

People deliver eye care: managing human resources

EDITORIAL



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Introduction

People deliver health. Effective health care needs an efficient and motivated health workforce, which is the totality of individuals who directly or indirectly contribute to the promotion, protection and improvement of the health of the population.

Community eye health is about providing eye health care to the people as close as possible to where they live and as much as possible at a price they can afford. It promotes people-centred care rather than the traditional disease-centred eye care services. In order to provide effective and efficient eye care services, we need an adequate number of well-qualified, well-motivated and equitably distributed eye health workers (EHWs).

The reality today is that in most communities in developing countries, especially in sub-Saharan Africa, there are very few EHWs. Those that are available are overworked, under compensated, unrecognised and very poorly motivated. The managers of district health facilities have no control or input into training, recruitment, compensation or deployment of staff and have limited knowledge or skills in how to motivate the staff working with them. This scenario may have advised the decision to make human resources development one of the main pillars of VISION 2020: The Right to Sight. If the objectives of this global initiative are to be met, then we need to have adequacy in number and quality of well-motivated EHWs at every level of eye care.

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An eye care worker consulting with a patient in the community. TANZANIA

Lance Bellers/Sight Savers

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Box 1

Seven key actions for improving human resources management

In the context of VISION 2020, the head of the district eye health service, within the limits of his or her authority, can achieve improved performance and better motivated staff through improving the human resources management (HRM) at the facility by seven key actions:

- 1 Designate a senior member of staff to be in charge of HRM to give some decision-making authority to the HRM team.
- 2 Institute responsive supervision of clinical teams, whose work plans are clearly defined and are based on the work plan of the district. The leader of the team takes responsibility for supervision of individual members of the team.
- 3 Develop and implement a performance review system that is not punitive but helps recognise achievements and identify training needs.
- 4 Ensure equity in how the workload is distributed and how people are compensated; these mechanisms should be transparent.
- 5 Track employee data for attrition (or loss of staff), staff turnover and absenteeism.
- 6 Establish a good supplies management system for consumables, in order to ensure timely provisions, so as to provide good quality service that would boost patient satisfaction and staff morale.
- 7 Support career development of staff through training and job challenges. Most training can be organised on-the-job or on-site. When there is opportunity for external training, this should be such that the training contributes directly and immediately to the organisation's performance. The beneficiaries of this training should be selected in a transparent manner.

can be achieved with people-centred HRM even in the face of restricted staff recruitment, inequitable deployment and low budgetary allocation. Good management depends on a leadership that is committed to the people serving and the people to be served.

References

- 1 Workshop on project proposal for the 2nd human resources development for prevention of blindness (HRD II) in West Africa, organised by West African Health Organisation, 22nd - 24th July 2004, Accra, Ghana.
- 2 Nyoni J. Emigration of health workers from Africa – facts and lessons. Paper presented at the sub-regional forum on human resources for health in West Africa. 4-6 April 2005, Abuja, Nigeria.

Interview and select

Clearly define roles and responsibilities

Manage groups and build teams

Manage conflict

priorities, thus making them more compliant with VISION 2020.

At the district level, in spite of having little influence in the number and quality of EHWs working with him/her, the leadership and managerial skills of the leader of the eye care service is crucial to the performance of the few poorly motivated staff. At a recent workshop in West Africa on human resources development for scaling up cataract surgical rate (CSR), poor motivation of staff was considered the most important factor responsible for low CSR and it was rated higher than supply of consumables and training.¹ So, if managers must improve performance in the district, they have to motivate their staff.

Motivating staff

In considering motivation, most of us think of financial benefits but the truth is that these have limited and short-lived effect on motivation. Poor salaries are known to demotivate, but the effect of increase in salaries on improved performance lasts less than eight weeks. In a study in Nigeria on the reasons for intention to emigrate, poor remuneration was a distant second to limited opportunities for rapid promotion and it was ranked equal to poor career recognition.²

Sustained motivation and improved performance results from effective people-centred human resources management (HRM) in which there is respect for people,

work is valued and career development is given due consideration. Staff are motivated when they:

- are respected as people and their opinions are sought and considered in the decision-making process
- have meaningful work that is recognised and contributes to the overall goals of the organisation, and this includes being given responsibilities and challenges
- have opportunities for career development through training and retraining.

For further ideas on how to improve human resources management, see Box 1.

‘Good management depends on a leadership that is committed to the people serving and the people to be served’

Conclusion

This issue of the *Community Eye Health Journal* addresses the different aspects of managing people effectively. An article from ICARE, L.V. Prasad Eye Institute, discusses the importance of

establishing clearly defined roles and responsibilities within the eye care team. Helen Roberts's article provides practical suggestions on how to increase staff motivation. Miriam Cano's article reflects on managing groups of people representing institutions, based on the experience of establishing a relationship between 12 institutions to form the National VISION 2020 Committee in Paraguay.

In conclusion, effective and good quality people-centred eye care services that are required to achieve the goals of VISION 2020



Roles and responsibilities in the secondary level eye care model



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Introduction

In any secondary level eye care clinic, a number of tasks must be completed. In different countries and different settings, different people will carry out these tasks. The manager is responsible for ensuring that all the tasks are covered, that people are carefully selected to perform them, and that staff are supported and managed. The International Centre for Advancement of Rural Eye Care (ICARE), within the L.V. Prasad Eye Institute (LVPEI) in India, has evolved an eye care team to provide secondary level eye care services to a population of 0.5 to 1 million. The ICARE model emphasises that all cadres of clinical and non-clinical personnel are equally important. Below is a description of the range of jobs at secondary level centres. The tertiary centre at LVPEI manages leadership and training for this model.

The model proposed by ICARE works on the assumption that each link in the chain of eye care personnel is important to achieve comprehensive eye care. It is not always necessary to have all the individual eye care personnel described below. It is possible to have 'cross-functioning' especially for non-clinical personnel. What is important is that everyone knows their roles and responsibilities. In the ICARE model, most of the clinical and non-clinical staff are selected from the local communities. We have found that this supports sustainability of services and generates local community employment.

Readers might like to consider the following questions in reading this article:

- who performs these tasks in your unit?
- are there any gaps that you can identify?
- who could be trained to fill those gaps?

Clinical personnel

Ophthalmologist

The ophthalmologist is the pivot around which secondary level eye care services revolve. The objective is to have a 'comprehensive ophthalmologist' and the training for this role equips them to perform high quality extracapsular cataract surgery with posterior chamber IOL implants (standard procedure with sutures, manual small



Members of the eye care team. INDIA



Using a blindfold during a community-based rehabilitation training session. INDIA

incision cataract surgery and phacoemulsification). Regular educational updates and good equipment are provided to ensure high quality outputs. The ophthalmologist is also responsible for clinical quality assurance. Specialised training in planning, implementation, management and evaluation of eye care programmes and services is available to the ophthalmologist or senior clinical/ executive level staff through a six-month

diploma in Community Eye Health.

Ophthalmic technician

The ideal ratio is at least three to four ophthalmic technicians to one ophthalmologist at the service centre level. This person may be a three-

year trained ophthalmic technician or a one-year trained vision technician. At the service centre, the ophthalmic technician takes the patient's history and conducts assessment of visual acuity, refraction, external eye examination, slit lamp biomicroscopy, applanation tonometry, keratometry, A-scan for IOL calculation, and perimetry for visual fields. Additionally, the ophthalmic technician performs screening

and refraction services at the community level. The vision technician is adept in refraction and recognition of problems needing referral, whereas the ophthalmic technician is trained in all diagnostics in addition to refraction. The ophthalmic technicians also participate actively in community screening and school eye screening programmes when required. Together with the ophthalmologist, they act as trainers for clinical and non-clinical staff in the chain below. Currently, at least one ophthalmic technician from each of the secondary eye care centres managed by LVPEI is being trained for the establishment and delivery of low vision services at the secondary eye care levels.

Ophthalmic nurse

Ophthalmic nurses assist the ophthalmologist in surgery, including IOL surgery. They are also trained as ward nurses and cover all aspects of the care of in-patients. About four nurses are ideal for a secondary care eye centre. Most of the training for this category of nurses includes hands-on practical training as they are selected

as ophthalmic nurses from the communities they represent without any previous formal nursing training. In our experience, we have found it difficult to find already trained nurses or midwives who are willing to work as ophthalmic nurses in our centres, hence we have adopted this approach. It is an advantage if there is a pool of trained general nurses available for specialised training and employment in eye care.

Operating room technician

The operating room technician is responsible for getting the patient and operating room ready for surgery and for sterilisation techniques. In some cases they also give supervised local anaesthesia before surgery. Ideally, one operating room technician and a cross-skilled ophthalmic nurse are sufficient for a secondary service centre operating room facility.

Non-clinical personnel

Eye care manager

The value of a dedicated manager at secondary level eye care services cannot be overemphasised. Managers coordinate and supervise all non-clinical services. They should be skilled in human resources, material, and financial management and

marketing. We offer training at our facilities for a period of one year to develop an eye care manager. The manager is responsible for ensuring all aspects of patient administration: recruiting patients, assessing them for free or paid care, organising services, counselling for surgery, and maintaining records. They are also responsible for liaising with agencies, managing the finances and ensuring the quality of non-clinical care.

Community eye care (CEC) coordinator

Coordination of various aspects of community-based programmes serves the community in two important ways. First, those requiring eye care in the community have a link with the eye care centre; second, the preventive aspects are addressed at the community level. In addition, this person oversees the delivery of community-based rehabilitation services to the incurably blind in the local communities. The CEC coordinator is responsible for community screening and community-based rehabilitation programmes. The training of the CEC coordinator enables them to carry out screening and awareness programmes at the community level and supervise a team of four to five field workers who deliver primary eye care services. In addition, the CEC coordinator and the field workers are trained in community-based rehabilitation (CBR). They assist and train the nearest of kin of the incurably visually impaired in daily living skills, orientation and mobility, vocational rehabilitation, access to educational opportunities and public assistance. They report to a dedicated administrator for these programmes at ICARE but are locally supervised by the manager of the secondary eye care centre.

Receptionist

The receptionist is the first contact between the patient and the eye care centre. The value of this important role is usually underestimated in India. A well-trained receptionist can contribute significantly to patient satisfaction by showing the patient that they are respected and will be taken care of, which contributes to higher uptake of services and generation of revenue.

Patient counsellor

The role of the patient counsellor is to explain the surgical procedures to patients, to assess the paying ability of each patient, and to advise the appropriate fee-tier for the surgical package in the multi-tier payment for surgery proposed by ICARE. Good patient counsellors can do much to enhance patient satisfaction.

Medical records 'in-charge'

The quality and maintenance of medical records in India, in general, needs much improvement. The medical records 'in-charge' is responsible for accurate filing and retrieval of records. He or she is also responsible for maintaining accurate patient statistics related to diagnosis and treatment.

