as trying to institute public eye health activities, the need for health insurance opportunities to create incentives for doctors such as the ability to have private practice in the Center in the afternoons, and opportunities for developing private non-profit eye clinics in the country.

International Eye Bank

Prof. Vassileva, at the suggestion of Mr. Griffith, began preparatory work and negotiations for creating an Eye Bank in Bulgaria. Two meetings were held with an attorney at the MOH and a department chief to discuss current Bulgarian legislation related to organ and tissue donation and transplantation. Support for organizing the Eye Bank was ensured. Prof. Vassileva also had conversations with several ophthalmologists active in corneal transplant surgery and with pathologists from two hospitals to explore the idea of establishing an Eye Bank and the availability of cadavers in health institutions.

She also discussed with Prof. Konstantinov, the leading corneal transplant surgeon in the country, about his chairing a Board of Directors for the Eye Bank. Mr. Griffith will be planning to visit Sofia from 17-21 January 1993 to discuss further collaboration and support for the Eye Bank.

On 29 November, Prof. Vassileva discussed the Eye Bank ideas in personal discussions with some of the leading ophthalmologists attending the meeting of the Board of the Society of Ophthalmology.

St. Panteleimon International Health Foundation/University Hospital "Queen Joanna" - 29 and 30 November 1992

Prof. Vassileva met with Assoc. Professor Radi Kabaivanov, President of the St. Panteleimon Foundation, to discuss possibilities of future collaboration and with the Queen Joanna Hospital where the Foundation is planning to base its oncology program. Prof. Kabaivanov has discussed with Prof. Vassileva and Ms. Sheffield the possibility of the Center for Sight serving as a referral center for the St. Panteleimon medical clinics. Such collaboration is planned.

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Prof. Vassileva and Prof. Kabaivanov also met with Mr. Gerald Zarr, AID Representative in Sofia, and Assoc. Professor Vassilev (no relation to the IEF Country Director) who is the Minister of Health in resignation to discuss the future of the MOH, the University Hospital Mladost where the Center for Sight is housed, and the IEF project. Prof. Vassilev continues to be supportive of the project and its many innovative activities.

On 30 November, Prof. Vassileva had a meeting with Dr. Kenarov, Director of the University Hospital Queen Joanna, who extended her invitation to move the project and the Center for Sight to his hospital. Prof. Vassileva had been in the Constituent meeting of the Health Foundation Queen Joanna. Consideration of a move at this time is not being entertained.

3. National Conference on Problems of Blindness in Bulgaria held in Stara Zagora - 9 and 10 October 1992

Prof. Vassileva presented three papers at the meeting and chaired one scientific session. Five more papers were presented by staff associated with the Center for Sight. All papers were well illustrated and well received.

During the organizational meeting of the Ophthalmological Society, there was strong opposition from Prof. Gugutchkova, Prof. Sjarov, and Prof. Tanev of the Alexandrovska Hospital regarding the organization of a National Blindness Prevention Committee (NBPC), one of the objectives of the IEF project and in accordance with WHO guidelines. Their argument was that Bulgaria is not a Third World Country and such committees, according to them, are only established in Africa and Asia. Prof. Markov, President of the Society of Ophthalmology, supported the idea of establishing the NBPC.

Prof. Vassileva and Prof. Konstantinov gave several interviews for the local newspapers and broadcast media.

4. Baseline Survey - "Sofia Eye Survey"

A detailed review of the survey activities in each of the six counties (Rila, Petrich, Svoge, Pirdop, Dupnitsa, and Radomir) is attached (See Attachment C).

Visit of Stephen Gieser, MD, MPH - 30 November - 6 December 1992

Dr. Gieser, one of the survey investigators from the DCPO, visited Sofia to evaluate the mid-point data collection. He met with Prof. Vassileva, Assoc. Prof. Tcholakova, and Dr. Kushev and held two meetings with the participants of the field teams and was able to accomplish the objectives of his visit. Dr. Gieser's trip report is Attachment D.

Dr. Gieser's report discusses observation of the field teams, his participation in patient screening and examination, inventory of equipment, and analysis of preliminary data.

He and Prof. Vassileva finalized the abstract for presentation of the Sofia Eye Survey data at the next ARVO meeting in Florida in May, the leading ophthalmology research meeting in the US.

5. Training

Visiting Professor Program

From 17 to 29 October, Prof. Douglas P. Felt, MD, an ophthalmic plastic surgeon from Ogden, Utah, was the fifth visiting professor to visit the Center for Sight. He examined and consulted many patients including performing surgery. He gave lectures with perfectly illustrated slides and videos. See Dr. Felt's Trip Report - Attachment E.

Dr. Felt is one of the professors recruited through the IEF's collaboration with the LDS Church in Salt Lake City. Dr. Felt's training courses were coordinated with Prof. Smilov, Dean of the Medical Faculty, Sofia, and Prof. Bozhkov and Prof. Konstantinov of the University Hospital Mladost. The course was included in the post-graduate program of the Medical Faculty. Prof. Vassileva has provided a detailed summary of Dr. Felt's visit - see Attachment F.

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6. Procurement of Supplies

Dr. Butner brought some additional equipment for the survey.
 At the AAO meeting in Dallas, Prof. Vassileva and Dr. Madjarov met with Mr. Hans Grieshaber, President of Grieshaber Instrument Company. After long negotiations, four micro-instruments for vitreo-retinal surgery were purchased at a much reduced price.

7. Service Delivery

CLINIC OUTPATIENTS:

Bulgarians	1790	6046
<u>Foreigners</u>	<u>144</u>	<u>558</u>
TOTAL	1934 (this quarter)	6604 (to date)

Breakdown:	Bulgarians	Foreigners
October	516	30
November	629	67
<u>December</u>	<u>645</u>	<u>47</u>
TOTAL	1790	144

SURGICAL OPERATIONS:

Bulgarians	308	1167
<u>Foreigners</u>	<u>51</u>	<u>323</u>
TOTAL	359 (this quarter)	1490 (to date)

Breakdown:	Bulgarians	Foreigners
cataract extraction	15	1
cataract extraction w IOL	105	5
glaucoma procedures	25	3
retinal detachment	24	3
vitrectomy	5	1
cryo application	18	1
keratoplasty (corneal transplant)	9	7
strabismus surgery (squint)	26	3
lid procedures (plastic surgery)	5	0
<u>others</u>	<u>76</u>	<u>27</u>
TOTAL	308	51

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Treatment with Argon Laser (purchased by IEF) (out of order for one month):

Bulgarians	228
<u>Foreigners</u>	<u>7</u>
TOTAL	235

Treatment with Friedman Analyzer: 19

Humphrey Field Analyzer (glaucoma patients): 31

Patients Admitted to Hospital (non-surgical)

Bulgarians	228
<u>Foreigners</u>	<u>42</u>
TOTAL	270

Patients Fitted with Donated (IEF) Toric Soft Contact Lenses:

Bulgarians	92
<u>Foreigners</u>	<u>3</u>
TOTAL	95

Note: Approximately 1,000 lenses were provided to the Chair of Ophthalmology (Prof. Gugutchkova).

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
CDC Headquarters in Sofia (Hospital Administration)
Business Resources Center - Peace Corps of the USA
SEE International, Inc., USA
International Federation of Eye Banks and Tissue Banks International

9. Principle Issues and Problems

Changes in the Government

Since a vote of "no confidence" was given to the former government in the second half of October, the President had been trying to form a new government. This governmental crisis led to organizational problems within the MOH and individual hospitals leading to insecurity in concern of the future of the health structure in the country as well as particular disorganization related to everyday work, budget, staff, and services. On 31 December, a new government was created and a new Minister of Health was appointed. The new Minister made changes immediately and it is expected that the entire MOH will be restructured. An entire change in the status of hospitals may follow as the new Minister is planning a new structure of the hospital system and their activities.

