The goal of VISION 2020: The Right to Sight can be achieved only through action at the national level, in accordance with the dictum, ‘Plan globally, Act locally’.

One of the critical functions of the World Health Organization’s Programme for the Prevention of Blindness, under its mandate of providing technical cooperation to Member countries, has been assisting the establishment of national programmes and committees for the prevention of blindness. To date there are over 100 such national programmes/committees/local points in countries where blindness is a public health problem. These are in various stages of development and activity. While political will and the commitment of ministries of health is an important determinant of how well these function, professional groups and non-governmental organisations can also play a major role, as demonstrated by the importance of advocacy.

Despite varying efforts, often hampered also by resource constraints, there has been a deterioration in the blindness situation in some countries, because of population growth and ageing and the paucity of eye care services where they are needed most. VISION 2020 represents an unique opportunity to revitalise and strengthen existing programmes/committees and to create new ones where they are lacking.

There is a need to translate global and regional strategies into nationally applicable activities through defining national plans of action, focusing preferably on the most peripheral level possible, perhaps the district level. Such plans of action should fit the situation in which activities would be implemented.

Prior to planning, a situation analysis would be necessary, as well as a detailed needs assessment, taking into account:

- the epidemiological situation, ideally through population-based surveys or
‘rapid assessment’ techniques, or appropriately extrapolating from available data

- human resources, in terms of numbers and cadres (including the private sector), geographical distribution and ‘quality’ (i.e., the need for re-training)
- infrastructure, in terms also of quantity, quality and distribution.

This will facilitate the setting of priorities based on: unmet needs; the magnitude of the disease burden; and the feasibility and cost-effectiveness of interventions. Relevant and realistic targets need to be set, indicators defined and data recording and reporting systems put in place. As far as possible, data should be collected at district level or other defined areas, to measure and ensure equity in service delivery.

Given the time frame of VISION 2020, it would be useful to have, in the first instance, a five-year plan of action, with subsequent more detailed annual plans of work, to enable monitoring and evaluation.

Finally, VISION 2020 must not be considered a vertical programme with a limited time frame. The national programme plan should be an integral part of the health delivery system, work towards long-term sustainability and address, among others, the key issues of quality and equity.

WHO, the International Agency for the Prevention of Blindness (IAPB) and its constituents, working in partnership, need to support Member countries in the development and implementation of their national plans.

These plans should be as decentralised as possible in order to reflect the actual level of implementation of the different activities. The empowering of local communities is another essential aspect that should not be overlooked. Lessons learned from community-directed treatment programmes, in the case of onchocerciasis control, have demonstrated how much can be achieved even in the most underserved areas when all those concerned join hands and work together.
Questions & Answers: National Prevention of Blindness Programmes

David Yorston FRCS FRCOphth

David Yorston responds to questions (Q) on National Prevention of Blindness Programmes, providing answers (A) based on his experience in Africa and elsewhere. Dr Yorston (Christian Blind Mission International: CBMI) was formerly Ophthalmologist at Kikuyu Eye Unit, Kenya, and is now practising at Moorfields Eye Hospital, London.

Q: Are National Programmes relevant to VISION 2020?

A: A key part of VISION 2020 is devolving decision making and planning to district level – the idea of planning services for units of one million people. Generally, when we have tried to plan for larger populations, we have not been successful. This has led some people to question whether national prevention of blindness programmes have any role in VISION 2020. Well managed national programmes can play a major part in implementing VISION 2020. However, ineffective programmes risk becoming irrelevant as the focus of activity will inevitably shift to the districts.

Q: What should National Programmes focus on?

A: The main task of a national prevention of blindness programme should be to provide a framework for VISION 2020 at the district level. Globally, VISION 2020 is successful because it has pooled experience and expertise from many sources, and we have all agreed to pursue some clearly defined goals rather than independently pursuing our own priorities. In the same way, at national level, a multitude of isolated, independent programmes will not be the most efficient way to eliminate avoidable blindness. A national programme can help by providing guidelines in response to a variety of questions – for example:

- How should we monitor cataract outcomes?
- Which districts should have the highest priority for full implementation of SAFE?
- What is the minimum standard of equipment and supplies for district eye clinics?
- All of these issues are best decided at national level.

Secondly, national programmes are vital for human resource development. They must advise the government about the numbers and cadres of eye workers that are needed, how they should be trained, and what they should do. Again, this must be done at national level. It would be unacceptable if ophthalmic assistants were permitted to do cataract surgery in one district, but not in another. The programme should ensure that eye workers are not only trained, but also empowered – that is:

- They are suitably equipped and supplied
- They have a realistic job description
- They have authority to plan their work within the limits of the job description
- They receive continuing medical education

Finally, national programmes should act as channels of communication. They should be constantly sharing good ideas, spreading the message that avoidable blindness can be defeated, encouraging the best programmes, and helping the rest to improve. An effective national programme will ensure that there is no such thing as an isolated eye worker.

Q: Who are the key players in National Programmes?

A: National prevention of blindness programmes are usually planned and run by prevention of blindness committees (PBC). Ideally all groups contributing to prevention of blindness should be represented on the PBC.

- Ministry of Health
  An effective prevention of blindness programme needs official government support. The MoH representative should be sufficiently senior to act as an effective advocate for prevention of blindness within the Ministry. They should have the authority to make decisions that will affect prevention of blindness. It can be very frustrating to spend long periods formulating plans and proposals, only to have them ignored by the MoH.

- Eye care professionals
  These should include not only ophthalmologists, but also para-medical eye workers, optometrists, eye nurses, and orthoptists.

All of us are involved in prevention of blindness, and we all have different insights and priorities. An effective programme will make good use of all these differing skills.

- INGDO
  The international non-government development organisations usually provide the funds for prevention of blindness in developing countries. Sadly, INGDO’s may be viewed solely as a source of cash! Major INGDO’s, such as Sight Savers International, and CBMI, have many years of experience of prevention of blindness programmes in many different countries. This expertise is at least as important as their money. The ideal is partnership, in which the PBC and the INGDO sit together and plan how the INGDO can contribute most effectively.

- Service clubs
  In some countries service clubs, such as Lions and Rotary, make a major contribution to prevention of blindness. Sometimes this can lead to problems, as service club eye clinics may take place outside the framework of the national programme. The best way to handle this is not to ban eye camps (which is usually impossible!) but to include the service clubs in the national programme, by involving them in the development of eye services.

- Major institutions
  Major teaching institutions, and other successful centres of excellence, should be represented on the PBC. Other programmes may be able to learn from their experience, and decisions about human resource development will have important implications for their training programmes.