Stores/supplies 'in-charge'

Lack of timely availability of medical and other supplies in eye care centres contributes to substandard quality of care. The supplies 'in-charge' maintains an inventory of supplies and anticipates the need for further supplies. Based on our experience, ICARE has developed a custom-made system for this function.

Biomedical and maintenance technician

In many eye care facilities in the developing world, equipment often lies unused because of minor technical problems. This equipment includes retinoscope, slit lamp, ophthalmoscope, operating microscope, steriliser, and generator. A dedicated technical person, whose job is to maintain the equipment and rectify minor problems, increases the quality of services. This ensures that the necessary equipment is available most of the time. The function of this person would primarily be 'preventive maintenance' and to seek help when equipment breaks down. This person also looks after the electricity and plumbing aspects of maintenance for the facility.

Optician

In our model, the ophthalmic technicians perform the refractive services whereas an optician does the dispensing. It is important to achieve financial self-sufficiency at an eye care centre by establishing a balance between good quality of services and free services for those who cannot pay. A well-

trained optician can play an important part in helping to achieve financial self-sufficiency. An optical shop in an eye care centre is an excellent source of income, while at the same time increasing patient satisfaction by ensuring that all services are available under a single roof.

Support staff

In addition to these staff, adequate support staff such as cleaners and housekeepers, patient care assistants, security personnel and drivers are key contributors to the secondary level eye care facility. A team of local volunteers or field-based professionals also participate in community outreach activities.

Partner organisations

ICARE has established partnerships, which may be programmes directly run by ICARE or by other local or international organisations. We follow up their performance after training them to assess the impact of their functioning on the quality of services delivered, their financial self-sustainability, and whether the eye care needs of the target population are being met. ICARE has a dedicated central team which includes public health professionals, microbiologists, consultant ophthalmologists, administrators and the director of the institute who monitor the facilities and programmes at least once a quarter. A reporting and information system, partially manual and partially computerised, assists the process of running the programmes.

Key attributes of a good manager



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Good leaders get the maximum cooperation from their staff. Managers should understand what encourages their staff to give their best and what causes disillusionment.



Victoria Francis

Managers encourage the best of their staff by:

- recognising good performance
- being accessible to workers
- delegating responsibility
- building workers' confidence
- promoting self-improvement
- being supportive at times of personal and family problems
- setting objectives in cooperation with health teams.

Disillusionment and frustration are caused by:

- focusing only on weaknesses in performance
- unjust and corrupt practices
- favouritism and nepotism
- poor interpersonal relationships with staff and subordinates
- lack of integrity and honesty
- poor understanding of problems faced by staff
- concentration of all powers with self.



MOTIVATING STAFF

Creating motivation, identifying incentives and enablers, and encouraging staff development



Helen Roberts

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Creating motivation

Motivating staff so that they perform at their best is an integral part of running a project. People usually need to work in order to make money. But, although this may be the strongest incentive, it is not the only one.

People will enjoy their job and gain satisfaction from doing it well if they know that they are achieving results. If you are running a project you should be making sure that this is happening. The first step is to recruit the right people for the right job, the next step is to clearly define their roles and responsibilities and the third step is to enable them to do the job well. This article focuses on the third step.

Celebrate results

We are fortunate in eye care that our work can be very rewarding on an immediate basis. It is important, for example, that people who may not be directly involved with experiencing the patient's delight at having their sight restored, get to witness this or to hear about it.

Create a good working environment

A good practical working environment helps get the job done. Clean, comfortable conditions with functioning bathroom facilities, available food and water all help. There should be suitable equipment to do

the job efficiently and that equipment should be regularly maintained to avoid frustrating breakdowns and interference with the schedule.

Establish a clear goal and ownership

Your staff must understand and work towards a common goal. The goal of most eye institutions is clear. All staff must understand the vision and mission of the place in which they work. Ideas should be encouraged from all levels of staff. You don't have to be a senior to have good ideas. If it is your idea or you were involved in developing it, you will care more that the idea is successfully implemented.

Foster teamwork, communication and feedback

People want to feel that they are doing a good job as members of a team. The best way to promote teamwork is to treat all your staff as valued members of the team. Good communication, a clear understanding of each person's role and a sense of close involvement are the most important ingredients in creating and maintaining teamwork. Communication occurs on a day-to-day, minute-to-minute basis informally and, more formally, in meetings. Meetings must be well-run with clear outcomes. Team members are motivated by getting things done and seeing things being done. Equally,

if something has been agreed but is not then put into action this can be disheartening. Sometimes delays or difficulties are inevitable, in which case it is important to feed this back. Without feedback people become puzzled, then frustrated when they do not see changes that have been promised.

Incentives and enablers

Specific incentives: back to money

We agreed that money is the main reason that people come to work. Your staff must be paid appropriately for the job that they do.

For formal roles, such as nursing, there are government pay scales that may be helpful for reference. For less formally recognised posts, such as community-based workers, one must look at what the project can afford and what the employee is happy to

'Motivating staff so that they perform at their best is an integral part of running a project'

come to work for. The salary should be agreed upon at recruitment and there should be a clear, logical system for increments.

Cash incentives in addition to a regular salary have their place. These must be thought out very carefully as they often create their own problems. For example when the team performed over 40 cataract operations in one day on outreach, the donor, who was not present at the outreach, made an accusation that the figure was false because the staff were paid per cataract operation. Fortunately, we were able to prove the figure and I was very grateful that a per cataract cash reward was not in place!

Some organisations use an overnight allowance as a cash incentive to go on outreach. One was faced with staff refusing to go to work away from the base for a day because there was no overnight stay and therefore no extra cash involved.

We use a staff bonus system at the end of each year. This should be discretionary and awarded depending on that person's performance. Again, this can be misinterpreted as being the right of each member to get this and therefore a cause of negative feeling if not received. Whenever making cash allowances or incentives, it is vital to consider all aspects before introducing them.

Other incentives can be helpful, such as a health care scheme for the employee that can then be extended to their family with a contribution from the employee. Legally one must cover health care for each employee,



Helen Roberts

Staff share the patient's delight after the bandages are removed. KENYA

but at the foremost of peoples' minds is their family's health. These schemes tend to be financially worthwhile only if the institution employs over 60 people.

Team outings

These enable staff to meet outside work and enjoy themselves. If your staff have worked hard and achieved their targets this is a good way to show them your gratitude and appreciation.

Other team-building exercises, although involving hard work rather than relaxation, can be fun and contribute to teamwork, such as spending time improving the work environment.

Helen Roberts



The whole team came in on a Saturday to paint the perimeter wall. Activities outside work help build team spirit. KENYA

Awards or recognitions

Staff member of the month is one way to do this. The member can be elected (by other staff or by a management board) or, more easily, awarded on results, such as the community-based worker of the month is the person who brings in the most people with eye disease. Without clear criteria this can be full of pitfalls such as favouritism and rigged voting. More important than the actual (usually cash) reward should be the recognition that these staff receive from their peers.

Group awards are even more encouraging. If your project is recognised by the eye community or praised by a donor organisation, this is excellent for morale. Staff need to be made aware if you are lucky enough for this to occur!

Encouraging staff development

Appraisals

Appraisals are the starting block for managing the individual's performance and motivation. They are of paramount importance: they help the member of staff understand the role that they play and enhance communication between the manager and themselves.

At the appraisal you need to find out the person's wishes and suggestions and encourage them in a direction that suits them, while fitting in with what is needed by the organisation or project. From the appraisal there should be a clear plan of development for that staff member. That usually involves training, but may, perhaps,

Box 1

How to conduct a good appraisal

Who should be there?

The line manager needs to be present with the employee. The appraisal is an individual approach and is usually done one-to-one, but there may occasionally be some points for which you want another person to be involved.

Sometimes junior staff will personalise issues, blaming problems on their line manager. This may mean that the overall 'boss' as well as the line manager needs to be involved. It should be stressed that appraisals are not about telling people what they are doing wrong or disciplining them. If this is required it should be done at a separate meeting. Appraisals are about reviewing performance over the last 12 months and setting objectives for the next 12 months. Remember one cardinal rule: NEVER discuss another member of staff in a meeting when they are not present. If they need to be discussed, arrange to include them so that they can give their side of the story.

Before you start

The timing of the appraisal needs to be discussed and agreed with the member of staff involved. There is some preparation involved. If this is the first appraisal, the person should be given an idea of what will be addressed during the meeting. Most important, he or she must know that this is not a meeting to tell them off or be nasty. Many junior members are afraid of appraisals because of this. If you can gain the understanding that this exercise is intended to help both the employee and the organisation, staff members are more likely to open up so that you see the real person and get their input.

Appraisal forms

Before the date of the appraisal, the staff member and the person conducting the appraisal should be given a questionnaire to help them prepare. Box 2 provides some suggested forms that you can use. They are simply to give you an idea and can be modified to suit your needs.

At the appraisal

- 1 During the appraisal make sure that there are no disturbances.
- 2 Work through appraisal forms (see Box 2 over page) allowing enough time for discussion.
- 3 At the end, summarise what has been discussed and have clear objectives to achieve by certain times. As discussed before, the entire process is a waste of time if decisions and plans are not acted upon as agreed.
- 4 Finally, set a date for the next appraisal. Appraisals should be done for each staff member at least once per year. Sometimes, if an issue comes up, progress may need to be reviewed earlier.

address a weakness which that team member needs to work on. The importance of following this up cannot be overemphasised. If a need is identified but support and monitoring of progress is not done, that staff member will feel uncared for. Box 1 provides guidelines on how to conduct appraisals.

Training

People love to learn and this is a very good way to motivate staff and enable them to do their job better. Training should have both an individual and a team approach and occur both in-house and externally.



Seif, the driver, is elected as staff of the month and receives a T-shirt. KENYA

It is important for staff to meet as a group and learn together regularly. Subjects addressed may be specific to their job category or may be about personal development and concerns, such as how to cope with stress or avoid contracting HIV.

Any training course should be selected carefully with the individual. You need the right person to learn the right things. On their return from training it is important that they are encouraged to implement what they have learnt. All too often people do not receive the backup to apply their new knowledge. This is very demotivating. The poor staff member feels that it has all been a waste of time.

Exposure to similar projects is less expensive than formal training courses and often more relevant. This may be done as an individual or a group.

Conclusion

The success or failure of a project depends heavily on the staff and how well they do their job. Motivating and enabling them to do this is an ongoing part of running a project.

