Several years ago, I had the opportunity to accompany a team from an eye hospital as they went to several locations on what they called ‘outreach’. The primary purpose of these trips was to identify operable cataract patients. Many people attended these outreach clinics, but they identified very few cataracts. The second day, I made friends with a couple of primary school children and explained to them that I wanted to find some people who were blind. I asked them to take me through the village to find these people. With the help of these children, I found five blind people, three with operable cataracts. None of these ever came to the ‘outreach clinic’. From that day on, I was convinced that we needed a new paradigm, new ideas in order to connect these people with services. Some of the major barriers for blind people are actually within the first 100 metres of their front door.

Service delivery in prevention of blindness is usually based on two different models. The first model focuses mainly on making eye care accessible to as many people as possible. This model is best employed in the urban areas of a country, where there are sufficient eye care professionals, but many of the poor cannot afford eye care from their small household budgets due to the high cost of services.
EDITORIAL Continued

Establishing high-volume reputable eye hospitals in these areas can reduce the cost of eye services to a level that is affordable for most of the population and leads to a sustainable service. There should be no need for outreach in these areas if this works well. In fact ‘outreach surgical camps’ in these areas undermine the viability of these sustainable services.

The second model focuses on making eye care available to people in need who live far from eye care professionals. These communities are isolated, suffer from poor infrastructure, and a low-density population, which prohibits the establishment of a high-volume surgical unit. However, there are many people in need of eye surgery in these areas and we need to plan how to reach them. It is in this setting that outreach can be used most effectively.

In my experience, the most effective way to reach these communities has been to train and integrate primary eye care workers into the existing primary health care system. Ideally, a resident of these communities is identified and trained for this work – what most projects call a community-based rehabilitation (CBR) worker. These primary eye care workers are best placed to penetrate the 100-metre barrier that exists around a blind person’s home.

Many rural-based projects conduct what they call ‘mobile clinics’ in order to bring primary eye care to scattered, isolated communities. One should be careful not to confuse the terms ‘mobile clinics’ with ‘outreach’. Mobile clinics should be a permanent strategy used by rural projects to make eye care available on a well-known and regular schedule to remote communities. It is part of their day-to-day activities for their catchment area. Once they have identified a sufficient number of patients who need specialised services, the decision can be made whether to transfer these clients to a surgical facility or to organise for a surgical team to come to them ‘on outreach’.

In many countries, there are no tertiary eye care professionals in rural areas. Most of these professionals (usually surgeons) are based in the urban hospitals for a variety of reasons. We depend heavily on them to provide accessible services to the population. They can also be used in outreach eye care projects that are making services available. ‘Outreach’ should be defined as the provision of a specialised service to a location outside the normal service catchment area of the clinic. In order to utilise the services of these professionals in an efficient manner, clients...
Beyond the clinic: approaches to outreach

Daniel Etya'ale

Introduction
By making the elimination of needless blindness its prime objective, VISION 2020 has introduced a major paradigm shift in the planning and delivery of eye care. For many service providers and other stakeholders in this global initiative, this is both a challenge and an urgent call to move quickly from ‘reaching as many as we can’ strategies to new approaches that insist on ‘doing it right and enough to make a lasting impact’. How does one achieve this in the poorest and neediest parts of the world where service delivery is quite often synonymous with dysfunctional infrastructure, limited access to and use of existing eye care services? This is what makes current discussions on ‘reaching out beyond the clinic’ so relevant and so urgent.

Daring to come out of the clinic, however, may not be enough in itself to bridge the existing gap between eye care service providers and the millions of blind and severely visually impaired people needing their services in those impoverished areas. To be optimally effective, outreach strategies must be grounded in, and guided by, a clear understanding of the inequitable nature of many eye care services, particularly, but not exclusively, in the developing world. As Figure 1 shows, those who need eye care services the most are often the last to have access to them, if at all. This may be so even when these services are brought closer to their communities, unless specific proactive measures are put in place to seek them out.

A quick overview of current outreach approaches to eye care delivery
The term ‘outreach’ as it is used today covers a fairly wide range of strategies and approaches, some quite different from each other, but all aimed at providing services to those who otherwise would not come to the clinic. Table 1 gives a summary of the main types, as well as their strengths and limitations. There are variants of each type and different types can be combined in the same projects. Some strategies, like the outreach surgical camps, once the pride of many institutions, have been on the decline for many years, primarily because of the high proportion of poor visual outcomes associated with them and the very limited post-surgical follow-up and refraction services available to patients. In spite of its drawbacks, this is still the preferred strategy used today by many philanthropic organisations offering free cataract surgery in many parts of Africa.

Figure 1. The inequitable nature of current clinic-based and provider-centred eye care

<table>
<thead>
<tr>
<th>Easy access group</th>
<th>Difficult access group</th>
</tr>
</thead>
<tbody>
<tr>
<td>The rich and well-off</td>
<td>Most of the blind and severely visually impaired</td>
</tr>
<tr>
<td>Relatives of the rich</td>
<td>Most of the poor and destitute</td>
</tr>
<tr>
<td>The well educated</td>
<td>Many from slums and rural areas</td>
</tr>
<tr>
<td>More visually impaired than blind</td>
<td>The many disillusioned with existing services</td>
</tr>
<tr>
<td>Very few from slums and poor communities unless sponsored</td>
<td>Women</td>
</tr>
</tbody>
</table>

Groups with some access

• Groups with some access to basic services

ENVIRONMENTAL SAFETY

• Safe water and sanitation facilities

EYE CARE SERVICES

• Basic eye care

• Referral to higher level services

• Public awareness and health education

• Health promotion and social welfare services

• Monitoring and evaluation

Figure 2. The inequitable nature of current clinic-based and provider-centred eye care

I was convinced that we needed a new paradigm of outreach to connect people with services

should already have been identified and collected at a central location. It is not an efficient use of scarce human resources to use ophthalmologists to conduct screening clinics on outreach. Screening should be built into a permanent primary health care delivery system and only specialised services, like surgery, should be catered for through outreach.

Many of us have seen the popular book Where There Is No Doctor. The author describes ways to identify and treat ailments in a very practical manner, especially in cases where there is no doctor to give advice. At the end of each section, the author lists those diagnoses that require a visit to the doctor. Where there is no eye doctor, outreach projects can link people with eye care services. The primary health care worker can identify the clients needing to see a doctor. This helps to reinforce the work of the primary eye care worker and also improves the efficiency of the tertiary service providers.

There are too many examples of outreach being driven by the needs of the service providers (remuneration, statistics, exotic locations, charitable works etc.) instead of the genuine service needs within the catchment areas. Out-of-station allowances are paid for this work and many eye care workers depend on this to supplement their income. This should not be a factor in determining when or where to do outreach. Salaries should be set at equitable levels and outreach should only be undertaken when there are justifiable numbers of clients to be seen who require the expertise of eye care professionals that cannot be found in the host project. The first priority is to establish a permanent primary eye care service wherever possible, and then specialised outreach can be conducted to support this service. Outreach should be carefully planned so as not to jeopardise the normal services of the tertiary centre. It does not make a lot of sense to travel for three days to perform 10 operations when one could be doing over 30 per day at one’s normal place of work.

There is a popular song that refers to the need to “reach out and touch somebody.” Outreach should be planned so that you can count on touching that ‘somebody’. Clients in need of the specialised expertise brought by the outreach team should have already been identified, mobilised, and be willing to receive the services offered. A strategy of outreach is justified provided we efficiently combine those projects seeking to provide accessible services with those projects making services available.
OUTREACH APPROACHES Continued

Also, as is seen in Table 1 (opposite), most outreach programmes can easily result in increased numbers of patients seen or offered surgery. The real challenge, however, is ensuring their administrative, organisational and financial sustainability for the long term, something that only few countries, institutions or organisations have done successfully so far.

Key components of a good outreach programme

How does one define a good outreach programme? How does one initiate one where none exists, but its need is fully justified? We are still awaiting conclusive evidence on what makes a good outreach programme, its long-term success and benefits, and its replicability. However, lessons learned and experience gleaned over the years would suggest the following as essential elements for any outreach programme.