- Patients’ representative
  Few PBC have any lay representatives, which is a pity. We need to be reminded that we are not dealing with a million cataracts, but with a million people, and...
National Programmes

their families, every one of whom is experiencing different problems because of their visual disability.

**• Other expertise / celebrities**

The main obstacles to prevention of blindness are not technical or clinical, but are due to failures in management and administration. More skilled managers and business people should be appointed to PBC’s, not because they are interested in prevention of blindness, but because they know how to manage a large enterprise successfully and profitably.

We need advocates who will raise awareness of prevention of blindness. This is most likely to be achieved by involving a local celebrity – a sporting personality, a film star or entertainer, or a traditional leader.

In general, we should be more imaginative and appoint people to national PBC’s who would not normally sit on MoH committees.

Q: What are the problems facing National Programmes?

A: Sometimes national programmes try to do the wrong things. The primary focus for implementation of VISION 2020 is at the district level. National programmes cannot micro-manage individual district eye care teams. The national PBC has to give the guidelines to the districts and then let them do the work.

Secondly, national programmes are often perceived as being remote and out of touch. One of the most important tasks of the national programme is to promote networking and sharing of ideas. If this is done effectively, then the national programme will be close to every eye worker.

Finally, prevention of blindness on a national scale is bound to be a political issue. Sadly, care for blind people is frequently hampered by rivalry between different eye care professions, government departments, and NGO’s. It has been said that if we spent as much energy fighting blindness as we expend on fighting each other, we could achieve the goals of VISION 2020 by 2015! We must bury past differences, and work together for a common programme. National programmes which can do that effectively will make a huge contribution to eradicating avoidable blindness.

☆ ☆ ☆

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**FOUNDATION DARK & LIGHT**

The Foundation supports organisations (not individuals) that work with the blind, including those with multiple disabilities. It also supports low vision, integrated education, vocational training and CBR projects as well as early intervention and improved medical treatment of eye diseases. Based on Christian principles, the Foundation supports organisations regardless of religion, nationality, race or age. For more information, please write a short letter introducing yourself and requesting an application questionnaire. For those with internet access, the questionnaire is also available on the website.

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IAPB Co-Chairman (Eastern Africa)
Kenya

Kenya Ophthalmic Programme

Kenya is one of the East African countries with a coastline bordering the Indian Ocean and astride the equator. The country has an area of 225,000 square miles and a population of about 30 million people. The prevalence of blindness is estimated as 0.7%, with cataract contributing 43%, trachoma 19% and glaucoma 9%.

The Kenya Ophthalmic Programme (KOP) is a Ministry of Health (MOH) programme receiving administrative support from the Kenya Society for the Blind (KSB). It started as a small project in 1956 but has grown into a major National Programme rendering comprehensive eye care (CEC) through a network of about 70 Government and NGO static and outreach service delivery points scattered all over the country. About half a million patients are treated annually.

The KOP priorities are:

- To make the existing eye units fully operational before building new ones
- Improve training of all cadres of eye care workers
- Generate income so that services can be sustained
- Adopt a primary health care approach in prevention of blindness.

The KOP falls under the Primary Eye Care Division of the Department of Preventive and Promotive Health of the MOH.

In 1966, the Ministry of Health created the National Prevention of Blindness Committee (PBC). The PBC meets quarterly and brings together representatives of all the stakeholders in prevention of blindness.

The KOP Secretariat is the technical arm of the PBC and is housed by the Kenya Society for the Blind. The KOP Coordinator heads it. Under the KOP Coordinator there are the Primary Eye Care Manager, the National Eye Health Information Officer and the National Eye Drop Production Unit.

In 1993, the Ministry of Health officially recognised Primary Eye Care as an Element of Primary Health Care. Through collaboration with Education and Rehabilitation programmes funded by the KSB and other NGOs like Christian Blind Mission International and Sight Savers International, the KOP is able to offer comprehensive eye services. The country is divided into ten ophthalmic zones each under a Zonal Eye Surgeon (ZES). A zone geo-medical unit has a referral eye unit (Government or NGO). Under the zonal eye unit are the district and mobile eye units. Personnel at the districts includes the Ophthalmic Clinical Officers (OCO), OCO Cataract Surgeons (OCO/CS), Community Health Workers and Outreach Drivers. In the near future the KOP plan to train Ophthalmic Nurses (one year course) who will be in-charge of rendering community eye care services, especially health promotion. Low Vision Therapists' training is being discussed at the Prevention of Blindness Committee. There is a feeling by most of the PBC members that the OCOs and the nurses can render refraction services to avoid creating too many cadres of eye care workers. Short management courses for eye care managers have been recommended. Training of equipment Ophthalmic Technicians is an urgent need. Hospital Maintenance Technicians are not trained to repair/service instruments and equipment.

Performance

Cataract surgical services

The method of surgery is ECCE with PC IOL implant.

Structure of Kenya Ophthalmic Programme

Table 1 shows Kenya’s 1999 cataract surgical rate (CSR) against those of the other countries in the Region:

<table>
<thead>
<tr>
<th>Country</th>
<th>Population (millions)</th>
<th>Cataract operations (1999)</th>
<th>CSR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>30</td>
<td>12,000</td>
<td>400</td>
</tr>
<tr>
<td>Uganda</td>
<td>20</td>
<td>6,000</td>
<td>300</td>
</tr>
<tr>
<td>Tanzania</td>
<td>30</td>
<td>10,000</td>
<td>333</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>60</td>
<td>18,000</td>
<td>300</td>
</tr>
<tr>
<td>VISION 2020 CSR target is 3,000.</td>
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Constraints being addressed by the Kenya Ophthalmic Programme include:
- Shortage of personnel
- Shortage of equipment and supplies plus difficult procurement procedures
- Poor staff remuneration leading to poor motivation in the Government sector
- Hospital charges not harmonised. Some NGOs render freer services while patients attending Government eye units have to pay for the total cost of the operation (a World Bank structural adjustment requirement)
- Deteriorating outreach services due to increased operation costs and reduced funding
- Poor social marketing strategy.

The need for cataract surgical services is growing with time, despite an increase in the number of operations done as shown in Table 2.

Table 2: Cataracts Identified versus Cataracts Operated On in KOP, 1993–99

The total number of ophthalmologists in the country is 50. Thirty of these are in Nairobi City. The ophthalmologist per population ratio in Kenya is 1:600,000.

The OCO per population ratio in Kenya is 1:300,000. The OCOs are the key workers in public service and in the rural areas.