Continues over page ➤

Box 2

Sample appraisal forms for manager and staff member

Manager's preparation

Name Date

Job title

- 1 Is the job description up to date? Any changes? Health checks, PIN numbers, etc.
- 2 Is this person in the right place on the organogram? Are the lines of reporting correct, open and clear?
- 3 Is this person:
 - punctual
 - cheerful
 - responsible
 - adhering to policies
 - meeting deadlines
 - willing to take on more responsibility
 - getting on well with fellow workers
 - treating patients with respect and caring
 - promoting teamwork by supporting colleagues
 - giving feedback
 - offering ideas
 - coming to work appropriately dressed?
- 4 Look at the last appraisal summary notes. How well are the objectives for the job now being met and, more specifically, have the objectives defined at the last appraisal been achieved? Is this person using their skills and talents to the best of their ability?
- 5 Regarding the job, what are this staff member's main strengths/weaknesses? Are there any areas of the performance which could be improved?
- 6 What are their development needs? Training? Do they need anything to enable them to improve their performance at work?
- 7 What are this staff member's objectives for next year?

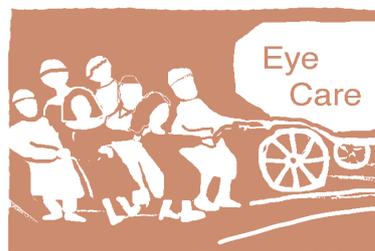
Post holder's preparation

Name Job title

- 1 Look at your job description. Are there any areas that should be included? Are there areas which should be removed? Is there anything that is not clear to you?
- 2 List the people who report to you. Name the person to whom you report. Is this actually happening? Do you exchange feedback with them? Is this feedback acted on by relevant parties?
- 3 What do you think your strengths in this job are?
- 4 What do you think your main achievements have been over the past year?
- 5 What do you like about your present role? What do you dislike about your present role? What might help you do your job better?
- 6 What do you see yourself doing in five year's time? What would you like to be doing? What do you feel you need to learn more about to help you do your job?
- 7 What do you see as your main objectives for the coming year?

Summary notes

Date
 Strengths and successes
 Weaknesses, challenges, difficulties, etc.
 Plan to address these
 Training requirements and timeline
 Date of next appraisal
 Read, understood and signed by employee
 Date
 Read, understood and signed by person appraising
 Date



Harnessing



Miriam Cano

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Establishing a VISION 2020 committee in Paraguay

Paraguay established a National VISION 2020 Committee, officially recognised by the government, in 2002. The starting point was World Sight Day 2001, where different institutions jointly celebrated the day, and the Ministry of Health signed the VISION 2020 Global Declaration. This committee brought together previously diverse public and private institutions, each working on their own to address eye care needs, but with little coordination or shared purpose between them.

Working together under the name of CONAVIP (an acronym in Spanish meaning 'Paraguay National VISION 2020 Committee'), CONAVIP includes representatives of ten institutions: Ministry of Health, Paraguayan Society of Ophthalmology (SPO), Ophthalmology Department of the National University of Asunción (UNA), Social Security Hospital (IPS) and Army Hospital, three local non-governmental organisations (NGOs) – Fundación Vision, Eye Bank Foundation and Santa Lucia Foundation, and two international development organisations – Lions and PLAN International.



Members of the CONAVIP executive committee. PARAGUAY

It was not easy to organise such a group. Most institutions were used to working in an isolated way and historical differences divided them. We needed to shift our focus from what each institution could do alone to what we could do together. This article describes some of the lessons we are learning about how to manage different groups to unite them behind the common goal of VISION 2020: The Right to Sight.

Background to eye care in Paraguay

Paraguay is a Latin American landlocked country, with a territory of 406,000 Km² and approximately six million people. There are 160 ophthalmologists,¹ 85 per cent of them living and working in Asunción, the country's capital city. The rural area, which represents approximately 60 per cent of the population, does not have a permanent ophthalmology service. The rural population has little access to eye health services due to economic reasons, ignorance about eye diseases or distance from facilities. The priorities for prevention of blindness are: cataract,² glaucoma, diabetic retinopathy, retinopathy of prematurity, refractive errors and adequate human resources for the country's needs.



diverse groups to work together in Paraguay

Establishing a focus on the district level

The only way we could hope to obtain results was by organising our VISION 2020 committee in smaller units. To develop a district level team approach, we focused on a programme activity to address the problem of uncorrected refractive errors in children in rural schools. The *Ver Para Aprender* (See to Learn) programme was conducted in 2003-2004 in four of the 17 country departments or states, (which equate to the VISION 2020 district level model). The departments Caaguazu, Guairá, Cordillera and Paraguari were selected for the first year. The CONAVIP Executive Committee provided leadership and coordinated the programme. To make this joint programme work, we needed to get the support of a number of people.

Policy makers to authorise the programme

First we signed an agreement with the Ministry of Education to teach the school teachers, from the chosen rural area, how to measure visual acuity. This was facilitated by the close collaboration between the Health and Education Ministries who share an understanding of the value of good vision to children's learning.

Teachers to identify refractive errors

We had to win the support and enthusiasm of 1,131 teachers and helpers who were to be trained in the additional tasks of working with the Snellen charts, registration forms, leaflets and education charts. This was facilitated by the network amongst school teachers established by the international organisation PLAN International. Training was conducted within school hours and logistics were supported by PLAN. Added to this, teachers themselves were motivated as they recognise refractive errors to be a problem. They had never had this kind of programme before and they thought this was a very good opportunity for children with eye problems to be evaluated by eye care professionals.

Specialists for further consultation

Ophthalmologists, residents and medical assistants were needed to examine children with a binocular visual acuity of 20/40 or less. This required the different organisations to motivate specialists to travel on two Saturdays of each month to examine the referred children and provide them with spectacles if necessary. In order to do their work, they needed supplies and equipment: autorefractors, slit lamps, applanation tonometers, lensometers, trial sets, ophthalmoscopes, retinoscopes and prism bars.

Achievements of working jointly

Through the *Ver Para Aprender* programme, 39,815 children were screened, 4,838 (12 per cent) of them with binocular vision lower than 20/40 were referred for consul-



Miriam Cano

tation and 900 (2.2 per cent) of them received spectacles provided by PLAN International and a local business house.

We also performed 180 operations for strabismus and congenital or traumatic cataract, using Ministry of Health and the Social Security Institute facilities in smaller cities. The ophthalmologists and ophthalmology residents, members of the Ophthalmology Society, nurses and medical assistants were from different institutions and the surgical instruments were borrowed from each participating institution. The supplies were provided with the financial support of PLAN International who allocated US\$195,000 for the programme, through its Japanese branch.

On the people management side, the greatest achievement was to demonstrate how diverse groups could mutually benefit from working on a joint VISION 2020 programme. The CONAVIP was able to draw on the expertise, personnel, equipment and established networks of its ten members. Individual members were able also to benefit from the group in terms of experience gained, credibility, opportunities for fellowships and training.

Another example of collaborative working was the visit of the ORBIS flying hospital in July 2004. This was coordinated by the SPO and CONAVIP with the aim of providing continuing medical education for ophthalmologists, residents, nurses, ophthalmic assistants, anaesthetists and bioengineering technicians. At the same time, the Eye Bank Foundation work was enhanced with the donation of a specular microscope. The National Hospital of the Ministry of Health had its argon laser unit repaired at no cost to the country. Through CONAVIP, ORBIS is now assisting the Ophthalmology Unit of the UNA to develop a comprehensive eye care programme in the Chore district, which is one of poorest and most remote in the country.



Miriam Cano

Surgical teams performed operations for strabismus and congenital or traumatic cataract. PARAGUAY

Future priorities

Future priorities for CONAVIP are to work on the National Eye Plan, currently underway. Arising from the experience of the *Ver Para Aprender* programme, recommendations have been put forward to routinely use teachers to recognise refractive errors. It is hoped that vision testing will be included in the curricula of teacher training colleges, beginning in 2006.

The committee faces the challenge of how to achieve greater equity in the distribution of ophthalmologists. With a ratio of 28 ophthalmologists per million population¹ Paraguay is not short of ophthalmologists. Currently, many young ophthalmologists are underemployed in the capital city. Ideas for encouraging them to work in the underserved rural areas include introducing a compulsory rural placement in the third year residency programme, introducing monetary incentives to work in rural areas, and establishing a continuing education and networking programme to relieve the professional isolation of working in more remote areas.

Lessons about managing diverse groups to work together

From the very beginning, we decided to respect the independence of each institution, letting them continue with their work, while coordinating activities to conduct special programmes related to our eye health priorities. We had to best use what each of them could provide: human resources, appropriate equipment, consumables or surgical supplies. We have also realised that, as a group, we can work towards making a fully accountable and transparent programme, which can gain the respect and trust of international partners. The committee also gained the respect of the Minister of Health in office at the time who was impressed by the willingness of scientific bodies to get involved with 'social work'.

Had we kept on working in an isolated way, none of these achievements would have been possible within the timeframe. When different groups work together to establish a programme, international help is more easily available. In a country like ours, unfortunately known for its level of corruption, it is important to demonstrate that there are people interested in developing united efforts to obtain a comprehensive prevention of blindness programme.

References

- 1 The World Health Organization. National VISION 2020 Implementation Data. The Americas. August 2005. www.who.int/pbd/blindness/vision_2020/regional_data/en/ (accessed November 1, 2005).
- 2 Duerksen R et al. Cataract Blindness in Paraguay: results of a National Survey. *Ophthalmic Epidemiology*, 2003. Vol 10, No 5 349-35.



Searching for evidence-based information in eye care

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A growth in health awareness has led to an increase in the volume and availability of health information. Health care professionals may feel under pressure to read this increasing volume of material. A search on the internet is often a quick and efficient way to find information and this can be done by using one of the many search engines such as Google¹ or Google Scholar² or one of the health care information portals such as Omni.³ A previous article by Sally Parsley in the *Community Eye Health Journal* provides a useful introduction to using the internet to access eye health information.⁴

It is understood, however, that not all those working in health care have access to the internet or computers powerful enough to carry out a search on the internet, so this article may not be useful to some of our readers.

Health information, which is available on the web, needs to be treated with some caution. Some websites have commercial backing and may be biased in their approach, while others may rely on out-of-date or inaccurate information and may not have had any input from health care professionals. Even after running a search on a reputable database such as Pubmed,⁵ one needs to critically assess the quality of individual papers. For this reason, reliable websites and initiatives, which appraise and disseminate up-to-date information to produce the best available evidence, are extremely valuable.

The National Electronic Library for Health (NELH)⁶ has comprehensive links to many sources of evidence-based information including online journals, some of which are open-access, meaning that they are free. Open-access online journals that look at the best available evidence include *Clinical Evidence online*,⁷ which is available free to several groups of people including those in developing countries. Another is *PLoS Medicine*⁸, which is an open-access, peer-reviewed medical journal, published monthly by the Public Library of Science.

Other initiatives in the UK such as the National Institute for Clinical Excellence (NICE),⁹ The Centre for Evidence-based Medicine,¹⁰ and *Netting the Evidence*,¹¹ give an introduction to evidence-based health care by providing support and access to helpful organisations and useful resources.