Careful planning of the programme or what needs to be done before going beyond the clinic

Planning activities must be as thorough as possible, covering at the very least the following areas:

- The proposed intervention zone: its geographic and administrative boundaries, its target population, the other service providers within the catchment area and the specific or complementary roles they’re likely to play
- The nature and scope of the outreach programme. Is it (i) a mere extension of base unit clinical and/or surgical activities; (ii) a programme to screen and bring in more cataract patients for surgery; (iii) the first step towards the establishment of a permanent eye care structure and service delivery in the area? In the latter case, what else should be considered at this early stage?
- The capacity of the base eye unit to initiate and sustain the outreach programme and absorb the expected increased workload
- The capacity of the base unit, or its sponsoring institution, to secure or guarantee financial support beyond the traditional three-year life span of most projects. Carrying out outreach activities while generous financial support is available is always the easy part. The real challenge is to sustain them beyond the initial project life span
- The capacity of the team to relate to, partner and work with the community. Skills needed to adequately engage and work with the community are quite different from those needed to be a good eye care professional in a clinic setting. All members of the outreach team should therefore be assessed and offered additional training where needed.

‘Daring to come out of the clinic may not be enough in itself to bridge the existing gap between eye care service providers and the millions of blind and severely visually impaired people in impoverished areas’

Community involvement and ownership

This should include their approval and support for the programme, their full involvement at all stages of planning and implementation, a clear understanding of the roles and contribution of each party, and a common understanding of how success will be defined and appraised.

Government involvement and leadership

This is particularly crucial where national or district plans exist and have been officially approved by government.

A good monitoring and evaluation system

Such a system would use clear indicators and targets for ongoing monitoring and programme improvement, and to measure success over time. It should also make provision for independent evaluation.

A structure and clear mechanisms for dialogue, problem-solving and co-ordination among all stakeholders

This is particularly critical where several partners are involved in the target area, or where those involved have limited experience of running outreach programmes.

Conclusion

The current gap between eye care providers and the many blind and severely visually impaired needing their services is unacceptable, and could be best bridged through the establishment of permanent eye care structures and services. In the meantime, and given the dysfunctional nature of eye care systems in many impoverished parts of the world, other modalities of outreach will continue to be used, perhaps for many years to come. Outreach programmes, however, are not a panacea. So far, only a few have been able to sustain themselves beyond five years. Many, initially hailed as successful, have turned out to be long-term failures and most ‘model’ programmes have not been easy to replicate in other settings or work environments; the reasons for this are still poorly understood. As more and better use is made of these bridging strategies, we should try to learn, through operational research, how to have an even greater impact.
### Table 1. Summary of current outreach approaches to eye care service delivery

<table>
<thead>
<tr>
<th>Outreach Type</th>
<th>Main objectives and strategies</th>
<th>Strengths/benefits</th>
<th>Main limitations</th>
<th>Potential for sustainability</th>
</tr>
</thead>
</table>
| A. Surgical eye camp                                    | • Screen and offer surgery on site to as many as possible  
• Leave team behind for time-limited follow-up                                            | • Often offered at low or no cost  
• Quick and sometimes only way to offer cataract surgery to many needy people                                                                 | • Difficult to organise well  
• Big numbers may actually hide poor quality  
• Follow-up is often limited to a few days  
• Because of its free services, may further weaken an 'ailing' nearby eye unit, or delay the establishment of a permanent one in the region | • Low in general, except where long-term local support and commitment can be guaranteed  
• Often dependent on donor or sponsor support                                                                                           |
| B. Screening eye camp                                   | • Screen, refer/transport candidates for cataract surgery to base unit  
• Prescribe and provide spectacles for refractive errors  
• Detect/treat other eye conditions                                                                 | • Opportunity to bring low/no cost basic eye care services to needy or underserved areas  
• Quick way to increase uptake of cataract surgery  
• Early detection possible                                                                 | • Similar to (A) above  
• Not ‘sophisticated’ enough to fully assess or treat patients with suspected glaucoma or diabetic retinopathy  
• Expensive, hard to sustain without long-term commitment from sponsors                                                                 | • Low, for the same reasons as (A) above  
• Could be justified as a means to build up or strengthen existing eye centres, or as a first step towards setting up more permanent structures |
| C. Mobile eye clinic                                     | • A toned-down variant of (B), often organised and run as an equivalent of an Outpatient Department (OPD) of the base eye unit | • Quick way to bring basic eye care services to needy communities at low/no cost  
• Opportunity to recruit the reluctant cataract blind                                                                 | • Quite often too many patients seen too superficially  
• Quality of care not always guaranteed  
• When staff is limited, may negatively impact continuity of services at base unit                                                                 | • Same as (B) above                                                                                     |
| D. Using/working with community-based rehabilitation (CBR) or other community-based programmes | • Use an existing CBR programme to deliver primary eye care, detect, assess and refer or transport  
• Where CBR not available, use community-based and -approved workers, e.g. cataract finders or other health workers | • Excellent at quickly improving access to eye care services or at maximising their uptake  
• One of the best strategies for the early detection and referral of blind and severely visually impaired children  
• One the most effective ways to recruit the reluctant cataract blind                                                                 | • Requires very good organisation and a high level of co-ordination between the CBR programme and the base eye unit  
• Fairly expensive to run, especially where community ownership or cost-sharing is minimal and community workers are paid to produce results | • Uncertain when the community is a passive beneficiary of these services and/or when most of the running cost is borne out by donors or sponsors  
• Good to excellent, when true ownership by the community is actively sought and achieved, or some sort of cost-sharing is introduced from the outset |
| E. Creating Eye (Vision) Centres strategically located in needy areas | • Here priority is given to the setting up of permanent primary and secondary eye units, with the view to improve geographic coverage and access to eye care | • Arguably the best strategy in the long term to offer a targeted area or region comprehensive eye care services, and to improve access to and continuity of care  
• Allows time and opportunity for other stakeholders (including the community) to be part of the planning process  
• Takes more time to plan and implement, and may therefore not be attractive to those looking for quick results  
• Disastrous when established in total ignorance of other realities on the ground: existing eye care structures, cost-sharing policies and practices, local rivalries, etc. | - Good to excellent, especially:  
• When planned and implemented in close partnership with the community  
• When combined with other strategies that proactively seek out the needy and 'hard-to-reach' patients | - Good to excellent, especially:  
• When planned and implemented in close partnership with the community  
• When combined with other strategies that proactively seek out the needy and 'hard-to-reach' patients |
Introduction

Our hospital is located in a village in the southern part of West Bengal. The parent organisation is Vivekananda Mission Ashram, which works mainly in the field of education. In 1994, community-based rehabilitation (CBR) for the blind started, and the eye hospital was established. Towards the end of 1995, an effort was made to attract more people to the hospital. The first step was to analyse the geographical spread of the outpatients. It was observed that more than 80 per cent came from the CBR area. We therefore decided to conduct outreach camps outside the CBR areas to increase the coverage.

It was not easy at first to explain our approach and convince people about the camp process. People were familiar only with “makeshift” surgical camps in school buildings and community halls. Fortunately, our organisation had a good name in the field of education, and this gave us a credible image in outreach eye care.

Preparing for a camp

Such camps have always been conducted on Sundays. We arrange camps at distant places during the pleasant winter season and restrict them to nearby areas during summer and the rainy season. Harvesting and local festivals are other important considerations while selecting the dates. Recently, we have increased the frequency of outreach to initiate separate diabetic retinopathy and refractive error camps.

The hospital has a dedicated outreach team of camp organisers. We receive requests to hold camps from local organisations. Camp organisers visit the location to assess accessibility, infrastructure and the credibility of the local group. Preferred sites are school buildings, because we need at least three rooms and some furniture to arrange a proper eye examination.

We first explain the process and objectives to the local organisers, who are then responsible for publicity. They are supplied with standardised communication material so that there is no distortion of facts.