VISION 2020 Activities Kenya

In May 2000, the PBC authorised the KOP to:
- Create a working group to prepare a 4–year VISION 2020 strategic plan to be launched by early 2001 (members: IAPB, PBC, KSB, CBM, SSI, OEU, Lions, and AMREF)
- Strengthen reporting of VISION 2020 activities
- Utilise the PBC and all KOP planned workshops to promote and plan for VISION 2020. This was successfully initiated at this year’s Kenya National Ophthalmic Workshop [KNOW 2000] and the Ophthalmological Society of East Africa Conference [OSEA 2000]
- Create and upgrade ‘Right to Sight’ Eye Units which will spearhead the intended increase in the cataract surgical rate and improvement of quality of cataract surgery
- Create and survey [Rapid Epidemiological Assessment] ‘GET 2020 Districts’ where trachoma control activities (using the SAFE strategy) will be intensified
- Workout incentives for workers in poor and undeserved areas
- Strengthen regional cooperation under the IAPB
- Support the creation of the Ophthalmological College of Eastern Africa.

Trachoma

Trachoma still endemic in over 30 districts in Kenya. The control of trachoma has been part of primary eye care. The number of trichiasis operations done per year has been less than 2,000, mainly due to lack of funds for training and also trichiasis sets. Only 12 out of 30 workers trained in trichiasis have trichiasis surgical sets. Since 1985, the African Medical and Research Foundation (AMREF) has been operating a pilot trachoma control project in a small area covering Ngong and Magadi divisions of Kajiado district. The University of Nairobi has now evaluated this project and the report will be made public soon.

Their model utilises community volunteers (Visiting Health Monitors) supervised by trained Village Health Monitors in implementation of the SAFE strategy. The aspects of the model approved by the PBC will be replicated in other trachoma endemic districts in Kenya.

Childhood Blindness

The Kenya Government, the WHO and UNICEF have teamed up in a joint venture to fight against both clinical and sub-clinical forms of vitamin A deficiency. Our Primary Eye Care Project has been conducting workshops for community health workers on prevention of childhood blindness. Vitamin A distribution has been added to a pre-existing immunization (EPI) network. The two main referral eye units (Kenyatta National Hospital and Kikuyu Mission Hospital) have specialists dealing with surgically avoidable childhood blindness. More Zonal referral eye units need similar services.

Human Resources

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<table>
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<tr>
<th>COMMUNITY EYE HEALTH COURSES 2001/2002</th>
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<tr>
<td>+ MSc in Community Eye Health – 1 year (Sept. 2001 – Sept. 2002)</td>
</tr>
<tr>
<td>+ Certificate Course in Community Eye Health – 3 months (Sept. – Dec. 2001)</td>
</tr>
<tr>
<td>+ Certificate in Planning for Eye Care – 3 months (Jan. – Mar. 2001)</td>
</tr>
<tr>
<td>+ Short Courses – 1–4 weeks (on-going)</td>
</tr>
<tr>
<td>+ Planning for VISION 2020 – one week (25–29 June 2001)</td>
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</tbody>
</table>

Enquiries: Courses Promotions Officer, International Centre for Eye Health, 11–43 Bath Street, London, EC1V 9EL, United Kingdom. Fax: +44 (0) 207 608 6950; E-mail: j.hoskin@ucl.ac.uk
South American Programme: Brazil

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Introduction
The number of blind people in Brazil is estimated at 0.4 to 0.5% of the population, or 4,000 to 5,000 per million. For a population of 160 million the total estimated number who are blind is approximately 640,000, using the criteria of vision < 20/400 (< 3/60). Due to regional socio-economic differences we find areas of estimated prevalence of blindness similar to developed countries of 0.25% and areas of poor economy and health services of 0.75%.

Causes of Visual Impairment and Blindness in Brazil
The most important causes of visual impairment and blindness for adults in Brazil include non-corrected refractive errors, cataract, glaucoma and retinal diseases. For children the causes are congenital cataract, infection, non-corrected refractive errors and retinopathy of prematurity. Approximately 50% of the known cases of congenital cataract in Brazil are due to infections and rubella is the most important cause. Other important causes in some regions of the world, such as trachoma, onchocerciasis and vitamin A deficiency, are seen only in localised areas.

Cataract is the cause of 40 to 50% of the cases of blindness in Brazil. It is estimated that the number of patients needing cataract surgery is 500,000/year. Non-corrected refractive errors are also important causes, accounting for another 40% of cases. Other causes account for less than 10% and include glaucoma, retinal disorders, diabetic retinopathy, age-related macular disease and corneal infections.

There are a variety of reasons why many patients, blind because of cataract, do not have surgery, including fear of surgery, logistical barriers, financial, social and religious reasons.

In Brazil, the ageing of the population and the lack of opportunity to have surgery are contributing to maintain the present situation. It is expected that the population over 50 years of age will increase 4 times by the year 2020 and the number of people blind due to cataract must increase in a similar proportion.

The National Programme
The public health approach involves a National Programme that could be used by the entire population as a free service. It is estimated that only 30% of Brazil’s population can afford to purchase a private health plan, leaving a large number of people needing the public health system. The amount of money, about US$ 10 billion, for the health programme is far from the necessary amount required to offer medical treatment to everyone needing this support. The total budget for the health system in Brazil is around US $ 80/person, which is very low in view of the urgent problems the country faces.

Ophthalmologists and Eye Care
In Brazil, the number of ophthalmologists seems to be appropriate, about 8,000 for a population of 160 million and more than 50% are doing cataract surgery. It is however necessary to optimise programmes to increase the number of operations. In most cases the use of facilities (equipment and operating rooms) and human resources prepared to do cataract surgery are not efficiently implemented. A rational and more effective application of resources is mandatory to reach more patients and it is necessary to push doctors and administrators to improve the performance of these services. If services increase the number of operations, even without new equipment and personnel, then the cost per operation will be reduced and more patients can get surgery.

Reducing barriers to access the health system is necessary, by increasing the number of appointments available for eye care in health clinics as primary care, together with the creation of an efficient reference system.

Allied Eye Care Personnel
In Brazil there are few ophthalmic technician courses and few allied health personnel in eye care. The universities and medical schools should offer technical courses to provide the number of technical assistants needed to improve the performance of each ophthalmic service. The University of Campinas (UNICAMP) pioneered two month courses for high school certified persons in 1990. This course is now offered 4 times a year, and has trained about 400 people. Also, two day courses to improve the skills of auxiliaries already working are offered and almost 2,000 workers have attended.