Among the most reliable of these resources are The Cochrane Collaboration¹² and The Cochrane Library.¹³ These are both



Victoria Francis

An eye care planner takes advantage of the internet to access reliable information. MALAWI

good sources of unbiased and reliable evidence-based information. While The Cochrane Library holds information which can be applied directly to clinical practice, the Collaboration website can be used as a source of information on training in evidence-based methods or further information on how to incorporate evidence into practice. The Cochrane Collaboration is an international not-for-profit organisation, providing up-to-date information about the effects of health care. There are more than 50 Review Groups around the world in as many different health care areas covering a broad spectrum of subjects. It is these Review Groups who assist review authors with the production of Cochrane Systematic Reviews of health care treatments and interventions for specific conditions. These reviews make up the Cochrane Database of Systematic Reviews (CDSR), one of the databases available on The Cochrane Library. Clinicians around the world use this comprehensive source of evidence to help with decision-making in patient care or to develop guidelines.

The Cochrane Library is the output of The Cochrane Collaboration and is published online and on CD every three months by John Wiley & Sons.¹⁴ It has built up a reputation for being the best single source

of reliable evidence-based information, but is actually a collection of seven different databases, which can be searched simultaneously. It is freely available throughout the UK and to most developing countries worldwide.

The Cochrane Library is made up of the following databases:

- The Central Register of Controlled Trials
- The Cochrane Database of Systematic Reviews
- The Cochrane Database of Methodology Reviews
- The Cochrane Methodology Register
- Database of Abstracts of Reviews of Effects
- Health Technology Assessment Database
- NHS Economic Evaluation Database.

The editorial base for the Cochrane Eyes and Vision Review Group (CEVG)¹⁵ is the London School of Hygiene & Tropical Medicine, in the International Centre for Eye Health. It is possible to search The Cochrane Library for all of the CEVG editorial output by typing HM-EYES into the search box. This will show the total product of the CEVG which (at 2005-issue 3) is 34 completed reviews and 44 protocols. Protocols are prospective plans or proposals

'Reliable websites and initiatives, which appraise and disseminate up-to-date information to produce the best available evidence, are extremely valuable'

for reviews, which are 'in process' or about to be started.

Some CEVG reviews have few or no included trials and some rely purely on narrative for comparing and analysing the evidence. This is due to the scarcity of good quality trials in ophthalmology, particularly in those conditions prevalent in developing countries. Reviews that tend to have a greater number of included trials are those involving eye ailments that have many available commercial pharmacological treatments; an example of this would be 'Interventions for herpes simplex virus epithelial keratitis' which has 97 included trials. Due to the large number of trials involved and the ability to synthesise and analyse trial outcomes from a significant number of patients, the author is able to give some clear conclusions: "The combination of an antiviral nucleoside with either debridement or with interferon speeds healing."

An example of a review with no included trials is 'Adjustable versus non-adjustable sutures for strabismus'. This review relies on narrative to compare and synthesise the available evidence but the author is unable to give any clear conclusions due to the lack of available randomised trials and of patients involved. The author states in the conclusion that available trials were "...non-randomised, few in number, and mainly retrospective." Such reviews are still valuable and important and serve to highlight the need for more high quality trials in a given health problem or treatment area.

The Central Register of Controlled Trials (CENTRAL) is a rich source of information on complete and ongoing trials. It can be a valuable resource when searching for trials that look at the effects of treatments, when no Cochrane systematic review is available. It is also a useful resource when searching for information to carry out a review. CENTRAL includes details of published reports of trials taken from bibliographic databases, and other published and unpublished sources. Each individual Review Group maintains their own register of controlled trials within their specified area and submits this for inclusion in CENTRAL every three months. The Cochrane Eyes and Vision Group's (CEVG) register currently has 7,741 ophthalmology trials and these can be searched on The Cochrane Library by entering terms into the search-box.

In order to look at *only* those trials from the CEVG register one can enter SR-EYES into the search-box. All trials on the CEVG register have either been included in a CEVG reviews or are possibly eligible for inclusion. They have not been quality-assessed, however, so critical appraisal skills must be

applied when examining the information they provide.

Other components of The Cochrane Library, which also provide high quality, reliable information, are the database of abstract of reviews of effects (DARE), the NHS Economic Evaluation Database (NHS EED) and Health Technology Assessment database (HTA). All three databases have information on reviews, evaluations or assessments that have been critically appraised or quality assessed and is the product of work carried out by The Centre for Reviews and Dissemination.

When a search is carried out on The Cochrane Library it can be simultaneously run across all of the databases. The results are presented as a number found out of the total number available. For example, when one searches for the term GLAUCOMA the results show that there are four reviews relevant to the search criteria out of a total 4,041 reviews available on the Cochrane Database of Systematic Reviews, six out of a total of 5,340 reviews available on DARE, 17 out of a total of 4,620 assessments available on the HTA database and 31 out of 15,884 available on the NHS EED database. A search across all databases is advisable in order to explore all available reviews, evaluations or assessments on a treatment or intervention, or when looking for options to treat a particular condition.

The Cochrane Library is a valuable resource of evidence-based information for health care professionals but in relation to other information sources can still be considered 'new'. It has potentially much room for growth and even the most dedicated 'Cochranites' will admit that there are many gaps, which still need to be filled. However, as The Cochrane Collaboration evolves and Review Groups grow, the scope and volume of information held on The Cochrane Library will increase. The Cochrane Library will expand, ensuring that it remains the "best single source of evidence-based information."

References

- 1 www.google.co.uk
- 2 <http://scholar.google.com>
- 3 <http://omni.ac.uk/>
- 4 Parsley, S. Bridging the eye health information gap through the internet. *Community Eye Health Journal*, Issue 51 October 2004.
- 5 www.ncbi.nlm.nih.gov/entrez/query.fcgi
- 6 www.nelh.nhs.uk
- 7 www.clinicalevidence.com
- 8 www.plosmedicine.org
- 9 www.nice.org.uk/
- 10 www.cebm.net
- 11 www.sheffield.ac.uk/~scharr/ir/netting/
- 12 www.cochrane.org
- 13 www.thecochranelibrary.com
- 14 www3.interscience.wiley.com
- 15 www.cochraneeyes.org/



The Cochrane Collaboration is a not-for-profit organisation providing up-to-date information about the effects of health care

www.cochrane.org



PLoS Medicine is an open-access, peer-reviewed medical journal published monthly by the Public Library of Science (PLoS), a not-for-profit organisation

www.plosmedicine.org



Clinical Evidence, from the BMJ publishing group, is an information source of the best available evidence for effective health care

www.clinicalevidence.com



EXCHANGE

Getting the best out of the ophthalmic nurse in Ghana

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In many health care settings in Africa, motivation tends to be closely associated with financial incentives. In our eye care programme in northern Ghana, we have developed a different concept of motivation that we find more sustainable and mutually rewarding to both workers and management and, consequently, the entire programme.

We perform some 3,000 operations annually, and we have focused on building the skills of our ophthalmic nurses beyond levels normally required in practice here. In the outpatient department this has included use of the slit lamp in quantitative and qualitative evaluation of anterior and posterior segment changes, applanation tonometry, visual field assessment and retinoscopy. We are currently training the more experienced nurses in indirect ophthalmoscopy and biomicroscopy for fundus examination. In the theatre, nurses do a wide range of minor operations and also give most of the ocular anaesthetic.

With this level of training, the ophthalmic nurses perform competently in both pre-operative assessments and post-operative reviews of uncomplicated cases. This frees the hands of the ophthalmologists from managing common refractive errors and red eye conditions and also frees up theatre time, allowing him or her to concentrate on the more serious cases and



Eye Unit Bawku Hospital

Ophthalmic nurse at Bawku hospital eye unit doing objective refraction using the retinoscope. GHANA

surgery. This may seem unorthodox to many surgeons, especially those in the large teaching hospitals, but is not uncommon in many developing and developed countries. During my recent visit to the United Kingdom, I saw nurses competently using sophisticated equipment at every level of eye care management. The most important thing is to identify the skills deficiency and design appropriate solutions. In a recent qualitative study in our unit, nurses found motivation to be the most important reason for being part of the programme and this was attributed largely to training and recognition.

What we need to do is to break the myth around ophthalmic instruments and impart more quality knowledge and technical skills to the nurse. This of course must include periodic reviews for quality assurance. In this way, we shall be making our nurses more useful partners in our collective drive to eliminate avoidable causes of blindness by the year 2020.



Eye Unit Bawku Hospital

Ophthalmic nurse at Bawku hospital eye unit examining the optic disc on the slit lamp using a fundus-viewing lens. GHANA

A low-cost, slit lamp-based video-photodocumentation system

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Editor's note

We are aware there are many different methods of capturing images for teaching and other purposes, most frequently using the existing optics of the slit lamp. Dr Nizvi has sent us details of his own method. We would emphasise the need for background illumination in the majority of images.

Introduction

Video display of the slit lamp view of the eye is useful for various purposes in ophthalmology, such as teaching, record keeping, and teleophthalmology. However, commercially available photo slit lamps are quite expensive. In this short article, I describe a low-cost system providing fairly good quality video images using an ordinary camcorder. I have been using this system for teaching community eye health workers and educating patients for ten years.

Basic principle

This can be considered in two parts.

1. Changes in the optics of the camcorder such that its focus is adjusted at a distance equal to the working distance of the biomicroscope. The magnification changes accordingly.
2. Attachment of the camcorder besides the biomicroscope such that the optical axes of the camcorder, the biomicroscope, and the slit beam are in the same plane, meet at the same point, and share the same rotational axis in all positions. During normal working position, the camcorder shows the view at some angle with that of the examiner's view (Figure 1a). If an exactly frontal view is desired, or gonioscopy or slit lamp ophthalmoscopy needs to be done, the camcorder has to be shifted to the centre (Figure 1b), and the examiner looks through the viewfinder or the monitor.

Diagrammatic representation of the relative positions of the biomicroscope, the camcorder, and the slit beam reflecting mirror, all in one plane

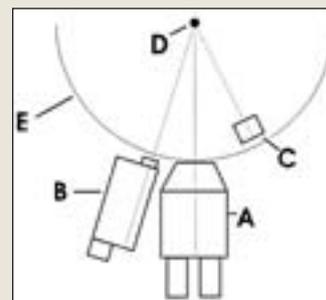


Figure 1a. Biomicroscope in the centre

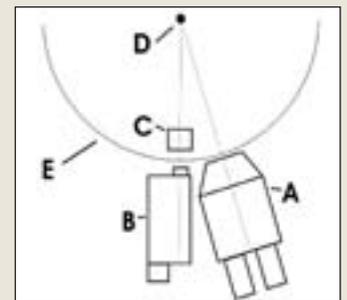


Figure 1b. Camcorder in the centre

A = Biomicroscope; B = Camcorder; C = Reflecting mirror of the slit beam; D = Central axis of rotation of all the three optical systems; E = Imaginary arc at which the front surface of all the three optical systems lie in all positions

Any camcorder can be used provided that manual focus and exposure options are available. The smaller the camcorder in size the less obtrusive it will be. In this study a JVC GR-DV1 (Victor Company of Japan, Limited) was used. The slit lamp was manufactured by Haag-Streit.

