



April 2003

Number 38

IAPB Board

Editorial

Human Resource Development for VISION 2020

- *Adenike O. Abiose*

Community Eye Health

Organisational Capacity Building

- *S. Sarvanan*

Trachoma Elimination Efforts in Ethiopia

- *Elizabeth Yi, Tom Lietman and John P. Whitcher*

The Vision Initiative

- *Tamara L. Pollard*

VISION 2020 News / Activities

Seventh General Assembly - Update

Published by
INTERNATIONAL AGENCY FOR THE PREVENTION OF BLINDNESS

IAPB Board

President

Dr. Hannah B. Faal, The Gambia

Founder President

Late Sir John Wilson, UK

Hon President

Dr. Carl Kupfer, USA

Immediate Past President

Dr. R. Pararajasegaram, Sri Lanka

Senior Vice President/President Elect

Dr. Allen Foster, UK

Treasurer

Mr. John S. Dawkins, Australia

Secretary General

Dr. Gullapalli N. Rao, India

Chief Executive

Mr. Michael Whitlam, UK

Vice Presidents (ex-officio)

Dr. Suzanne Gilbert, USA

Prof. G.O.H. Naumann, Germany

Ms. Kicki Nordström, Sweden

REGIONAL CHAIRPERSONS

Africa

Chair

Prof. Adenike Abiose, Nigeria

Co-chairs

Prof. Komi Balo, Togo

Dr. Maria Hagan, Ghana

Dr. Karimurio, Kenya

Prof. A.D.N. Murray, South Africa

Dr. Kovin Naidoo, South Africa

Dr. Tony Ukety, Kenya

America North

Chair

Dr. Louis D. Pizzarello, USA

Co-chairs

Mr. Gordon Garrett, USA

Ms. Charlene Muller, Canada

Dr. Stephen Obstbaum, USA

Ms. Victoria Sheffield, USA

America South

Chair

Dr. Rainaldo Duerksen, Paraguay

Co-chairs

Dr. Everardo Barojas, Mexico

Dr. Juan Battle, Dominican Republic

Dr. Newton Kara-Jose, Brazil

Dr. Hugo Nano, Argentina

Eastern Mediterranean

Chair

HRH Prince Abdulaziz Bin Ahmed Bin

Abdulaziz Al-Saud, Saudi Arabia

Co-chairs

Dr. Mohamad Alamuddin, Saudi Arabia

Dr. Adel Al Roshoud, Saudi Arabia

Dr. Mohammad Daud Khan, Pakistan

Dr. Ahmed Trabelsi, Tunisia

Europe

Chair

Mr. Timothy ffytche, UK

Co-chairs

Prof. Gordon J. Johnson, UK

Prof. Volker F. Klaus, Germany

Dr. Ivo Kocur, Czech Republic

Prof. Patrick Queguiner, France

Prof. Petja I. Vassileva, Bulgaria

Prof. Sergei Branchevski, Russia

South East Asia

Chair

Mr. R.D. Thulasiraj, India

Co-chairs

Prof. Rabiul Husain, Bangladesh

Dr. Tun Aung Kyaw, Union of Myanmar

Dr. G.P. Pokharel, Nepal

Dr. Panom Sanitprachakorn, Thailand

Dr. C. Reggie Seimon, Sri Lanka

Dr. Farida Sirlan, Indonesia

Western Pacific

Chair

Prof. Hugh R. Taylor, Australia

Co-chairs

Prof. Patrick Ho, Hong Kong, China

Dr. Lim Kuang Hui, Singapore

Prof. Kazuichi Konyama, Japan

Prof. Ton Thi Kim Thanh, Vietnam

Dr. Bage Yamanao, Papua New Guinea

Honorary Vice Presidents

Prof. Frank A. Billson, Australia

Dr. Moses C. Chirambo, Malawi

Dr. Marcel Chovet, France

Prof. Francisco Contreras, Peru

Dr. Arthur T. Jenkyns, Canada

Group A

Appointed by the International Federation of Ophthalmological Societies

Members

1. Prof. Cheng Hu

2. Dr. K.Y. Dadzie

3. Prof. Hugh R. Taylor

4. Dr. H. Dunbar Hoskins Jr.

Group B

Appointed by the President of the World Blind Union (WBU)

Members

1. Mr. David Blyth

2. Mr. Geoffrey Gibbs

3. Ms. Kicki Nordström

4. Dr. William Rowland

5. Mr. Pedro Zurita

Group C

National Members

Members

1. Dr. Maria Hagan, Ghana

2. Dr. Doulaye Sacko, Mali

3. Dr. Rafael Garcia, Costa Rica

4. Dr. Carlos E.L. Arieta, Brazil

5. Prof. Fumio Kogure, Japan

6. Dr. Damodar Bachani, India

7. Prof. Sun Bao Chen, China

8. Dr. Syed Modasser Ali, Bangladesh

9. Mr. Giuseppe G.C. Castronovo, Italy

10. Dr. Mustafa K. Akbar, Pakistan

11. Prof. Gordon Johnson, UK

Group D

Scientific Disciplines other than

Ophthalmology

Members

1. Mr. W.G. Brohier

2. Dr. U. Ko Ko

3. Mr. Edward McManus

4. Dr. Coen de Jong

Group E

A representative from each of the following international non-governmental/service organisations

1. Al Noor Foundation

2. Christoffel Blindenmission (CBM)

3. Fred Hollows Foundation

4. Health for Humanity

5. Helen Keller Worldwide

6. International Eye Foundation

7. Lions Clubs International Foundation

8. Nadi al Bassar

9. ORBIS International

10. Organisation pour la Prevention de la Cecite (OPC)

11. Seva Foundation

12. Sight Savers International

Group F

Individual members by reason of an outstanding contribution to international prevention of blindness activities

1. Dr. G. Venkataswamy

2. Dr. Alfred Sommer

3. Dr. Bjorn Thylefors

4. Dr. R.P. Pokhrel

5. Dr. Allen Foster

Honorary Life Members

Late Sir John Wilson

Prof. Barrie R. Jones

Dr. Carl Kupfer

Vision 2020 – The Right to Sight: Making it Happen

Thulasiraj D. Ravilla

It is four years since the launch of the Global initiative, VISION 2020 – The Right to Sight. As recognised by many, this is an unique initiative in the annals of health care, bringing together Governments, International bodies, National and International NGOs and Professional Associations to address the issue of increasing blindness and visual impairment. During these past four years substantial work has been done to focus global attention on this programme through advocacy. Several meetings were held and activity specific task forces were formed to achieve clarity on specific disease control strategies, service delivery options, human resource development, monitoring mechanisms and to ensure the availability of the required supplies and equipment.

While most countries have endorsed the Global VISION 2020 initiative, some have taken the next step of developing a National action plan defining the goals and what needs to be done in the first five years to achieve them. For most part, new actions under the global initiative are still in the planning stage. The time has come to implement these plans and ensure that it gets done effectively and efficiently.

Such actions could be conceptualised in two dimensions - one relating to actions that have an impact on the entire VISION 2020 initiative and the other comprising specific actions that affect service delivery (disease control). All these actions will need to percolate from global to national to sub-national levels and ultimately to individuals receiving sight restoration or sight preservation services and communities receiving preventive services.

Actions to increase the effectiveness at the programme level

Alignment

In a programme of this nature were activities happen at different levels,

Mr. Thulasiraj D. Ravilla
Lions Aravind Institute of Community
Ophthalmology
Aravind Eye Hospital, 1, Anna Nagar
Madurai 625 020, Tamil Nadu, INDIA
Tel: +91 452 535 6100
Fax: +91 452 253 0984
Email: thulsi@aravind.org

with different players, there is a need to align all of them towards the goal of VISION 2020. While such alignment can be brought about relatively easily in structured organisations such as the Government health system, it will pose a greater challenge in the non-Governmental, voluntary and private sectors. In countries where organised structures already exist, they can be leveraged for this alignment process. Where such structures don't exist, one of the first activities could be to form a coalition of NGOs, private sector and professionals working in eye care. The scope of this alignment process should also include other sectors and agencies that we need to coordinate with and this becomes even more important both at the community level and at policy level. We need to bring on board sectors that can facilitate effective eye care such as the district administration, finance ministry for import duty exemption, etc. Thus the alignment process should certainly aim at bringing on board all the direct providers of eye care and pay equal attention to the collaborators and facilitators of eye care.

Advocacy

One of the effective tools for bringing about good alignment is advocacy. Such advocacy is relevant to all the agencies identified in the alignment process. However the content and intensity would vary depending on the local context. In some countries the focus of advocacy may be to get the involvement of ophthalmologists, while in other settings the focus could be on the Government systems. Effective advocacy will bring about required action and support for such actions. Recognising that the action will take place across different levels, it is important that advocacy exercises permeate down the line to the last point of service delivery and the collaborators at the community level. Occasions like World Sight Day can be fully exploited to create awareness amongst the community. Ultimately when the community demands good eye care on its own and holds the service providers

responsible for it, we will have virtually won most of the battle.

Assessment

Specific VISION 2020 strategies should be a reflection of local needs, based on an assessment of what really needs to be done. This should apply across all three strategies – disease control, human resource development and infrastructure/supplies development. The assessment should address not only the question of what or how much to do but also address the question of how an existing activity can be done better or differently as all these have direct resource implications. This should be done in the context of both service coverage as well as the quality of outcome. It is time that we also added “benchmarking” of output rates, utilisation rates, outcomes, impact, etc., as an integral element of the assessment process to lay the foundation for continuous improvement.

Direction for enhancing service delivery (disease control)

As we move ahead to implement various activities directed at disease control, it is necessary to adopt a comprehensive approach. When there is an excessive focus on resource creation (infrastructure, equipment, human resources), we see gross underutilisation. When there is an excessive focus on output (numbers), we see the quality compromised – recent surveys in Nepal, India and China show that 25% to 50% of the cataract operated eyes have a presenting visual outcome of < 6/60. Lack of a comprehensive approach is also leading to increasing inequities in coverage with lower coverage amongst women, illiterate and rural populations. One strategy to have a comprehensive approach in disease control is to develop disease-specific comprehensive “Resource tool kits” that would address all these issues. An individual programme can choose from it the elements that it needs. The “Generic Resource Tool Kit” and as an illustration the “Cataract Resource Tool Kit” could have the following elements.