Cataract Surgical Services
In 1986 a project was simultaneously realised in Campinas (Brazil) and Chimbote (Peru) supported by the National Institute of Health, UNICAMP, Helen Keller International, and Consejo Nacional de Salud de Peru. The objectives of these projects were to study the frequency of cataract blind people and access to surgery in these regions. These projects were implemented by visiting each house within a chosen area of the cities (door to door). The results found 50% of blindness was caused by non-operated cataract. After the campaign we observed an increase from 58% to 82% in the number of those who had received surgery having been cataract
were included in the programme. As a result of the work of 2,000 ophthalmologists, about 30,000 patients had their vision restored either by surgery or by correction of refractive errors with free glasses.²

In 1999, due to the success of the 1998 campaign and an understanding of population needs, the Minister of Health agreed to support a new project to increase the number of cataract operations. The patients were attended either by projects during weekends or by routine examinations in health posts. In some areas, also, a waiting list of patients existed and these patients were included in the programme. As a result, and with the support of more than 3,500 ophthalmologists, there were 142,000 operations done in 1999. Adding to routine surgery sponsored by the Health System (SUS) there was a total of 250,000 cataract operations done by the public health system in 1999, a 215% increase over the last two years.

**Prevention of Childhood Visual Impairment**

Understanding the importance of good vision for children the CBO and the Minister of Health began a campaign in 1999 to attend children during the first year of elementary school in cities of 50,000 people or more. The campaign was set to examine every child with < 20/30 (< 6/9) vision in one eye or symptoms the teacher had detected. The teachers were trained to detect eye problems and to measure visual acuity using the Snellen chart. Teacher training was carried out by an ophthalmologist based on a protocol and booklet developed and distributed by the CBO. After visual screening the children were sent either to eye clinics or public hospitals and were examined by the ophthalmologists in charge of the school. It was expected that 10% of the children would need an eye examination.

Four thousand ophthalmologists and school teachers selected children for eye examinations. Glasses were given free of charge, paid for by the government, after an agreement with the Brazilian Optic Association to charge only US$ 8.00 for each pair of glasses. The glasses were dispensed with acrylic lenses and there were different models and sizes. The campaign was coordinated by the CBO with support of the Ministry of Education.

**The Way Forward**

In order to be more rational in using the resources available and to extend the population coverage, a well designed and prepared programme is needed instead of campaigns. These campaigns have been useful in decreasing the number of blind from cataract, improving vision of school children and, further, showing the necessity for a broad eye care programme. In the years ahead it is expected that a National Ophthalmic Programme to provide eye care will be implemented, mainly for cataract surgery, prescription and provision of glasses for children and adults, treatment of diabetic retinopathy and low vision services. Quality control of the services offered for the population needs to be included in this Programme to optimise efficiency in using these resources.³

Access for the population must be facilitated by weekend campaigns to detect the patients needing cataract surgery and spectacle prescription. Massive education campaigns and an increase in the number of eye examinations in health posts will also contribute in identifying patients. The participation of school teachers and community associations in screening the children will be of great importance. A reference system with trained ophthalmic auxiliary personnel also needs to be part of the programme.

As 70% of the population cannot afford to have a private health plan, the great majority need coverage by the Public Health System and these efforts are contributing to the decrease in the number of visually impaired people in the country. For the cataract campaign in this year, 2000, the costs per patient were about US$ 220, including IOL, disposables and the surgeon’s honorarium.

The budget for the year 2000 cataract campaign has been US $ 50 million with US$ 5 million for children’s screening and spectacles. Funding has also been allocated for the new diabetic retinopathy projects which are most important considering the needs of a developing country such as Brazil. This will also contribute to a decrease in blindness.

**References**


**COMMUNITY EYE HEALTH WORKSHOPS**

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<thead>
<tr>
<th>South Africa:</th>
<th>January 2001</th>
<th>Tanzania:</th>
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<tr>
<td>Colombia:</td>
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<td>Pakistan:</td>
<td>April 2001</td>
<td>Nigeria:</td>
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Introduction

Cambodia has an estimated population of 12 million people, 85% of whom live in rural areas. With a blindness prevalence rate of 1.2%, an estimated 144,000 people are blind. The main causes of blindness are cataract, uncorrected refractive errors / aphakia, glaucoma, corneal scar and pterygium. Of these causes, 80 – 90% are preventable or treatable. There is shortage and maldistribution of health manpower; infrastructures and facilities to tackle the identified eye care problem. The lack of training programmes in the country also compounds this problem.

An estimated 28,800 Cambodians become blind each year, about 19,000 because of cataract alone. Cataract surgical services are available in most of the eye units in the country. However, by 2020, the country’s population is projected to grow from 12 million to 19.5 million people. By the same year, with increasing life expectancy, the number of Cambodians over the age of 60 is estimated to increase by 60% to some 2 million people. This brings a further doubling in the amount of cataract surgery that needs to be done.

National Plan for Eye Care Development

The National Subcommittee for Prevention of Blindness (PBL) has been formed and a master plan for prevention of blindness and a national plan for eye care systems development is currently being implemented (1995–2001). These plans aim to provide eye care services in each region of Cambodia and to reduce blindness to less than 0.5% prevalence by the year 2005.

Human resource development is considered the top priority in these plans. In addition, the plan also covers the development of facilities / materials, sourcing of financial resources, management and specific control of locally endemic diseases for the different levels of eye care. The Ministry of Health, provincial and district health authorities and the National Sub-Committee for PBL, with assistance from INGOs, will play an important role in the implementation of the plans.

The national plan for prevention of blindness is now in the second phase of its implementation (1997–2001), which includes the training of doctors and nurses as Basic Eye Doctors and Basic Eye Nurses, overseas training of Ophthalmologists and Ophthalmic Nurses, provincial training of Primary Eye Care Workers, and Optometrist Technicians. A national primary eye care programme is being implemented in 4 provinces.

VISION 2020: The Right to Sight

In October 1999, the Ministry of Health of the Royal Government of the Kingdom of Cambodia signed the global declaration of support for VISION 2020. Cambodia became the second country in Asia after China to sign this declaration in the Western Pacific Region. There is still the need, however, to mobilise a strong long-term political and professional commitment to eliminate avoidable blindness in Cambodia.

Disease Control

The main eye diseases being focused on within VISION 2020 are cataract, trachoma, childhood blindness, refractive errors and low vision and onchocerciasis (which is not present in Cambodia).

Cataract

Cataract in Cambodia accounts for 65% of blindness and 75% of visual impairment. Current estimates show that the backlog of cataract blindness is 80,000 with an annual incidence of over 19,500. Though the number of cataract operations (cataract surgical rate) performed in Cambodia has increased from 500 (60/million/year) in 1992 to 6000 (500/million/year) in 1999, this number is still about 30% of the annual incidence and the backlog of cataract blindness is increasing in magnitude. In order to address this problem, the delivery of cataract surgical services has to increase by 3–5 times the current output.

Preliminary results from cataract blindness prevalence surveys (1999) conducted...
on persons 50 years and older in Siem Reap province showed a blindness prevalence rate of 2.6%. The prevalence of cataract blindness was 1.96%. The cataract surgical coverage for eyes was 10.4% for VA<3/60, 2.6% for VA<6/60 and 1% for VA<6/18. The overall cataract surgical rate for persons was 0.8%.