Part 1 of the principle is achieved by fixing, in front of the camcorder's optics, a +9.0 dioptre lens taken from the trial frame, as the optics of a camcorder resembles that of the surgical microscope with the objective lens removed.

To achieve part 2, a metal adaptor was made by the author.

The camcorder is fixed to it by means of a screw into the tripod mounting socket. The adaptor is fixed to the arm of the biomicroscope carriage (Figure 2). The screws are not fully tightened yet.

The camcorder is shifted in the centre and the focusing rod provided with the slit lamp is inserted in place. The manual focus mode is set and the slit beam is turned on. Fine adjustments are made to bring the slit beam image in the centre of the viewfinder, and the screws are tightened in this position. Next, the fine focusing is done and the rod is removed. A source for diffuse light (Canon video camcorder flash) is attached beside the reflection mirror of the slit beam for background illumination. (Any diffuse light source can be used). The video-out lead is attached to an ordinary colour television. (The video-out lead can also be attached to a video capture card in a personal computer).



Slit lamp video system, as seen from the examiner's side. The forehead rest band has been removed to show the essential structures more clearly

Discussion

Images obtained by this system are of reasonably good quality. The use of a photographic quality objective lens can greatly improve image quality, and with some basic knowledge of photography and some experience, most of the clinical conditions can be documented clearly.

The system has the extra advantage of wide range zoom magnification with an ordinary slit lamp. It also obviates the need of a separate video recorder (VCR) for recording. The camcorder can be used for general purpose at any time just by loosening a screw and removing the objective. A professional manufacturer can design an adjustable, universal adapter that can fix different camcorders to slit lamps of various models.

Visual status of deaf school students in Kathmandu, Nepal

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Aim: To evaluate the visual status of deaf students in Kathmandu, Nepal.

Methods: This was a descriptive cross-sectional study. All students in the school for the deaf in Kathmandu were examined over a six-month period, starting on 1st January 2005. A thorough ocular examination was done by an optometrist and the following information was recorded on a standard proforma: history, cause and duration of deafness (if known); family history of the same problem; associated systemic problems, and history of eye examinations. Visual acuity was measured in each eye using an illuminated Snellen chart with multiple optotypes. A cover test was performed to identify strabismus, and Ishihara plates were used to assess colour vision. A torch was used to examine the external eye, and a direct ophthalmoscope was used for posterior segment examination. Retinoscopy was performed where indicated. Students were referred to the eye hospital for further evaluation and management if necessary.

Results: Out of the total 253 deaf students, 56 per cent were male, and their ages ranged from from 6 to 25 years (mean 13.75 years). Over two thirds (68 per cent) had been deaf since birth but only 40 per cent knew why they were deaf. At least one other family

Syed Amjad Nizri

member was also deaf in 36 students (14 per cent). Thirty students had a visual acuity of <math><6/9</math> in the better eye, but no child was bilaterally blind. Out of the total of 253, 57 students (23 per cent) had at least one ocular problem, including strabismus (7 students, exotropia > esotropia), refractive error (32 students: 22 per cent were myopic, 41 per cent were hyperopic and 38 per cent were astigmatic), corneal ulcer or scar, glaucoma suspect, and amblyopia. Six were found to have abnormal colour vision. Nine students gave a history of night blindness, but there was no evidence of retinitis pigmentosa, and all those with reduced vision were referred for assessment. No student had the typical retinal changes of congenital rubella. Only 26 students (10 per cent) had had an eye examination at any time in the past.

Conclusions: Although ocular problems were common amongst these deaf students, only a few had previously had an ocular examination. Vision is very important in deaf students, as a means of communicating and learning about the world, so they should be included in vision screening programmes. Many attend special schools and can be readily assessed by an eye care team.

Stamping out blindness

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South Africa has joined forces with the rest of the world to create awareness of the prevention of blindness by issuing a stamp and commemorative envelope on World Sight Day (13 October 2005). This was achieved with the support of the chancellor of the Mthatha post office. The stamp was unveiled by the Chief Executive Officer of the South African Post Office at a function held at Nelson Mandela Academic Hospital Complex in Mthatha on 14 October 2005.

Designed by Saskia van Wyk, the stamp design is minimalist with only a coloured outer frame and white inner area. The word "hello" is embossed in Braille. Melvyn Minaar, an art critic in South Africa, described this stamp as the most elegant postage stamp issued by the South African Post Office. He further describes this stamp as a powerful statement about sight and visibility. The stamp makes a subtle statement about the interplay of sighted and unsighted, the very essentials of what a printed stamp is really about.

This is the first ever postage stamp issued by South Africa on the theme of prevention of blindness and it is hoped that it will assist in creating awareness of VISION 2020 and blindness prevention programmes in the country.

The Department of Ophthalmology at the Nelson Mandela Academic Hospital also organised a 'Cataract Blitz' during the same period which was supported by the Bureau for the Prevention of Blindness and the Lions Club of Mthatha and was sponsored by Pick 'n Pay (a large supermarket group) and the Rotary Club of Kempton Park. Two hundred and eighty free cataract operations were performed over 11 days.

The Minister of Health, Dr Manto Tshabalala-Msimang, lent her support to the annual Cataract Blitz and the member of the Executive Council for Health (Eastern Cape), Dr Bevan Goqwana, presented long service certificates to staff in the Ophthalmology Department.



The South African stamp includes the word 'hello' in Braille

2004/05 ICEH Community Eye Health MSc

Adrienne Burroughs



The ICEH Community Eye Health class of 2004/05. UK

All ICEH MSc students carry out a dissertation project as part of the CEH course. They spend ten weeks dedicated to the project (five for field work and five for write up), and the planning is conducted throughout the year. The dissertation is about 10,000 words and requires a disciplined and dedicated approach. It is prepared in stages: the student identifies an area of interest and then carries out a literature search on the topic before finally deciding on the research question. The next stage includes designing the most appropriate methodology to answer the research question. Feasibility within the specified time frame and budget are important considerations. Students then have to seek ethical permission to carry out the project. Often the field work requires a team and students have to identify and train their own team for the project. This is then followed by the field work, data management and analysis and final write-up. At the end of this process, the students are equipped to carry out research independently in their regions.

Most of the dissertations are excellent pieces of original and valuable research work. The summaries below provide some insight into the work carried out by the students at ICEH in the academic year 2004/05. Often the recommendations from dissertations get translated into action plans to reduce the burden of blindness in their communities. We consider the project work as the most important component of the learning process in our MSc course.

Effectiveness of cycloplegic drugs in Nigerian children



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Aim: To compare the cycloplegic effectiveness and cost of cyclopentolate 1%, atropine 1% and a combination of 1% cyclopentolate and 0.5% tropicamide in Nigerian children undergoing examination for refractive errors.

Methods: A single-masked randomised controlled clinical trial. A total of 255 children aged between four and 15 years with complaints of poor vision, attending outpatient eye clinics of Mercy Hospital and General Hospital in Nigeria, were enrolled in the study.

Two hundred and thirty three children met the selection criteria and were randomised to three groups. In the first group, children were given 1% atropine drops in each eye to be instilled at home, three times daily for three days, and examination was carried out on day three. In the second group, children were given one drop of cyclopentolate and this was repeated again five minutes later. In the third group, using a similar regime, the children received a combination of cyclopentolate and tropicamide. Children in the second and third groups were examined 30 minutes after the first drops.

The accommodative responses of each group were assessed by:

- the amount of residual accommodation calculated as the difference between spherical equivalents of retinoscopy findings obtained at two distances (6 & 0.33 metres)
- the size of dilated pupils and response to light.

Results: Atropine was the most effective with the least mean residual accommodation (0.04 +/- 0.11 Dioptres), followed by the combined regimen (0.36 +/- 0.42 Dioptres). 1% cyclopentolate was the least effective (0.63 +/- 0.51 Dioptres). Also, the pupils of 96 per cent children who received atropine showed adequate cycloplegia compared to 66.2 per cent in the combined group and 15.8 per cent in the cyclopentolate group.

Conclusions: Atropine (1%) is the most effective agent, but it is not ideal. The cost-effective and better tolerated alternative was the combination of cyclopentolate (1%) and tropicamide (0.5%).

Blind school survey in Plateau, Bauchi and Kaduna States, Nigeria



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Aims: To assess the causes and distribution of childhood blindness, the proportion of avoidable blindness, and to assess educational facilities available to blind students in Plateau, Bauchi and Kaduna States, Nigeria.

Methods: This was a descriptive, cross-sectional survey of three blind schools located in Northern Nigeria. It had a quantitative and a qualitative component. The study instrument used was the WHO/PBL Childhood Blindness Proforma. The qualitative component involved an in-depth interview with principals, teachers and children. The data was analysed using the thematic framework analytical approach.

Results: Of the 199 students currently enrolled in the schools, 181 (91 per cent) were examined. Their age ranged from five to 17 years, 101 (56 per cent) were aged less than 16 years. 128 (70 per cent) were males. 167 (92 per cent) had severe visual impairment/blindness and seven (4 per cent) had normal vision. The main anatomical site of abnormality leading to severe visual impairment or blindness among students under 16 years of age were the lens (26 cases – 29 per cent), whole globe (23 cases – 26 per cent) and cornea (18 cases – 20 per cent). Corneal scar however, remained the single most important identifiable cause of childhood blindness (15 cases – 17 per cent). Diseases of unknown aetiology (41 cases – 46 per cent) were the main cause of visual loss among children under 16 years of age. Sixty eight children (67 per cent) had become blind due to avoidable causes. Problems identified in the special education system included lack of adequate funding and learning materials.

Conclusions: The childhood period (1-15 years) remains the most critical period for the onset of blindness. A significant proportion of blind children can be helped with surgical and optical intervention. There is less emphasis on the education of female children who are blind and integrated education is not currently practiced at primary school level. The community is still ignorant of the capabilities of children who are blind.

Visual impairment in mentally handicapped patients in The Gambia



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Aims: To establish the prevalence and causes of visual impairment amongst a cross-section of people with a mental handicap as a vulnerable group in The Gambia.

Dissertation Summaries

Methods: Consecutive patients attending the psychiatric unit of Royal Victoria Hospital clinic within three weeks of the study were recruited. They underwent a visual acuity assessment using logMAR charts followed by an ophthalmic examination to establish the possible cause of visual impairment. Visual impairment was defined as a presenting logMAR acuity of >0.499 corresponding to a Snellen acuity of $<6/18$ and blindness as logMAR acuity >1.3 ($<3/60$) in both eyes.