The camp process

We give preference to people above the age of 50, because cataract, glaucoma and diabetic retinopathy are more common in this age group, and most of them cannot come to the hospital on their own without an escort. Children are the next priority group.

Patients are registered and then their visual acuity is tested. The next step is a preliminary examination by an ophthalmologist. After that, some patients are directed for some basic investigations, such as Schiötz tonometry, lacrimal syringing, blood pressure recording and random urine sugar estimation. Some patients are directed for refraction, which is performed by the optometrists in a makeshift dark room. After this, patients are examined again by an ophthalmologist. The last step is counselling the patients who need surgery and fixing the date for surgery. We carry some essential eye drops and tablets, especially to camps in remote places, for the patients who need medical management.

The initial list of equipment included: Snellen charts, torch light, direct ophthalmoscope, Schiötz tonometer, syringing set, sphygmomanometer, reagent for estimating urine sugar, box of trial lenses, retinoscope, and dark curtains. Later on, we included a portable slit lamp, an indirect ophthalmoscope and a Perkins tonometer. This helped to improve detection of retinopathies and glaucoma.
Examination procedure

Patients are seen by the doctor after their visual acuity has been recorded. The anterior segment is examined with a torch for all cases and a portable slit lamp is used if further detailed examination is needed. The central fundus is examined with a direct ophthalmoscope. Particular attention is paid to disc evaluation to detect glaucoma. Known diabetics undergo pupil dilation and fundoscopy to detect diabetic retinopathy. Indirect ophthalmoscopy is performed to assess the central fundus grossly through hazy media. This helps to explain the prognosis better. Detailed indirect ophthalmoscopy is only done in conditions like high myopia. Applanation tonometry is performed in known glaucoma cases and patients with suspected pseudoexfoliation syndromes.

We carry common spectacle powers and spectacle frames, as well as an edging machine. Spectacles are fitted and delivered on site only. For uncommon lens powers, orders are taken and delivered later through local camp organisers. Dispensing low-cost spectacles helps to recover some of the costs of outreach camps and also ensures quality.

Referral

Patients with retinopathy, pseudoexfoliation or suspicion of glaucoma, as well as children with significant refractive error and patients with other major problems are referred to the base hospital for further investigations and treatment. Patients who need perimeter, fundus fluorescein angiography and laser treatment are offered subsidised services. All referrals need skillful counselling. To encourage people to attend hospital without much delay, any visit within one month following the camp is not charged.

Helping the incurably blind

When incurably blind individuals belong to a CBR area, our field staff can offer them support such as training and social and economic rehabilitation. Those who do not belong to the CBR area are referred to the local government hospital for certification.

Low-vision devices are prescribed where applicable and supplied at a subsidised cost. Information is given about training and job opportunities, social benefits, school admission, etc. Here again, sympathetic counselling is needed. We realise that we need to augment these services further and we are in a process of creating a centre-based rehabilitation programme.

Our team

One ophthalmologist is posted per expected 150-200 patients. Travel time is a major consideration. One refractionist is posted per expected crowd of 150 (roughly 50 out of 150 would need refraction). Usually, six nurses are needed for a screening camp of 300, to perform vision testing, syringing, blood pressure recording, tonometry, and to assist doctors in clinical examination (mostly explaining different procedures). One pathology laboratory technician is posted for urine or blood sugar estimation. The driver also helps with registration, vision testing and counselling. Two people look after optical dispensing. Local volunteers help to manage registration and patient flow.

Accommodation is not always easily available, so we have restricted ourselves to a radius of 170km. We try to complete the whole process in a day. Food is served by the government or other funding agencies, travel and food. If it is sponsored, either by the government or other funding agencies, patients need not pay anything. These sponsorships, whenever available, are used for indigent and underserved areas.

Capacity building

Over the years, we have developed a very effective relationship with many of our local organisers. They are now our partners. To build their capacity, we organise for their members an annual training camp in primary eye care to help them identify common eye problems and refer them to the base hospital. Recently, we have started establishing Vision Centres in collaboration with successful local camp organisers.

Follow-up

Patients stay in the hospital for two days and postoperative follow-up is usually carried out after two to four weeks in the camp site. Recently, we have started to provide refraction and spectacle-dispensing services at the follow-up camp. If refraction is planned, follow-up is fixed at four to six weeks.

Looking at our performance

Gradually, attendance at the camp is increasing, as is the proportion of operable cases. We usually try to organise camps in a particular location at a particular time of the year. This helps local people to remember the time and prepare for attending the camp, and also to save some money for the surgery. This is reflected in a higher selection of operable cases.

Outreach camps are an effective way of social marketing and they also establish the credibility of an organisation in the community.

Table 1. Performance of outreach eye camps from the Vivekananda Mission Ashram, West Bengal

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of camps</th>
<th>Patients attended</th>
<th>Advised for surgery</th>
<th>Percentage</th>
<th>Operations performed</th>
<th>Drop-out (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>52</td>
<td>8,287</td>
<td>1,664</td>
<td>20</td>
<td>1,294</td>
<td>22</td>
</tr>
<tr>
<td>1998</td>
<td>57</td>
<td>9,866</td>
<td>2,346</td>
<td>24</td>
<td>1,742</td>
<td>26</td>
</tr>
<tr>
<td>1999</td>
<td>64</td>
<td>12,251</td>
<td>3,562</td>
<td>29</td>
<td>2,938</td>
<td>18</td>
</tr>
<tr>
<td>2000</td>
<td>55</td>
<td>14,695</td>
<td>4,826</td>
<td>33</td>
<td>3,903</td>
<td>19</td>
</tr>
<tr>
<td>2001</td>
<td>45</td>
<td>13,499</td>
<td>5,371</td>
<td>40</td>
<td>4,699</td>
<td>13</td>
</tr>
<tr>
<td>2002</td>
<td>51</td>
<td>15,510</td>
<td>4,762</td>
<td>31</td>
<td>3,057</td>
<td>36</td>
</tr>
<tr>
<td>2003</td>
<td>47</td>
<td>13,999</td>
<td>5,317</td>
<td>38</td>
<td>3,965</td>
<td>25</td>
</tr>
<tr>
<td>2004</td>
<td>46</td>
<td>15,000</td>
<td>5,961</td>
<td>40</td>
<td>4,156</td>
<td>30</td>
</tr>
<tr>
<td>2005</td>
<td>37</td>
<td>12,449</td>
<td>6,356</td>
<td>51</td>
<td>5,077</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>454</td>
<td>115,556</td>
<td>40,165</td>
<td>35</td>
<td>30,831</td>
<td>23</td>
</tr>
</tbody>
</table>
**CASE STUDY WEST AFRICA**

**The Health for Peace Initiative in West Africa**

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**Why health for peace?**

The usual understanding of the outreach concept is that a team travels from a base clinic to offer services either at another health facility or in a community, in order to increase access to services for underserved populations. Sometimes, teams travel from one country (usually developed) to another (usually far away) for the same purpose.

In West Africa, this concept was expanded to include another aspect – that of Health for Peace. Sixteen countries of West Africa, with a total population of about 250 million, have formed an economic block called the Economic Community of West African States (ECOWAS), which ensures a degree of collaboration between countries, including movement of its citizens across borders. This block of countries has three official languages (French, English and Portuguese), which follow national boundaries, and several local languages that cut across boundaries. National boundaries are recent and artificial. There is a common culture across boundaries and thus a free movement of people.

However, for other reasons, there have been intermittent civil conflicts and instability in the border areas of ECOWAS countries, specifically affecting Guinea-Bissau and Casamance (southern province of Senegal). Displacement of populations and difficulties with disease control efforts had negative effects on the health status of citizens.

The Ministers of Health of Senegal, The Gambia, Guinea-Bissau and Guinea, four countries with a total population of 19 million, decided in 1999 to work together under a Health For Peace Initiative (HFPI).

**Guinea-Bissau Health Minister shaking hands with Sightsavers Project Officer at an eye camp in 2004. GUINEA-BISSAU**

**Which health problems are targeted by the Health for Peace Initiative?**

The four main intervention areas targeted by the HFPI are:

- The Expanded Programme on Immunisation (EPI)
- Epidemiological surveillance, epidemic management and complex emergencies
- Roll Back Malaria
- HIV/AIDS/STIs.