Based on the results from the survey, a cataract triangle was developed and is shown below.

Using the above model of the cataract triangle, it is estimated that the backlog of cataract surgery (VA <6/60) for the over 50s in Cambodia is about 108,000. (The over 50s represent 10% of the population.)

Within VISION 2020, appropriate strategies should address barriers to eye care, increase access to cataract surgical services and improve visual outcomes of cataract surgical services in Cambodia.

**Trachoma**

The magnitude of the trachoma problem is unknown in Cambodia. Preliminary surveys have shown that the prevalence of TF and TI in children under 10 years is 2.5%. In children under 5 years, the figure is approximately 3.2%. Similar surveys conducted in the northwest of Cambodia found the prevalence of TT to be 0.5% in women over 16 years. In the central region, a 1994 survey found TF to be 18.6% and TI to be 5.7% in children under 16 years and TT to be 4.3% in adults. Although trachoma is not a leading cause of blindness, hospital and eye unit reports indicate that the problem may be more widespread than originally thought. In fact, trachoma is a major cause of blindness among hospital patients. Furthermore, it is suspected that many people with trachoma will never show up at a health facility.

There is currently no official national trachoma control programme in Cambodia. However, many trachoma control activities are being carried out at all eye care levels. Current control measures are based on the SAFE strategy, integrated within PEC and PHC systems, but require further strengthening and support.

Cambodia is a member of the WHO Alliance for the Global Elimination of Trachoma (GET 2020), which falls under the umbrella of VISION 2020. A rapid assessment of trachoma and its risk factors is planned in 3 provinces with objectives to determine the occurrence of blinding trachoma, measure its magnitude and the severity of the problem. The findings of this assessment could serve as a base for the establishment of a National Trachoma Control Programme.

**Childhood Blindness**

Data on childhood blindness is limited. Surveys in the School for the Blind in Cambodia showed that corneal scarring from vitamin A deficiency, congenital cataract, high refractive errors and degenerative retinal diseases were the common causes of blindness and low vision.

Vitamin A deficiency (VAD) is still a problem of public health significance among Cambodian pre-school aged children and women. Surveys conducted in 1999 by Helen Keller International (HKI) in 5 provinces (Takeo, Kratie, Steng Treng, Siem Reap and Kompong Thom) showed night blindness prevalence rates of 1.8% among children aged 24–59 months and 4.3% and 6.8% among pregnant and non-pregnant mothers respectively. The surveys also showed that the total dietary intake of vitamin A among these groups is far below the recommended daily allowance and that vitamin A capsule distribution only reaches a small proportion of those who need it. Also, hospitals are reporting clinical cases of vitamin A deficiency.

Vitamin A capsule distribution started in Cambodia in 1994 and was integrated with the national immunization days (NIDs) in 1996 and into the National Expanded Programme for Immunization (EPI) in 1998. Whilst coverage was high with the distribution associated with NIDs, it has become much lower since it became part of the routine EPI.

The national micronutrient survey will determine the prevalence of vitamin A and iron deficiencies among children and mothers. The findings of this survey will assist in improving delivery mechanisms for vitamin A and in developing strategies to improve future programming for vitamin A.

**Congenital Cataract**

Data on the prevalence of congenital cataract among Cambodians is unknown. Hospital based data showed that congenital cataract of familial origin is common in Cambodia. Operations for congenital cataract accounted for 2% of all ophthalmic operations within the eye units. Particular concerns are the late presentation of children for surgery and the lack of adequately trained personnel and equipment for paediatric surgery.

Within VISION 2020, in view of the number of years of blindness that ensue, strategies should include strengthening of PEC programmes within existing PHC systems, provision of equipment and training doctors in paediatric ocular surgery, and the establishment of optical and rehabilitative services.

**Refractive Errors and Visual Impairment**

Uncorrected refractive errors and aphakia account for about 10% of all causes of blindness in Cambodia. Hospital based statistics showed that uncorrected aphakia and refractive errors were causes of blindness in 6.5% and 0.6% of patients respectively. Statistics from screening camps in rural Cambodia (1999) show that 57% of patients with refractive errors require presbyopic corrections, followed by
myopia (29%), hyperopia (13%) and aphakia (1%).

Vision screening programmes among school children in Battambang province (1997) showed that 1% of school children have refractive errors. Of these, myopia accounted for 70% of the cases. High errors of refraction (> ± 3D) were found in 26% of these children. The other causes of poor vision among school children included corneal scar, cataract and amblyopia.

Survey reports in northwestern Cambodia showed that the prevalence of visual impairment (bilateral) is 3.7%. The main causes of visual impairment include cataract, pterygium, macular degeneration, corneal scarring and uncorrected aphakia and refractive errors. In addition to private shops, only 4 public centres provide refraction and spectacles in Cambodia.

Within VISION 2020, affordable refractive services and corrective spectacles should be available within the PHC system through training of personnel, development of facilities for low cost production of spectacles, vision screening programmes in schools and establishment of low vision centres. Currently there are no trained personnel, facilities and equipment for the provision of low vision services in Cambodia. Centres for corneal banking, keratoplasty or lasers are non-existent.

Human Resource Development

There is acute shortage and maldistribution of ophthalmic personnel, with over 90% of present personnel in the capital, the majority of whom did not have any formal training. The training of eye care personnel is expected to provide a core group of well-trained eye care personnel who can then provide training to other Cambodians.

With the national plan in its 5th year of implementation, a review of the manpower requirements shows that 9 Ophthalmologists, 17 Ophthalmic Nurses, 7 Optometrists, 28 Basic Eye Doctors, 56 Basic Eye Nurses, 45 Optometry Technicians, 132 Ophthalmic Assistants, 230 Primary Eye Care Trainers and 2215 PEC Workers will need to be trained between now and 2005. This excludes two doctors currently undergoing residency training and 3 nurses who had been trained as Ophthalmic Nurses in Thailand. However, the availability of training centres, trainers and financial resources may preclude the achievement of this very worthwhile objective in the development of eye care in Cambodia.

A 2-year training programme to train Basic Eye Doctors and 9 months training for Basic Eye Nurses have been initiated in the country and supported by NGOs (HelpAge International, Maryknoll/CBM and Mekong Eye Doctors). A total of 12 doctors and 42 nurses have been trained within these training programmes.

An evaluation of these training programmes carried out by Dr Serge Resnikoff of the WHO Programme for Prevention of Blindness and Deafness, in June 1998, concluded that the training was of a high standard and the performance of the candidates was very satisfactory.