Generic Resource Tool Kit	Cataract Resource Tool Kit
<p>Planning:</p> <ul style="list-style-type: none"> Local Assessment of what needs to be done Target setting of what the individual programme/ institution wants to do <p>Human Resource Development :</p> <ul style="list-style-type: none"> Curriculum for the training of: <ul style="list-style-type: none"> Clinical Team Management team Outreach workers Curriculum for the training of trainers in the above Guidelines for setting up a training activity Training materials (Books, manuals, videos, etc) <p>Infrastructure development:</p> <ul style="list-style-type: none"> Equipment – minimum & desirable Facility design <p>Service Delivery:</p> <ul style="list-style-type: none"> Intervention (Clinical) protocol Service marketing (reaching the target group) Outreach strategies Quality Assurance guidelines/protocol Supplies - source <p>Patient & Community Education:</p> <ul style="list-style-type: none"> Tested Leaflets, posters, videos, etc Guidelines on health education methods Counselling guidelines <p>Monitoring:</p> <ul style="list-style-type: none"> Tested Medical Record Format Indicators and information system Outcome/Impact Assessment tool (form, register, spreadsheet, software) <p>Sustainability:</p> <ul style="list-style-type: none"> Strategies for sustainability in: <ul style="list-style-type: none"> Managerial capacity Clinical capacity Financial capacity Leadership capacity 	<p>Planning:</p> <ul style="list-style-type: none"> Survey protocol for assessment of cataract blindness, outcome, coverage, barriers, etc. Planning tool (Spreadsheet) for Target setting Secondary data on CSR <p>Human Resource Development :</p> <ul style="list-style-type: none"> Curriculum for the training of: <ul style="list-style-type: none"> IOL Microsurgery, SICS Administrators Outreach, Counselling Curriculum for the training of trainers in the above Guidelines for setting up IOL training Training materials (Books, manuals, videos, etc) on Cataract services/surgery <p>Infrastructure development:</p> <ul style="list-style-type: none"> Equipment – minimum & desirable Facility & OT design for high throughput <p>Service Delivery:</p> <ul style="list-style-type: none"> Patient examination, cataract surgery and follow-up protocol Guidelines for Cataract Outreach activities Cataract Counselling guidelines for increased acceptance and compliance to follow-up Clinical Quality Assurance guidelines/protocol Cataract surgical kits (supplies) <p>Patient & Community Education:</p> <ul style="list-style-type: none"> Brochures, posters, videos, etc on cataract <p>Monitoring:</p> <ul style="list-style-type: none"> Cataract Medical Record Format - Examination, surgery & follow-up Information system to capture & present <ul style="list-style-type: none"> Indicators – Provider: Surgery acceptance rate, Proportion with VA \geq 6/18 & VA $<$ 6/60 in the operated eye Indicators – Community: CSR, Surgical coverage Outcome Assessment tool (form, register, spreadsheet, software) <p>Sustainability:</p> <ul style="list-style-type: none"> Strategies for sustainability in: <ul style="list-style-type: none"> Clinical capacity – HR planning, CME Financial capacity – pricing & cost control

To ensure such a comprehensive approach in eye care programmes worldwide, it would be necessary to establish “VISION 2020 Resource Centres” across the globe. These resource centres should be charged with the responsibility and given required resources first to conceptualise all the elements relevant to each disease entity (as defined by the Regional/National VISION 2020 disease priority) and then develop the details of those elements to a level where it can be used in the disease control activities. To start with, the network of “WHO Collaborating Centres for the Prevention of Blindness” could be supported to take on this responsibility. It must be recognised that not all the resources are tangible materials such as books or supplies. A lot of them are processes, protocols, planning,

monitoring tools, training curriculum etc. Hence these “VISION 2020 Resource Centres” in addition to developing the kits should also engage in training activities and on-site consultation, and be in a position to carry out the necessary surveys and planning/monitoring activities. Fortunately, a lot of the elements of the “Resource Tool Kits” are already available in some form. What is required immediately is to consolidate these into comprehensive disease-specific or programme-wide “Resource Tool Kits” and make them relevant to the local region/country. Concurrently such resource centres should be formed and strengthened specifically for this task. Eventually, these “VISION 2020 Resource Centres” should become the intellectual power houses for this global initiative to conceptualise

such comprehensive service delivery models and continually develop or improve specific resources and help in translating them into action which eventually will contribute to the reduction of preventable blindness and the disease burden.

Ultimately it is the *action* of restoring or preserving sight or preventing the potential loss of sight to one individual at a time, which will contribute to achieving the goals of VISION 2020. We will need to do this millions of times over each year in a cost-effective manner with equity, quality and in a sustainable manner. This proactive step to translate the plans into action in the field in a comprehensive manner will help us make steady and sustainable progress and within a period of ten years we should be well entrenched in the path to achieving the goals by the year 2020.

School Screening for Significant Refractive Errors

Susanne Wedner and Clare Gilbert

In recent years, uncorrected refractive errors have been shown to be the leading cause of visual impairment in children worldwide.¹⁻⁶ Correction of refractive errors is simple and effective with low cost spectacles. However, in contrast to developed countries, many children in developing countries never receive an eye examination and their refractive error often goes undetected and untreated.⁴ Poor eyesight may impair school performance and decrease children's chance to reach their professional potential in later life. School eye screening is a simple and inexpensive approach to identifying children with refractive errors. Obviously school eye screening programmes will miss children who do not attend school. However, in many countries school populations form a large proportion of school-age children and moderate degrees of visual impairment may be of greater importance to school-attending children than to their non-school attending peers.

To maximise the effectiveness of a school screening programme for refractive errors, the following issues must be addressed at the planning stage:

- What is the best screening test to identify children who need and are likely to wear spectacles?
- Who should perform the screening test?
- What refraction technique should be used to examine students who failed the screening test?
- Who should be given spectacles?
- Should free spectacles be provided or should a charge be levied?
- What are the costs of the programme?

A study has been designed to explore these issues, with funding from the British Council for the Prevention of Blindness to the International Centre for Eye Health (London School of Hygiene and Tropical Medicine). The study will be conducted over two years in 55 secondary schools in Dar es Salaam, Tanzania. Secondary rather than primary schools were chosen because of the higher prevalence of uncorrected significant refractive errors in secondary schools (4.3% in secondary schools vs. 1.1% in rural primary schools).^{4,7} The government and private secondary schools are attended by students from various ethnic backgrounds though most are African, Asian or Arab. The mean age at entry to government secondary schools is about 15 years.

The study will be undertaken in two phases:

Phase 1: to determine the most cost-effective screening method

Phase 2: to determine the most cost-effective intervention

In Tanzania, the study will be coordinated by the Tanzanian Society for the Blind (TSB) and the eye department of CCBRT (Comprehensive Community Based Rehabilitation Tanzania). CCBRT is a large non-governmental hospital. Its eye unit provides eye care for Dar es Salaam and is a referral centre for the whole of Tanzania.

Phase 1

In phase 1, approximately 4000 students attending form 1 in 15 secondary schools will be randomly divided into 2 groups in each school. Each group will be screened for significant refractive errors using different screening methods (see flow chart overleaf).

What is the best screening test for identifying children who need and are likely to wear spectacles?

Distance vision acuity charts have been successfully used with

children in developing countries.^{1,4,5,7,8} However, this method of screening will miss students with moderate degrees of hyperopia which may affect reading but not distance vision. It has been suggested that repeating the test with +2.0 D glasses can be used to detect these children, as +2.0 D only blurs the vision in children who are not hyperopic.⁹ The eye team will use both screening tests and their validity will be assessed against the refraction results of all students who fail either test and of a randomly chosen 10% of students who pass both screening tests.

Who should perform the screening test?

The additional work load of screening students for eye diseases is often not feasible in an under-resourced eye service. In India, teachers screen students for impaired vision, which decreases the workload of ophthalmic staff and improves coverage.¹⁰ In Tanzania, a study in rural primary schools validated school teachers screening 1386 students for poor eyesight using a simple screening test. The teachers identified 8 out of 10 students with bilateral poor eyesight.⁷ An additional 124 students with good eyesight were wrongly identified as visually impaired. However, secondary school teachers who are better qualified and responsible for a smaller number of students may perform better.

Teachers will receive a one-day training to screen students for bilateral poor eyesight (VA<6/12) testing the 12-line on Snellen's E chart at 6 m. Their performance will be validated by more experienced members of the research team.

What refraction technique should be used to examine students who failed the screening test?

A portable autorefractor, which can be operated by auxiliary personnel, has been used successfully to estimate refractive errors in population-based studies of children aged 5 to 15 years in Asia and South America.^{1,3,5} Objective refraction with cycloplegia has been advocated as

Dr.Susanne Wedner
International Centre for Eye Health
Clinical Research Unit
London School of
Hygiene and Tropical Medicine
Keppel St, London WC1E 7HT
Fax: +44-207-958 8338
Email: susanne.wedner@gmx.net

Flow Chart

Phase 1: Evaluation of different screening methods

Students attending form 1 in 15 schools (approximately 4000 students); each form randomly divided in two groups

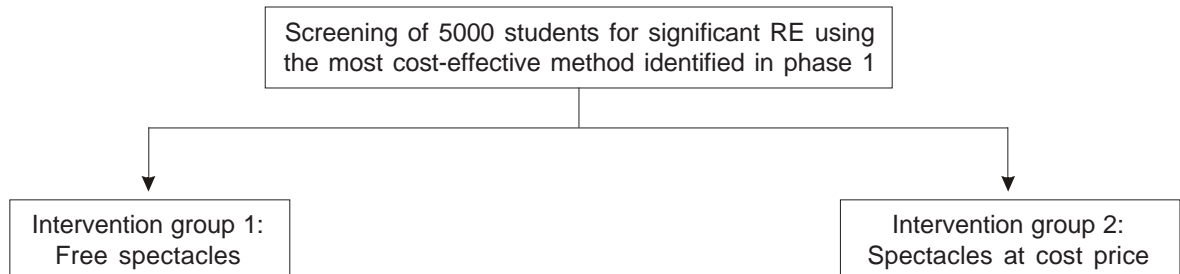
Examiner	Participants	Technique	Timing	Referral
Teachers' screening	Group 1: 2000 students	E-chart, 6m, 6/12 line only, both eyes open	1 week	CCBRT (autorefractor +retinoscopy)
			↓ 2 weeks	
VA-tester's screening	Group 1: 2000 students Group 2: 2000 students	Full E-chart, 6m, both eyes separately and together, +2.0D	2 weeks	CCBRT everybody who fails screening & everybody who failed teachers' screening and did not attend CCBRT (Group 1: autorefractor + retinoscopy; Group 2: retinoscopy only)
			↓ 2 weeks	
Optometrist	Non-attenders 10% QC	Subjective & objective refraction	1-2 weeks	

Intervention: Free spectacles to everybody with unilateral or bilateral significant RE (myopia/astigmatism causing poor VA<6/12 or hyperopia ≥ 2.0 D)

Follow-up: after 3 months all the students with spectacles

Phase 2: Evaluation of two different interventions

20 schools randomly selected into each of two groups (5000 students overall)



Follow up: At one and at three months after prescription

Key: RE=refractive errors; QC=quality control

the gold standard for measuring refractive errors.⁹ However, cycloplegia is time-consuming and has minor side effects (e.g. stinging and blurred vision) which make it unpopular. In phase 1 of the study, autorefractor will be validated against retinoscopy. The results of objective refraction (autorefractor and retinoscopy) with and without cycloplegia will be compared.