A new Director was appointed to the University Mladost Hospital which houses the Center for Sight in October. However, he is a top politician in the Agricultural Party which opposes the new government, so it is expected that he will be replaced.

Disbanding of the Medical Academy

The disbanding of the Medical Academy, which previously provided technical support for maintenance of equipment, etc., has created difficulties with technical support at this time.

Zeiss Operating Microscope

The Zeiss Operating Microscope was out of commission for one and a half months as the electric microchip plate had to be sent to the US for repair.

Staff Incentives

There is still no new legislation in the health care system to provide incentives and motivation to the medical staff, all paid by the government. The continually increasing amount of work done by the project is still performed by the same small staff. Dr. Konstantinov's son, an ophthalmologist, and another ophthalmologist, Dr. Dimova, have left the country which has reduced the staff by approximately 20%. An additional allocation of two ophthalmologists, one nurse, and a cleaner have not been hired due to the current situation related to the reorganization of the government and the MOH.

Sofia Eye Survey

It has been hoped that Sofia City might be included at the end of the survey of the three rural and three urban counties. However, due to the change in government, negotiations could not take place to authorize the additional survey area. The staff will continue to try when the new city government is in place.

10. Planned Actions Next Quarter

Continuation of the Sofia Eye Survey - field work, data entry, data analysis, and preparation of the report.

Visit of Mr. Frederick Griffith of the Tissue Banks International from 17 to 21 January 1993 to negotiate the establishment of an Eye Bank in Sofia.

Mid-term Evaluation, 21-26 February 1993, with Dr. MacCorquodale (still tentative), and Dr. James B. Sprague.

Visit of Prof. Harry Quigley, MD, Director of the DCPO at Johns Hopkins and one of the nations leading glaucoma specialists, during the second week of March, to lecture, consult patients, and perform surgery.

Continued organization of the National Blindness Prevention Committee with a meeting of the Board of the Bulgarian Society of Ophthalmology on 29 January 1993.

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ATTACHMENTS:

- A. CV of Ms. Yordanka Kolcva
- B. Article from the AAO's ARGUS
- C. Sofia Eye Survey summary
- D. Trip Report - Stephen Gieser, MD
- E. Trip Report - Douglas P. Felt, MD
- F. Summary of Dr. Felt's program
- G. Financial Statement

CURRICULUM VITAE

NAME: Yordanka Nikolova Koleva

BIRTH: [REDACTED]

MARITAL STATUS: Unmarried

ADDRESS: [REDACTED]

HOME PHONE: [REDACTED]

EDUCATION: In 1983 I finished a specialized language secondary school where I studied Russian language and culture, and English.

The same year I was admitted to St. Kliment Ohridski University of Sofia, Department of Slavic Studies.

I graduated in 1989 with B.A. degree in Slavic linguistics and literature, and English as a second subject.

EMPLOYMENT: 1985 - 1990 / part time, during studies / - Chain for International Youth Tourism 'Orbita' - Guide - interpreter

1989 - 1991 School for foreign languages - 'St. Peshev' Club, Sofia - Teacher

1991 - 1992 LINCOM Computer Systems, Sofia - Secretary / Public Relations

A number of translations and editorial work on films, articles, etc. for different companies, such as: Sky Line Video, Ltd.; Alpha Video; J-Club Magazine and others.

LANGUAGES: Polish, English, Russian - fluently, spoken and written
German, Serbish - very good, spoken and written

SEMINARS: August, 1987 - Participation in POLONICUM - course of Polish language and culture for philologists, held at Warsaw University; and other courses and seminars in Bulgaria.

Additional skills:

Experience in work with computers and wordprocessing products (Microsoft Word 5.0; Word Perfect; Word for Windows 3.1; Aldus PageMaker 4.0); electronic tables (Lotus 123), and others
Driving license.

Diabetes 2000 gets new National Project Director

Enclosed in this issue of *Argus* is the Diabetes 2000 brochure. A new committee, the National Operations Committee, will be organizing and coordinating Diabetes 2000 on the national level. **George W. Blankenship, MD**, will be the National Project Director beginning Jan. 1 replacing Ronald E. Smith, MD who becomes President-elect.

If you are interested in participating in Diabetes 2000, contact the Diabetes 2000 State Coordinator in your state, listed below. For more information, contact the Diabetes 2000 Project, P.O. Box 7424, San Francisco, CA 94120-7424.

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National Coordinator for State Societies

Joseph E. Robertson Jr., MD
Casey Eye Institute/OHSU
3375 SW Terwilliger Blvd.
Portland, OR 97201-4197
503-494-7891

State Coordinators
Saunders L. Hupp, MD
University of Southern Alabama
Health Services Building
P.O. Box 8448
Mobile, AL 36689
205-460-6388

Thomas J. Harrison, MD
3500 La Touche
Suite 250
Anchorage, AK 99508
907-561-1530

Melvin Gerber, MD
5501 N. 19th Ave.
Suite 310
Phoenix, AZ 85015
602-242-4928

Bill Mabrey, MD
Medical Towers Building
9601 Life Drive
Suite 990
Little Rock, AR 72207
501-224-8300
501-224-8400

Thomas A. Hanscom, MD
2021 Santa Monica Blvd.
Suite 720 E
Santa Monica, CA 90404
213-829-9034

Howard Schatz, MD
1 Daniel Burnham Court
San Francisco, CA 94109
415-441-0906

George A. Moo-Young, MD, PhD
850 E. Harvard Ave.
Suite 505
Denver, CO 80210
303-778-1910
FAX: 303-778-8450

Andrew J. Packer, MD
85 Seymour St.
Suite 522
Hartford, CT 06106
203-527-6473

Chi-Lun Charles Wang, MD
1700 Wowaset St.

Suite 200
Wilmington, DE 19806
302-655-1500

Howard P. Cupples, MD
Georgetown University Medical Center
Department of Ophthalmology
3800 Reservoir Road, NW
Washington, DC 20007
202-687-4755

Scott E. Pautler, MD
4600 N. Havana Ave.
Suite 3

Tampa, FL 33614
813-879-5795

William H. Jarrett II, MD
2004 Peachtree Road, NW
Atlanta, GA 30309
404-351-2220

David Randall, MD
46-001 Kam Highway
Suite 405
Kaneohe, HI 96744
808-247-5456

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International

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tan, in exile in Pakistan) Sponsored by the Afghan Eye Hospital

• **Joseph Sangawe, MD** (Tanzania). Sponsored by the Haas Foundation.

• **Pakitti Tayanithi, MD** (Thailand). Sponsored by the Ophthalmological Society of Thailand

• **Petja Vassileva, MD** (Bulgaria). Sponsored by the International Eye

CME PROGRAMS

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■ **INDOCYANINE GREEN ANGIOGRAPHY SYMPOSIUM**
January 15-16, 1993
Course Director: Lawrence A. Yannuzzi, M.D.
Host Committee: Ronald E. Carr, M.D., Francis L'Esperance, M.D., Harvey J. Jacob, M.D., Joseph B. Walsh, M.D.
Guest Faculty includes Prof. A. Alm, Peter Bachoff, M.D., Prof. Rosano Brancato, Prof. Gabriel Coscas, J.J. DeLaey, M.D., Robert Flower, Ph.D., Prof. Toshihide Hayashi, Prof. Kuhiko Miki, Carmen Poggio, M.D., Howard Schatz, M.D., Achim Wessing, M.D., Hong Woon, M.D.

Description: This course will examine the use of indocyanine green angiography as an established diagnostic technique in evaluating choroidal circulation and its abnormalities. Fundamental concepts of the anatomy, physiology and histopathology of the choroid will be reviewed along with technical developments in imaging systems in preparation for clinical sessions devoted to choroidal tumors, inflammations, amyloid, systemic abnormalities, and neovascularization. Laser photocoagulation therapy assisted by indocyanine green angiography findings will be covered.