Within VISION 2020, emphasis should be placed on the training of mid-level personnel. Efforts should be made to achieve the WHO target for the sub-region for mid-level personnel with the ratio 1:50,000 population. Managers for national prevention of blindness programmes and ophthalmic trainers should also be trained.

Infrastructures and Appropriate Technology

Currently, it is estimated that only 40% of Cambodians have access to eye care services in 10 provinces of the country. The estimated coverage of eye care services is about 25% and the utilization of eye care services was less than 1% in 1999. The number of eye units has increased from 4 in 1993 to 10 by the end of 1998, with more units being set up in 5 provinces in the year 2000. The total number of eye beds in the country has increased to 200 in 1999.

The national plan for eye care development envisages a network of eye care services in each of the provinces of Cambodia, with the development of 5 regional eye centres, including the national eye centre in Phnom Penh for research, training and policy development.

A national workshop to address the issues of sustainability in eye care programmes was organised in 1999 to identify and address the needs, major constraints and challenges for the development of sustainable eye care services in Cambodia. The workshop recommended that cost recovery systems in the eye units should be strengthened, as part of an overall provincial hospital system with some form of autonomy. The accessibility of public services to poor patients should be enhanced through improvement in quality of services, affordable fees, exemption from payment and adequate information to the community.

An essential drug list for the different levels of eye care has been developed. A standard list of equipment, drugs and supplies is operational and a ‘material and supplies bank’ has been set up by the national PBL committee to assist the eye units in the bulk purchase and procurement of IOLs, sutures, spares and other supplies. This is in addition to that supplied by the Ministry of Health’s central medical stores. In cooperation with NGOs, training programmes in equipment maintenance are planned for technicians and end users in the near future.

Experience in the local production of eye drops (Battambang laboratory) have not been satisfactory due to infrequent production, primarily due to lack of personnel and raw materials for production. Functional low cost optical workshops have been set up in 4 provinces, either singly or to support the existing eye units.

Within VISION 2020, targets should be set for services availability, accessibility, utilisation and coverage. Strengthening of cost recovery systems within the eye units will be required. Development of equipment maintenance systems for eye care, including training of Instrument Maintenance Technicians, consolidation of bulk purchasing strategies, establishment of facilities for low cost production of drugs and spectacles will be required.

Role of NGOs in VISION 2020 in Cambodia

VISION 2020 aims to establish a global partnership for eye health, which is indispensable to the fundamental ‘Right to Sight’. Various NGOs have been playing an increasingly important role in blindness prevention in Cambodia. These include Helen Keller International, CBM, Maryknoll, HelpAge International, IRIS, Mekong Eye Doctors, SEVA Foundation and Asian Eye Care. Voluntary organisations such as Rotary International and the Lions SightFirst programme have also been involved.

The common goal is the elimination of avoidable blindness in Cambodia by the year 2020.

Conclusion

VISION 2020’s mission is to eliminate the main causes of blindness – thus, adequately addressing the eye care problems found in Cambodia. However, the implementation of this ‘Right to Sight’ will require a meaningful partnership and commitment from governments, NGOs, institutions and individuals in achieving these noble objectives. Major efforts will need to be made in the areas of advocacy, resource mobilisation and strengthening national capacities for implementing the main components of VISION 2020.
Teaching Eye Health

Teaching and Learning

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Faculty of Medicine
University of Pretoria
South Africa

Teaching Methods

In the previous articles in this series we discussed the process of learning and teaching, and the importance of communication in this process. Now we take a look at the different teaching methods that people use. Most teachers use a limited number of methods – ones that are used to, and feel comfortable with. Unfortunately these methods may not be the best that are available. This article aims to give some guidelines about the methods that teachers should use.

Jobs, Tasks and the ‘Domains of Learning’

In the first article in this series we said that a teacher of eye care workers is guided by the job which they have to be able to perform after training. If you think carefully about it, you will see that a job is made up of a series of tasks – each of which has to be performed competently. What do we need to teach a person, to perform a task correctly? According to Abbatt and McMahon,3 people need to be taught both skills and enabling factors (i.e., factors which a person needs to perform the skill properly). Let’s take an example:

Teaching Eye Care Workers to Manage Trachoma (1)

<table>
<thead>
<tr>
<th>Skills needed for the task</th>
<th>Enabling factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Diagnosing a case of trachoma</td>
<td>• Knowledge of symptoms, signs, stages</td>
</tr>
<tr>
<td>• Applying eye ointment</td>
<td>• Knowledge of the organism, medication, anatomy, surgical equipment/ materials to use.</td>
</tr>
<tr>
<td>• Performing tarsorrhaphy.</td>
<td>• Knowledge of the anatomy of the eyelid, surgical equipment/ materials to use. Educating people and communities to prevent trachoma. Knowledge of the spread of the disease and methods of preventing such spread</td>
</tr>
<tr>
<td>• An attitude of concern and caring.</td>
<td>• An attitude of concern and caring.</td>
</tr>
</tbody>
</table>

We see here that there are three kinds of skill, and two kinds of enabling factor:

1. Decision making skills 4. Knowledge
2. Manual skills 5. Attitudes
3. Communication skills

Educationalists call these five categories the domains of learning.

Teaching the Different Skills and Enabling Factors

Let’s return to our example. How would we normally teach the skills, knowledge and attitudes needed to manage trachoma?

A Feast of Methods

The generations of teachers who have gone before us have developed a large number of methods. All of these methods are now available for us to use. Here are some of the most commonly used ones, in relation to the domains of learning:

**Checklists** (see box below). Students get feedback – which means that the teacher shows them where they have made mistakes. Sometimes students practise on a model first, before working with a real patient – for example, they can inject an orange, or they can practise examining each other.

**Communication skills**

Again, communication skills can only be taught by making students practise them, after a demonstration, and giving them feedback on their performance. We often use role play to teach these skills – for example, one student gives a health education talk, while the others pretend to be a

**About checklists**

A checklist is a step-by-step, written description of a skill that is excellently performed. Foreexample, the skill of ‘applying eye ointment’:

- Position the patient comfortably (sitting or lying down)
- Check that the ointment and the prescription agree
- Wash your hands
- Open the tube of ointment and hold it in your ‘clever’ hand
- With the index finger of the other hand, gently pull down the lower eyelid of one eye, to expose the lower fornix
- Squeeze a ‘worm’ of ointment 2 cm long into the lower fornix, from left to right
- and so on**

Checklists like this have several uses:

- Teachers use them when they demonstrate a skill, and to give feedback to students
- Students use them as a guide when they practise the skill by themselves
- Teachers use them to assess skills in an examination.