Who should be given spectacles?

Although an important measure of success of a screening programme will be that a high proportion of students who need spectacles receive them, it is as important that those with spectacles actually wear them. This will depend on several

factors, such as social acceptance, comfort of the spectacles and the degree of visual improvement. Phase 1 will use a VA of worse than 6/12 in either eye or hyperopia of +2.0 D or more as the criterion for the prescription of spectacles, and students will be offered a choice of frame. The wearing of spectacles will be compared between students with unilateral and bilateral poor eyesight, and by degree of visual impairment and degree of refractive error.

All students in phase 1 will receive free spectacles; they will be followed up after three months to establish the proportion of students still wearing their spectacles and reasons for non-compliance.

Phase 2

Should free spectacles be provided or should a charge be levied?

What proportion of students who have been prescribed spectacles would be willing to purchase them? Are students who purchase their spectacles more likely to wear them than students who receive free spectacles? These are important questions to answer as a screening programme is more likely to be sustainable if spectacles were sold rather than provided free.

Phase 2 will randomly select 40 schools into two intervention arms after stratification for type (government-private) and ethnic composition. Approximately 5000

students attending form 1 in the study schools will be screened using the most cost-effective screening strategy identified in phase 1. Students with significant refractive errors will either receive free spectacles or a prescription depending on which intervention arm they are in. Free spectacles will be given to students by CCBRT at the end of their eye examination. Students who receive a prescription can either purchase their spectacles in CCBRT where a selection of fashionable low-cost frames will be on offer or they can purchase them from any private optician of their choice. All the students who were given or asked to purchase spectacles will be reviewed after 1 and 3 months to establish compliance and reasons for non-compliance.

What are the costs of the programme?

A production function approach will assess inputs for each screening strategy and their outcomes. With this information a model will be developed that can be used to

estimate cost-effectiveness in different settings.

The results of this study will be used to design a multicentre study of the cost and impact of introducing school eye screening programmes in other countries in Africa, Asia and Latin America.

References

1. Zhao J, Pan X, Sui R, Munoz SR, Sperduto RD, Ellwein LB. Refractive Error Study in Children: results from Shunyi District, China. *Am. J. Ophthalmol.* 2000;**129**:427-35.
2. Pokharel GP, Negrel AD, Munoz SR, Ellwein LB. Refractive Error Study in Children: results from Mechi Zone, Nepal. *Am. J. Ophthalmol.* 2000;**129**:436-44.
3. Maul E, Barroso S, Munoz SR, Sperduto RD, Ellwein LB. Refractive Error Study in Children: results from La Florida, Chile. *Am. J. Ophthalmol.* 2000;**129**:445-54.
4. Wedner SH, Ross DA, Todd J, Anemona A, Balira R, Foster A. Myopia in secondary school students in Mwanza City, Tanzania: the need for a national screening programme. *Br. J. Ophthalmol.*

2002;**86**:1200-6.

5. Dandona R, Dandona L, Srinivas M, Sahare P, Narsaiah S, Munoz SR et al. Refractive error in children in a rural population in India. *Invest Ophthalmol. Vis. Sci.* 2002;**43**:615-22.
6. Murthy GVS, Gupta SK, Ellwein LB, Munoz SR, Pokharel GP, Sanga L et al. Refractive error in children in an urban population in New Delhi. *Investigative Ophthalmology and Visual Science* 2002;**43**:623-31.
7. Wedner SH, Ross DA, Balira R, Kaji L, Foster A. A prevalence survey of eye diseases in primary school children in a rural area of Tanzania. *Br. J. Ophthalmol.* 2000;**84**:1291-7.
8. Dandona L, Dandona R, Naduvilath TJ, McCarty CA, Srinivas M, Mandal P et al. Burden of moderate visual impairment in an urban population in southern India. *Ophthalmology* 1999;**106**:497-504.
9. WHO Refractive Error Working Group. Report on strategic planning meeting of refractive error working group. 1-30. 2002. Australia. Ref Type: Report
10. Limburg H, Kansara HT, D'Souza S. Results of school eye screening of 5.4 million children in India—a five-year follow-up study. *Acta Ophthalmol. Scand.* 1999;**77**:310-4.

SAFE WATER FOR THE “SAFE” STRATEGY

A major component of the Strategy to combat blindness from trachoma is personal and environmental hygiene, which in turn depends on the availability of clean water. In trachoma ridden Southern Ethiopia representatives from the International Trachoma Initiative (ITI), ORBIS International, and WaterAid helped celebrate the inauguration of a new water source.

Prior to the construction of the new water system, the people of these impoverished communities traveled for at least five kilometers to retrieve water from a river. This turbid water source was also used for washing clothes, for animals and for personal hygiene. Since trachoma is an infectious disease that is often transmitted by flies attracted to dirty faeces, access to safe water is key to reducing the level of active disease (which affects 75% of children in parts of Ethiopia). This water supply is a central part of the **F** and **E** components of the **SAFE** strategy in the control of blinding trachoma:

Surgery to correct advanced stages of the disease

Antibiotics to treat active infection, using the antibiotic Zithromax®

Face washing to reduce disease transmission

Environmental change to increase access to clean water and improved sanitation to eliminate disease altogether

The new deep-well water project is designed to provide water at various distribution points to many villages. The communities provided free labour in the excavation of canals for pipe laying. Approximately 12,000 people now have access to this new water source. Considering the quality of the water and its continued availability even in the dry seasons, it is believed that many more will come to use it.

The International Trachoma Initiative, WaterAid, ORBIS International and the communities in the project area are the key partners in this endeavour. Such an effort will continue as part of the ITI-supported **SAFE** strategy with Pfizer-donated Zithromax to give the trachoma control effort in Ethiopia a lasting result.

For more information on the International Trachoma Initiative, visit their web site at www.trachoma.org.

International Centre for Eye Health

Adrienne Burrough and Allen Foster

The International Centre for Eye Health (ICEH) is a World Health Organisation Collaborating Centre for Prevention of Blindness. Established in 1980 as part of the Institute of Ophthalmology, the Centre joined the London School of Hygiene and Tropical Medicine in 2002 as part of the Department of Infectious and Tropical Diseases in the Clinical Research Unit.

ICEH aims to facilitate the reduction in blindness with a focus on the developing world.

ICEH helps facilitate VISION 2020 - The Right to Sight in three main areas: research into prevention and treatment of the major causes of blindness; training in community eye health in the UK and overseas, and disseminating information through the Journal of CEH, a network of international resource centres and teaching materials.

The research programme is organised according to VISION 2020 priorities. The first focus area is Cataract and other eye diseases associated with ageing. Research includes a cross sectional survey of the prevalence and causes of visual loss in Pakistan, Bangladesh and Nigeria. Systems for monitoring the outcome of cataract surgery in Africa and Asia are also being evaluated, as are interventions for age related visual loss. Other work includes studies in the UK to assess the role of macular pigment in age related macular degeneration and cost-effectiveness studies of treatment for glaucoma in the UK.

The second area of research is trachoma and other ocular infections. The TIME group (Trachoma Initiative in Monitoring and Evaluation) has been established to develop and implement a common framework to monitor and evaluate trachoma control programmes in 8 countries. These programmes use the SAFE strategy (i.e. Surgery, Antibiotic, Facial Cleanliness and Environmental Change) to eliminate blinding trachoma. Programme evaluations are taking place between Nov 2002 and Jan 2004.

The group is working on the effective use of azithromycin in the control of Trachoma, a project funded by Wellcome. Other studies on

trachoma control include mapping of trachoma – a detailed review of the literature and development of a global map for trachoma, the outcome of trichiasis surgery; and impact of water availability and utilisation.

A clinical trial of anti-microbial agents for the management of corneal ulcers in Nepal, with evaluation of a clinical algorithm and PCR for rapid diagnosis is also being conducted.

The third area of research is Visual loss in Children. A large national study of the causes of blindness in children in Bangladesh, with emphasis on the causes and outcome of cataract surgery is underway. A project to evaluate the most cost effective means of implementing school eye health programmes in Tanzania and evaluation of screening criteria for retinopathy of prematurity in Brazil concludes the current research projects.

Research funding comes from the International Trachoma Initiative, SightSavers, CBM, Wellcome Trust, Guide Dogs for the Blind and other organisations. Results are shared with the WHO and non-governmental organisations, contributing to the evidence base for policy making and programme development.

ICEH has been involved in community eye health training for over 20 years. We currently offer a one year Master's in Community Eye Health. Launched in September 2002, the MSc programme currently has 10 students from West Africa, India, Pakistan and Australia. The course is designed for eye care personnel who might take leadership roles either within their governments or in the NGO sector, with an emphasis on taking forward the goals of VISION 2020 in their countries. We also offer a variety of short courses (see below).

ICEH also contributes training resources to overseas workshops. A series of 12-20 one-week courses are planned and undertaken each year as part of the VISION 2020 initiative. In 2002 more than 300 eye care professionals attended these courses.

The third aspect of ICEH's work is The International Resource Centre (IRC), which develops educational resources and provides information services to support VISION 2020. Activities include publication of the Journal of Community Eye Health, which is distributed free of charge to 15,000 health workers worldwide (www.jceh.co.uk).

The resource centre also offers an information service. The IRC holds a unique collection of materials on blindness prevention and rehabilitation. In addition, the centre has been involved in developing regional community eye health resource centres in Africa (3), Asia (2) and Latin America (1).

At the end of September 2002 ICEH moved into new offices in 9 Bedford Square. We are now looking to develop links with other groups in the School who are interested in Eye Health, Disability and Improved Quality of Life, in an effort to facilitate the goals of VISION 2020.

Short courses offered by ICEH

The Centre's short courses run for between two and five weeks. Some of these are modules from the MSc programme which are also open to short-term trainees. This year's courses are listed below.

Planning for VISION2020

16 – 20 June 2003

For ophthalmologists and eye health charity programme managers.

Tropical ophthalmology

3 – 5 November 2003

For ophthalmologists in the UK and overseas.

MSc course modules offered as short-term programmes

Control of blinding eye diseases

23 February 2004 – 27 March 2004

This course consists of two teaching units: control of childhood eye diseases and ocular infections, and control of non-communicable adult eye diseases.

Planning a VISION 2020 programme

28 April – 30 May 2003; 26 April – 28 May 2004

The two teaching units that make up this course are: how to plan and implement a VISION 2020 project, and resources and technology for VISION 2020.

For further information and application forms, contact: The Registry, 50 Bedford Square, London WC1B 3DP, U.K. Tel: +44-20 7927 2239; Fax: +44-20 7323 0638; email: registry@lshtm.ac.uk; web site: www.lshtm.ac.uk/course

A New Vision

Kylie Evans

A new Cooperative Research Centre for vision and eye care is being established in Australia. The Vision CRC will receive a grant of AU\$32 million over the next seven years, one of the highest Cooperative Research Centre grants ever given.