■ **CLINICAL DECISIONS IN GLAUCOMA: CHALLENGES & CHANGES**
Saturday, February 27, 1993
Course Directors: Raymond Harrison, M.D. & Maurice Lieb, M.D.
Guest Faculty: Allan Kolker, M.D. (Washington University Medical Center, St. Louis, Missouri), Bernard Schwartz, M.D. (Tufts Medical School, Boston, Massachusetts), Robert E. Stampert, M.D. (The Glaucoma Medical Center, San Francisco, California)

Description: This challenge of making clinical decisions in glaucoma practice will be presented by experts in the field. Faculty members will present their views, discuss current clinical practice, and answer questions.

A patient's case will be presented and audience participation will be encouraged.

Sponsored by Alcon Laboratories.

■ **FOR FURTHER INFORMATION CONTACT:** Kimberly G. ...
Department of Ophthalmology, Manhattan Eye, Ear & Throat Hospital,
230 East 64th Street, New York, NY 10021, (212) 368-2200, ext. 2200



From Eritrea to Moscow, international ophthalmologists come to the Annual Meeting

'Host an ophthalmologist' doubles in participation



In a world where the atlas quickly becomes outdated as new nations form and old ones cease to exist, what remains constant is the need for high quality medical care and the education of physicians to provide that. To enable more ophthalmologists from developing and emerging nations to attend the Annual Meetings, the Academy launched "Host an Ophthalmologist" last year, a program of the Committee on International Ophthalmology.

Corporations, organizations and individual Academy members sponsor the visiting ophthalmologists, cover-



Desbele Gebregiorgis, MD, of Eritrea

ing the costs of transportation, housing and meals. The Academy provides free registration and instruction courses.

"It's the dream of all Russian ophthalmologists" to attend the Annual Meeting, said **Elena P. Tarutta, MD**, of Moscow, one of 13 guest ophthalmologists who attended this year's Annual Meeting. She is a re-

searcher in the Department of Ophthalmology at the Department of Medicine, Johns Hopkins University. "We can build better relationships and share medical and scientific ideas," he said.

Although "ophthalmological science in Russia is rather good," Dr. Tarutta said, the country still needs more instruments and new technology. "I hope I'll pick up much useful information from this meeting," she said.

Before arriving in Dallas, Chinese ophthalmologist **Ren-Yuan Chu, MD**, spent a month at the Sinai Hospital in Detroit, which had invited him to study and observe the excimer laser. The Chinese American Ophthalmological Society was his host for the Annual Meeting. "I've received a warm welcome," he said. "People have been very good to me."

There is "definitely a distance" between ophthalmology in China and the United States, Dr. Chu said. "We want to close the gap." At the Annual Meeting, he was particularly interested in learning about the "most up-to-date technology and equipment."

Carlos W. Arzabe, MD, Bolivia, attended his first Academy Annual Meeting last year through his involvement with Helen Keller International. "The Academy's Annual Meeting is the best," he said. "Every ophthalmologist wants to be in on it. If you come once, you want to come back." Thanks to the sponsorship of Magnivision, Dr. Arzabe got his wish.

After completing a two-year fellowship in retina and vitreous at Harvard University, Dr. Arzabe returned to Bolivia in 1989. He found there was little in the way of ophthalmology in a country where cataracts are the number one eye problem. The

"Seeing what is the future in research" was foremost in Dr. Arzabe's mind at the Annual Meeting. He wants to encourage young Bolivian ophthalmologists who train abroad to return to their home country. The key, he says, is for the more experienced ophthalmologists "to keep getting better." Attending the Annual Meeting was a step in that direction.

Desbele Gebregiorgis, MD, the only ophthalmic surgeon in Eritrea and the medical director of the Oph-



Ren-Yuan Chu, MD, (left) of China with his hosts David Fae, MD and Anita Pao. Dr. Chu was sponsored by the Chinese American Ophthalmological Society.

thalmic Centre in Asmara, Eritrea, was sponsored by Eryson Corp. The ophthalmic problems facing his country of four million people have been compounded by a 30 year war, finally won last year, to secure independence from Ethiopia.

Some physicians are still leaving to work in other countries. "We have to work very hard here," said Dr. Gebregiorgis. "We have such a time backlog." And instruments and medications are in short supply. "Sometimes we are forced to stop operations because of a lack of drugs," he added.

Given the tremendous need in his country, Dr. Gebregiorgis looked forward to the Annual Meeting as an opportunity to strengthen relationships with ophthalmologists worldwide. He hopes some

physicians will visit Eritrea to help perform surgery.

Participation in the "Host an Ophthalmologist" program has more than doubled over last year. Other attendees and their sponsors were:

- **Jamima Cepinskaite, MD**, Lithuania, sponsored by **Timas Sidrys, MD**
- **Leandro Chamorro, MD**, Nicaragua, sponsored by **Bausch & Lomb**
- **Mohamed E. Daramy, MD**, Saudi Arabia, sponsored by **Optical America of Houston, Inc.**
- **Luiza Garcia, MD**, Cuba, sponsored by **Optical America of Houston, Inc.**
- **Jozef Kaluzny, MD**, Poland, sponsored by **Stan A. Milewski, MD**
- **Said David Noori, MD**, Bahrain, sponsored by **Helen Keller International, Inc.**



Elena P. Tarutta, MD, of Moscow, and Roman O'Malley, MD.

searcher in the Department of Ophthalmology at the Department of Medicine, Johns Hopkins University.

Both Dr. Tarutta and **Roman O'Malley, MD**, an ophthalmic specialist with the Annual Meeting, said Dr. Tarutta participated in the

most participation in the program, with more than 100 ophthalmologists participating in the program.

Dr. O'Malley, who is a member of the Academy, said he found the meeting to be a very successful one.



Field work - Rila County (October 1-15, 1992)

On Oct. 1 the Survey was started with Rila county. An inauguration meeting was held with Prof. Vassileva, Assoc. Prof. Sheila West, Assoc. Prof. Tanya Cholakova, and Dr. Kushev with the kind support of Dr. Vassev - Head of County Hospital, and Mr. Ivan Remichkov - Mayor of Rila. The whole staff of County Hospital, Rila attended the meeting. Prof. Vassileva, Assoc. Prof. Sheila West and Dr. Vassev addressed the audience stressing the aims of the Survey and its importance. Assoc. Prof. West and Prof. Vassileva took part in the screening at houses the same day.

The Central Sites in Rila town and villages Smotchevo and Pastra were created only on Oct. 7 (delay caused by problems with clearing of equipment from customs). The same day Prof. Vassileva organized the installation of equipment, and participated in screening examination. She also performed consultations, examinations at Central Examining Sites, and reviewed Form 6.

Screening examination provided for 831 citizens.

Patients referred from field nurses for ophthalmological examination: 47

Additional patients examined from Rila county: 283

Prof. Vassileva visited the field work area for additional supervision on Oct. 14, 15.
Assoc. Prof. Cholakova supervised the work on Oct. 1, 7, 8, 14, 15.

Dr. Kushev was present at the work area all the time.

On Oct. 6 Dr. Kushev travelled to Petrich for technical organizing of the survey in Petrich county. He visited Head of County Hospital Dr. Apostolov and villages of Belasitza, Kavarkirovo and Starchevo, and met mayors and medical staff of these villages.

On Oct. 16 discussions on the field work in Rila County and retraining of teams with Prof. Vassileva, Dr. Kushev, and consultations with Prof. Konstantinov and the Advisory Council took place at the Center for Sight, Sofia.

Field Work - Petrich County (October 19 - 30, 1992)

On Oct. 19 the teams arrived in Petrich and Central sites were created in villages Belasitza, Kavrakirovo and Starchevo. A specialized transport for mountain area was organized for field nurses working in village of Pravo Bardo with the support of Petrich County Hospital Dr. Apostolov.