**Notes**

(see ICEH Teaching Slide Set, No. 10, Practical Ophthalmic Procedures, Vol. One)
group of villagers. After the role play the teacher and the ‘villagers’ give feedback to the ‘educator’, again using a checklist of the skill.

**Decision making or problem solving skills**

The most common decisions that eye health care workers have to make is what the diagnosis is, and what treatment should be given. We teach these by giving the students problems to solve, and giving them feedback on the solutions they suggest. Such problems can be written ones: *case studies or patient management problems.*

Here we give students the information they need (this can be done on paper or on a computer), and ask them to diagnose the case and solve the treatment problem. Then of course we should ask them to do the same thing with real patients.

**Knowledge**

Lectures are the most common form of teaching knowledge (see box below). There are numerous other methods, all of which are probably better than lectures. Teachers may discuss important topics with small groups of students in *tutorials.* A group of teachers may present a *seminar,* where they discuss different aspects of the same topic. Teachers may *discuss* a topic with students, drawing on what they already know about it. Teachers may arrange *educational visits,* where students learn from what they see and experience. Teachers may give students *projects* to do, for which the students find the information they need themselves – and so on.

**Attitudes**

Attitudes are difficult to ‘teach’. All teachers can really do is to *help students develop suitable attitudes.* A very powerful way is by *example,* since students imitate the attitudes of their teachers. Another way is to point out examples of good and bad attitudes, and to discuss these with the students why should a good eye care worker have this attitude, and not that one? Teachers can also give feedback to their students, on how their attitudes are developing.

For those readers who would like to know more about these teaching methods, we recommend the following books:


We have seen how important it is to make sure that eye care workers learn all they need to learn, to perform their work competently. In the next issue we deal with this question in more detail: how do we develop a course curriculum?

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**YAG laser iridotomy treatment for primary angle closure in east Asian eyes**

Winifred P Nolan  Paul J Foster  
Joe G Devereux  Davaatseren Uranchimeg  
Gordon J Johnson  Jamyanjav Baasanhz

**Aim:** To assess the efficacy of Nd:YAG laser iridotomy as initial treatment for primary angle closure in a community setting in rural Mongolia.

**Methods:** Subjects with occludable drainage angles in two glaucoma prevalence surveys in Mongolia (conducted in 1995 and 1997) were treated with YAG laser iridotomy at the time of diagnosis. These patients were treated between 1998 and 1999. Patency of iridotomy was classified as successful in 98.1% (157/160) of eyes that had not undergone surgery. Median angle width increased by two Shaffer grades following iridotomy. Iridotomy alone failed in 3% eyes with narrow drainage angles and either peripheral anterior synechiae or raised IOP, but normal optic discs and visual fields. However, in eyes with established glaucomatous optic neuropathy at diagnosis iridotomy failed in 47%. None of the eyes with occludable angles that were normal in all other respects, and underwent iridotomy, developed glaucomatous optic neuropathy or symptomatic angle closure within the follow-up period.

**Conclusions:** Nd:YAG laser iridotomy is effective in widening the drainage angle and reducing elevated IOP in east Asian people with primary angle closure. This suggest that pupil block is a significant mechanism causing closure of the angle in this population. Once glaucomatous optic neuropathy associated with synechial angle closure has occurred, iridotomy alone is less effective at controlling IOP.

**Published courtesy of:** *Br J Ophthalmol* 2000; 84: 1255–1259
Is There Still a Place for Intra-capsular Cataract Extraction or should it be Relegated to the History Books?

Dear Sir

Since cataract is the most common cause of world blindness in nearly all less-developed countries, one of the major thrusts in blindness prevention and in the programme ‘VISION2020: The Right to Sight’ is in making cataract surgery available to all. All the major agencies concerned with blindness prevention, such as the International Agency for the Prevention of Blindness, as well as non-governmental organisations and charities, seem to be strongly recommending extra-capsular cataract extraction with lens implant as the operation of choice. No one would dispute that this is the most effective procedure with the lowest complication rates, provided that all the necessary equipment is available. Unfortunately, in much of the world the necessary equipment is not yet available nor is it likely to be for some years yet. Certainly there are very many surgeons doing extra-capsular cataract surgery who do not have access to a YAG laser, and there are considerable numbers who may not have an operating microscope at all, or, if they do have one do not have reliable coaxial illumination. When some or all of these facilities are not available then the results of extra-capsular surgery are not satisfactory and may indeed be worse than the results of intra-capsular surgery.

Effective intra-capsular cataract surgery requires neither an operating microscope nor a YAG laser and anterior chamber lens implants, provided they are of the correct design and the correct size, appear to be perfectly stable and free of long-term complications, certainly as far as patients over 60 are concerned.

The recent change to recommending extra-capsular cataract surgery and lens implants has come for three reasons:

- intra-ocular lenses have become very much cheaper
- numerous surveys have shown that many aphakic patients without implants are either never given spectacles or if given them have lost or broken them
- the excellent results of extra-capsular surgery with lens implants in the industrialised world.

I would like to suggest that whilst lens implant surgery should be strongly recommended and promoted, we should not condemn an intra-capsular extraction with an anterior chamber lens implant until a good audit and retrospective analysis has shown that the results of this are significantly inferior to extra-capsular extractions in situations where YAG lasers and top quality microscopes may not be available.

My reason for writing this letter is a consequence of two recent events. I have just visited northern Nigeria and found that the method of cataract surgery which has increased more than other methods, over the last 15 years, is, in fact, couching rather than modern cataract surgery. Also, I have heard that the DU-AL Corporation, which for many years has made excellent low cost cryo-extractors for intra-capsular extraction, has been facing an uncertain future.

I would be grateful for your readers’ views about this important subject which I feel has not been discussed as fully as it should.

John Sandford-Smith  
FRCS FRCOphth  
Consultant Ophthalmologist  
Leicester Royal Infirmary  
UK

Car Seat Belts

Dear Sir

In many places the main cause of corneal perforations is vehicle windscreen perforations. Eye departments, which often carry out very little surgery, stitch these corneas after traffic accidents, with what- ever sutures they have.

In many cars, even belonging to eye hospitals, the safety belts have actually been removed!

I have observed ophthalmologists who did not know how to put on the safety belts, while sitting beside the driver, in the front, as they never ever used them.

When I suggest putting on safety belts, professional eye care people and colleagues actually begin to laugh in disbelief! Also, the drivers are offended, as if I am suggesting that they are not good drivers.

As such perforations may well be bilateral, these can be a direct cause of blindness.

When I was training in ophthalmology in Holland, we learned how to repair corneal perforations during duties on Friday/Saturday night. However, since the introduction of safety belts by law, such perforations are now hardly ever seen. Safety belts really prevent this type of injury.