The Vision CRC aims to deliver: breakthrough products to correct, prevent, treat, reduce, avoid and/or cure myopia and presbyopia; innovative education at all levels of the Australian eye-care industry; new models of eye-care delivery; and growth in the Australian and international eye-care business. Their work will help to eliminate the social and economic burden of avoidable vision impairment; and improve the well-being of millions of people around the world.

Brien Holden, Director Designate of the new CRC, expressed his delight that the Vision CRC was successful in its application.

“What an unbelievable team. Everyone who was involved in this fantastic effort was incredibly cooperative and enthusiastic. This group of outstanding scientists, educators, business people and organisations really wanted an opportunity to convert their work into better quality of life for those in need of vision correction.

“We have a wonderful opportunity and a great responsibility, and we won't let the people in need down.”

The Vision CRC has grown out of the explosion in the need for eyecare in Australia and worldwide. Over three billion people in the world need vision correction, and this number is growing rapidly. Myopia is reaching epidemic proportions due to heredity and increased screen and text-based activity. The ageing population is bringing about a staggering demographic shift so that presbyopia will soon affect over 40% of the population.

From this need comes an enormous opportunity.

The Centre will conduct major programmes in the areas of myopia, presbyopia, vision care delivery, business growth, professional and academic education.

Most recently the Vision CRC brought together the world leaders in myopia research to launch the Centre's Myopia Programme, which aims to understand and control the condition. Over 30 researchers attended the Meeting at Sanctuary Cove, Queensland, from 21-25 March.

“Myopia is of huge concern”, says Professor Holden. “High myopia is the second highest cause of blindness in Asia and the number of sufferers is growing rapidly. For example, in Singapore a series of studies has shown an increase in myopia in males aged 15-25, from 26% of this group in the late 1970s, to 83% in the late 1990s. Uncorrected myopia and other refractive errors will have long term effects on industry and economy. At higher levels myopia creates a significant risk of retinal trauma and malfunction, and can lead to blindness. It's vital that we understand what's happening and how to prevent or treat it.”

The Vision CRC involves an array of outstanding national and international researchers from 37 organisations who have come together to tackle the eyecare challenge. Core participants and key researchers include:

- 1 Cornea and Contact Lens Research Unit and School of Optometry and Vision Science, The University of New South Wales (Brien Holden)
- 1 Centre for Eye Research Australia, University of Melbourne (Hugh Taylor, Jill Keefe)
- 1 International Centre for Eyecare Education (Brian Layland, Craig Butler)
- 1 Institute for Eye Research (Deborah Sweeney, Arthur Ho, Fiona Stapleton, Eric Papas, Padmaja Sankaridurg)
- 1 LV Prasad Eye Institute (Gullapalli Rao).

Supporting Participants and noted researchers include

ORGANISATIONS

- 1 Aboriginal Health & Medical Research Council (Sandra Bailey)
- 1 Anglia Polytechnic University, Department of Optometry (Daniel O'Leary)
- 1 Aston University, School of Engineering and Applied Science (Brian Tighe)
- 1 University of Miami, Bascom Palmer Eye Institute (Jean-Marie Parel)
- 1 CSIRO Molecular Science (Keith McLean)
- 1 International Association of Contact Lens Educators (Gail Van Heerden)
- 1 Johns Hopkins University, Department of International Health (David Friedman, Oliver Schein, James Tielsch)
- 1 Open Training and Education Network (David Wilson)
- 1 Queensland University of Technology, Centre for Eye Research, School of Optometry (Katrina Schmidt)
- 1 Optometric Vision Research Foundation (Anthony Chapman-Davies, Charles McMonnies)
- 1 University of California, Los Angeles, Jules Stein Eye Institute (Suraj Bahat)
- 1 University of Houston, College of Optometry (Earl Smith)
- 1 University of Sydney, Centre for Vision Research, Westmead Millennium Institute (Paul Mitchell)
- 1 University of Sydney, Save Sight Institute (John McAvoy)
- 1 University of Waterloo, Centre for Contact Lens Research (Des Fonn)
- 1 Vision 2020: The Right to Sight, Australia (Carley Nicholls, Julie Hassard)
- 1 VisionCare NSW (Barry McNamara)
- 1 Sun Yat-sen University, Zhongshan Ophthalmic Centre (Jian Ge)
- 1 Victoria State Government – Department of Health Services (Rosemary Lester).

Ms. Kylie Evans
CRCERT
The University of New South Wales
Sydney NSW 2052
AUSTRALIA
Tel: +61-2-9385 7406
Email: K.Evans@crcert.unsw.edu.au

International News

Update from VISION 2020 – International Team

It has been a busy and exciting start to 2003 with lots of positive progress in a number of areas. The year started with a successful Task Force Meeting in Geneva where the 2003 VISION 2020 Budget was approved, and thus VISION 2020 activities for the year were agreed upon. It was reaffirmed that VISION 2020's primary focus is to help governments and countries implement National Plans, and VISION 2020's strategies as laid out in the Business Plan were reinforced.

Preparations for the World Health Assembly in May are going well. Ministers of Health from around the world are being encouraged to support a Resolution at the World Health Assembly, which amongst other things, requires governments to put in place a National Prevention of Blindness Plan by 2005. It is hoped that with their support, and help from Members, the Resolution will be passed.

Readers of IAPB News could encourage Ministers in their country to support the item, which is Agenda Item 14.17 of Committee A. They may contact info@v2020.org if they need any more information.

Guidance will be provided to governments and countries designing and implementing VISION 2020 National Plans through the creation of a 'Government Tool Kit', which will be launched on World Sight Day, 9 October 2003. Plans for World Sight Day 2003 are well underway, with a new awareness Campaign being piloted in specific countries; it is hoped that next year it will be launched worldwide.

VISION 2020 is committed to supporting research in the prevention of blindness field and is aware that such research can influence governments and decision makers worldwide. A study published in the American Journal of Ophthalmology (see *Journal Abstracts, page 18*) on 1 April 2003 stated that the successful implementation of the VISION 2020 initiative would save US\$102 billion over the next 20 years and prevent a further 100 million people from going blind. If current trends continue the world's population will increase from 6.1 billion in 2000 to 7.5 billion in 2020, with the proportion of people over 65 year predicted to grow from 7% to 9% of the population. This will almost double the number of blind persons worldwide. Professor Kevin Frick and Professor Allen Foster state that VISION 2020 will reduce the prevalence of blindness worldwide, from 44 million in 2000, to 24 million in 2020, despite world population growth. But without VISION 2020, 76 million people will be blind in the year 2020, and more than half these people will be blind from curable cataract.

Her Royal Highness the Countess of Wessex made her first official engagement as a Patron of VISION 2020 on 4 April 2003. Her Royal Highness is extremely enthusiastic about the initiative and is keen to help increase awareness of VISION 2020's work. Her Royal Highness said, "I am profoundly impressed by the fact that it is going to affect not just millions of people, but tens of millions. I am genuinely thrilled to be involved". A number of activities are being planned to visit partners and projects around the world, details of which will be confirmed in the near future.

'Visions of Children' International Photographic Competition was launched in March to help raise awareness of the problems faced by children when either they or their carers are blind. Photographs will be exhibited in New York, London, Sydney and Zurich in September. The winners will be flown to London to be presented with their award and to have the opportunity to visit a VISION 2020 project. The first entries have been received and plans for the exhibitions are going fantastically. VISION 2020 would like to thank Business Traveller Magazine, www.businesstraveller.com, and Sight and Life, www.sightandlife.org, for supporting 'Visions of Children'.

Mike Whitlam, CEO, IAPB / VISION 2020 is delighted to announce that Standard Chartered Bank is working with Sight Savers International and other VISION 2020 Partners to raise US\$700,000 for World Sight Day 2003. If you would like more information regarding this exciting project please e-mail: info@v2020.org.

For all the latest news and information on VISION 2020 please visit www.v2020.org or e-mail info@v2020.org

Africa

Participation in International Meetings

Several countries were represented at the Trachoma Global Alliance Meeting held in January at WHO, Geneva. Countries from Sub-Saharan Africa included: Burkina Faso, Guinea, Mali, Niger, Ethiopia, Ghana, Nigeria, Tanzania, the Gambia, Kenya and Uganda. Trachoma control activities since the last meeting in November 2001 to

December 2002 in member countries were reviewed.

Member countries without the Trachoma Control Programme were encouraged to map out trachoma endemic areas in their countries and complete their action plans for trachoma control. Countries with programmes for trachoma control were encouraged to intensify activities to increase TT surgery and antibiotic distribution coverage. A

SWOT analysis for the various components of SAFE were identified by WHO Regional Groups and discussed in the plenary.

NGDOs supporting trachoma control activities in trachoma endemic countries in sub-Saharan Africa are: International Trachoma Initiative, Carter Centre/Global 2000, CBM, Lions Sight First, Sight Savers International, SRC, WVI, Conrad Hilton Foundation, and Wateraid.

Apart from these are WHO, UNICEF, BBC World Service Trust and many local NGOs.

In February, the Carter Centre's 4th Trachoma Control Review Meeting was attended by representatives from Ethiopia, Ghana, Mali, Niger, Nigeria and Sudan.

The theme for the meeting was: "Increase clean faces, reduce flies". The meeting concluded, after reviewing activities related to Face washing & Environment (day one) and Surgery & Antibiotics (day two), that while countries have made great progress in these four years, more could be done. Regular monitoring of surgical outcome, recurrence of TT and complications was encouraged. Evaluation of impact

of IE & C materials on behavioural change was recommended.

In Ghana, a VISION 2020 workshop was held to build consensus on the "National Strategy Framework: Ghana Right to Sight". The workshop was attended by 52 participants from National, Regional and district levels. Participants included ophthalmologists, optometrists, ophthalmic nurses, Regional Directors of Health Services and Directors from Ghana Health Service headquarters. Regions with no Regional Eye Care Plans are to develop plans of action using the framework. This workshop was funded by WHO, Accra.

A study to assess the impact of Azithromycin on active trachoma

has just been concluded in the five programme districts. The data are being collated for computerised analysis. This assessment has been supported by the International Trachoma Initiative.

Annual distribution of Azithromycin in trachoma endemic communities in 6 programme districts is ongoing. The sixth district was added this year. The Azithromycin has been donated by Pfizer-ITI.

Radio listening clubs supported by the Carter Centre have begun operating in the Upper West Region, to provide health education on trachoma at the community level, targeting women and children.

- Adenike Abiose
IAPB Chair, Africa

South America

Interesting developments are taking place in the region in the advancement of the goals set under the VISION 2020 Regional Action Plan.