Prof. Vassileva supervised the work on Oct. 20, examined patients in Central sites, and reviewed Form 6 with team ophthalmologists.

Assoc. Prof. Cholakova visited Petrich county on Oct. 20, 21 to control the forms 1-5.

On Oct. 20 Dr. Kushev with an ophthalmologist and a nurse visited Rila again for ophthalmological examination of several screened patients at their homes.

On Oct. 28-29 Prof. Vassileva together with Dr. Felt visited Petrich county. A party was held in the evening in honor of Dr. Felt's visit and Dr. Kushev's birthday with the entire staff of Sofia Eye Survey. On Oct. 29 Prof. Vassileva, Dr. Felt and Dr. Kushev visited the County Hospital of Petrich, and had a tour around the Hospital with the Head, Dr. Apostolov. They supervised the equipment at Eye offices, and had talks with ophthalmologists working in the Polyclinic. In Petrich Prof. Vassileva, Dr. Felt, Dr. Apostolov and Dr. Kushev had an appointment with Mayor of the town, Dr. Iliev. Prof. Vassileva explained the main objectives of the IEF projects, and the goals of Sofia Eye Survey. Prof. Vassileva and Dr. Felt visited Central sites in villages of Belasitza, Kavrakirovo and Starchevo. Prof. Vassileva supervised Form 6, and together with Dr. Felt examined patients.

Dr. Kushev was present at the area all the time.

Screening examination: over 750 citizens

Patients referred by field nurses for ophthalmological examinations: 30

Additional patients examined from Petrich county: 279

(Belasitza - 107, Kavrakirovo - 73, Starchevo - 99)

Field Work - Svoge County (November 2 - 12, 1992)

On Nov. 2, 1992 the teams arrived to Svoge and created Central examining sites in villages of Lukovo, Rebrovo, Tserovo. A specialized transport for mountain area was provided with the support of Head of County Hospital Svoge Dr. Tsonev for village of Gubislav.

On Nov. 4 Prof. Vassileva visited the area for supervision of Central sites and team workers, reviewed with team ophthalmologists Form 6. She met with the Mayor of Lukovo.

On Nov. 10 Assoc. Prof. Cholakova and Dr. Kushev visited Pirdop for organizing of Survey and met with Head of County Hospital and the Mayor of the town. Dr. Kushev controlled the work on Nov. 2, 4, 9, 11, 12.

Screening examination: over 750 citizens

Patients referred by the field nurses for ophthalmological examination: 19

Additional patients examined: 418

(Lukovo - 44; Tserovo - 118 + prophylactic checkups of 220 pupils up to 15; Rebrovo - 36)

On Nov. 13 retraining of the teams for work in urban areas was organized by Dr. Kushev at the Center for Sight, Sofia.

Field work - Pirdop county (November 16 - 26, 1992)

On Nov. 16 - arrival to the area. Creating of Central sites in County Hospital - Pirdop. Problems with finding people at their homes because most of them work up to 5 o'clock p.m. For that reason field nurses worked on Nov. 21 (Saturday). On Nov. 23 (Monday) all the staff worked up to 9 o'clock p.m. and stayed at Pirdop hotel. The Head of County Hospital helped the teams and provided with election lists of the population, and a sitting-room for team nurses was additionally organized. The time for travelling was extended more than three hours (round trip) because of snowing weather.

On Nov. 24 Prof. Vassileva visited Pirdop, supervised Form 6, examined patients. Prof. Vassileva, Assoc. Prof. Cholakova, and Dr. Kushev took part at the screening in houses together with team nurses.

Assoc. Prof. Cholakova controlled the field work on Nov. 18.

Dr. Kushev supervised field work on Nov. 16, 18, 23, 24, 26.

On Nov. 19 Dr. Kushev visited Dupnitsa for the final co-ordination with Head of County Hospital Dr. Vladimirov concerning Survey

Screening examination: over 750 citizens

Patients referred by field nurses for ophthalmological examination: 18

Additional patients examined from Pirdop county: 176

(Team 1 - 83, Team 2 - 60, Team 3 - 33)

Additional service: Chiefs of the teams prescribed glasses that were prepared in specialized optic shop in Sofia by Ms. Kostova (Team worker), and delivered to the patients in Pirdop.

Field work - Dupnitza county (Nov 27 - Dec. 10, 1992)

On Nov. 27 - travelling from Pirdop to Dupnitza and creating of Central sites in Polyclinic (Outpatient Department) of Dupnitza town. Teams worked on Dec. 5 (Saturday), and on Dec. 7 up to 10 o'clock p.m. because it was difficult to find people at their homes due to the standard working time till 5 o'clock p.m.

On Dec. 2 Prof. Vassileva, Dr. Stephen Gieser and Assoc. Prof. Cholakova visited Central examining site in Dupnitza. Prof. Vassileva supervised Form 6 and examined the patients. Dr. Stephen Gieser, Assoc. Prof. Cholakova and Dr. Kushev supervised field workers from Team 1 and Team 2. They had a meeting with Head of County Hospital, Dr. Vladimirov and the Head of the Eye Ward, Dr. Zareva where Prof. Vassileva explained the main objectives of the program with the International Eye Foundation, and the goals of Sofia Eye Survey.

On Dec. 4 Prof. Vassileva and Dr. Stephen Gieser visited Dupnitza county, and examined patients referred to the Central sites by field workers for confirmation of diagnosis. On Dec. 9 Prof. Vassileva supervised Form 6 and examined patients.

On Dec. 7 Dr. Cholakova and Dr. Kushev visited the Head of County Hospital Radomir, Dr. Gyosheva for final co-ordination of the Survey.

Dr. Kushev visited Dupnitza on Nov. 27 and 30, Dec., 2, 4, 7, 8, 9, 10.

Screening examination: over 750 citizens

Patients referred by field nurses for ophthalmological examination: 29

Additional patients examined from Dupnitza county: 64

(Team 1 - 28, Team 2 - 20, Team - 16)

(Some of the patients who were referred to the Central site but refused to go there although the transport for them was arranged. For that reason some of the patients were examined at their homes by the chiefs of the teams.)

4/19/92

Field Work - Radomir County (Dec. 11 - 22, 1992)

Dec. 11 - arrival and creating of the Central sites in the County Hospital in Radomir. On Dec. 16 a meeting was held with field nurses concerning final work and finish of the Survey up to Christmas. (Assoc. Prof. Cholakova, Dr. Kushev). The teams worked on Dec. 19 (Saturday) and on 21 up to 9 o'clock p.m. because of the difficulties with finding people at their homes (due to the standard working time).

Prof. Vassileva visited the area on Dec. 14, 21 and supervised Form 6, examined patients, and had talks with ophthalmologists (residents) working in County Hospital, and instructed them. On Dec. 21 she had a meeting with Head of County Hospital Dr. Gyosheva, and summarized the goals of the IEF and Sofia Eye Survey.

Assoc. Prof. Cholakova visited the area on Dec. 11 and 16, and checked up the forms 1-5.

Dr. Kushev visited the area to control the work of teams on Dec. 11, 14, 16, 18, 21, 22.

Screening examination: over 750 citizens

Patients referred by field nurses for ophthalmological examination: 26

Additional patients examined from Radomir County: 208

(Team 1 - 90, Team 2 - 57, Team 3 - 61)

Additional service: Prescribing glasses that Ms. Kostova prepared in Sofia (the same procedure as in Pirdop)

Total number of additional patients from 6 counties: 1,406

On Dec. 23 all the teams of Survey and staff of Center for Sight had an evaluation of field work under authority of Prof. Vassileva. An ophthalmological test was given to the residents (Dr. Radev, Dr. Stanchovska, Dr. Mehandvijski and Dr. Bratanov) by Prof. Vassileva. Afterwards a Christmas party was organized at the Center for Sight for the teams and some members of the staff of the clinic. Prof. Konstantinov and Prof. Vassileva addressed the audience and congratulated the participants on their successful work.