Each area was the responsibility of a country: malaria was covered by The Gambia, HIV/AIDS by Senegal, EPI by Guinea-Bissau, and surveillance by Guinea. The HFPI thus allowed cross-border joint activities such as joint immunisation days, and the sharing of experience, expertise and systems.

**Adding prevention of blindness as a fifth component of the HFPI**

In The Gambia, the National Eye Care Programme had made considerable strides in setting up a comprehensive service. At some centres, up to a third of cataract operations were for citizens from neighbouring countries. Over the ten-year programme period (1986-1996), trachoma blindness had dropped from 17 to 5 per cent and control activities were in place throughout the country. There was a constant risk of re-infection from people moving across the country’s long porous border. The Gambia felt that, in the spirit of the Health for Peace Initiative, the neighbouring countries should develop their own eye care programmes. The Gambian Minister of Health at the time, now the Honourable Vice President, then proposed to include the prevention of blindness as a fifth component of the HFPI. In August 2001, at a meeting in Banjul, the Ministers of Health of all four countries signed up to this, under the ‘Banjul Declaration’. An eye care programme which served just 1.2 million people in The Gambia, started to reach out to 19 million people living in four countries.

An HFPI project was developed and implemented, supported by Sightsavers International, based on the following components:

1. Sight by Wheels – cataract camps
2. Human resource development
3. Development of district eye services
4. A regional eye centre for referrals, training, technical support and research.

Each component had targets and a time frame. A management structure and monitoring process were put in place and a co-ordinator appointed.

**Components of the prevention of blindness strategy of HFPI**

1. **Sight by Wheels**

In the recipient country, an eye camp site is identified, then social marketing, screening and accumulation of cases are carried out. A receiving team co-matching the incoming team is set up. A complete team of surgeons (mainly cataract surgeons), nurses, equipment technician, and drivers from The Gambia, carrying the equipment, consumables and medicines needed, then go to the receiving country. They spend two to three days there, and conduct a cataract camp with the national recipient team. The planning and the post-camp evaluation are conducted jointly. The style of camps is adjusted to the topography, climate, and culture of each country.

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**Figure. 1. The four African countries taking part in the Health for Peace Initiative**

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<table>
<thead>
<tr>
<th>The Gambia</th>
<th>Senegal</th>
<th>Mauritania</th>
<th>Mali</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guinea</td>
<td>Guinea-Bissau</td>
<td>Guinea</td>
<td>Sierra Leone</td>
</tr>
</tbody>
</table>

“`The Heads of State of The Gambia, Guinea, Guinea-Bissau and Senegal, taking cognisance of the fact that peace and security are essential for the preservation and promotion of the health of their populations, and also taking into consideration the traditional ties of friendship, fraternity and good neighbourliness that unite their countries, have decided to reinforce their health co-operation through these concerted efforts towards their common health problems.‘”

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24 COMMUNITY EYE HEALTH JOURNAL | VOL 19 NO. 58 | JUNE 2006
The objectives of these camps were:
• To provide services, mainly cataract operations, in the underserved areas
• To transfer skills to the receiving team
• To mix the team with members from the different countries to foster personal and working relationships between teams across borders
• To gradually reduce the number and change the composition of the visiting team in order to eventually replace it with the trained receiving team
• To raise the awareness of the population
• To demonstrate the capacity of well-trained cataract surgeons
• To demonstrate the strategy of cataract camps as a way of reducing the cataract backlog.

So far, 3,854 cataract operations have been performed (with posterior chamber intraocular lens implant, except for a selected few) in 26 camps conducted in the four countries. Screening in health facilities, the community, and television/radio announcements have been used to encourage patients to come for surgery. Other services, such as treatment, minor surgery and mop-up surgery

Table 1. HFPI eye camps and cataract operations

<table>
<thead>
<tr>
<th>Country</th>
<th>Place of surgery</th>
<th>Period</th>
<th>Number of persons operated on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senegal</td>
<td>Kaolack</td>
<td>Oct. 2001</td>
<td>298</td>
</tr>
<tr>
<td></td>
<td>Djourbel</td>
<td>26-28 Feb 2003</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Thiadaye</td>
<td>6-8 Aug 2004</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>Louga</td>
<td>21-23 Feb 2003</td>
<td>198</td>
</tr>
<tr>
<td></td>
<td>IPRES</td>
<td>12-14 Dec 2003</td>
<td>151</td>
</tr>
<tr>
<td></td>
<td>Rufisque</td>
<td>8-11 Oct 2004</td>
<td>202</td>
</tr>
<tr>
<td></td>
<td>Kolda</td>
<td>8-11 Oct 2004</td>
<td>258</td>
</tr>
<tr>
<td></td>
<td>IPRES</td>
<td>12-13 Feb 2005</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Kolda</td>
<td>28 July-1 Aug 2005</td>
<td>352</td>
</tr>
<tr>
<td>Guinea-Bissau</td>
<td>Bissau</td>
<td>24-27 June 2002</td>
<td>260</td>
</tr>
<tr>
<td></td>
<td>Gabou</td>
<td>22-24 Oct 2002</td>
<td>171</td>
</tr>
<tr>
<td></td>
<td>Canchungo</td>
<td>24-27 Oct 2003</td>
<td>191</td>
</tr>
<tr>
<td></td>
<td>Bissau</td>
<td>27-29 Dec 2003</td>
<td>240</td>
</tr>
<tr>
<td></td>
<td>Catio</td>
<td>26-30 April 2005</td>
<td>60</td>
</tr>
<tr>
<td>Total for 9 sites in Senegal</td>
<td></td>
<td></td>
<td>1,863</td>
</tr>
<tr>
<td>The Gambia</td>
<td>Brikama</td>
<td>15-18 Dec 2004</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Bansang</td>
<td>15-18 Dec 2004</td>
<td>92</td>
</tr>
<tr>
<td></td>
<td>Farafenni</td>
<td>28-30 Dec 2004</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Farafenni</td>
<td>April 2005</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Basse</td>
<td>Nov 2005</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>Soma</td>
<td>Nov 2005</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>Farafenni</td>
<td>Nov 2005</td>
<td>64</td>
</tr>
<tr>
<td>Total for 7 sites in The Gambia</td>
<td></td>
<td></td>
<td>677</td>
</tr>
<tr>
<td>Guinea</td>
<td>Koundara</td>
<td>25-29 Nov 2004</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>Mamou</td>
<td>15-16 Dec 2005</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Faranah</td>
<td>17-19 Dec 2005</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Dabola</td>
<td>20-21 Dec 2005</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>Kouroussa</td>
<td>22-23 Dec 2005</td>
<td>67</td>
</tr>
<tr>
<td>Total for 5 sites in Guinea</td>
<td></td>
<td></td>
<td>392</td>
</tr>
<tr>
<td>TOTAL for 26 sites</td>
<td></td>
<td></td>
<td>3,854</td>
</tr>
</tbody>
</table>
HFPI-PBL Team

In addition to the above, the ROTP also offers practical training for doctors for the West African College of Surgeons’ (WACS) diploma and fellowship in ophthalmology training programmes who have in turn provided support for the courses and promoted the building of the team concept. Intraocular lens conversion training has been provided to two doctors from Guinea and one doctor from Guinea-Bissau. The cross-border concept was also used for faculty, in that external examiners of the ROTP courses were invited from the HFPI countries. In total, 121 mid-level eye workers have been trained.

3. Developing district eye services

As part of the HFPI training strategy, eye care workers are given post-training support by outreach from a peer in The Gambia. The peer supporter helps them set up services. An outreach from their trainer provides a follow-up on their settling down, performance and local support.

As a result, four Senegalese cataract surgeons have set up services in the districts of Thiadaye, Rufisque, Dakar and Bindiona, all equipped with a Scan Optics slit lamp and cataract sets. District services have also been established in Blyumbo, Gabou, and Chanchungo in Guinea-Bissau.