Highlights

- The Mexican Ophthalmology Association celebrated its first Annual Meeting on 4 February 2003 with VISION 2020: The Right to Sight as the central topic. Dr. David Yorston, CBM Medical Advisor and Dr. Rainald Duerksen, Chair of IAPB LA, spoke on VISION 2020 to an audience of approximately 50 members of the MOS, NGOs and representatives of the eye health industry in Mexico. The meeting then took stock of the current blindness prevention activities in Mexico. The evening concluded with a resolution to form a National VISION 2020 Committee in Mexico. Dr. Francisco Martínez Castro, Chair of the Advocacy Sub-committee of VISION 2020 LA will pursue this.
- The first community eye health course in northern Mexico took place in Chihuahua; very few blindness prevention projects are currently in implementation in this region. The course gathered 18 participants who were motivated to participate in projects to increase access to eye health care services to those particularly in need and without health insurance. The course was supported by CBM, IEHC, LSHTM and IAPB Regional Office and was organised by the Chihuahua Ophthalmology Association.
- The ninth Community Eye Health course took place in Bucaramanga, Colombia, 10-14 March, with 33 participants coming from Bolivia, Argentina, Peru, Venezuela and different departments in Colombia. This course laid emphasis on the formulation of projects to increase CSR in particular districts in the country. Other interesting projects formulated at the course include the implementation of a Rapid Assessment Cataract Surgery study in Venezuela; the expansion of an ROP detection and treatment programme in La Paz; and the creation of an ROP screening programme in Lima. The course took place under the auspices of CBM, IEHC, LSHTM and IAPB Regional Office and was organised by FOSCAL.
- The second Workshop on CEH and the formulation of a National Eye Health Care Plan for Bolivia was conducted in Santa Cruz, Bolivia, 4-6 April, by the National Ophthalmology Association of Bolivia with the support of CBM and Mirada Solidaria Foundation, from Bilbao, Paiz Vasco. A draft plan was formulated and a letter of intention to create a National VISION 2020 Committee in Bolivia was signed by the participants.
- A Prevention of Blindness Congress was celebrated in Puerto Rico on 28 March during the Pan American Congress of Ophthalmology with the participation of approximately 100 ophthalmologists engaged in blindness prevention in every country of the region. This event was organised by PAHO/WHO Regional Blindness Prevention Office, the Pan American Ophthalmology Association and the IAPB Regional Office. The subjects covered evaluation of cataract services, low vision and presentations by country of model projects. Mike Whitlam, CEO of IAPB presented the goals and strategies of VISION 2020.
- The Latin America Regional Working Group for VISION 2020 met in Puerto Rico on 29 March, where important decisions were taken:
 - ❖ ONCE and Mirada Solidaria Foundation were accepted as

new members of the regional working group, adding their support to meet the challenges of VISION 2020 in the region.

- ❖ VISION 2020: The Right to Sight Congress will be celebrated in LA every two years alternating with the Pan American Congress of Ophthalmology.

- ❖ Previous to this meeting, the Low Vision and Childhood Blindness Subcommittees met with Lighthouse International and CBM Regional Offices to discuss the implementation of their Action Plans.
- ❖ Mike Whitlam, CEO IAPB, presented the VISION 2020 Business Plan in both meetings and made

recommendations on the implementation of the programmes.

Future events:

- CEH course in Quito, Ecuador, 23-26 June.
- RACSS studies in Argentina, Brazil and Cuba

- *Oswaldo Benítez*
Regional Executive Director,
IAPB V2020, Latin America

Eastern Mediterranean

Nadi Al Bassar’s activities in Niger

A team from Nadi Al Bassar, Tunisia, visited Niger in March. They examined more than two thousand patients and performed 312 cataract surgeries. Niger has a population of 11 million people served by only 11 ophthalmologists, including four technicians. Aggressive measures need to be taken to advance the goals of VISION 2020 in this region.

Professor Lamia FEKIH conducted a workshop on diabetic retinopathy

for the fifth year medical students, GPs and ophthalmologists at the Faculty of Medicine. A glaucoma workshop was organised for the ophthalmologists and ophthalmic technicians. Dr. Idi, a Nigerian Ophthalmologist, was trained on the use of the indirect ophthalmoscope. At the end of the training programme a 20 diopter lens was donated by Nadi Al Bassar. The first retinal detachment surgery was performed in Niger by Dr. Idi and Dr. Trabelsi.

Nadi Al Bassar offered replacement

fibroptics for a microscope, providing the National Hospital of Naimey with a fully functioning microscope.

Two Nigerian ophthalmologists have been sponsored to attend the PAACO meeting in Tunisia in May 2003 and will take part in a training programme in the Tunisian hospital.

All this work was done in cooperation with the “Agence Tunisienne de Coopération Technique”.

- *Ahmed Trabelsi*
IAPB Regional Co-Chair,
Eastern Mediterranean

Europe

One of the stated aims of IAPB Europe during the first few years of the VISION 2020 initiative has been support for teaching and training of young ophthalmologists in the central and eastern parts of the region. Although this is becoming easier in those countries bordering on Western Europe, especially those with strengthening connections with the EU and NATO, in the remoter areas the problems remain as difficult as ever. In addition to the vast distances (IAPB Europe extends from Greenland to the eastern tip of Siberia), there are political and cultural differences and above all there are the obstacles of language. The reality is still that much of the teaching of eye-care and prevention of blindness is carried out in English or French; it succeeds in Africa and the Indian sub-continent, but it may be many years before it is appropriate for the Central Asian Republics and that huge area of Russia lying beyond

the Ural mountains.

IAPB Europe is well aware of its limitations in this respect but by involving more and more countries in educational contacts with Western Europe, targeting the future leaders of ophthalmology, many of whom now speak or read English, the hope is that the concepts of blindness avoidance and prevention will slowly spread eastwards.

Below are listed eight of the main VISION 2020 initiatives in teaching and training currently being undertaken in Central and Eastern Europe:

1. The five-day annual CBM/WHO Update Courses are aimed at between 20 and 40 young ophthalmologists who are selected by recommendation. They cover the core VISION 2020 subjects, emphasising blindness prevention, with lectures tailored to the practical needs of the

course participants who are encouraged to review the state of eye care services in their own countries. These courses provide a platform for sharing clinical experience among young ophthalmologists in neighbouring regions and can thus establish mutual contacts likely to be valuable in the future.

Previous courses have taken place in Germany, the Czech Republic, Lithuania, Bosnia, Bulgaria and Romania, and a further one will be organised in Ukraine in 2003.

2. VISION 2020 Triplets consist of three ophthalmologists, each giving three lectures and visiting a post-graduate centre for three days. The lectures are didactic and cover cataract, medical retina, glaucoma and paediatric ophthalmology and other subjects requested by the host country.

Triplets have already visited the Czech Republic, Poland, Romania, Slovenia and Ukraine and have proved to be very popular attracting large audiences (450 in Kiev).

3. The ICO/IFOS provide grants for young ophthalmologists from Central and Eastern Europe as well as from many other parts of the world. These grants consist of support for three-month fellowships in some 40 post-graduate training centres. Over the past two years trainees have come from Armenia (1), Bulgaria (3), Georgia (1), Romania (1), Ukraine (1) and Serbia/Montenegro (1).

The demand for these fellowships is overwhelming and the project is a unique opportunity for ICO/IFOS to build up a close collaboration between ophthalmologists and departments worldwide.

4. The European Society of Ophthalmology (SOE) contributes generously to help young ophthalmologists from Central

and Eastern Europe to visit Western European centres for periods of four to six weeks. A total of 40 travel grants of 1000 Euros have been awarded for 2003. In addition 100 reduced registrations have been offered to Eastern European ophthalmologists in training to attend the SOE Congress in Madrid in May 2003.

5. Prevention of blindness Workshops are being planned by the WHO and CBM for centres in Kazakhstan and Russia this year.
6. The American Academy of Ophthalmology plans to donate up to 20 sets of their Basic and Clinical Science Course (BCSC) to post-graduate centres in the region who have not received them in previous years.
7. A Telemedicine project - the brainchild of Dr. Eugene Helveston (now supported by ORBIS) - has already been established in centres in Romania and Albania, and there are eventual plans to extend it to

Serbia/Montenegro and possibly Bulgaria.

8. An ophthalmic dictionary covering English, Russian, Polish and Ukrainian is being prepared. It is anticipated that this may be of great value in the training of young ophthalmologists in the region with increased access to English language textbooks and journals.

* There are probably many other teaching and training initiatives taking place in the region of which IAPB Europe is unaware. There still remain problems of communication of information between donors in Western Europe, and unless people are prepared to let the Chairman or Co-chairmen know of these activities it will not be possible to report about them, nor to co-ordinate them in order to plan more definitive educational programmes and avoid unnecessary duplication. We would urge those organisers to get in touch with us.

- Timothy ffytche
IAPB Regional Chair, Europe

South East Asia

Bangladesh

IAPB – SEAR Regional Workshop on Paediatric Eye Care

As Childhood blindness has been identified as a priority area for attention throughout the world under the VISION 2020: The Right to Sight programme, a Regional Workshop was organised in Chittagong on 6 & 7 February 2003 under the aegis of IAPB – SEAR. The Theme of the workshop was "Paediatric Eye Care". Chittagong Eye Infirmary and Training Complex (CEITC) was the host organisation, which received support from IAPB-SEAR and ORBIS International.

This workshop dealt with the following topics:

- Epidemiology and Magnitude of Childhood Blindness
- Challenges in Paediatric Eye Care
- Etiology and Management of

Congenital Cataract

- Advances and Controversies in Management Paediatric Cataract
- Traumatic Paediatric Cataract
- Strabismus / Amblyopia – Consequences in the Immature Visual system
- Visual Impairment in Paediatric Neurology practice
- Low Vision Care for Children
- ROP-Current practice and strategies to combat blindness
- Intraocular Malignancy in Childhood – Priorities and Controversies in Management of Retinoblastoma
- Paediatric Eye Injury
- Management of congenital Glaucoma – An Integrated approach
- Educational Intervention to persons with visual impairment
- Paediatric Refractive Error
- Current status of Paediatric Eye

care in the Region and Bangladesh

- Opportunities at Primary and Secondary Level.

Around 150 participants from within and outside Bangladesh, mainly countries from the South East Asia Region attended the workshop. The resource persons were from within and outside the Region. Professor Rabiul Husain was the Chairman of the Organising Committee. Dr. G N Rao, Secretary General IAPB and Mr. R D Thulasiraj, Chairman IAPB – SEAR helped make this workshop a success. Professor F A Billson from Sydney University, Australia was also a resource person.

The workshop focused on both the clinical and management aspects of the childhood blindness and created awareness amongst ophthalmologists, policy makers and NGOs working in this field.

