

## Advocacy for eye health

### EDITORIAL



#### Detlef Prozesky

Director, Centre for Health Science Education, Faculty of Health Sciences, University of the Witwatersrand, 7 York Road, Parktown 2193, Johannesburg, South Africa.

Advocacy is a crucial component of VISION 2020: The Right To Sight. It has in fact been an important part of global health promotion initiatives for the past twenty years, since the nations of the world came together in Canada for the first International Conference on Health Promotion in 1986. The resulting 'Ottawa Charter for Health Promotion' specified three strategies to promote the health of all people of the globe: enabling people to take control of the things which affect their health; mediating between groups who may have different interests, in the pursuit of health for society as a whole; and advocating actions that will have a positive impact on the political, economic, social, cultural, environmental, behavioural, and biological factors which affect health. Advocacy has been emphasised at international conferences on health promotion ever since.

### What is advocacy?

What do we mean by 'advocacy'? Advocacy is the act of arguing on behalf of a particular issue, so that it gets the attention it deserves, or on behalf of particular groups of people, so that their voices are heard and their interests are taken into account. Usually these groups are vulnerable or disadvantaged in some way,<sup>1</sup> for example: women, children,<sup>2</sup> the elderly,<sup>3</sup> and the



Paul Courtright

**Advocacy at the community level:** A community coordinator talks with village leaders about gender and the use of cataract services. TANZANIA

visually impaired. The aim of advocacy is to persuade those in authority or those with influence to use their authority to promote actions that are desirable and beneficial for a particular group of persons. A related word is 'lobbying'; it is used when people work to achieve a specific goal (often in their own interests) by influencing authorities or elected officials. 'Health activism' is another related concept, which describes people actively striving for better health, on behalf of themselves and others.

### Why is advocacy needed?

There are a number of reasons for becoming involved in advocacy. Advocacy can help to draw attention to patients' needs. For example, it can lead to better provision of services or

ensure that patients and their families have more say in the way they are treated.<sup>4,5,6</sup> Eye care workers can and should act as advocates for their patients in this regard.

Advocacy can also raise public awareness of eye health problems and their impact. A public that is aware is more likely to contribute, to participate, and to put pressure on authorities and policy makers to allocate resources to eye health.

A further important reason for doing advocacy is that it can help organisations to gain access to the human, material, and financial resources that are needed to bring about improvements in eye health.

As mentioned above, controlling the causes of avoidable blindness requires the

*Editorial continues overleaf* ▶

### IN THIS ISSUE

#### EDITORIAL

- 57 **Advocacy for eye health**  
Detlef Prozesky

#### ARTICLES

- 60 **Turning fine words into action: suggestions for high-level advocacy**  
Richard Porter
- 61 **The challenges of advocacy in sub-Saharan Africa**  
Kayode Odusote

- 62 **Convincing governments to act: VISION 2020 and the Millennium Development Goals**

Hannah Faal and Clare Gilbert

- 65 **Charting new frontiers of hope in Pakistan**  
Asad Aslam Khan

- 66 **Advocacy to improve the delivery of eye care**  
RD Thulasiraj

- 68 **Improving gender equity in eye care: advocating for the needs of women**  
Paul Courtright and Susan Lewallen

#### EXCHANGE

- 70 **The 'ngisipet' and trachoma prevention: solving the latrine problem in nomadic tribes**  
Daniel S Morris and Julia Francombe

- 71 **Community Eye Health MSc dissertations**

#### HOW TO

- 74 **How to measure intraocular pressure: applanation tonometry**  
Sue Stevens, Clare Gilbert, and Nick Astbury

- 75 **NEWS**

- 76 **USEFUL RESOURCES**



#### Editor

Elmien Wolvaardt Ellison

#### Editorial committee

Dr Nick Astbury  
Professor Allen Foster  
Dr Clare Gilbert  
Dr Murray McGavin  
Dr Ian Murdoch  
Dr GVS Murthy  
Dr Daksha Patel  
Dr Richard Wormald  
Dr David Yorston