Results: The prevalence of visual impairment was found to be 1.96 per cent (95 per cent, Confidence Interval (CI): 1.0 per cent-4.0 per cent), which was similar to the population prevalence in 1996. Blindness accounted for 0.56 per cent (95 per cent, CI: 0.2 per cent-2.0 per cent) and low vision 1.4 per cent (95 per cent, CI: 0.6 per cent-3.2 per cent). The major causes of visual impairment were refractive error (54.2 per cent) and cataract (33.3 per cent).

Conclusions: There are limitations to comparing these findings to the national prevalence, as this was a hospital-based group. The mentally handicapped population remains a vulnerable group, which does need the attention of eye care services.

Validating key informant method in detecting blind children in Ghana



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Aims: To provide information on the prevalence and causes of blindness in children in Ghana.

Methods: Seventy key informants were trained to identify children who are blind within the district. For the purpose of the study blindness was defined as visual acuity of less than 6/60 in the better eye with the available correction. The key informants went into their communities for two weeks, identified the children who could not count fingers at 6 metres or those who could not fix on bright objects and whose parents reported that the children did not see, and referred them to the ophthalmologist for examination.

Results: The 70 key informants screened about 23,000 children in the district out of which 31 were referred to the ophthalmologist for examination. Fifteen were blind bilaterally, 15 had vision less than 3/60 in one eye and one had visual impairment (less than 6/60 in the better eye). The prevalence of childhood blindness in the study sample was found to be 0.074 per cent (95 per cent, CI 0.043 to 0.118 per cent). The magnitude of childhood blindness in Akuapim South was found to be 30 blind children. With 95 per cent CI results the range of childhood blindness in the district would be between 17 and 47 blind children. Using this information, it can be extrapolated using the CI range that there would be about 6,735 blind children in Ghana. The main causes of blindness in these children were found to be retina-related and cataract.

Conclusions: The key informant method is an effective way of surveying childhood blindness in Africa. It allowed us to screen a large number of children in a short period of time.

Evaluation of the impact of Nyateros “Friends of the eye” in the delivery of eye care services after one year of its implementation in Lower River Division, The Gambia



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Nyateros are local women, identified by their communities after consultations with all stakeholders, who promote eye health and play a vital role in the early identification of cases and referral. This

strategy is used by The Gambia National Eye Care Programme. It is based on the idea that for every 250 people, the community will identify one individual who will be responsible for the eye health of these people.

Aims: To critically determine whether the use of nyateros in the eye care programme would increase efficiency and bridge the gap between the community, community understanding and the service providers at primary, secondary and tertiary level.

Methods: Quantitative methods included a desk evaluation of the key performance statistic registers from all nyateros in the field, identified primary centres for comparison, and mapped out active and inactive referrals from nyateros stations according to the number of patient referrals to eye care services. Qualitative interviews reviewed the acceptability and the impact of nyateros in a community. Interviews were also conducted to identify the challenges faced by the nyateros in carrying out their task.

Results: There were 150 nyateros trained in 2002 and 145 were active in the field in 2004. In the two years, numbers of referrals to health centres from nyateros had increased five-fold. The majority of the referrals were for cataract surgery.

The nyateros continue to have difficulties in referring patients due to lack of transport and cost. The community appreciate the nyateros and would like to see their activities extended to other health services. Some internal management and motivational issues were highlighted and require attention.

Conclusions: The nyateros have been successful in bridging the gap between the community and the service providers but some practical issues such as distance from health centres and lack of drugs at these centres demotivate them. The current coverage is not sufficient and another 540 nyateros would still be required. Secondary units and health centre should be strengthened to support nyateros activity.

Factors predisposing to Vitamin A deficiency (VAD) in two populations in Tanzania



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Aims: To determine the socio-economic factors which predispose populations of Kilombero and Manyoni in Tanzania to VAD. The selection was based on the 1997 National Vitamin A survey, whereby Manyoni had the lowest and Kilombero had the highest prevalence of VAD (17 per cent and 56 per cent respectively) in the country.

Methods: Qualitative research methods, namely interviews with women in 60 households and one focus group discussion at each village to explore social behaviours and childrearing practices. A questionnaire was used to identify infant and child feeding practices and availability of vitamin A food.

Results: The main predisposing factors found in these communities are:

- Childrearing practices. For example, exclusive breastfeeding up to six months was carried out by 50 per cent in Manyoni mothers but by only 7 per cent of mothers in Kilombero
- Early weaning practices. For example, in Manyoni 73 per cent of the children were weaned at four to six months, whereas in Kilombero first food can be started as early as one week and 93 per cent were weaned before four months
- Feeding infants with vitamin A rich food was one of the factors that lowered rates of VAD. Eighty three per cent of Manyoni women added a vitamin A rich food into the baby's staple diet compared to 40 per cent of women in Kilombero
- Food taboos related to vitamin A food. In Manyoni, 7 per cent of households indicated that food taboo is a factor leading to VAD. In Kilombero 50 per cent of households acknowledge food taboos

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related to a vitamin A food. These taboos prohibited the use of foods such as eggs, fish, goat's meat and papaya being given to pregnant women and young children

- The availability of food rich in vitamin A, like mango and papaya, were not an indicator of a reduced VAD in the community. Surprisingly, it was the opposite. In the case of Kilombero there was 100 per cent availability of vitamin A rich food, while in Manyoni only 3 per cent reported these foods as being readily available
- There were no significant economic differences in these communities to predispose the people to VAD.

Conclusions: From this study we can conclude that childrearing practice, practice of exclusive breastfeeding and food taboos can determine the prevalence of VAD in different communities as seen in these two populations. Availability of vitamin A rich food in communities is not a factor contributing to lower rates of VAD, as demonstrated in the community of Kilombero where availability of fruits to each household child was 100 per cent and yet they had the highest prevalence of VAD in the 1997 national survey.

Cost-utility and visual outcomes of bilateral cataract surgery in outreach programmes in India



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Aim: To determine the appropriateness of different intervention strategies for bilateral cataract in terms of costs and outcomes.

Methods: Retrospective study of patients operated through outreach programmes during the period 2003-05. The pre-operative and post-operative visual acuities of eligible patients were recorded and assigned into three intervention groups based on i) number of hospital admissions and ii) surgical intervention in either one or two eyes. The groups are 'one admission one eye', 'one admission two eyes' and 'two admissions two eyes'. The visual acuities were incorporated with the time-tradeoff utilities of GC Brown. Cost-utility analysis was performed on each intervention group. The comparison of outcomes in terms of visual acuities was done.

Main Outcome Measures: The number of quality-adjusted life years (QALYs) gained was calculated for each group. The cost of each group was divided with the respective QALY gained to get the dollars spent for gain of each QALY.

Results: The intervention of 'one admission two eyes' as compared to the other two interventions was found to be most cost-effective. The mean undiscounted QALY gain was 1.69 at a cost of US\$28.53 (US\$16.82/QALY). The 'one admission one eye' group resulted in 1.216 QALY gain at a cost of US\$20.72 (US\$17.06/QALY). The 'two admissions two eye' group was found to be more expensive and less effective with a QALY gain of 1.14 at a cost of US\$41.85 (US\$36.38/QALY). Sensitivity analysis, varying costs and QALYs revealed that the interventions are significantly sensitive to costs and QALYs.

Conclusions: Intervention of cataract on two eyes of bilateral cataract patients mobilised through outreach programs was cost-effective. The long-term benefits of such an intervention to patient, provider and to society indicate re-orientation of present strategies in countries such as India where sufficient infrastructure is in place.

Visual impairment among people under 50 years of age in Coimbatore District, India. A pilot survey of needs and resources



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Aims: The study aimed at piloting an assessment of the prevalence and causes of visual impairment in children (age 0-15) and the economically productive age group (16-49) through a population-based survey in Coimbatore District, South India. The second aim

was to match the needs of the visually impaired individuals identified through the survey with available resources and to propose strategies for bridging the gaps.

Methods: 2,800 people were surveyed in three randomly selected blocks of the district, the sample being selected as clusters of 50 persons, by probability proportional to size procedure.

Results: 0.75 per cent (21/2800) of the population was visually impaired (vision <6/18 at 6 metres, with available correction and both eyes open). The prevalence of blindness (vision <3/60) was 0.14 per cent. Among children (under 15 years), the prevalence of visual impairment (<6/18, presenting binocular acuity) was 0.1 per cent. The prevalence amongst the 15-49 years age group was 0.6 per cent. Refractive errors contributed to at least 47 per cent of the impairment (10/21). Resources were adequate only for the needs relating to 'activities of daily living' and 'self-care', and to clinical care.

Conclusions: Efforts to identify the visually impaired, assess their needs and abilities and then tailor individual strategies for their rehabilitation should be through inter-sectoral co-operation and collaboration between the various services. A comprehensive database of resources should be compiled, and this information should be made widely and readily available. Pressure groups comprising of service providers and beneficiaries could empower the visually impaired to access the benefits they are entitled to. Middle level ophthalmic personnel should receive training updates, and be provided with basic equipment, which they are taught to maintain.

Corneal ulcers in the Eastern Region of Nepal



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Aim: To describe existing management practices for corneal injuries and suppurative keratitis and to identify barriers to uptake of these services in the Eastern Region of Nepal.

Methods: A retrospective analysis of data from 222 corneal ulcer patients examined at Mechi Eye Care Study in a one-year period (Dec 2001-Nov 2002). For prospective qualitative study, we used a non-probabilistic, purposive sampling method to include study participants from service provider groups (medical shopkeepers, traditional healers, health care providers, ophthalmologists, ophthalmic assistants, and eye care managers). All patients with suppurative keratitis during the study period were interviewed in this study. Structured interviews, semi-structured interviews, focus group discussions, and in-depth interviews were carried out with study participants.

Results: Corneal ulceration was more common in males, farmers, and the productive age groups. The majority of patients were seen during the season of peak agricultural activity. Nearly half of patients came to the eye hospital after one week and one third presented after three weeks from the start of symptoms. Nearly two thirds of patients had sought medical and non-medical help before coming to eye hospitals and 57 per cent were using traditional eye medicines. Patient accessibility to eye care services was the main barrier for early consultation, followed by cost, social beliefs, and ignorance about the disease. The main barrier from the service provider group for corneal ulcer management was lack of diagnostic facilities. A cataract-oriented eye programme and the relatively fewer number of corneal ulcer patients in the existing tertiary eye hospitals could be responsible for lack of development of laboratory facilities in these hospitals.

Conclusions: This study emphasised the need for a corneal ulcer prevention programme in the Eastern Region of Nepal which includes a public health education campaign regarding preventive aspects of corneal ulceration, training of health workers and traditional healers, establishing secondary eye care centres in coordination with government health structure, and upgrading of diagnostic facility of corneal ulcer in the existing tertiary eye care centres.