The Journal should remind people of these facts. Eye care personnel should take the lead in campaigns for the use of safety belts in cars!

Margreet Hogeweg MD DCEH  
Spoorsingel 95  
2613 BC Delft  
The Netherlands

Wear Seat Belts!

Dr Hogeweg’s concern exactly reflects the experience of the Editor who recalls inserting 80 sutures in one patient’s face after a windscreen injury – while working in Glasgow, Scotland – before the requirement to wear seat belts became law in the United Kingdom. This type of injury was dramatically reduced after the required use of seat belts was instituted.

Dr Hogeweg’s experience of astonishing reluctance to wear seat belts by ophthalmologists was the Editor’s own discovery during a workshop in Asia in recent years.

We invite comments by our readers and challenge each one to encourage legislation in his/her own country – seat belts (or equivalent) must be available and must be worn!

DD Murray McGavin, Editor
ROYAL COLLEGE OF OPHTHALMOLOGISTS

MEMBERSHIP (MRCOphth) EXAMINATIONS

CALENDAR FOR EGYPT AND INDIA – 2001

Provided a minimum of six candidates are booked to sit, The Royal College of Ophthalmologists will hold examinations overseas in two centres in 2001:

The British Council, Agouza, Cairo – Egypt
Aravind Eye Hospital & Postgraduate Centre, Madurai, Tamil Nadu – India

<table>
<thead>
<tr>
<th>Examination</th>
<th>Proposed dates to be held in 2001:</th>
<th>Closing dates for application</th>
<th>Fee:</th>
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<tr>
<td>Part 1 Membership</td>
<td>22–23 January*</td>
<td>11 December</td>
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<td>23–24 April†</td>
<td>12 March</td>
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<td></td>
<td>08–09 October *†</td>
<td>27 August</td>
<td>£550 Egypt, £750 India</td>
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<tr>
<td>Part 2 Membership</td>
<td>10 – 11 October †</td>
<td>27 August</td>
<td>£800.00</td>
</tr>
<tr>
<td>Part 3 Membership</td>
<td>11 – 12 October †</td>
<td>27 August</td>
<td>£ to be decided</td>
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</tbody>
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* denotes an examination to be held in Egypt  † denotes an examination to be held in India

Requests for application forms and past papers should be sent to: Head of the Examinations Department
The Royal College of Ophthalmologists, 17 Cornwall Terrace, London, NW1 4QW, United Kingdom
Facsimile: 00 44 (0) 20 7487 4674 Telephone: 00 44 (0) 20 7935 0702 extensions 26, 25, 24

Diploma Course, India

INTERNATIONAL CENTRE FOR ADVANCEMENT OF RURAL EYE CARE
LV PRASAD EYE INSTITUTE
Hyderabad, India

Announces the starting of a 6-month Diploma Course in Community Eye Health from early 2001.

Aim: To extend the individual patient-based traditional clinical practice of ophthalmology to the assessment and facilitation of good eye health for the population as a whole.

Objectives: To equip the community eye health specialist with the skills necessary to
(a) Assess the eye care needs of communities and populations.  (e) Develop community eye health courses.
(b) Design and implement eye care programmes.  (f) Carry out advocacy for community eye health and
(c) Manage eye care programmes.  (g) Conduct epidemiological research into visual
(d) Evaluate eye care programmes.  impairment and major eye diseases.

Participants: The course is open to qualified ophthalmologists, general doctors, eye care professionals such as optometrists, administrators and managers of eye hospitals/centres with relevant experience.

Course structure: The Course consists of a combination of different modules to make up a full-time 6-month Diploma Course. The option to undertake the full-time Course or individual modules is available.

For more information and details about the Course, please contact

Dr BR Shamanna
Consultant, International Centre for Advancement of Rural Eye Care, ICARE-LVPEI, Post Bag No 1, Kismatpur BO, Rajendernagar PO, Hyderabad 500 030, India.
Tel: +91-40-4011243 / +91-40-3548098  Fax: +91-40-4011293 / +91-40-3548271
E-mail: brsham@hotmail.com or sham@icare.stph.net
In 1997, an International Symposium in Blantyre, Malawi, reviewed existing programmes collaborating with healers in Malawi, Zimbabwe and Nepal. Participants in the Symposium included traditional healers and representatives of the INGDOs and international centres of ophthalmology concerned with cooperation in this important field of eye care. The Symposium was co-sponsored by the World Health Organization.

The Journal of Community Eye Health previously published a Journal on traditional healers with the emphasis on cooperation and "working together" (J Comm Eye Health 1997; 10: 1–7). This is the theme of this compact book of 52 pages.

This significant publication has two sections and a number of appendices. Section 1 deals with the issues of working with traditional healers and provides background information on traditional eye practices. Section 2 discusses a curriculum for teaching traditional healers and gives suggestions and advice on clinical topics including cataract, trichiasis, assessment of vision, red eye, neonatal conjunctivitis and other childhood eye diseases.

Appendices list the recommendations of the Symposium, participants attending, a bibliography and research priorities. Further, issues concerning the use of western medicines, methods of determining traditional eye practices and evaluation of training programmes are discussed.

The reviewer recognises the artistic hand of Dr Harjinder Chana in the excellent line drawings that conclude the book.

It may be noted that elsewhere in this present Journal of Community Eye Health, Dr John Sandford-Smith’s letter reports his startling finding during a recent visit to Northern Nigeria – that the method of cataract surgery which has increased in the last 15 years has been couching!

This book has a vital message and will introduce many readers to the concept and practicalities of working with traditional healers in our field of eye care and community eye health.

**D D Murray McGavin**
**Editor**

The book may be obtained from:

**Canada:** BC-EIO, UBC, St Paul’s Hospital, 1081 Burrard St., Vancouver, BC V6Z 1Y6, Canada.

Payment in US$ drawn on US or Canadian dollar accounts only, payable to ST PAUL’S HOSPITAL please.

**UK:** International Resource Centre, Institute of Ophthalmology, 11–43 Bath St, London EC1V 9EL; Fax: 00 44 20 7250 3207; E-mail: eyeresource@ucl.ac.uk.

Please make your cheque payable to UNIVERSITY COLLEGE LONDON. Only cheques or banker’s orders drawn on UK£ or US$ bank accounts can be accepted.

**Cost:** UK £2.50 or US $4.00 incl. post & packing.

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**Collaboration with African Healers for the Prevention of Blindness**

Paul Courtright
Moses Chirambo
Susan Lewallen
Harjinder Chana
Steve Kanjaloti

*World Scientific 2000
ISBN 981-02-4377-4 (pbk)*

*Dr Harjinder Chana and nursing colleague with a traditional healer in Zimbabwe
Photo: Harjinder Chana*