Workshop on "Community Eye Health"

A workshop on "Community Eye Health" was held in Dhaka, Bangladesh from 17-19 March 2003. This workshop was jointly organised by National Institute of Ophthalmology (NIO), Bangladesh; London School of Hygiene and Tropical Medicine (LSHTM), UK; and VISION 2020 Coordination Office of Sight Savers International

The participants were mainly senior ophthalmologists, senior executives of international NGOs, senior officers in Ministry of Health and Directorate General of Health Services.

Papers were presented by various people, followed by group work and plenary discussions.

India

IAPB – Management Training in Eye Care Delivery at LAICO, Madurai

Under the IAPB/ Taskforce funding the following five training modules are offered at LAICO to address the needs of different categories of eye care workers:

- Management Training for Heads of Eye Hospitals
- Management Training for Eye Care Programme Managers
- Management training & Systems development for Hospital administrators/Managers
- Certificate Course in Eye Hospital Management
- Certificate Course for Clinical & Supervisory Skills Development in Ophthalmic Paramedical Personnel

These programmes are designed for clinical and programme managers. Clinical managers are those ophthalmologists and other professionals most responsible for matters of quality assurance, finances, use of material resources. Programme managers are those team members responsible for planning, monitoring and

evaluation of the activities. The commitment to solve the problem of blindness is reflected in the continual establishment of various programmes and infrastructure development for the control of blindness. In a hospital setting it is necessary for decision makers to bring in management practices that can increase the patient load, improve efficiency, quality and staff motivation.

During this reporting period three courses were conducted:

- Management training & Systems development for Hospital administrators/Managers (one month)
- Management Training for Heads of Eye Hospitals (One week)
- Management Training for Eye Care Programme Managers (Two weeks)

The candidates admitted for these courses, nominated through IAPB/ Task Force, were given scholarships that covered their course fee, travel, accommodation, food and transit expenses. The training methodologies adopted were lecture-discussions, case study, group work, brainstorming, role plays and field visits. The candidates admitted to these courses were from Indonesia, DR Congo, South Africa, Cameroon, Kenya, Nepal, Bangladesh, Thailand, India, Vietnam, Africa, South Africa, Pacific Islands and Germany and also those who were self sponsored.

The fourth course on "Clinical & Supervisory Skills Development in Ophthalmic Paramedical Personnel" (3 months) has just begun and will be completed in the month of June, 2003. Eight trainees are currently undergoing this training.

Paediatric Ophthalmology Training at LVPEI, Hyderabad

The LV Prasad Eye Institute, Hyderabad offers this training to create institutional capacity for paediatric eye surgery by training a team of persons from each

participating institute. The first Paediatric Ophthalmology surgery team from Bandung, Indonesia started the training on 1 July 2001. Subsequently on 1 July 2002 the teams from the National Institute of Ophthalmology and Hospital, Sher-e-Bangla Nagar, Dhaka, Bangladesh and BP Koirala Lions Centre for Ophthalmic Studies, Kathmandu, Nepal joined the training. The third batch consisting of two teams from Yangon Eye Hospital, Yangon, Myanmar and J.P.M Rotary Eye Hospital & Research Institute, Cuttack, India joined on 3 January 2003, is currently undergoing the training.

Workshop on "Role of INGDOs and NGOs for VISION 2020 in India"

The major eye care providers of this country, INGDOs, National level NGOS and the government participated in this workshop. This workshop was organised at LV. Prasad Eye Institute, Hyderabad from 27 to 30 January 2003. The workshop comprised two sections: (1) The Role of INGDOs for VISION 2020 in India - 27-28 Jan and (2) The Role of INGDOs/NGOs for VISION 2020 in India - 29-30 Jan. The main aim of this workshop was to develop a coordinated approach to providing sustainable eye care services to the needy population.

- R D Thulasiraj
IAPB Chair, South East Asia

Tamil Nadu Government Ophthalmic Assistants' Association, Madurai

Tamil Nadu Government Ophthalmic Assistants Association organised a VISION 2020 workshop on community eye health for its members on 9 March 2003 in Madurai, Tamil Nadu, India. Ophthalmic assistants are the backbone of the blindness control programme in India, and this is first time that an employees' service association has conducted such workshop for its members. The association thanks Dr. G N Rao, The Director, L.V. Prasad Eye Institute & Secretary General of IAPB, Dr. B R Shamanna, Consultant,

ICARE-LVPEI, Hyderabad and Dr. V M S Iqbal Sultan, Joint Director of PHC's, Chennai, for their guidance and suggestions.

Dr. S Elango, an eminent public health specialist, Deputy Director of Health services and District Programme manager of the Madurai District Blindness Control Society, inaugurated the workshop and stressed that the media should promote the cause of VISION 2020 in India.

Dr. Aravind Srinivasan, Administrator Aravind Eye Hospital, Madurai, talked about human resource development for VISION 2020. He emphasized the importance of ophthalmologists and ophthalmic assistants and other paramedical personnel involved in the blindness programme, and that professionals should be allowed to focus on their task, without being burdened with

administrative work since already there is a shortage of manpower.

Dr. Selvakadungovazhiyathan, Camp Medical Officer for the Government Rajaji Hospital, described the detection of glaucoma in the early stages and its management at primary health centre level. He insisted the ophthalmic assistants needed to check intra ocular pressure for all patients who are above 40 years. Dr. S Muthuramalingam, a senior ophthalmologist, stressed the importance of postoperative care in cataract patients.

Mr. M Veerasamy, General Secretary of the Ophthalmic Assistants' Association gave a vivid picture of blindness at global level and described the VISION 2020 activities. Mr. Ramanathan, Optometrist, spoke about the epidemiology of blindness.

In the concluding session Dr. S Amutha, Primary Health Care planning expert, stressed the importance of community participation and the primary health care approach in blindness control activities. India currently has around 6000 Ophthalmic Assistants. This number will be augmented by VISION 2020 village health workers and other field staff trained in vision testing and cataract identification. Primary eye care should be integrated with immunisation, ICDS and RCH programme in coming years under VISION 2020. 92 Ophthalmic assistants participated in this workshop.

- M Veerasamy
General Seceratry, TamilNadu
Government Ophthalmic
Assistants' Association
email: m_veerasamy@hotmail.com

Western Pacific

This quarter has involved a lot of planning for activities later in the year and travel overseas for WPR Coordinator has been limited to a combined New Zealand/Fiji visit in January and to Papua New Guinea in late March/early April.

IAPB Regional Chairman Professor Hugh Taylor visited Geneva for the 7th Meeting for the WHO Alliance for the Global Elimination of Blinding Trachoma in early January and again for the IAPB EC/TF meeting 18-23 February. He also attended the Fred Hollows Foundation Strategic Review meeting in Nepal in March.

Prof. Jill Keeffe made a monitoring visit to Fiji's Lions Low Vision Project in March and took the opportunity to participate in the handover of a vehicle to MOH, donated for outreach activities in the Suva area.

Work has also progressed in creating a Regional Data Collection system to enhance Regional coordination and for feeding back into the VISION 2020 Global Database.

Visit to New Zealand and Fiji, 9-17 January 2003

This visit was partly to clarify some

details concerning the proposed Vision for Fiji Project before final submission for funding by the Wellcome Trust, NHMRC and HRC at the end of the month. The other purpose was to visit the VISION 2020 Fiji Secretariat to have discussions with Dr. Bui and Talica Ratulevu, the VISION 2020 Fiji Manager regarding progress toward the development of the Divisional and National Action Plans. Richard Le Mesurier also had a meeting with Dr. Mary Schramm of the Fiji Medical Council regarding registration and standards issues. Richard made a flying visit to Turtle Island to see the combined Beeve Foundation and VOSO teams at work treating Fijian patients who would otherwise have had limited access to specialist eye care.

Good progress is being made on the National Action Plan, with a situational and needs analysis having been completed, allowing the next step – development of the three Divisional Action Plans - to go ahead. An amalgamation of these will result in a coordinated National Action Plan to be ready, hopefully, by the end of May 2003.

Representations have been made to the Prime Minister and Minister of Health regarding both a Formal Declaration of Support for VISION 2020 to be signed this year and for active support for the proposed WHA Resolution on Prevention of Avoidable Blindness scheduled for May.

Visit to Papua New Guinea, 30 March - 4 April 2003

Following an AusAID meeting some months ago on the current situation in PNG, it was agreed that any future programmes should preferably involve NGO coalitions with longer-term commitments rather than ad-hoc projects with short-term goals. It was apparent that VISION 2020 presented an ideal opportunity to develop such a coordinated approach. As such, it is hoped that resource mobilisation, particularly through AusAID and NZAID would be more likely to meet with success.

Fred Hollows Foundation (FHF), CBMI Australia and ICEE are now looking at ways in which the VISION 2020 Eye Care PNG programme could be approached in this cooperative way, with Lions and

VISION 2020 Australia also looking to be involved. Because of the apparent lack of progress and very limited communications with the PNG partners since last year it was decided to visit Port Moresby in late March. WPR Coordinator accompanied Ms. Carmel Williams of the FHF New Zealand Office (responsible for the FHF Pacific Programme) and Mr. Stuart Shepers of CBMI Australia.

It became immediately apparent that a lot of progress had been quietly achieved since the visit in May 2002:

- VISION 2020 Eye Care PNG (V2020ECPNG) has adopted and modified the old PBL Committee constitution and this is awaiting ratification.
- A bank account is in the process of being opened and Charitable Status is being accorded to V2020ECPNG, as a National NGO
- Much work has been accomplished in developing a curriculum for a 1-year Diploma in Ophthalmic Nursing course to be based at the University of Papua New Guinea (UPNG).
- A meeting for all the eye nurses, the key ophthalmologists and MOH personnel is scheduled for end of May to consider the new curriculum and appropriate standards for ophthalmic nurses. Following agreement it is hoped that the new UPNG course may start in 2004, putting in place the mechanism for recruiting and training the critical cadre of MLPs. This meeting will also consider the next step forward for V2020ECPNG: situational and needs analysis prior to developing a National Action Plan.
- Dr. Bage Yominao IAPB Co-Chairperson, has done much work in building a network of PEC Trainers from the present establishment of eye nurses with a view to setting in place PEC training for all community health workers.

Following very useful meetings with Dr. Kerek, Dr. Garap, Dr. Yominao

and interested parties from MOH it was decided to advertise for a Manager and this has been placed with National newspapers. Also various locations for a V2020ECPNG Office or Secretariat were investigated and a decision has been made to use space that is available at the main hospital in Port Moresby. FHF will help shortlist and interview candidates for the Manager's position; the Foundation has written to the Permanent Secretary of Health stating its commitment to V2020ECPNG and to supporting the Manager's position. FHF and CBMI also had meetings with local representatives of AusAID and NZAID.