#### Regional consultants

Dr Miriam Cano (Paraguay)  
Professor Gordon Johnson (UK)  
Dr Susan Lewallen (Tanzania)  
Dr Wanjiku Mathenge (Kenya)  
Dr Joseph Enyegue Oye (Francophone Africa)  
Dr Babar Qureshi (Pakistan)  
Dr BR Shamanna (India)  
Professor Hugh Taylor (Australia)  
Dr Min Wu (China)  
Dr Andrea Zin (Brazil)

#### Advisors

Dr Liz Barnett (Teaching and Learning)  
Catherine Cross (Infrastructure and Technology)  
Dr Pak Sang Lee (Ophthalmic Equipment)  
Sue Stevens (Ophthalmic Nursing)

**Editorial assistant** Anita Shah

**Copy editing** Dr Paddy Ricard

**Design** Lance Bellers

**Printing** Newman Thomson

**Online edition** Sally Parsley

**Email:** web@cehjournal.org

#### Information service

Jenni Sandford

**Email:** jenni.sandford@Lshhtm.ac.uk

#### Website

Back issues are available at:

[www.cehjournal.org](http://www.cehjournal.org)

#### Subscriptions

Community Eye Health Journal  
International Centre for Eye Health  
London School of Hygiene and Tropical Medicine,  
Keppel Street, London WC1E 7HT, UK.

**Tel:** +44 207 612 7964/72

**Fax:** +44 207 958 8317

**Email:** admin@cehjournal.org

The *Community Eye Health Journal* is published four times a year and **sent free to developing country applicants**. French, Chinese, Spanish, and Indian editions are also available. Please send details of your name, occupation, and postal address to the *Community Eye Health Journal*, at the address above. Subscription rates for applicants elsewhere: one year UK £50; three years UK £100. Send credit card details or an international cheque/banker's order made payable to London School of Hygiene and Tropical Medicine to the address above.

© International Centre for Eye Health, London

Articles may be photocopied, reproduced or translated provided these are not used for commercial or personal profit. Acknowledgements should be made to the author(s) and to *Community Eye Health Journal*. Woodcut-style graphics originally created by Victoria Francis. Graphic on page 68 by Teresa Dodgson, all others by Victoria Francis.

ISSN 0953-6833

The journal is produced in collaboration with the World Health Organization. Signed articles are the responsibility of the named authors alone and do not necessarily reflect the policies of the World Health Organization. The World Health Organization does not warrant that the information contained in this publication is complete and correct and shall not be liable for any damages incurred as a result of its use. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned.

development of human resources and infrastructure – both of which cost money. Another reason for doing advocacy is therefore to influence policy, since policies affect the way in which resources are allocated. The policies supported by advocacy may deal with the prevention of eye disease (e.g. improved water supply, the provision of vitamin A supplements), eye health promotion (e.g. screening for glaucoma and diabetic retinopathy), or the provision of eye care services (e.g. cataract surgery or medication for glaucoma). Lastly, advocacy can inform eye health practitioners of best practice so that they may avoid malpractice.<sup>7</sup>

## 'Doing what is good' is not enough

When we advocate for eye health, we are asking people to become more involved in something that is intrinsically good – what could be better than preventing blindness? It is not that simple, though. Resources are always limited and policy makers often have to choose between two good things. For example, one may find, in a given country, that onchocerciasis (river blindness) is non-blinding and occurs in a few districts only, but that infant mortality is high. If resources are limited, it could be said that advocacy should in this case be focused on measures to reduce infant mortality, rather than on the distribution of ivermectin to treat onchocerciasis.