Data entry was finished for Rila, Petrich, Svoge and Pirdop counties till the end of the year. Dupnitsa and Radomir counties will be finished till the end of January.

The teams are ready for work in Sofia city.



DANA CENTER FOR PREVENTIVE OPHTHALMOLOGY

Wilmer Eye Institute 120
600 North Wolfe Street
Baltimore, MD 21287-9019
Telephone: (410) 955-7013
Telefax: (410) 955-2542

STEPHEN C. GIESER, M.D., M.P.H.

December 17, 1992

Victoria Sheffield
International Eye Foundation
7801 Norfolk Avenue
Bethesda, MD 20814

Dear Victoria:

Enclosed is the trip report from my recent site visit in Sofia. I am very satisfied with the outcome from this trip. Overall, the Sofia Eye Survey is proceeding very well. Thank you for allowing me to participate in this exciting project.

I wish you a very merry Christmas, and a happy, healthy 1993!

Sincerely yours,

Stephen C. Gieser

SOFIA EYE SURVEY TRIP REPORT

Center for Sight, Sofia, Bulgaria
30 November - 6 December, 1992
Stephen C. Gieser, M.D., M.P.H.

I. SUMMARY OF TRIP OBJECTIVES

The Executive Committee for the Sofia Eye Survey decided that the following information was needed at the midway point of data collection from the six countries:

1. Review of the procedures for conducting house-to-house survey in urban counties.
2. Review procedures for assessing visual acuity.
3. Verify definitive ophthalmologic examination.
4. Obtain data from first county and prepare ARVO abstract.
5. Review data management and analysis.

I was able to accomplish the above objectives during this trip. In addition, I performed a rough analysis of the data from form #6 (definitive eye exam) from the first four counties. We also selected the clusters for Radomir County.

I am pleased with the progress of the Sofia Eye Survey. The conditions for measuring visual acuity are not ideal, and I am suspicious about the high rate of optic atrophy reported on form #6. However, overall the quality of data collection appears adequate. I would have preferred to slow down the whole study, so that we could make corrections if needed. By now, it is too late to make any changes, and if there are serious problems, entire counties will have to be repeated. However, preliminary analysis does not suggest any major problems. Indeed, Drs. Vassileva and Kushev should be congratulated for an outstanding job of coordinating, coaching, and encouraging the field teams, as well as checking the data for accuracy and completeness.

II. SUMMARY OF PROGRESS TO DATE

Data collection has been completed for the three rural counties (Rila, Petritch, and Svoge). In addition, the urban county of Pirdop has been completed. All forms from Rila county have been entered into the database. The forms for Petritch, Svoge, and Pirdop are in boxes at the Center for Sight. Dr. Cholakova will start the entry of the remaining counties shortly.

The field teams are scheduled to complete data collection for Dupnitsa on 10 December. They will then proceed to Radomir and begin on 11 December. All six counties will be completed by 23 December.

A decision on whether or not to survey Sofia city has not yet been reached. Drs. Vassileva and Kushev would like to go ahead with the city after they complete the six counties. Everything depends on the support of the mayor of Sofia and the Minister of Health.

The current government is in disarray following two votes of no confidence of the ruling UDP (Union of Democratic Forces), the last one occurring three weeks ago. The result is that the current Minister of Health has no authority. So we must wait until there is an acting Minister of Health before we can make a final decision on whether or not to include Sofia in our study. Dr. Kushev thinks that this will occur in early January.

We will proceed as if we were going to survey Sofia City. I have asked Kushev to obtain information about the election districts so we can select clusters. Sofia city has a population of 1.2 million and is divided into 24 counties. The election lists are one year old.

III. REVIEW OF PROCEDURES FOR HOUSE-TO-HOUSE SURVEY

I spent two days in Dupnitsa observing the field teams. I observed Team #1 and Team #2 conducting the house-to-house survey and measuring visual acuities. We searched the neighborhoods for the teams and found both teams out in the middle of the street measuring visual acuities. The team members appear to be walking house to house in the neighborhoods of the assigned election districts. Because few rooms are six meters in length, the visual acuity technicians are bringing the eligible adults outside and are measuring the acuity in the street. Sometimes the chart is in direct sunlight; other times it is in the shade. Some technicians have the subject hold the pinhole occluder; others hold it for the subjects.

Each team has a map of the election districts. The team leader assigns each team member to a street, and they go to each house. At the end of the day, Kushev compares the names that the field workers have recorded with the election list that contains all registered persons born 1942 or earlier. If the field workers have missed a name, they go back and re-check the address. Often, the listed person is either deceased or has moved.

Thanks to the careful instruction from Dr. Kushev, the teams appear to be conducting the house-to-house survey perfectly. Dr. Vassileva is also spending a considerable amount of time in the field.

IV. REVIEW OF THE MEASUREMENT OF VISUAL ACUTY

Most visual acuity measurements are being done outside, with Medi-Source #17055 illiterate E charts. Each team has a rope that is marked for 4, 5 and 6 meter distances. A team member holds the chart and the subject reads the chart with one eye occluded from a distance of 6 meters. The teams are using the single-pinhole occluder from the Kholsa trial set. When I asked why the rope was marked at 4 and 5 meters, the team members told me that occasionally in a small room they would measure visual acuity from 5, 4 or even 3 meters distance.

There appeared to be confusion about how they were recording vision at distances other than 6 meters. I asked each team separately how they were measuring acuity. This is what they reported:

CHART	6 METERS	4 METERS	3 METERS
20/200	0.1	---	---
20/100	0.2	0.1	---
20/70	0.3	0.2	0.1
20/50	0.4	0.3	0.2
20/30	0.7	0.4 ¹ 0.5 ²	0.3
20/20	1.0	0.7	0.4 ¹ 0.5 ²
20/15	---	1.0	0.7
20/10	---	---	1.0

- 1 Team #2
- 2 Team #3

The inaccuracies and inconsistencies of measuring visual acuities at 3 or 4 meters is a problem. Fortunately, this did not happen very often. Team #1 recalls measuring acuity from 3 or 4 meters only about 4 times, mostly on bedridden patients. Team #2 recalls only 3 or 4 occasions. Team #3 states that only a distance of 6 meters was used.

Visual acuity measurements at the central examining sites are performed with either the eye charts used in the field or with existing eye charts in the various clinics. At the central examining site in Dupnitza (County Polyclinic Dupnitza), the technicians are using the existing illuminated eye chart in the clinic. It appears to be a four-meter chart that they are using at a distance of two meters with a mirror. This is not an ideal method for measuring visual acuity. Significant differences could occur

- 24'

due to the different eye charts and the differing levels of illumination. However, the largest differences are likely to occur with the smallest letters, and since we are only interested in visual acuity 6/18 or worse, this should not be a problem.

V. ASSESSMENT OF DEFINITIVE EYE EXAMINATION

I wanted to have the opportunity to observe all three ophthalmologists performing the definitive eye examination for form #6. Unfortunately, during the time I spent at the central examining site, only one patient came for an exam. I requested that the team go to the homes of patients that had been previously examined. They were able to locate three patients.

I examined each of the four patients independently, in order to get an idea of interobserver agreement. After I finished examining the patients, I gave my diagnosis for the primary and secondary cause of visual impairment. All four of my diagnosis agreed with the diagnosis coded on the form by the team ophthalmologists. The diagnosis were: pathologic myopia with posterior staphyloma, retinitis pigmentosa, toxoplasmosis, and optic atrophy secondary to an intracranial tumor. I was hoping to examine patients with cataracts and glaucoma, because I feel that these are the two categories where most of the differences are going to occur.