Future Planning

During this quarter planning has been undertaken for:

- Regional Seminar at the 7th General Assembly at present scheduled to be held in Bahrain.
- Presentation on VISION 2020 to WRs and CLOs planned for 30th April 2003 in Manila WHO WPRO.
- Workshops and Declarations of Support for VISION 2020 to be held in Mongolia and Korea late October and at the planned PBL sessions to be held in Nagoya, Japan (early November) and at the Bi-Regional Meeting to be held in early December as part of the APAO meeting in Bangkok. Dr Konyama, who has been travelling around the region extensively, has done most of this planning work for these meetings, with inputs from WPR and SEAR for the Bi-Regional Meeting being held alongside the APAO meeting.

Other Future Regional Activities:

- WR and CLO Meeting at WHO WPRO, Manila 30th April.
- FHF/ICEE Pacific Islands Management Workshop for ophthalmologists, eye nurses and managers from the Sub-Region.
- NCD (especially Diabetes and Hypertension) Prevention and Control Meeting at WPRO, Manila

- Visit to Fiji for further assistance with Divisional and National Action Plans and possible Declaration of Support for VISION 2020 by Fiji Government, mid to late May.
- To Western Samoa to assist in FHF Workshop on the development of National Action Plan end of May.
- PNG Workshop for Ophthalmic Nurses and other stakeholders (mentioned previously) to be held in Lae, PNG in late May.

Other Developments

The Vision Collaborative Research Centres (Vision CRC) submission was successful and at the end of last year we were notified that the award was to total AUD32 million over seven years. A Vision CRC Planning meeting, bringing all the partners together will be held in April to look operational strategies. Dr. G N Rao from the LV Prasad Institute and Professor Brien Holden with members of his team from the University of NSW and ICEE will meet with members of the CERA team outside Melbourne. Vision CRC is due to commence implementation from July 2003. At around that time we will also hear whether the Vision for Fiji bid to the Wellcome Trust has been successful. Both these initiatives have potentially exciting implications for future eye care activities in the WPR.

*- Richard Le Mesurier
IAPB V2020 Regional
Coordinator, Western Pacific*

Vision 2020 Australia

Preventable visual loss and blindness is still a problem in Australia. This is primarily caused by a lack of awareness of the services and treatments available, and inequalities in the provision of service.

Greater awareness and coordination of service delivery and information is needed to provide the best possible eye care and to ensure that unnecessary vision impairment is eradicated in all communities.

In line with the strategic direction, Vision 2020 Australia has increased its collaborative scope and has further developed the National Eye Health Strategy.

Vision 2020 Australia will continue to focus its collaborative, awareness building and cooperative efforts in three areas:

1. Australian community
2. Aboriginal and Torres Strait Islander communities
3. Global eye care.

The Australian community

The general community will be targeted through The Vision Initiative, a coordinated, collaborative public health and education programme which will commence in the State of Victoria this year.

Vision 2020 Australia will also take a lead role in collaborating with Partners through the Vision Cooperative Research Centre to achieve best practice and models for public health programme delivery relating to vision.

Vision 2020 Australia as the peak body will continue to advocate efforts in public health education and public health campaigns relating to vision, eye care and service delivery.

Aboriginal and Torres Strait Islander communities

Vision 2020 Australia supports the implementation of the 1997 Review of Eye Health in Aboriginal and Torres Strait Islander Communities adopted by the Commonwealth Government.

Eye care is one of the focuses of Aboriginal health efforts. Aboriginal people, particularly in rural and

remote communities, are losing their vision because of entirely preventable or treatable causes, and a number of eye care issues, particularly diabetes and uncorrected refractive error, disproportionately affect the Aboriginal community.

The incidence of diabetes in Aboriginal and Torres Strait Islander populations is ten times that of the general population and diabetes is likely to overtake other eye disease as the main cause of blindness in these populations.

Vision 2020 Australia will develop Aboriginal and Torres Strait Islander Communities' strategy based on current data and priorities and the successful models in operation.

The main eye care priorities for Aboriginal and Torres Strait Islander people have been identified with the findings of the report "Aboriginal Eye Health – An Overview of Partner Activities." This documents current programmes.

The document identifies the programmes and models for service delivery and some underlying issues in Aboriginal eye health relating to the lack of collaboration, integration and continuity in eye health delivery. Vision 2020 Australia will work with its partners to determine a best practice model for Aboriginal communities including public education, service and after-sales service.

Global eye care

Vision 2020 Australia aims to support and increase efforts by international non-government organisations (INGOs), government and the public in Australia. Improvements in government policy, increased public, corporate and government giving and combined efforts in delivery can further assist blindness prevention.

Australian organisations and the Australian public have shown a willingness to support health care in developing countries. A wide range of programmes and services are provided by blindness prevention groups based in Australia.

IABP Bi-Regional Meeting

A half-day Bi-regional meeting of the IABP in association with the Asia Pacific Academy of Ophthalmology will be held in December 2003 in, Bangkok, Thailand. The participants will include ophthalmologists from most countries from Asia and Pacific. About 500-800 participants are expected to attend this meeting.

The programme will include discussions on Global progress made by VISION 2020, resource mobilisation and other regional updates. Lecture-discussions will focus on the framework for Monitoring, Low vision services, Cataract, refractive errors and Childhood Eye Care Services.

For further information please contact Prof. Hugh Taylor (email: h.taylor@unimelb.edu.au).

7th General Assembly – Update

As published in the January 2003 issue of the IAPB News the 7th General Assembly of IAPB will be held in Manama, Bahrain. There have been some concerns about the venue in view of the present war situation in the Gulf Region. We have been receiving queries about a possible change of venue for the Assembly.

At present, we are still going ahead with our plans to hold the Assembly in Bahrain. We have been receiving registrations from participants from different parts of the world including USA and UK. The Gulf Hotel in Manama, Bahrain, where the Assembly will be held, has also been receiving accommodation requests from the participants regularly. We hope that the present situation will be resolved soon and everything will be back to normal.

In case there is a definite need for a change of venue, a notification to that effect will be sent to all.

In view of this situation and anticipating that many of you would have not yet started preparing for the Assembly the deadlines for receiving Abstracts and Advanced registration fee was extended. The new deadline for receiving:

Abstracts - 30 April 2003

Advanced registration - 15 May 2003.

Summary Scientific Programme is given back cover.

Journal Abstracts

☛ **The magnitude and cost of global blindness: an increasing problem that can be alleviated.** Frick KD, Foster A. *Am J Ophthalmol* 2003 Apr;135(4):471-6.

Purpose: To identify the potential effect on global economic productivity of successful interventions, that are planned as part of the "VISION 2020 – The Right to Sight" initiative. The initiative aims to eliminate avoidable blindness. *Design:* This study used economic and epidemiologic modeling. *Methods:* Existing data and assumptions about blindness prevalence, national populations, gross domestic product (GDP) per capita, labor force participation, and unemployment rates were used to project the economic productivity loss associated with unaccommodated blindness. *Results:* Without extra interventions, the global number of blind individuals would increase from 44 million in the year 2000 to 76 million in 2020. A successful VISION 2020 initiative would result in only 24 million blind in 2020 and lead to 429 million blind person-years avoided. A conservative estimate of the economic gain is \$102 billion. *Conclusions:* The VISION 2020 initiative has the potential to increase global economic productivity.

Johns Hopkins Bloomberg School of Public Health, Department of Health Policy and Management, Baltimore, Maryland 21205, USA. kfrick@jhsph.edu

Estimating the burden and economic impact of trachomatous visual loss.

Frick K, Basilion E, Hanson C, Colchero A. *Ophthalmic Epidemiol* 2003 April, 10(2):121-32

Objective: To estimate the burden (disability-adjusted life years) and economic impact (potential productivity loss) associated with trachomatous visual loss. *Data:* National survey data on trachomatous blindness or visual impairment since 1980. *Methods:* The primary results summarized studies for countries with known or suspected blinding trachoma within World Development Report demographic regions. The number of cases was based on the year 2000 population. The years of life with disability calculation used the age-sex distribution of trachomatous visual loss. The one-year potential productivity loss calculation used the agricultural value added per worker in 1998. *Results:* Countries with known or suspected blinding trachoma have 3.8 million cases of blindness and 5.3 million cases of low vision and a potential productivity loss of \$2.9 billion (1995 US \$). Prevalent cases of trachomatous visual loss yield 39 million lifetime DALYs. *Conclusions:* For resource allocation, the burden of disease can be compared with the expected costs of eradication of trachomatous blindness.

Diabetic retinopathy among self reported diabetics in southern India: a population based assessment. V Narendran, R K John, A Raghuram, R D Ravindran, P K Nirmalan, R D Thulasiraj. *Br J Ophthalmol* 2002;86:1014–1018.

Aims: To estimate the prevalence of diabetic retinopathy among self reported diabetics in a population of southern India. *Methods:* A cross sectional sample of subjects aged 50 years and older was selected using a cluster sampling technique from Palakkad district of Kerala state. Eligible subjects were identified through a door to door survey. Ocular examinations including visual acuity and anterior and posterior segment examinations were performed at preselected sites within clusters. History of diabetes was elicited, and height, weight, and blood pressure were measured for all subjects. *Results:* Among the 5212 examined people (92% response rate), 68 (26.2%) of 260 people with self reported history of diabetes had diabetic retinopathy. The age-sex adjusted prevalence of diabetes among people aged 50 years and older was 5.1% (95% CI 3.9, 6.3, deff 4.33) and of diabetic retinopathy among the diabetics was 26.8% (95% CI: 19.2, 34.4, deff 1.99). Non-proliferative diabetic retinopathy (94.1%) was the most common form of retinopathy seen. Two eyes were blind (presenting vision <6/60) as a result of retinopathy. *Conclusion:* Preventive strategies have to be evolved to ensure that blindness due to diabetic retinopathy does not become a public health problem in India. Further studies are required to understand the risk factors for retinopathy and vision loss in this population.

A population based eye survey of older adults in Tirunelveli district of south India: blindness, cataract surgery, and visual outcomes. P K Nirmalan, R D Thulasiraj, V Maneksha, R Rahmathullah, R Ramakrishnan, A Padmavathi, S R Munoz, L B Ellwein. *Br J Ophthalmol* 2002;86:505–512.