This has catalysed the development of national eye care plans by these countries and the commencement of implementation of plans at regional/district level. Senegal and Guinea-Bissau have conducted trachoma prevalence surveys and Guinea is running a training programme for the WACS’s diploma in ophthalmology for doctors.

4. Planning for the Regional Eye Centre

The tertiary level service delivery of The Gambia and all the HFPI activities were conducted in the very limited infrastructure of the Royal Victoria Hospital, Banjul and the eye care secretariat. A regional centre is now being developed to provide facilities for clinical referral services, quality assurance through supportive supervision for the national eye care programme and for the

The day after surgery: patients start to see the world again. GUINEA

trained, then sent back to their place of work and equipped to function.

Another objective of the HFPI was to help countries set up their own training programmes, starting with the community ophthalmic nursing course (CON). Guinea-Bissau has set up a CON course and Senegal has held discussions to do the same.

In addition to the above, the ROTP also offers practical training for doctors for the West African College of Surgeons’ (WACS) diploma and fellowship in ophthalmology training programmes who have in turn provided support for the courses and promoted the building of the team concept. Intraocular lens conversion training has been provided to two doctors from Guinea and one doctor from Guinea-Bissau. The cross-border concept was also used for faculty, in that external examiners of the ROTP courses were invited from the HFPI countries. In total, 121 mid-level eye workers have been trained.

Challenges faced by the HFPI eye care programme

How sustainable is the HFPI eye programme?

Tuition fees from students are being paid into a separate ROTP account. Funds generated will be used to sustain the training programme.

The Gambia and Guinea-Bissau are implementing cost-recovery programmes and the Bamako Initiative (BI), with a view to ensure the availability of all the essential drugs at all levels of health service delivery. BI is an initiative that aims to strengthen the primary health care services through cost-sharing and co-management. Under this initiative, essential drugs are provided and made available to health facilities. Funds generated from the respective facilities are banked by their respective health committees and subsequently used to replenish drugs.

Sightsavers International (SSI) and Christian Blind Mission International (CBMI) were the main supporters. Funds for the construction of the Regional Eye Centre (REC) were provided by the Sheikh Zayed Foundation. The project will face the challenge of meeting the running costs of the REC.

The impact of free services

The population is now aware and will be demanding services. Under the HFPI, the cataract surgical services were provided free. For this special type of camp, the purpose was to target the least-served populations. This was not always the case but, in the majority, it reached the unreached. The political involvement had its advantages in raising the profile of and the need for eye care services and accelerated the intention by governments to establish eye care services.

Language

Official correspondence needed to be in the language of the recipient. All involved had to acquire language and communication skills. Teaching was done in English. The advantage was that the students acquired the ability to communicate in a second official language. Educational materials in languages other than English were acquired. On the other hand, it was easy to communicate with the patients in the local languages.

Conclusion and future development

The Health for Peace Initiative has not been the usual outreach. It has achieved its original hope of ‘health for peace’, as on more than one occasion eye teams ran security risks and fostered peace between populations. The enemy factions came to recognise the teams and facilitated secure movement. It started personal working relationships between eye care and health workers, peer-to-peer, across the borders.

The strategy was adapted in each country; for example, minicamps were introduced in The Gambia, extended camps were introduced in Guinea, and trichiasis surgery camps were introduced to all. Collaboration was established to facilitate access to consumables: Guinea-Bissau established a local production of eye drops unit, The Gambia imported intraocular lenses for the camps and the district services.

Before HFPI, the cadre of cataract surgeons was unacceptable to Senegal; post-HFPI, they are part of the eye care team at the regional level, strictly within the public sector, under the responsibility of an ophthalmologist. The capacity for intraocular cataract surgery has increased and is equitably distributed.

The HFPI demonstrated the power of political will and commitment to achieve development; it could not have happened without the vision, political support of the Ministries of Health and the regional West Africa Health Organisation. It also demonstrates the power of partnership between the governments, the two NGOs, SSI and CBMI and the peoples of the four countries.

The receiving countries hopefully developed their capacity to independently continue their own activities, develop new bases and cascade down outreach to lower levels, and thus achieve more coverage. Senegal has now started its own outreach activity. HFPI has been implemented by locally-trained personnel.

Based on the success of the HFPI, more countries have applied to join the initiative: Mali, Mauritania, Liberia and Sierra Leone. The programmes supported by SSI in contiguous areas of Liberia and Sierra Leone, Nigeria and Cameroon are exploring the possibilities of cross-border collaborations. By coincidence, these have been areas of conflict and would qualify to be part of the Health for Peace Initiative.

References


See also Health for Peace PowerPoint presentation under useful resources.
National-level outreach: South African Bureau for the Prevention of Blindness

Herman Kluver

Introduction

Early beginnings of the Bureau for the Prevention of Blindness

The Bureau for the Prevention of Blindness was founded in 1944 as a division of the South African National Council for the Blind. From 1944 to 1952, the Bureau conducted countrywide surveys to determine the need for eye care services in our rural communities. Based on the information gathered, a mobile unit was established in 1952 with the help of the Order of St. John. This legacy has been built over the decades and has evolved into a model which aims to increase access to eye care, particularly for disadvantaged township and rural people, while at the same time building the capacity and self-sufficiency of district level hospitals to provide eye care services within provincial health care services and budgets.

The South African health service structure

South Africa has a decentralised health service structure. The country is divided into nine administrative units or provinces (Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North-West, Northern Cape, Western Cape). Services are provided by central, provincial and local health authorities. Within this system, a comprehensive national eye care intervention programme to the rural areas has been developed over the past six decades by the Bureau in collaboration with the respective provincial and local health authorities.

Figure 1. Visit points of the Bureau in the respective provinces

Population

South Africa has a population of 45 million. Slightly more than 50 per cent live in urban areas. Some 15 to 20 per cent of the population accesses health services through private medical schemes, while the public health sector is under pressure to deliver services to about 80 per cent of the population. Since 1994, the health sector has been transformed to increase access to the poor. Thirty million people are considered to be disadvantaged or indigent and it is on this population that the Bureau concentrates its efforts.

Blindness statistics

The estimated prevalence of blindness in South Africa is 0.75 per cent. It is estimated that 50 per cent of blindness is due to cataract, affecting an estimated 170,000 people. The cataract surgical rate amongst the indigent population is 1,000 per million per year.

The field programme of the Bureau for the Prevention of Blindness

The aim of the national eye care service is to establish permanent eye care centres or to strengthen existing centres. The ideal is to have at least one centre in each of the health regions of South Africa, or for every million of the rural population, as recommended by VISION 2020. Over a period of time, the Bureau has identified where these centres can be located. The plan envisages the upgrading of facilities, the expansion and training of staff, and assistance with running costs on a diminishing basis over five years. After five years, the Provincial Department of Health will be in a position to take full responsibility for administering the centre.

The normal work of the Bureau is to offer ongoing support towards this aim. Mobile units aim to provide services to populations identified as having the greatest need for eye care services in underresourced areas. The strategy is to link the mobile units with district and rural-level base hospitals run by provincial health authorities. These sites will, over time, become established as permanent eye care centres.

Partners

The strategy relies on a partnership between the following:

The provincial health authorities – detailed agreements are needed to ensure the smooth running of the field programme and long-term sustainability through establishment of permanent units. In the first instance, provincial health authorities provide 70 per cent of the budget, as well as facilities and staff at base hospitals.

Continues over page ➤
The Bureau, which co-ordinates the field programme and provides the mobile units.

The mobile units, which transport equipment and supplies and provide ophthalmic nurses for screening and education of nurses at the base hospitals.

University teaching hospitals, in particular professors of ophthalmology who are in a position to identify final-year ophthalmology registrars to work in the programme.

Ophthalmologists and/or registrars who provide their services at no cost (all travel and living expenses and a modest per diem are covered by the programme, but no salaries).

Base hospitals, including administrators, general nurses, and general doctors.

Local organisations (schools, churches, media, etc.) that can help with publicity.