I asked the ophthalmologists what criteria they used to make the diagnosis of glaucoma. They responded: a history of prior treatment of glaucoma, elevated IOP (usually above 23), and abnormal disc appearance. I am not sure exactly what they meant about "abnormal disc appearance." On several forms I noticed cup-to-disc ratios of 0.7 and 0.8, but no mention was made about glaucoma. By using the criteria of prior history, they are most certainly under-diagnosing glaucoma.

VI. EVALUATION OF EQUIPMENT

I performed an inventory of our equipment at the Dupnitzer central examining site. The three Kowa SL-7 slit lamps are all in working order. They are nice instruments. Each had a Goldman applanation tonometer with tonometer tip. The applanation tonometers have been unused throughout the study. The ophthalmologists are measuring intraocular pressures with a Schiøtz tonometer.

There are three lensometers, one Marco and two Topcon LM-S1. All were in good working order, I particularly liked the Topcon for field work as it is relatively small and light and is battery-powered.

The three Neitz retinoscopes have been mostly unused. According to the team ophthalmologists, some of the younger ophthalmologists have used them on occasion, but most of them do not know how to perform streak retinoscopy.

Instead, they have been performing skiascopy. It looks rather primitive to me, but this is the method of refraction that they are comfortable with.

Only one of the three Welsh Allyn direct ophthalmoscopes is working. Two of the bulbs have blown and they do not have any spare bulbs. The other two ophthalmologists are using their own ophthalmoscopes.

The four Kholsa trial sets are minimally adequate. The lenses are poorly made and the trial frames are useless. The ophthalmologists are using their own trial frames.

VII. PRELIMINARY ANALYSIS OF DATA FROM FOUR COUNTIES

We selected all forms #6 from the first four counties (Rila, Petritch, Svoge, and Pirdop). We calculated rates of visual impairment (by eye) in order to get a rough idea of how the counties compared. We also separated the data by team, to see if there were any large inter-team differences.

Conclusions are limited because of the small sample size. tables I, II, and III list the frequency of visual impairment (by eye) for the three rural counties. Data for Rila was limited to the totals, as the forms are in Baltimore. Table IV is the urban county of Pirdop. Table V compares the three rural counties.

As expected, in the rural counties cataract is the most common cause of visual impairment, by eye, followed by macular degeneration, optic atrophy, diabetic retinopathy, and glaucoma. The frequency of optic atrophy is much higher than I would expect. I asked the team ophthalmologists what criteria they were using for the diagnosis of optic atrophy and it appears that if they cannot attribute the cause of visual impairment to anything else, they are calling it optic atrophy. I reviewed the chart of one of the patients with the diagnosis of optic atrophy. This patient had an IOP of 24 and a cup-to-disc ratio of 0.6. Based on the chart description, I would have called this glaucoma, not optic atrophy. However, I cannot be sure without examining the patient.

Table VI compares the diagnosis of the three field teams. The percentage represents the number of eyes with a diagnosis divided by the total eyes that team examined, multiplied by 100. Each team has collected data in all of the counties, so the differences between teams should be small. Of note, team number three has the highest rate of optic atrophy. This could be due to chance, or it may represent over-diagnosis of optic atrophy. I pointed this out to Petja, and she talked to the team ophthalmologist. Team #3 also has half the rate of cataracts as the other two teams. If this trend continues, we may have statistically significant differences between the teams, an undesirable outcome.

VIII. SELECTION OF CLUSTERS FOR RADOMIR COUNTY

We selected the clusters for the final county from a list of election districts with a similar method that we used for the selection of the other clusters. Using a random start, we chose every 6th of the 18 election districts. The clusters with team assignments are:

TEAM #1 ELECTION DISTRICT 4

TEAM #2 ELECTION DISTRICT 10

TEAM #3 ELECTION DISTRICT 16

IX. APPENDICES

Table 1:	Causes of Visual Impairment in Rila County
Table 2:	Causes of Visual Impairment in Petritch County
Table 3:	Causes of Visual Impairment in Svoge County
Table 4:	Causes of Visual Impairment in Pirdop County
Table 5:	Causes of Visual Impairment in the Rural Counties
Table 6:	Inter-team Differences of Visual Impairment in Causes of Visual Impairment

TABLE 1

Causes of Visual Impairment in Rila County

	RILA	PASTRA	SMOCHEVO	TOTAL
TEAM NUMBER	"1"	"2"	"3"	
PATIENTS REFERRED				47
PATIENTS LOST TO FOLLOW-UP				2
PATIENTS WITH REFRACTIVE ERROR ONLY				21
TOTAL PATIENTS WITH FULL EYE EXAM (1)				24
AGE RANGE (2)				
MEDIAN AGE (2)				
EYES WITH CATARACT				20/48 (41.7%)
EYES CORNEA OPAC				1/48 (2.1%)
EYES AMBLYOPIA				0
EYES GLAUCOMA				2/48 (4.2%)
EYES OPTIC ATROPHY				7/48 (14.6%)
EYES UVEITIS				0
EYES WITH RD				1/48 (2.1%)
EYES MACULAR DEGEN				6/48 (12.5%)
EYES VASC OCCLUSION				0
EYES DIABETIC RETIN				7/48 (14.6%)
OTHERS				4/48 (8.3%)

(1) Does not include patients with refractive error.

(2) Does include patients with refractive error.

29

TABLE 2

Causes of Visual Impairment in Petritch County

	BELASITZA	PRAVO BURDO	STRCVO	TOTAL
TEAM NUMBER	"1"	"2"	"3"	
PATIENTS REFERRED	10	6	14	30
PATIENTS LOST TO FOLLOW-UP	0	0	0	0
PATIENTS WITH REFRACTIVE ERROR ONLY	7	0	3	10
TOTAL PATIENTS WITH FULL EYE EXAM (1)	3	6	11	20
AGE RANGE (2)	72-95	68-82	47/90	47-95
MEDIAN AGE (2)	76	79	74	79
EYES WITH CATARACT	4/6	6/12	3/22	13/40 (32.5%)
EYES CORNEA OPAC	0	0	2/22	2/40 (5.0%)
EYES AMBLYOPIA	0	0	0	0
EYES GLAUCOMA	0	2/12	2/22	4/40 (10.0%)
EYES OPTIC ATROPHY	0	0	5/22	5/40 (12.5%)
EYES UVEITIS	0	0	1/22	1/40 (2.5%)
EYES WITH RD	0	0	1/22	1/40 (2.5%)
EYES MACULAR DEGEN	2/6	2/12	4/22	8/40 (20.0%)
EYES VASC OCCLUSION	0	0	0	0
EYES DIABETIC RETIN	0	2/12	1/22	3/40 (7.5%)
OTHERS	0	0	3/22	3/40 (7.5%)

(1) Does not include patients with refractive error.

(2) Does include patients with refractive error.

TABLE 3

Causes of Visual Impairment in Svoge County

	LUKOVO	REBROVO	TSEROVO	TOTAL
TEAM NUMBER	"1"	"2"	"3"	
PATIENTS REFERRED	6	6	7	19
PATIENTS LOST TO FOLLOW-UP	0	0	0	0
PATIENTS WITH REFRACTIVE ERROR ONLY	1	2	2	5
TOTAL PATIENTS WITH FULL EYE EXAM (1)	5	4	5	14
AGE RANGE (2)	42-83	58-90	48/90	42-90
MEDIAN AGE (2)	59	72	73	72
EYES WITH CATARACT	5/10	4/8	1/10	10/28 (35.7%)
EYES CORNEA OPAC	0	0	0	0
EYES AMBLYOPIA	1/10	0	0	1/28 (3.6%)
EYES GLAUCOMA	0	0	0	0
EYES OPTIC ATROPHY	2/10	0	1/10	3/28 (10.7%)
EYES UVEITIS	0	0	0	0
EYES WITH RD	0	0	0	0
EYES MACULAR DEGEN	0	4/8	0	4/28 (14.3%)
EYES VASC OCCLUSION	0	0	0	0
EYES DIABETIC RETIN	2/10	0	2/10	4/28 (14.3%)
OTHERS	0	0	4/10	4/28 (14.3%)

(1) Does not include patients with refractive error.