Uncontrolled advocacy can lead to conflict between organisations looking for resources and may even lead to irrational decisions being taken. That is why, in some countries, there are laws which regulate which kind of advocacy may be done and which may not.<sup>8</sup>

## Advocating effectively

To be effective, advocacy must be supported by **high-quality information**. We usually obtain this through research – for example, research into the extent of an eye health problem and the effectiveness of the strategies that can overcome it. In the past, advocacy has been held back by the lack of such information,<sup>9</sup> but this is being overcome by studies such as the mapping of the global distribution of trachoma<sup>10</sup> and the World Health Organization global database on blindness.<sup>11</sup> At a more local level, research can establish the prevalence of eye conditions and whether the necessary resources are available to visually impaired people.<sup>12,13,14</sup> Research can also create evaluation tools or questionnaires that can be used to measure the impact of visual impairment on people's lives.<sup>15</sup>

Once the information is available, it can be used to develop **appropriate messages or arguments** to support the aims of advocacy. These messages should then be communicated to those in authority or those with influence. One way of doing this is to approach governments officially and talk to them about the area of concern, e.g. vitamin A supplementation and food fortification.<sup>16,17</sup>

## What is advocacy for eye health?

Advocating for eye health means working to change the policies and practices of those institutions, and the attitudes and behaviours of those individuals, whose actions affect the elimination of avoidable blindness.

Advocacy involves **lobbying** – speaking directly to key decision makers and those who influence these decision makers – and **campaigning**, which aims to mobilise public and media support for an issue.

Where needed, advocacy can be supported by information, communication, education, publicity, and fundraising.

Another method is to arrange workshops with individuals and organisations with an interest in the elimination of avoidable blindness; one example is the VISION 2020 workshops that have been taking place in many countries in the world.

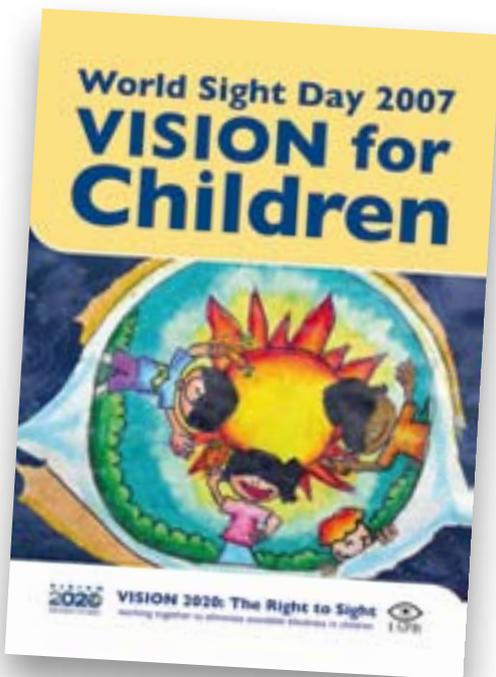
A further strategy is to make use of **personal contacts** (formal and informal) with key decision makers. Both the International Association for the Prevention of Blindness (IAPB) and the VISION 2020 initiative urge members and supporters to talk with friends and acquaintances, including health ministers, about avoidable blindness. Eye health practitioners can also volunteer to become members of committees with eye health responsibilities and can use their position and influence to talk about areas of concern. National and local advocacy bodies can use the mass media to sensitise communities about the needs of those with low vision – through television documentaries and drama, the radio, magazines, and leaflets.

To be successful, advocacy needs to be **sustained**. Even if progress has been made (for example, towards the global elimination of trachoma), advocacy efforts should continue as before.<sup>18</sup> The African Programme for Onchocerciasis Control has long been aware that effective, ongoing advocacy is essential if its national and local programmes are to be sustained.<sup>19</sup>

Advocacy is more effective if it is undertaken by a **team** of interested individuals and organisations, working together according to a plan.<sup>20</sup>

Advocacy efforts are also more likely to be effective if they are aimed at a **wide audience**, including individuals and organisations outside the health sector.<sup>21</sup>

In order to maximise the impact of advocacy for eye care, we should explore the possibility of forming alliances with other causes. These alliances could be with the wider disability movement, general development and anti-poverty initiatives, other health programmes, or appropriate organisations in civil society (such as non-governmental organisations). We should



**Campaigning:** World Sight Day is an example of campaigning, also called ‘background’ advocacy. It raises public awareness and prepares the way for more direct advocacy efforts, such as speaking to government leaders.

carefully consider the role of a potential alliance in the context of the specific objectives of planned advocacy activities. The potential benefits should also be assessed against the possible dilution of the VISION 2020 message. However, more often than not, working together creates opportunities for more effective advocacy.