Community members and patients who use the service and who make a modest contribution to cover costs.

Structure and operation of the mobile units

The Bureau has four mobile eye care units, all based in Pretoria. Each unit is staffed by three ophthalmic nurses, who have all attended a basic two-week course in refraction run by the International Centre for Eye Care Education (ICEE). Each mobile unit is completely self-contained, and transports the following: operating microscope, slit lamp, A-scan, microsurgical instruments, theatre linen, a full range of ophthalmic drugs and a full complement of plus and minus range of spectacles.

No procedures are performed in the units, which are only used to transport the equipment and drugs. The mobile units go into the field for a period of three weeks, return to base for rest, and then resume the field visits. The four teams work on this cycle continuously throughout the year.

The Pretoria-based Bureau has a staff of 21, which includes: programme manager, full time co-ordinator of the field programme, nursing manager, 12 nurses for the mobile units, and administrative staff. The full time co-ordinator is responsible, together with the nursing manager, for co-ordinating the field visits of the four teams.

About 100 visits are conducted per annum. Some of these visits last for four days, while others last for eight to ten days. Eighteen hospitals, each of which has resident ophthalmic nurses, are visited four times a year and the visits last four days. Twenty-eight hospitals are visited once every year and the visits last eight to ten days. The longer visits usually have three to four clinics in the area, where patients are screened and referred to the base hospital for further treatment.

Posters indicating the visits of the Bureau are also provided by the Bureau. Local schools, newspapers, churches and broadcasting houses are visited by the co-ordinator and provided with the annual programme.

Co-ordination with the base hospitals

South Africa has a good network of district hospitals and community-based clinics in all the provinces. All these hospitals have wards and operating theatres where patients can be admitted and operated. These are the hospitals used by the Bureau for its field programme. At present, the field programme includes 46 base hospitals. The co-ordinator visits each of these hospitals once a year, when the programme for the year is discussed with the hospital management and agreement reached on use of the operating theatre and the number of beds needed. The hospital is responsible for providing accommodation for the Bureau nurses and the visiting ophthalmologist. On his return to the office, the co-ordinator compiles a complete report for use by the teams.

Identification of ophthalmologists

Relationships are established with University Teaching Hospitals, who identify competent ophthalmologists to participate in the programme. All travel and living expenses are paid by the programme, and ophthalmologists are given a modest per diem (R300, the equivalent of about US$49, per day).

What happens during field visits?

During the first day of the visit, the mobile unit nurses and local nurses screen patients to be seen by the ophthalmologist the following day. Only uncomplicated cases are selected for surgery during the field programme; complicated cases are referred to tertiary hospitals.

During day two and day three, surgeons perform an average of 15 extracapsular cataract IOL operations per day for two days. Postoperative outcomes at one day are analysed and provided for the ophthalmologist at the end of the visit.

Costs and budgets

The field programme runs on a budget of R4 million per year. 30,000 patients are screened, 4,000 cataract operations are performed each year and between 5,000 and 10,000 spectacles are dispensed per year. Each cataract operation costs R1,000 per patient.

Patients contribute a R10 clinic fee (US$1) and pay for spectacles and IOLs at subsidised prices. IOLs are supplied at a cost of R70 (US$11) to the patient.

Initially, 70 per cent of the budget is met by the provincial health authorities, 10-15 per cent by corporate sponsorship and the remaining 15-20 per cent through cost-recovery by patients.

The ultimate goal: establishing permanent centres

Progress in achieving the ultimate goal of establishing permanent eye care services close to the needy populations has been achieved in two centres in Mpumalanga province. The permanent eye care service in Ermelo, Mpumalanga province, progressed from zero operations per year to 1,000 per year. The establishment of a permanent facility was made possible through establishing a clear written agreement with the provincial health authority, which stated that the Mpumalanga Health Department should appoint a full-time ophthalmologist, the necessary nursing personnel, and provide appropriate buildings. Sightsavers International undertook to equip the theatre and the outpatients department. It was agreed that Sightsavers would fund the drugs and disposables over a five-year period, reducing the funding by 20 per cent per year, so that the responsibility will eventually rest with the hospital to provide a sustainable eye care facility at the end of the five-year period. It was the Bureau’s responsibility to oversee the project through regular support and bimonthly meetings. Following this pattern, it is intended that further permanent centres will be established in the future.

References

**Optical services through outreach in South India: a case study from Aravind Eye Hospitals**

**The need to correct refractive errors**

Refractive errors are a priority within the global initiative for the elimination of avoidable blindness, VISION 2020: The Right to Sight.1,2 Until recently, refractive errors never figured as a cause of vision impairment or blindness in the surveys; this was probably due to WHO’s categorisation of visual acuity as based on best corrected vision, presumably because of the ease (from a technical perspective) with which it can be addressed. Thus refractive errors had not grabbed the attention of policy-makers and service providers.

Based on conservative ‘guess-timates’, in India alone it is estimated that 145 million people (about 14 per cent of the population) would benefit from correction of refractive errors (see Table 1). This includes presbyopic correction, which accounts for the major portion. However, only about 10 per cent of them, or about 1.5 per cent of the population, have had access to refraction services and are actually wearing spectacles. For those with higher refractive errors affecting distance vision, more spectacle usage is reported, but is still only at 35 per cent.2 In developed countries, the percentage of spectacle-wearers ranges from 30 to 50 per cent of the population.

There is an urgent need to increase refraction services in a comprehensive manner. One strategy would be to offer these services at all patient-contact opportunities, in the hospital or other fixed facility settings (for example, Vision Centres) and in outreach settings. The focus of this paper will be on optical services through outreach, based on the experiences of Aravind Eye Hospitals in South India.

**Aravind outreach services**

Eye camps for screening were introduced in Aravind in 1976 and continue to be held throughout the year. Most camps are held over weekends so that the people are free to attend, venues such as schools are available, and volunteers can offer their time. The community takes responsibility for financing and executing all non-ophthalmic activities, such as publicity, getting necessary permissions, organising a screening site, volunteers, furniture, and local hospitality. The place, date and time are fixed through mutual consultation. All these are guided and co-ordinated by a team of full-time organisers of the outreach department of Aravind Eye Hospitals. The outreach includes schools, industries and offices, and specifically targets correction of refractive errors.

**Optical services through outreach**

Aravind eye camps are comprehensive, refraction services being an integral part. Initially, only general community outreach camps were held. Later, school screening was added, where school teachers are trained to carry out the first level screening and the selected children are then screened by the ophthalmic team. Outreach was then extended to factories and offices, prompted by a study done by Aravind which showed a significant increase in productivity following refractive error correction (mostly presbyopic) amongst factory workers. In the outreach to schools and industries, a follow-up visit is done a month after dispensing the spectacles, to see if people are using them and to address any problems.

Through these outreach activities, three distinct target groups emerged: the general population distribution in India |

<table>
<thead>
<tr>
<th>Age groups</th>
<th>Population distribution in India</th>
<th>Estimated prevalence of refractive error</th>
<th>Desired/feasible uptake of services</th>
<th>Estimated potential users</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 yrs</td>
<td>10.5% 107,940,000</td>
<td>2%</td>
<td>0%</td>
<td>0</td>
</tr>
<tr>
<td>5-14 yrs</td>
<td>20.6% 211,768,000</td>
<td>5%</td>
<td>100%</td>
<td>10,588,400</td>
</tr>
<tr>
<td>15-44 yrs</td>
<td>48.5% 498,580,000</td>
<td>10%</td>
<td>80%</td>
<td>39,886,400</td>
</tr>
<tr>
<td>45 &amp; above</td>
<td>20.4% 209,712,000</td>
<td>90%</td>
<td>50%</td>
<td>94,370,400</td>
</tr>
<tr>
<td>Total</td>
<td>100% 1,028,000,000</td>
<td></td>
<td>144,845,200</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2. Optical services through outreach in the year 2005**