(2) Does include patients with refractive error.

TABLE 4

Causes of Visual Impairment in Pirdop County

	ED #3	ED #6	ED #8	TOTAL
TEAM NUMBER	"1"	"2"	"3"	
PATIENTS REFERRED	7	6	5	18
PATIENTS LOST TO FOLLOW-UP	0	0	0	0
PATIENTS WITH REFRACTIVE ERROR ONLY	7	6	5	18
TOTAL PATIENTS WITH FULL EYE EXAM (1)	4	3	4	11
AGE RANGE (2)	63-87	67-92	67-81	63-92
MEDIAN AGE (2)	72	81	72	74
EYES WITH CATARACT	3-8	4/6	6/8	13/22 (59.1%)
EYES CORNEA OPAC	0	0	0	0
EYES AMBLYOPIA	0	0	0	0
EYES GLAUCOMA	3/8	0	0	3/22 (13.6%)
EYES OPTIC ATROPHY	0	0	1/10	0
EYES UVEITIS	0	0	0	0
EYES WITH RD	0	0	0	0
EYES MACULAR DEGEN	2/8	2/6	0	4/22 (18.2%)
EYES VASC OCCLUSION	0	0	0	0
EYES DIABETIC RETIN	0	0	0	0
OTHERS	0	0	2/8	2/22 (9.1%)

(1) Does not include patients with refractive error.

(2) Does include patients with refractive error.

TABLE 5

Causes of Visual Impairment in Rural Counties

	RILA	PETRITCH	SVOGE	TOTAL
TEAM NUMBER	"1"	"2"	"3"	
PATIENTS REFERRED	47	30	19	96
PATIENTS LOST TO FOLLOW-UP	2	0	0	2
PATIENTS WITH REFRACTIVE ERROR ONLY	21	10	5	36
TOTAL PATIENTS WITH FULL EYE EXAM (1)	24	20	14	58
AGE RANGE (2)		47-95	42-90	
MEDIAN AGE (2)		79	72	
EYES WITH CATARACT	20/48	13/40	10/28	43/116(37.1%)
EYES CORNEA OPAC	1/48	2/40	0	3/116 (2.6%)
EYES AMBLYOPIA	0	0	1	1/116 (0.9%)
EYES GLAUCOMA	3/48	4/40	0	6/116 (5.2%)
EYES OPTIC ATROPHY	7/48	5/40	3/28	15/116(12.9%)
EYES UVEITIS	0	1/40	0	1/116 (0.9%)
EYES WITH RD	1/48	1/40	0	2/116 (1.7%)
EYES MACULAR DEGEN	6/48	8/40	4/28	18/116(15.5%)
EYES VASC OCCLUSION	0	0	0	0
EYES DIABETIC RETIN	7/48	3/40	8/28	14/116(12.1%)
OTHERS	0	0	2/8	15/116

(1) Does not include patients with refractive error.

(2) Does include patients with refractive error.

TABLE 6

Inter-Team Differences in Causes of Visual Impairment

	TEAM 1	TEAM 2	TEAM 3
EYES WITH CATARACT	--- 4/6 5/10 3/8 (50.0%)	--- 6/12 4/8 4/6 (53.8%)	--- 3/22 1/10 6/8 (25.0%)
EYES CORNEAL OPACITY	--- 0 0 0	--- 0 0 0	--- 2/22 0 0
EYES AMBLYOPIA	0 0 1/10 0	0 0 0 0	0 0 0 0
EYES GLAUCOMA	--- 0 0 3/8	--- 2/12 0 0	--- 2/22 0 0
EYES OPTIC ATROPHY	--- 0/6 2/10 0/8 (8.3%)	--- 0/12 0/8 0/6 (0%)	--- 5/22 1/10 0/8 (15.0%)
EYES UVEITIS	0 0 0 0	0 0 0 0	0 1/22 0 0
EYES WITH RD	0 0 0 0	0 0 0 0	0 1/22 0 0
EYES MACULAR DEGENERATION	--- 2/6 0/10 2/8 (16.6%)	--- 2/12 4/8 2/6 (30.8%)	--- 4/22 0/10 0/10 (10.0%)
EYES DIABETIC RETINOPATHY	--- 0/6 2/10 0/8 (8.3%)	--- 2/12 0/8 0/6 (7.8%)	--- 1/22 2/10 0/8 (7.5%)

ABSTRACT FOR ARVO

SOFIA EYE SURVEY: BLINDNESS AND VISUAL IMPAIRMENT IN BULGARIA. P.I. Vassileva (1), S.C. Gieser (2), S.K. West (2), T. Cholakova (3), J. Katz (2), P. Amudiev (3), K. Kushev (1), V. Sheffield (4). Center for Sight (1), Sofia, Bulgaria; Dana Center (2), Baltimore, MD; National Center for Health Informatics (3), Sofia, Bulgaria; International Eye Foundation (4), Bethesda, MD.

Purpose. A population-based blindness survey was undertaken in Sofia district, Bulgaria, to provide the first data on visual impairment from Eastern Europe. Methods. A sample of 4500 adults age 40 and older was randomly selected from census data using a stratified two-stage sampling scheme. Three urban and three rural counties were randomly chosen and census clusters from within the counties randomly selected. A house-to-house census and visual acuity screening was performed in each cluster. Those with pinhole acuity in their best eye of 6/18 or worse were given a full eye exam. Results. Data from the first county suggest 2.9% of adults had visual impairment (24 of 831 adults). The causes of visual impairment were cataract (42%), diabetic retinopathy (15%), optic atrophy (14%), AMD (12%), glaucoma (4%), and others (13%). Conclusions. Results from the six counties will be described, but cataract is likely to be a major cause of visual impairment.

Supported by USAID co-operative agreement EUR-0032-A-00-1032-00, T32 EY07047, S10-RR04060, and by the International Eye Foundation.

DOUGLAS P. FELT, M.D., P.C.

425 E. 5350 S., SUITE 125
OGDEN, UTAH 84405
(801) 479-8300

December 28, 1992

Robert Briem, Ph.D.
Church of Jesus Christ of Latter-Day Saints
Welfare Services
Seventh Floor
50 E. North Temple Street
Salt Lake City, UT 84150

Dear Rob:

I am sorry it has taken me so long to get this report to you. I have been very busy since returning from Bulgaria. I spent a very enjoyable and, I think, very productive two weeks with the eye project in Bulgaria. The political problems which had plagued several of the visitors prior to my visit seemed to have been worked out or at least were fairly quiet while I was there. I was able to spend about two-thirds of my time in medical activities and about one-third in sight seeing. I think this is about the right mix.

I spent two of the days during my first week in a full-time course on oculoplastic topics. On October 22, 1992, I lectured to about fifty ophthalmologists in the morning and about forty in the afternoon. I lectured on ectropion, entropion, eyelid tumors with excision and reconstruction, ptosis, and lid retraction. The lectures went from about 9:30 a.m. to 5:30 p.m. with a short break for lunch. Part of the afternoon session was also part of the Sofia Ophthalmological Society meeting. On the following day, I lectured to about forty ophthalmologists on orbital and lacrimal diseases and surgery. This was also a full-day course.

Most of the other weekdays were spent in consultations, surgery, and lectures to the staff at the Eye Project hospital. I lectured on various oculoplastic topics, as well as small incision cataract surgery and phacoemulsification.