Aims: To assess the prevalence of vision impairment, blindness, and cataract surgery and to evaluate visual acuity outcomes after cataract surgery in a south Indian population. *Methods:* Cluster sampling was used to randomly select a cross sectional sample of people ≥ 50 years of age living in the Tirunelveli district of south India. Eligible subjects in 28 clusters were enumerated through a door to door household survey. Visual acuity measurements and ocular examinations were performed at a selected site within each of the clusters in early 2000. The principal cause of visual impairment was identified for eyes with presenting visual acuity $\geq 6/18$. Independent replicate testing for quality assurance monitoring was

performed in subjects with reduced vision and in a sample of those with normal vision for six of the study clusters. *Results:* A total of 5795 people in 3986 households were enumerated and 5411 (93.37%) were examined. The prevalence of presenting and best corrected visual acuity $\geq 6/18$ in both eyes was 59.4% and 75.7%, respectively. Presenting vision <6/60 in both eyes (the definition of blindness in India) was found in 11.0%, and in 4.6% with best correction. Presenting blindness was associated with older age, female sex, and illiteracy. Cataract was the principal cause of blindness in at least one eye in 70.6% of blind people. The prevalence of cataract surgery was 11.8%—with an estimated 56.5% of the cataract blind already operated on. Surgical coverage was inversely associated with illiteracy and with female sex in rural areas. Within the cataract operated sample, 31.7% had presenting visual acuity >6/18 in both eyes and 11.8% were <6/60; 40% were bilaterally operated on, with 63% pseudophakic. Presenting vision was <6/60 in 40.7% of aphakic eyes and in 5.1% of pseudophakic eyes; with best correction the percentages were 17.6% and 3.7%, respectively. Refractive error, including uncorrected aphakia, was the main cause of visual impairment in cataract operated eyes. Vision <6/18 was associated with cataract surgery in government, as opposed to that in non-governmental/private facilities. Age, sex, literacy, and area of residence were not predictors of visual outcomes. *Conclusion:* Treatable blindness, particularly that associated with cataract and refractive error, remains a significant problem among older adults in south Indian populations, especially in females, the illiterate, and those living in rural areas. Further study is needed to better understand why a significant proportion of the cataract blind are not taking advantage of free of charge eye care services offered by the Aravind Eye Hospital and others in the district. While continuing to increase cataract surgical volume to reduce blindness, emphasis must also be placed on improving postoperative visual acuity outcomes.

Observed vs. Indirect estimates of incidence of open-angle glaucoma.

Suh-Yuh Wu, MA; Barbara Nemesure, PhD; and M. Cristina Leske, MD, MPH. *Am J Epidemiol* 2001;153:184-187.

Incidence data on open angle glaucoma (OAG) are limited and difficult to obtain. To date, only two studies have reported directly measured incidence from population-based cohorts. Other reported estimates have been derived indirectly from age-specific prevalence, using several assumptions, and their validity is unknown. This report presents the first comparison of observed

versus indirect estimates of OAG incidence, based on data from the population-based Barbados Eye Studies cohort (n=3427; 85% participation). The observed incidence of OAG was 1.2% (95% CI: 0.6-2.1%) at 40-49 years; 1.5% (0.8-2.5%) at 50-59 years; 3.2% (2.0-4.8%), at 60-69 years; and 4.2% (2.6-6.3%) in persons \geq 70 years. When calculating incidence from the prevalence data, power function fitting achieved a closer approximation to observed incidence than logistic curve fitting. Calculated rates were similar when assuming equal mortality (0.7%, 1.3%, 2.3%, 4.8%) and differential mortality (0.7%, 1.2%, 2.4%, 4.8%) for each age group, respectively. Other non-logistic approaches also increased the resemblance of observed and calculated estimates. In the absence of longitudinal data, reasonably valid incidence estimates of OAG were obtained from available prevalence data. These estimation techniques can be useful when OAG incidence estimates are required, for research or public health purposes.

Patterns of Open-Angle Glaucoma in the Barbados Family Study. M. Cristina Leske, MD, MPH; Barbara Nemesure, PhD; Qimei He, PhD; Suh-Yuh Wu, MA; James Fielding Hejtmancik, MD, PhD; Anselm Hennis, MRCP(UK), PhD; for the Barbados Family Study Group. *Ophthalmology* 2001;108:1015-1022

Objective: To describe the Barbados Family Study of Open-Angle Glaucoma and present risk factors for open-angle glaucoma (OAG) in siblings of study probands. **Design:** Observational study of families of probands with OAG. **Participants:** 230 probands and 1056 relatives (from 207 families). **Methods:** Probands and their family members had standardized examinations, including automated perimetry, applanation tonometry, ophthalmologic evaluation, fundus photography, blood pressure, interview, and genotyping. Generalized Estimation Equation methods were used to evaluate risk factors. **Main Outcome Measures:** Presence of OAG in the relatives, as defined by both visual field and optic disc findings, after ophthalmologic exclusion of other causes. **Results:** The median ages of probands and relatives were 68 and 47 years, respectively. In the 207 families, 29% of the probands had one relative with OAG and 10% had two or more relatives affected. Of the 1056 family members, 10% had OAG, 13% had suspect OAG and 6% had ocular hypertension. One-fifth of the 338 siblings had OAG (n=67); they tended to be older and more often male. Multivariate comparisons between siblings with and

without OAG found that age, higher intraocular pressure (IOP), myopia and lower diastolic blood pressure-IOP differences were related to OAG, while hypertension and diabetes were not. **Conclusions:** Based on standardized protocols and examinations, about one-quarter of the relatives had OAG or suspect OAG, despite their relatively young age. Risk factors for OAG in siblings were similar to risk factors in unrelated individuals. Analyses are ongoing to determine OAG inheritance and localize potential gene(s) involved.

Inheritance of Open-angle Glaucoma in the Barbados Family Study Barbara Nemesure, PhD; Qimei He, PhD; Nancy Mendell, PhD; Suh-Yuh Wu, MA; James Fielding Hejtmancik, MD, PhD; Anselm Hennis, MRCP(UK), PhD; M. Cristina Leske, MD, MPH; for the Barbados Family Study Group. *Am J Med Gen* 2001;103:36-43

The majority of genetic studies on open-angle glaucoma (OAG) have been conducted in primarily white populations, with investigations of inheritance patterns largely based on self-reported information. The Barbados Family Study of Open-Angle Glaucoma (BFSG) is the first study to investigate the transmission pattern(s) for OAG in a predominantly black population, based on standardized examinations. Each BFSG participant received a comprehensive examination including anthropometric and other measurements, best-corrected visual acuity, perimetry, tonometry, lens gradings, fundus photography, venipuncture, an extensive interview including ocular, medical and family history information and a comprehensive ophthalmologic evaluation. Conservative criteria were used to define glaucoma status, including the presence of both visual field defects and optic disc damage. The study included 207 OAG-affected probands (median age: 68 years) and 1056 of their relatives (median age: 47 years). Among the relatives examined 10% (n=106) had OAG and 13% (n=141) had probable OAG. Segregation analyses were performed to determine the mode of inheritance for glaucoma in these families. The results indicate that transmission of OAG or probable OAG is most likely due to a major co-dominant gene. Both age and gender are shown to be significant factors as well; with an increase in risk being associated with each year of age over 54 years and an increase in risk for all ages and genotypes observed in males. These analyses do not, however, preclude the possible existence of an environmental component or other genetic determinants in OAG. Further evidence for the existence of a major gene may be obtained by additional follow-up of the relatively young

cohort of relatives, as well as ongoing linkage analyses.

The National Blindness and Low Vision Prevalence Survey of Bangladesh - research design, eye examination methodology and results of the pilot study. Bourne RRA, Dineen B, Ali SM, Huq DMN, Johnson GJ. The National Blindness and Low Vision Prevalence Survey of Bangladesh – research design, eye examination methodology and results of the pilot study. *Ophthalmic Epidemiology* 2002: Vol 9:119-132.

Purpose: To describe the research design and eye examination protocol of The National Blindness and Low Vision Prevalence Survey of Bangladesh and to present the main results of the rural pilot study. **Methods:** A thorough description of the sampling strategy, eye examination protocol and operational definitions are presented. Multi-stage stratified (rural / urban) cluster random sampling, with probability proportional-to-size procedures, will be used for selection of a cross-sectional, nationally representative sample (12,900 subjects) of the population aged \geq 30 years. Each subject will be tested for visual acuity, auto-refracted and undergo optic disc examination. Those with $<$ 6/12 visual acuity in either eye will be re-tested with their refractive correction, dilated and examined for anterior and posterior segment disease. A preliminary, separate rural pilot survey sample was conducted according to the eye examination procedures, with results reported herein. **Results:** 204 (73.1%) of 279 eligible subjects were examined for the rural pilot. Forty-eight persons had presenting visual acuity worse than 6/12 in either eye. The presenting visual acuity of the better eye was used to group the subjects into the following WHO categories (brackets enclose the number of subjects after refractive correction): Blind: 4 [4]; Visually impaired: 29 [14]; Sighted: 171 [186], of whom 3 [3] were unilaterally blind. Cataract was the main cause of visual acuity of less than 6/12, followed by refractive error, and age-related macular degeneration. **Conclusions:** The pilot survey demonstrated that the proposed examination process for the main survey was both feasible and appropriate for the purposes of this study. Particular strengths of the pilot and subsequent main survey include the use of logMAR visual acuity testing and auto-refraction of all subjects. The pilot study reveals the burden of cataract and refractive error, which are two of the five diseases specifically targeted by the WHO global blindness initiative 'VISION 2020'.

7th General Assembly Scientific Programme - An Overview

	Monday 29 September	Tuesday 30 September	Wednesday 1 October	Thursday 2 October	Friday 3 October	4 & 5 October
09:00 AM to 10:30 AM	Plenary 1 • Opening Ceremony • Inaugural Session	Plenary 3 ¹ Partnership with industry and the media - PPP: Opportunities and Threats - Industry's Perspective - BBC World Service Trust - Examples	Plenary 4 ¹ Partnership in practice	Plenary 6 ¹ Future developments - Genomics in Eye Health - Information Technology - Stem Cell Biology	Sir Alan Johns Memorial lecture Business meeting - Treasurer' Report - Secretary General's Report - President's Review	I S G E O C O N G R E S S
11:00 AM to 01:00 PM	¹ Sir John Wilson Memorial Oration ¹ Keynote Lecture Plenary 2 ¹ Achievements in VISION 2020 - Cataract - Trachoma - Childhood Blindness - Onchocerciasis	Free papers International	Plenary 5 ¹ Partnership in structure - Global Structure - Regional Co-ordination - National VISION 2020 Action Plans - National VISION 2020 Co-ordinating Groups ¹ Achievements in VISION 2020 - Refractive Errors - Low Vision - Human Resource Development - Technology	Free papers Eastern Mediterranean Region	Business meeting - New Constitution - Election of New officers Closing ceremony - VISION 2020 Priorities - The Future - Quadrennium Closure	
02:00 PM to 03:30PM	Courses 1 – 4	Regional meetings Reports from the Regional Chairs	Courses 11 - 14	Courses 18 - 20 Symposium for ICEVI		
04:00 PM to 05:30 PM	Courses 5 – 7 Symposium of the International NGOs	Courses 8 – 10 Symposium for ICOMWCO	Courses 15 - 17 Symposium for World Blind Union	Courses 21 – 23 Symposium for WHO Collaborating Centres		
	Posters	Posters	Posters	Posters	Posters	
Social Events	Welcome Reception			Banquet & Awards		