<table>
<thead>
<tr>
<th>Type of Eye Camp</th>
<th>Target Group</th>
<th>Number of camps</th>
<th>Patients examined</th>
<th>Number of spectacle prescriptions (% of those examined)</th>
<th>Number of orders (% of prescriptions made)</th>
<th>Delivered on the spot (% of those ordered)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community eye camps</td>
<td>General community but predominantly attended by older adults due to stronger focus on cataract services</td>
<td>1,331</td>
<td>436,778</td>
<td>52,438 (12.0%)</td>
<td>42,333 (81%)</td>
<td>35,007 (83%)</td>
</tr>
<tr>
<td>School eye camps</td>
<td>School children – 100% screening</td>
<td>168</td>
<td>122,150</td>
<td>4,380 (3.6%)</td>
<td>4,338 (99%)</td>
<td>2,082 (86%)*</td>
</tr>
<tr>
<td>Industry/office eye camps</td>
<td>Working-age adults – voluntary attendance</td>
<td>116</td>
<td>27,695</td>
<td>6,687 (24.2%)</td>
<td>6,197 (93%)</td>
<td>4,804 (78%)</td>
</tr>
</tbody>
</table>

* In the case of spectacles for school children, 1,916 spectacles were provided by District Blindness Control Societies or Lions Clubs. The 86 per cent of on-the-spot delivery only applies to the 2,422 orders taken by Aravind.
community, school children, and working-age adults. The clinical work at the outreach is essentially the same for each group, but there are differences in how these camps are organised. Table 2 presents statistics on refraction services through outreach for these three target groups in 2005.

The activities involved in providing complete refraction services can be broadly grouped into determining the refractive error and dispensing the spectacles according to the prescription. The challenge is to make this happen efficiently in an outreach setting.

i) Determining the refractive error

The patients are registered, a medical record is created and an identification card is given to each patient. The visual acuity is measured, and then the patient is examined by an ophthalmologist who decides to send the patient for refraction, intraocular pressure measurement or checking lacrimal patency. The refraction is carried out in portable dark cubicles which measure 4 x 4 x 7 feet. Trained staff refract the referred patients, note down their refractive error and write out the prescription. It is then verified by the ophthalmologist. The minimum cut-off for when a prescription is considered necessary is 0.5 dioptre. On average, 10 to 15 per cent of those screened at these camps get a prescription for refractive correction.

ii) Dispensing the spectacles

An optician (or dispensing technician) counsels patients about wearing spectacles and assists them in choosing an appropriate frame. The average acceptance rate is about 90 per cent. The average price paid by the patient for a pair of spectacles is about Rs. 150 (US $3.50). An average camp screening about 500 patients should yield about 60 to 75 persons with refractive errors. The patients are registered, a medical inventory enables more than 80 per cent of the orders to be delivered on the spot.

Some lessons learnt in outreach services

1. It is important to provide spectacles during the outreach, if possible. In the early years, the patients were only given a prescription and they were required to buy spectacles from wherever they could. It was observed that the actual uptake was very low. Investigation revealed that the cost and lost wages, was significantly more than the cost of the spectacles. Aravind then booked the orders, processed them at the base hospital and returned on a predetermined date to deliver them. This marginally increased the uptake. The experience with ready-made spectacles was similar. We therefore decided to give spectacles on the spot, as per the prescription, in the patient’s choice of frame. This proved to be very successful. Today, trained opticians routinely accompany the camp team with the required equipment and an supply of frames and lenses; they are able to dispense over 80 per cent of the orders on the spot (see Table 2). In this way, we are able to ensure that patients diagnosed with refractive error actually receive the correction.

2. Willingness to pay

The ‘vanity’ component of the spectacles makes people willing to pay for them. In our experience they do not prefer ready-made spectacles.

3. Sustainability

Profit margins from the sale of spectacles can subsidise other services offered and thus contribute to programme sustainability.

Conclusion

The increasing focus on refraction services, brought about by the Global Initiative VISION 2020: The Right to Sight, and the positive changes in the economy and literacy levels, are creating a favourable environment and a great opportunity. Optical services through outreach offer a viable and low-cost strategy to make a quick impact on refractive errors.

Table 3. Resources required for optical services through outreach

<table>
<thead>
<tr>
<th>Resource category</th>
<th>Details</th>
</tr>
</thead>
</table>
| Diagnostic (to determine the refractive error) | • Snellen charts  
• Torchlight  
• Trial lens set  
• Streak retinoscope  
• Portable cubicle to create a dark space  
• Stationery to issue prescriptions |
| Human resources | • Refractionists/Optometrists  
• Dispensing technician – for counselling, booking the order and fitting |
| Optical dispensing – equipment | • Portable edging machine  
• Screwdrivers  
• Frame warmer – for plastic frames  
• Adjustment pliers  
• Trial lens set – to check the power of the lens (quality control)  
• Marking, chipping and cutting implements  
• Display trays and table mirror |
| Optical dispensing – supplies | • Assortment of frames (3 frames per expected order)  
• Stock mix of lenses reflecting the refractive errors in the target group of the outreach (10 lenses per expected order)  
• Stationery for order booking and billing |
| Power, water, basic furniture, etc. | • Provided by the local group organising the camp |

References

Specialist outreach clinics in primary care and rural hospital settings (Cochrane Review)


**Background:** Specialist medical practitioners have conducted clinics in primary care and rural hospital settings for a variety of reasons in many different countries. Such clinics have been regarded as an important policy option for increasing the accessibility and effectiveness of specialist services and their integration with primary care services.

**Objectives:** To undertake a descriptive overview of studies of specialist outreach clinics and to assess the effectiveness of specialist outreach clinics on access, quality, health outcomes, patient satisfaction, use of services, and costs.

**Search strategy:** We searched the Cochrane Effective Practice and Organisation of Care (EPOC) specialised register (March 2002), the Cochrane Controlled Trials Register (CCTR) (Cochrane Library Issue 1, 2002), MEDLINE (including HealthStar) (1966 to May 2002), EMBASE (1988 to March 2002); CINAHL (1982 to March 2002), the Primary-Secondary Care Database previously maintained by the Centre for Primary Care Research in the Department of General Practice at the University of Manchester, a collection of studies from the UK collated in Specialist Outreach Clinics in General Practice (Roland 1998), and the reference lists of all retrieved articles.

**Selection criteria:** Randomised trials, controlled before and after studies and interrupted time series analyses of visiting specialist outreach clinics in primary care or rural hospital settings, either providing simple consultations or as part of complex multifaceted interventions. The participants were patients, specialists, and primary care providers. The outcomes included objective measures of access, quality, health outcomes, satisfaction, service use, and cost.

**Data collection and analysis:** Four reviewers working in pairs independently extracted data and assessed study quality.

**Main results:** 73 outreach interventions were identified covering many specialties, countries and settings. Nine studies met the inclusion criteria. Most comparative studies came from urban non-disadvantaged populations in developed countries. Simple ‘shifted outpatients’ styles of specialist outreach were shown to improve access, but there was no evidence of impact on health outcomes. Specialist outreach as part of more complex multifaceted interventions involving collaboration with primary care, education or other services was associated with improved health outcomes, more efficient and guideline-consistent care, and less use of inpatient services. The additional costs of outreach may be balanced by improved health outcomes.

**Authors’ conclusions:** This review supports the hypothesis that specialist outreach can improve access, outcomes and service use, especially when delivered as part of a multifaceted intervention. The benefits of simple outreach models in rural non-disadvantaged settings seem small. There is a need for good comparative studies of outreach in rural and disadvantaged settings where outreach may confer most benefit to access and health outcomes.

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**EVIDENCE-BASED CARE**

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**ASSISTANCE IN DEVELOPING A CUSTOM-MADE PROSTHETIC EYE SERVICE**

**Colin Haylock**
Consultant Maxillofacial Prosthetist, Charing Cross Hospital, Fulham Palace Road, London W6 8RF, UK.

The acceptance level of patients fitted with stock reform, or average-shaped, scleral shells over blind unsightly phthisical eyes, is very low and is often associated with discomfort leading to eye and socket infection and, in some cases, Giant Papillary Conjunctivitis (GPC). When associated with ocular prosthetics, GPC is a disorder that is caused by the conjunctiva lining of the eye socket being subjected to persistent trauma from surface abrasions or ill-fitting ocular prostheses. A small percentage of patients will not tolerate the fitting of a scleral shell prosthesis, due to underlying symptoms causing the phthisical eye to be sensitive and painful. However, this sensitivity can be caused from mechanical entropion, the eyelids being unsupported by the reduction of eye volume and the eyelashes rotating inwards.