Knowledge, attitudes and beliefs concerning visual impairment and eye care services in the State of Chihuahua, Mexico



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Aims: To identify the level of knowledge about blindness and visual impairment in the population of Chihuahua and the impact of health education programmes. To identify the attitudes and practices related to uptake of eye care services and how the providers deal with it. This will allow better planning and delivery of services.

Methods: An exploratory study using qualitative methods. Focus group discussions and semi-structured interviews were conducted with various community groups (teachers, church leaders, parents and employees of enterprises), patient groups (waiting in eye clinics) and health care providers (doctors, optometrists and nurses). This information was then analysed using a thematic framework.

Findings: The key findings were:

- poor understanding of blindness and its cause. As a result there were tendencies to try out traditional remedies and wait till the disease worsens before seeking help
- cost was identified as another barrier
- the impact of health education for diabetes and glaucoma shows that messages were heard but not understood.

Conclusions: This data shows that there is a lack of awareness of blindness and visual impairment. Certain eye conditions need to be understood by the community, therefore eye health promotion activities and strong primary health care (PHC) are important. The project recommends strengthening links to PHC by training primary health and primary eye care professionals to improve the service.

Developing a glaucoma management programme in Belize



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Aim: To propose strategies to develop a glaucoma management programme in Belize.

Methods: Statistical analysis of a data set from a cross-sectional study from 2002 was used to estimate the prevalence of glaucoma. Thematic analysis and interpretation of qualitative data from a separate study identified barriers in the community. Quantitative and qualitative fieldwork to assess human resources and currently available eye care services was undertaken.

Results: The prevalence of blindness was 3 per cent. Glaucoma is the major cause of blindness accounting for two thirds of the total blindness. The prevalence of glaucoma in people of African descent who are 40 years and above is estimated to be 9 per cent. The study identified poor awareness and understanding of eye care and the strong role of traditional medicine as the main barriers in the community. A lack of skills and knowledge and the availability of appropriate treatment were identified as barriers amongst service providers.

Conclusions: Proposed strategies include human resources development, increasing the available treatment options and developing an appropriate programme for glaucoma.

Understanding health-seeking behaviour of patients with diabetic retinopathy



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Aim: To identify the barriers to diabetic eye care services in England from both the patients' and health service providers' perspectives.

In the UK, despite the development of screening services, there are still some diabetic patients that present with advanced sight-threatening disease, which is difficult to treat.

Methods: A qualitative methodology was used to explore the subject matter, as there were no relevant studies published in the UK. The principal investigator undertook six hours of non-participatory observation in the waiting areas of clinics in a district general hospital and at a tertiary referral centre. Twenty 'information-rich' patients were identified to take part in semi-structured in-depth interviews. 'Information-rich' patients were those patients who had developed sight-threatening proliferative retinopathy in the last two years, and who had initially presented as such, or after a period of non-attendance at clinic. Ten other patients who had received timely treatment for diabetic retinopathy were also interviewed for triangulation purposes. Three focus groups of patients using the diabetic eye services and one focus group of diabetic patients in the community were undertaken. A wide range of health care staff in the community services and the tertiary eye hospital were interviewed about their perceptions of barriers to patients. All interview and focus groups were recorded digitally and transcribed. Analysis of transcriptions was by grounded theory.

Findings: General lack of awareness of the ocular complications of diabetes amongst diabetic patients was noted. More specifically, we identified a lack of knowledge about the severity and symptomless nature of the condition prior to significant loss of sight. This gap in patient education was explained by the fact that health professionals in the community are not specific about eye complications and their severity and that hospital professionals refrain from engaging with general diabetic issues.

Conclusions: The most common barrier to eye care services for diabetic patients was both a general and specific lack of knowledge of the complications and severity of diabetic retinopathy.

Blinding trachoma in Kabale district, South Western Uganda. A rapid assessment in the four sub-counties of Kamwezi, Buhara, Rubaya and Mutanga



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Aims: To establish whether or not blinding trachoma exists in sub-counties of Kabale district in South Western Uganda, using the purposive rapid assessment. All identified patients would be mapped and the area examined for risk factors.

Methods: The study was conducted in the four sub-counties of Kamwezi, Buhara, Rubaya and Mutanda, the selection of which was based on anecdotal information about the likely areas where cases of trichiasis and entropion exist. For each sub-county, all patients who were blind and visually impaired due to in-turned eyelashes rubbing on the eye associated with a chronic eye discharge were urged to come for examination. Eye examination included: visual acuity assessment; external examination of the eye for trichiasis; entropion detection; assessment of corneal opacities; and any other relevant examination to establish the nature of ocular morbidity. All those patients aged 15 years and over with trichiasis were probed further on history of the disease and their area of residence was mapped. These areas were then visited to assess for evidence of active trachoma amongst children aged one to nine years. An assessment of the likely risk factors for the spread of trachoma was also considered.

Results: A total of 456 patients responded to the recruitment exercise, out of which 289 (63 per cent) were females. A total of 41 cases of entropion and trichiasis were identified. 31 were from Uganda and ten were from neighbouring Rwanda. Three out of the four sub-counties had trichiasis, with Kamwezi leading with 16 cases, Mutanda nine cases and Rubaya six cases. No cases were identified in Buhara subcounty. The results of active trachoma assessment

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(proportion of children with TF) showed that Kamwezi had the highest (20 per cent), followed by Mutanda (14 per cent) and Rubaya (8 per cent). Notable among the risk factors in these areas was the distance from water sources due to the very difficult terrain.

Conclusions: From the above findings, it can be concluded that blinding trachoma is present in some areas of Kabale district and there is evidence of active infection among the population. It is recommended that a wider population-based survey be done to get more information on the extent of the problem in other areas so that treatment and control measures, non-existent at the moment, can be put in place.

Evaluating retinopathy of prematurity services in South Africa



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Aims: To conduct a situation analysis of retinopathy of prematurity (ROP) in South Africa. The study aimed to establish the number of babies at risk of blindness and the need for ROP screening services. South Africa is a middle-income country with an expanding neonatal service. Similar countries are experiencing what has been termed the third epidemic of ROP. This has been characterised by blindness in larger, more mature babies than in high-income countries.

Methods: A sample of neonatal nurseries (private and public) were visited to study the infrastructure, staffing, policies and practices regarding ventilation and oxygen. Data was collected on ROP screening policies, practices, and results of screening. The survival of low birthweight babies was explored using data from individual nurseries and from government reports. Babies were classified as: low birthweight <2500 g; very low birthweight <1500 g; and extremely low birthweight <1000 g.

Results: Infrastructure in South Africa is adequate to provide care for babies above 1000 g and 90 per cent of them survive. Babies below 1000 g are not ventilated routinely in public hospitals but 50 per cent of babies reaching secondary care units do survive. Staffing is adequate, standards of neonatal care are high, but continuous monitoring of all babies on oxygen is not done universally because of a shortage of monitors. ROP screening is presently being done in a minority of public hospitals. In hospitals where the results of screening are available, sight-threatening ROP is low (0.6-2.9 per cent). Most babies needing treatment were below 1,200 g.

Conclusions: ROP may be a small proportion of the childhood blindness at present but it is likely to increase as neonatal care becomes available to the majority of the population. Screening programmes need to be instituted in all institutions with individualised screening guidelines. For this an increase in trained personnel is required.

Why people do not come for cataract surgery in Nakuru, Kenya



Galo Aquirre

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Aim: To describe the barriers to uptake of cataract services in Nakuru, Kenya and to make recommendations on how to overcome the barriers.

Methods: A population-based survey (rapid assessment for avoidable blindness) identified 229 patients needing cataract surgery. Of those, 91 had had cataract surgery but 138 had not accepted surgery despite being recommended to do so. All 138 non-acceptors were interviewed using Barriers to Surgery Questionnaire and each person gave four reasons for not taking up the surgery.

Results: There were no statistical significant differences between age, sex and place of residence as being risk factors for not accepting surgery. This was a surprise as often elderly women are seen to be at higher risk of being blind from cataract. The main barrier for not taking up surgery was lack of awareness followed by cost and being able to manage with one eye.

Conclusions: Health education campaigns are necessary to persuade people in Nakuru to take up surgery. Experiences from other countries show that this is possible and can prevent people in the community remaining blind from a treatable cause.

Courses and conferences

MSc Community Eye Health

September 2006-September 2007. **Venue:** London School of Hygiene and Tropical Medicine, London, UK. **Course aims and objectives:** to equip eye care professionals and planners with the knowledge and skills to reduce blindness and visual impairment. Training in community eye health extends the training in clinical ophthalmology applied to individual patients, to a consideration of the eye health of whole populations: how these can be assessed, resourced and evaluated. The course is run by the International Centre for Eye Health (ICEH). **Course duration:** one year (full time) or part-time over two years. **Information and admission procedures:** please visit the website www.lshtm.ac.uk/courses or www.iceh.org.uk or email MSC_CEHL@lshtm.ac.uk or registry@lshtm.ac.uk

Diploma Course in Community Eye Health

20 February-26 May 2006. **Venue:** London School of Hygiene and Tropical Medicine, London, UK. **Course aims and objectives:** to enhance knowledge of the major blinding eye diseases and skills in planning a VISION 2020 programme. It is especially suitable for eye care professionals including ophthalmologists, optometrists, ophthalmic assistants, nurses, and project managers who want to receive training in community eye health but cannot be away from their place of work for one year. **Course duration:** three months. **Information and admission procedures:** please visit the website www.lshtm.ac.uk/courses or www.iceh.org.uk or email MSC_CEHL@lshtm.ac.uk or registry@lshtm.ac.uk

How to work with a manager to get support to achieve VISION 2020 goals

April 17-21 2006. **Venue:** Kilimanjaro Centre for Community Ophthalmology, Moshi, Tanzania. **Course aims and objectives:** to provide a basic understanding of management principles to ophthalmologists so that they can work with managers to reach their VISION 2020 targets, improve the working environment, and improve service quality. The course will use case studies, group discussion, and didactic teaching to illustrate key principles in human resources, financial, and change management as well as principles of developing partnerships and creating more sustainable services. **Target audience:** ophthalmologists working in Africa as heads of clinical departments or eye hospitals. **Course duration:** five days. **Information and admission procedures:** email Dr Susan Lewallen at slewallen@kcco.net

21st Congress of the Asia-Pacific Academy of Ophthalmology 2006 (APAO 2006)

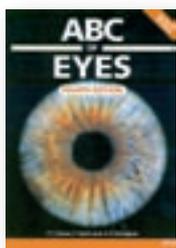
10 June-15 June 2006. **Venue:** Suntec Singapore International Convention and Exhibition Centre, Singapore. APAO 2006 is held in conjunction with the 19th Annual Meeting of the Asia-Pacific Association of Cataract and Refractive Surgeons (APACRS). **Information:** Joy Kang, 21st Congress of the Asia-Pacific Academy of Ophthalmology 2006, c/o Ace: Daytons Direct (International) Pte Ltd. 2 Leng Kee Road, #04-01, Thye Hong Centre, Singapore 159086, DID:(65) 6379 5300, Fax:(65) 6475 2077
Email: admin@acedaytons-direct.com

International Ophthalmic Nurses Association, Golden Jubilee Conference – 50 years of IONA

A Celebration of Ophthalmic Nursing. April 7 & 8, 2006. **Venue:** London, UK. **Call for papers:** Please submit an abstract of 500 words. Application forms for IONA membership and for the conference are available from: Carol Bullock, 3 Montgomery Close, Beeston, Nottingham, NG9 6NF, UK to whom abstracts should also be sent. Email: john.bullock@unisonfree.net

Resources

Book review



ABC of Eyes
Khaw P T, Shah P, Elkington A R. 4th Edition, BMJ Books, 2004
 Reviewed by Professor Gordon Johnson

The beginnings of this book were as a series of separate short articles published in the British Medical Journal nearly 20 years ago. These were evidently intended as a rapid update in eye disease for busy general practitioners and other doctors. The current 4th edition of the resulting book, extensively revised and updated, still admirably fulfils this purpose. It will also be valuable to medical students, nurses and ophthalmic medical assistants approaching eye disease for the first time or revising for examinations.