I operated on several patients with eyelid problems, including blepharophimosis with epi-canthus and cicatricial lid retraction. I also did several orbital procedures, including motility implant with an enucleation and repair of enophthalmos from an orbital blow-out fracture. We presented several of these patients to the ophthalmologists at the two-day course.

On October 25, 1992, we visited Plovdiv, the second largest city in Bulgaria, where I lectured to about twenty people on eyelid surgery.

At the end of my stay in Bulgaria, we visited Petrich where the Eye Foundation's survey on blindness was going on. We visited the mayor, the hospital, and the ophthalmology clinic there.

DOUGLAS P. FELT, M.D., P.C.

425 E. 5350 S., SUITE 125
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Robert Briem, Ph.D.
December 28, 1992
Page Two

The ophthalmologists seemed to receive me very well wherever I went. They were very well educated, intelligent, and eager to learn. Because of their economic situation, they are somewhat lacking in medical resources, including ophthalmologic equipment and medications. They had good operating microscopes. The phacoemulsifier was not working properly while I was there. I think that for phacoemulsification to be a consideration better backup of equipment would be necessary. With the present equipment, I think extracapsular cataract surgery is a good approach to cataracts. They have a lot of dense cataracts and significant corneal disease. I think a specialist in anterior segment surgery would be welcomed. This should be someone who could instruct in extracapsular surgery, phacoemulsification, and penetrating keratoplasty, including combined procedures.

Regarding plastic and orbital surgery, they could use some sterilizable tubing for suction. They did have a good bipolar cautery, although it was not available to me the first day or two I operated there. A second bipolar cautery would be helpful if they are going to do much plastic surgery since their present unit is kept with their vitrectomy equipment. They could use some more plastic sutures, such as 5-0 and 6-0 Prolene, nylon, silk, and Vicryl. Most of their sutures were geared toward cataract surgery with 10-0 nylon. Mydriatic eyedrops or dilating eyedrops seemed to be in somewhat short supply, including Mydriacyl and Cyclogyl. Several of the hospitals I visited did not have as extensive ophthalmologic libraries as they would like. Donations of eye medications and ophthalmic textbooks could be used.

I have sent photographs and a facial molding to the University of Michigan for the possible manufacture of an orbital prosthesis for a young woman I examined who had had enucleation and radiation for a retinoblastoma as a child. I will let Professor Vassileva know as soon as I hear back from Michigan.

I certainly do appreciate Professor Vassileva, Professor Koustantinov, and the other ophthalmologist I worked with. I thoroughly enjoyed my stay in Bulgaria.

Sincerely,



Douglas P. Felt, M.D.

sh

cc: ✓Victoria Sheffield

2.10. 1992 (Thursday)

- Lectures: - An Introduction to the Eye Plastic Surgery
Ectropion: an anatomic approach to evaluation and treatment
- Entropion evaluation and repair
 - Ptosis and lid retraction: etiology, evaluation, and ptosis surgery
 - Eyelid tumors: excision and lid reconstruction (upper lid, lower lid, and some special plastic surgical techniques). Video presentation.

23.10.1992 (Friday)

- Lectures: - Orbital diseases - etiology, evaluation and surgical approaches
- Lacrimal diseases: evaluation and management including dacryocystorhinostomy.

The course was ended with general discussion together with some members of the staff. A questionnaire was provided to the participants for the evaluation of the course. On Oct. 22 Dr. Felt presented a lecture for the Sofia Ophthalmological Society. The same evening small reception for the participants was organized.

On Oct. 25 Dr. Felt travelled with Dr. Madjarov to Plovdiv where they visited the Eye Department at the Medical Faculty. They met with Prof. Chilova and other ophthalmologists from the clinic where Dr. Felt gave a lecture to the Ophthalmological society of Plovdiv.

On Oct. 28, Dr. Felt, Prof. Vassileva and Dr. Kushev travelled to Petrich where they supervised the Eye Survey, and had meetings with the Mayor of the town of Petrich, and with the Head of County Hospital.

Dr. Felt donated to the Center for Sight IOL's, videos, textbooks and others.

FEDERAL CASH TRANSACTIONS REPORT CONTINUATION

Approved by Office of Management and Budget No. 80-RO187

1. FEDERAL SPONSORING AGENCY AND ORGANIZATIONAL ELEMENT TO WHICH THIS REPORT IS SUBMITTED

(This form is completed and attached to Standard Form 272 only when reporting more than one grant or assistance agreement.)

2. RECIPIENT ORGANIZATION (Give name only as shown in item 2, SF 272)

International Eye Foundation
7801 Norfolk Avenue
Bethesda, MD 20814

Agency for International Development
Washington, D.C.

3. PERIOD COVERED BY THIS REPORT (As shown on SF 272)

FROM (month, day, year) TO (Month, day, year)

10/01/92

12/31/92

4. List information below for each grant or other agreement covered by this report. Use additional forms if more space is required

FEDERAL GRANT OR OTHER IDENTIFICATION NUMBER (Show a subdivision by other identifying numbers if required by the Federal Sponsoring Agency)	RECIPIENT ACCOUNT NUMBER OR OTHER IDENTIFYING NUMBER	FEDERAL SHARE OF NET DISBURSEMENTS	
		NET DISBURSEMENTS (Gross disbursements less program income received) FOR REPORTING PERIOD	CUMULATIVE NET DISBURSEMENTS
(a)	(b)	(c)	(d)
DAN-5116-A-00-0067-00 (Guatemala)	52-0742301	\$ 6,208	\$ 163,196
OTR-0284-A-00-0073-00 (Guatemala/Honduras)	52-0742301	76,457	570,923
PDC-0284-A-00-1123-00 (Malawi)	52-0742301	36,718	187,742
EUR-0032-A-00-1032-00 (Bulgaria)	52-0742301	70,405	334,383
DPE-5948-A-00-1039-00 (Guatemala)	52-0742301	18,389	148,918
631-0091-A-00-1035-00 (Cameroon)	52-0742301	9,324	116,286
AFR-05260G-00-1107-00 (Ethiopia Workshop)	52-072301	-0-	12,139
5. TOTALS (Should correspond with amounts shown on SF 272 as follows: column (c) the same as line 11h; column (d) the sum of lines 11h and 11i of this SF 272 and cumulative disbursements shown on last report. Attach explanation of any differences.)		\$ 217,501	\$ 1,533,587

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

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 checked="" type="checkbox"/> Cash <input type="checkbox"/> Accrual
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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) 10/01/92	To: (Month, Day, Year) 12/31/92
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10. Transactions:	I Previously Reported	II This Period	III Cumulative
a. Total outlays	271,124	337,881	609,005
b. Recipient share of outlays	7,146	267,476 [*]	274,622
c. Federal share of outlays	263,978	70,405	334,383
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)			334,383
h. Total Federal funds authorized for this funding period			525,000
i. Unobligated balance of Federal funds (Line h minus line g)			190,617

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 18.70%	c. Base 52,715	d. Total Amount 10,045	e. Federal Share 9,690

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

*Includes medical supplies for the period 7-1-91 to 6-30-92 not previously reported

Upon recommendation by our auditors, we have adjusted the OH rate to 18.70% 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	Date Report Submitted 1/29/93

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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						
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 checked="" type="checkbox"/> Cash <input 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) 07/01/92		To: (Month, Day, Year) 09/30/92
10. Transactions:				I Previously Reported	II This Period	III Cumulative
a. Total outlays				238,875	32,249	271,124
b. Recipient share of outlays				7,146	-0-	7,146
c. Federal share of outlays				231,729	32,249	263,978
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)						263,978
h. Total Federal funds authorized for this funding period						525,000
i. Unobligated balance of Federal funds (Line h minus line g)						261,022
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 16,297		d. Total Amount 2,860		e. Federal Share 2,860
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				Date Report Submitted 10-30-92		

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