In this situation, a custom-made prosthetic scleral shell will restore the volume deficiency and elevate the lashes, resolving the symptoms and improving appearance. To construct a custom-made scleral shell, the shape and volume of the eye socket is recorded by using an alginate impression supported by a thin tray. From the subsequent impression, a trial scleral shell is constructed in clear acrylic resin; this is highly polished and worn by the patient who increases the wearing schedule by an hour per day. This gradually desensitises the underlying phthisical eye and increases the tolerance level. The clear shell is ultimately converted into the custom-made scleral shell, at which time every endeavour is made to reproduce an exact copy of the patient’s other eye. The stigma and effects of losing an eye, especially in developing countries, can be tragic to the individual and their family, often hampering the prospects of social and professional development. To overcome this great divide in the provision of custom-made eye prostheses, Services provide voluntary assistance overseas and training of local staff in the construction of custom-made indwelling eye prosthesis techniques. This charitable service is provided free to patients or requesting hospitals in most situations.

For information and advice on custom-made indwelling eye prostheses contact IOPS email: iops@hotmail.co.uk

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**NOTICES**

**Community Eye Health Journal article competition winners**

Thank you to all those who submitted articles to the article competition. The shortlist of 12 articles was judged by a panel at the Editorial Planning Meeting on 27th April, 2006. We are happy to announce the following four winners, in no particular order. The four winning articles will now go through the usual editorial processes and will be published in a special supplement to the September 2006 issue.

<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
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<tbody>
<tr>
<td>Michael Gyasi</td>
<td>Setting the pace in VISION 2020 in Ghana: the case of the Bawku Eye Care Programme</td>
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<tr>
<td>Pradeep Krishnatray, Shailendra S Bhiht, GV Rao, Kamalesh Guha</td>
<td>Social construction of paediatric cataract</td>
</tr>
<tr>
<td>A K Sivakumar</td>
<td>Managing eye care</td>
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<tr>
<td>Khadija Nowaira Abdullah &amp; Muhammad Tanweer Abdullah</td>
<td>Primary eye care and social inclusion: a strategy for indigenous educational system in Pakistan</td>
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</tbody>
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**EXCHANGE**

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**COMMUNITY EYE HEALTH JOURNAL | VOL. 19 NO. 58 | JUNE 2006 31**
**Notice**

**Book review**

**Ophthalmic Care**
Edited by Janet Marsden, Wiley, 2006. Reviewed by Patricia Falters, Senior Lecturer, Health Promotion, School of Health & Social Sciences, Middlesex University, London, UK.

An international team of ophthalmic practitioners has gathered to write the content of this book, which offers a strong evidence-based text for effective and informed practice. The team of contributors represents all ophthalmic disciplines.

Ophthalmic Care is divided into three sections: function and structure of the eye; patient care in a variety of settings, which includes patient education; ophthalmic problems and the systematic approach to care. Twenty-four chapters cover the content of these three sections and include, in the patient care section, an excellent chapter on the challenge of eye health care in developing countries.

The book aims to bridge a gap that exists in current texts by providing ophthalmology professionals with the necessary evidence to underpin their practice. It succeeds with this aim. The book offers depth and breadth of content, which would serve as a comprehensive resource for all ophthalmic practitioners.

The book usefully includes an appendix list of a range of eye health care support addresses with websites, and also a glossary of ophthalmic terms. Colour images are found collected towards the back of the book and, although rather condensed and without spacing around the individual slides, which would enhance the images further, nevertheless provide a rich illustration resource for the reader.

An accessible and comprehensive book that fully integrates the contribution of knowledge from all ophthalmic disciplines and offers essential reading for practice.

Ophthalmic Care is available from the International Resource Centre, ICEH. Discount price: UK £25 plus post and packing (for developing countries only). Email: sue.stevens@lshtm.ac.uk

**Courses**

**Community Eye Health Training: Certificate course in Community Eye Health**

Date: October 16-December 8, 2006. Venue: Kilimanjaro Centre for Community Ophthalmology (KCCO), Tanzania. Course aims and objectives: The KCCO and its partners at IOEH and the University of Cape Town received a grant from the Nuffield Foundation to support Community Eye Health training in Africa. This course aims to equip eye health professionals with the skills necessary to develop, implement, and manage a VISION 2020 programme. The eight-week course will focus on disease control, planning, human resource development, management, bridging strategies, and budgeting. Target audience: Ophthalmologists, project managers, and other eye care professionals. The students will be expected to return to government or NGO-salaried positions, where they will use their training to maximum effect and implement the plans they develop during the course. It is anticipated that participants will be individuals whose primary responsibility is to implement a ‘district’ (population 1 million) VISION 2020 programme. The course is open to participants from the whole of Africa. To ensure good interaction, it is envisaged that 10-15 people will attend the course. Further details and admission procedures: email Dr Paul Courtight at pcourtight@kcco.net

The British Council for Prevention of Blindness (BCPB) Fellowship Programme Closing date for receipt of applications: 30 September 2006.

Aims of the Fellowships: To fund research and training in prevention of blindness for high-calibre clinicians and scientists from the UK and overseas. Projects must further the goals of VISION 2020: The Right to Sight, the elimination of avoidable blindness. In 2007, BCPB seeks to fund one Fellow from the UK and one Fellow from a low-income country to undertake projects that focus on Africa. Each Fellowship will be worth up to GB£60,000 a year for two or three years. Applications must be submitted jointly by the Fellowship candidate and the supervisor at the host institution in the UK. Further details: For full information and an application form, see www.bcpb.org or contact Jackie Webber at BCPB, 59-60 Russell Square, London WC1B 4HP, UK or email: info@bcpb.org Registered charity number 270941

6th International Glaucoma Symposium (I.G.S)

Date: March 28-31, 2007. Venue: Athens, Greece. Information: Symposium Organisers, Kennes International – Global Congress Organizers and Association Management Services, 17 Rue du Cendrillion, PO Box 1726, CH-1211 Geneva 1, Switzerland. Tel: (+41) 22 908 0488, Fax: (+41) 22 732 2850. Email: glaucoma@kennes.com Website: www.kennes.com/glaucoma

**Useful resources for Outreach**

Managers taking Action based on Knowledge and Effective use of resources to achieve Results (MAKER) This World Health Organization (WHO) website makes available current information and tools to help managers in their day-to-day work of organising and providing health services. It covers topics such as management of: partnerships, sub-national levels, facilities; programmes, resources and community health services. It also includes country experiences. Connection details: www.who.int/management/en/

Email: Maker@who.int


Minkler M (editor). Community organizing and community building for health

Rutgers University Press 2004. Available from Waterstones. £18

White V, Harris J. Developing good practice in community care: partnership and participation

Jessica Kingsley Publishers 2001. Available from Waterstones. £15

Burns D et al. Making community participation meaningful: a handbook for development and assessment

The Policy Press. Available from Waterstones. £15

Hon. Abdoullie M Sallah. Health for Peace Initiative; lessons for effective partnership development


Community outreach – cataract


http://laico.org/v2020resource/site_news/news22006/sitenews_feb_06.htm

Management resources related to refractive correction


Suppliers

Waterstones 71-74 North Street, Brighton, East Sussex, BN1 1ZA, UK. Email: manager@brighton.waterstones.co.uk

ICEH International Resource Centre, LSHTM, Keppel Street, London, WC1E 7HT, UK. Email: sue.stevens@lshtm.ac.uk

TALC PO Box 49, St Albans, Herts, AL1 5TX, UK. Email: info@talcuk.org

Next issue

The next issue of the Community Eye Health Journal will be on the theme of Glaucoma.