The 14 short chapters (none more than eight pages) are attractively laid out, with many illustrations, and each chapter can be read and mastered in a relatively short period of time. Some of the illustrations are rather small, but the CD-ROM, which is supplied with the book, is easily accessed and each picture can be enlarged for study of the details. The CD also has the entire text and a comprehensive Text Search for specific topics.

The book's origin as separate articles, to be read one at a time, is still reflected in the unequal treatment of topics and the conspicuous lack of cross-referencing. For example, in the first chapter, History and Examination, there is a photo of measurement of intraocular pressure by applanation, but no mention in the text. Why not have a cross-reference to the glaucoma chapter where the technique is considered in detail?

Despite this comment, this text can continue to be recommended as a useful and friendly introduction to the recognition and management of eye disease.

The *ABC of Eyes* is available from Teaching Aids at Low Cost (TALC), PO Box 49 St Albans, Hertfordshire, AL1 5TX, UK. Email: info@talcuk.org Website: www.talcuk.org Fax: +44 1727 846852. Price: £9.00



Video/DVD/VCD review

Ophthalmic instruments and equipment – their care and maintenance
Professor V Srinivisan and Dr RD Thulasiraj
 Lions Aravind Institute of Community Ophthalmology, 2005.
 Available as DVD and VHS video and VCD
 Reviewed by Ingrid Cox

Ophthalmic instruments and equipment – their care and maintenance, produced by the Instruments Maintenance Department of Aravind Eye Hospital in India, with funding from Sight Savers International, addresses a gap identified by the VISION 2020 agenda – development of technology. Currently, there is little practical visual information on the care and maintenance of ophthalmic equipment. This training resource provides the opportunity to see what can be done to ensure that commonly used ophthalmic equipment found at the district level is maintained to ensure a safe standard and prolonged use in the field. In a two-hour presentation, it combines short explanations, graphics, and video to create a comprehensive visual guidebook on the maintenance and repair of direct ophthalmoscope, streak retinoscope, indirect ophthalmoscope, slit lamp, operating microscope, keratometer, phaco machine, A Scan, Schiötz tonometer, optics cleaning, blood pressure apparatus and surgical instruments.

In addition, it provides clear illustrations on changing bulbs, battery maintenance and use of a multimeter when checking bulb and fuse life, cleaning of microscope optics, cleaning and rinsing the irrigation and aspiration tubes for a phacoemulsification machine, calibrating a Schiötz tonometer, and general care of the

slit lamp. The user can watch how the piece of equipment is taken apart, cleaned and put back together again.

There is a very good section on the 'do's and don'ts' of repairing and maintaining equipment and the importance of maintaining a supply of spare bulbs and other parts for equipment. This is often neglected and will prove to be a useful reminder to those involved in purchasing equipment.

It demonstrates the importance of having a clean working area with all necessary tools close at hand – an important aspect to remember when dealing with ophthalmic equipment. The sections are short and the disassembling and assembling of the equipment is rapidly and efficiently undertaken. It is perhaps a limitation that there are no slow action clips or repeats of more technically difficult areas, for example, lining up the mires in the keratometer or cleaning the monocular microscope piece. It is however quite easy to access the homepage in the DVD version to repeat sections. I therefore recommend using the DVD version, if possible. A limitation of the video version is that the user will need to use the counter to know where sections start and stop. It would be difficult to follow the steps while trying to carry out the procedure at the same time.

I would have liked a little more attention to sharpening and realigning instruments. Instrument repair takes time and is an art often involving the use of magnification to ensure that the instrument is repaired with detailed precision.

Ophthalmic instrument and equipment – their care and maintenance is an excellent learning tool to remind an already skilled person what tools are necessary before maintenance and repair work begins on any ophthalmic instrument. Projects should not assume that the DVD or video alone would solve their equipment problems. The visual guidebook is useful to staff who are already involved in equipment maintenance, have an interest and some pre-existing skills in this area, or who are undertaking an instrument technician course.

Users should be aware that the equipment being shown in the demonstrations is, at times, particular to that manufacturer or model. It would be advisable for the hospitals to understand that these are guidelines and that there may be manufacturing variations from those shown. It should be used in conjunction with the manufacturers recommendations on specific care and maintenance of equipment.

This resource will help to increase awareness of the need to create a system of regular planned preventive maintenance within eye units, particularly in hospitals without easy access to dedicated maintenance and repair facilities.

Ophthalmic instruments and equipment is available in various formats: DVD, VHS video and VCD. Those resident in India should apply to the Manager (Stores), Aravind Eye Hospital, Madurai 625020, Tel: +91 (0) 452 535 6100 Ext 192, Fax: +91 (0) 452 253 0984, Email: aravind@aravind.org Those residing outside India should contact ICEH (address on page 118). Email: Sue.Stevens@Lshtm.ac.uk

Price: Indian Rs500 or UK £7 plus postage and packaging.

New resources available

Practical ophthalmic procedures – volumes 1, 2, 3 and 4 Sue Stevens

These slide and text teaching sets, each volume containing six practical procedures, are now available from the ICEH web site as a PDF, Word document and Powerpoint presentation.

www.iceh.org.uk/inf_tlm.asp

Four posters

Sue Stevens/Ingrid Cox

Control of Infection in Ophthalmic Practice
 Care of Ophthalmic Surgical Instruments
 Sterilization and Disinfection
 Assisting the Blind and Visually Impaired

Available from ICEH. Distributed free by application.

Email: Sue.Stevens@Lshtm.ac.uk



Useful resources

Managing human resources

Human Resources: Managing and developing your most important asset

The Manager, Vol. 8, No. 1, 1998. Available at http://erc.msh.org/TheManager/English/V8_N1/V8_N1_En_Issue.pdf (last accessed on 7th October 2005).

Eade D. Capacity-building – an approach to people-centred development

Oxford, 1997. Available from: Intermediate Technology Development Group. See address below.

Russell-Jones N. Managing change pocket book

Management Pocketbooks, 1995. Available from: Intermediate Technology Development Group.

Management for development workers – a ten-stage training course

CORAT, Africa, 1987. Available from: Intermediate Technology Development Group.

Taylor G, Thornton C. Managing people

Directory for Social Change, 1995. Available from: Intermediate Technology Development Group.

Hardingham A. Working in teams

Institute of Personnel & Development, 1995. Available from: Intermediate Technology Development Group.

Estrella M et al, editors. Learning from change

Intermediate Technology Publications, 2000. Available from Waterstones.

Cassels A, Janovsky K. Strengthening health management in districts and provinces – a handbook for facilitators

WHO, 1991. Available from the World Health Organization.

Johnson P, Ranken J. Management support for primary health care – a practical guide to management for health centres and local projects

FSG Communications Ltd., 1994. Available from FSG Communications Ltd.

Pearson C. Medical administration for front-line doctors (2nd edition)

Aimed at the physician who has to combine wide clinical responsibilities with medical administration and support for local primary health services.

FSG Communications Ltd., 1995. Available from: FSG Communications Ltd.

Amonoo-Lartson R, Ebrahim G, Lovel H & Ranken J. District Health Care

Intended for those involved in the planning, administration and evaluation of health services at district level. Macmillan, 1996. Available from TALC.

Hope A & Timmel S. Training for Transformation (Books 1-4)

A series of four handbooks for community workers. Vol. 1-3 1995, Vol. 4 1999. The first three volumes (sold as a set) of this series are designed to assist workers in the field to encourage the development of self-reliant creative communities. ITDG Publishing, 1995. Available from Intermediate Technology Development Group and TALC.

Supplier addresses

Intermediate Technology Development Group, ITDG Publishing, The Schumacher Centre for Technology Development, Bourton on Dunsmore, Rugby, CV23 9QZ, UK. Email: itpubs@itpubs.org

Teaching Aids at Low Cost (TALC)

PO Box 49, St Albans, Hertfordshire, AL1 5TX, UK.

Email: info@talcuk.org Website: www.talcuk.org

Fax: +44 1727 846852.

World Health Organization

Book orders, World Health Organization, Avenue Appia, 1211 Geneva 27, Switzerland. Email: bookorders@who.ch

FSG Communications Ltd.

Vine House, Fair Green, Reach, Cambridge, CB5 0JD, UK.

Email: info@fsg.co.uk

Waterstones

71-74 North Street, Brighton, East Sussex, BN1 1ZA, UK.

Email: manager@brighton.waterstones.co.uk

Community Eye Health

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Calling all authors!

Article writing competition for the Community Eye Health Journal

Readers are invited to submit original articles (not previously published) on a theme relevant to implementing VISION 2020. Articles should be innovative, based on VISION 2020 priorities, and of relevance to our readers. Our readers are mostly in developing countries and work in community eye care as general nurses, ophthalmic nurses/assistants, refractionists/optometrists, public health specialists and ophthalmologists.

Prize: Publication of the four winning articles in the *Community Eye Health Journal*. Winning articles will be selected by the Editorial Committee.

Length: 1,500 words maximum.

Deadline: Extended to 28th February 2006.

Photographs and graphics: They can be submitted to illustrate the article. If photographs of patients are included, they should be accompanied by evidence of the patient's (or guardian's) written consent to use the photograph for educational purposes.

Format: Articles can be handwritten, typed or in electronic format.

How to send articles

By post

Article Competition, The Editor, Community Eye Health Journal, ICEH, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK.

By email

Put 'Article Competition' as the subject and send to: Victoria.Francis@Lshstm.ac.uk and Anita.Shah@Lshstm.ac.uk

Next issue



The next issue of the *Community Eye Health Journal* will be on the theme **What's happening at the back of the eye?**