A final requirement for effective advocacy is that it must be done rigorously. Health promotion has often been undertaken in a relatively haphazard way, by doing what seemed to be ‘the right thing’ without rigorous planning and subsequent monitoring. This is now being rectified by the use of approaches such as PRECEDE-PROCEED<sup>22</sup> and intervention mapping.<sup>23</sup> The local eye care team should plan its advocacy campaign carefully, after studying the local social and political situation. The team should obtain high-quality information about

the approach it plans to use, in particular whether this approach is appropriate and whether it is likely to succeed. The team should cooperate closely with other groups advocating for resources in the same field (in this case the promotion of eye health) and it should carefully monitor the effect of its advocacy efforts.

### Levels of advocacy

Advocacy is needed at different levels: local, national, and international. At the international level, the World Health Assembly has endorsed the VISION 2020 initiative; this endorsement is the result of intensive advocacy by bodies such as IAPB. Following on this good result, advocacy has been carried out at the regional and national levels. International non-governmental organisations such as Sightsavers International, Christian Blind Mission (CBM), ORBIS, the World Blind Union, the Seva Foundation, and their national branches, are constantly engaged in advocacy. Finally, we need advocacy at the local level: this is where actual programme implementation takes place and where people either receive the benefits of eye care or suffer due to a lack of such services.

### Who should advocate?

Those with connections at higher levels can advocate nationally or internationally, at the policy level. Those working at the district level can advocate for the full implementation of the national VISION 2020 plan and other eye health policies in their districts. Finally, those providing a service locally can be equally effective in advocating for their patients’ treatment needs or in advocating for increased community support for persons with low vision.

This means that everyone involved in promoting eye health is a potential advocate. This should challenge each one of us to see advocacy as part of our work and to think carefully where, and how, we can be advocates for promoting eye health and preventing blindness.

## A framework for advocacy

- 1 Identify the issue and context.** What is the problem that requires a solution? Gather high-quality information (evidence) about the problem.
- 2 Decide on a goal.** What is the result you want to achieve? What should the solution to the problem look like? Narrow it down to something achievable.
- 3 Identify the target audience(s) and analyse them.** Who are the people with decision-making power? How do they make decisions? Who do they listen to? It is often helpful to identify the people who can influence these decision makers and include them in your plans.
- 4 Build support.** Build alliances with other groups, organisations, or individuals who can support you and/or are in a position to influence your target audience. Cooperate closely with other groups advocating for resources in the same field (in this case the promotion of eye health).
- 5 Develop your message.** What is the local social and political situation? Prepare messages tailored to the target audience that define the issue, state solutions, and describe the actions that need to be taken. Support this with relevant facts and evidence that your audience will relate to.
- 6 Choose channels of communication.** How can you or your organisation get to speak to key decision makers? Who in your organisation would be best placed to do this?
- 7 Carry out your plan and monitor your success.**

### References

- 1 Hall MA, Berenson RA. Ethical practice in managed care: a dose of realism. *Ann Intern Med* 1998;128(5): 395–402.
- 2 Powell DL, Stewart V. Children. The unwitting target of environmental injustices. *Pediatr Clin North Am* 2001;48(5): 1291–305.
- 3 Greenberg DA, May LA. The senescent cataract patient: a management philosophy. *J Am Optom Assoc* 1982;53(2): 125–9.
- 4 Kee CC, Miller V. Perioperative care of the older adult with auditory and visual changes. *Assoc Oper Room Nurs J* 1999;70(6): 1012–6, 1018–9; quiz 1020, 1022–4.
- 5 Gormezano S. The enabling power of optics. *Optom Vis Sci* 1995;72(5): 332–7.
- 6 Morris KJ. Strategies for acquiring affordable medications for seniors. *Nurs Clin North Am* 2005;40(1): 51–62, vi.
- 7 White P, Cho P. Legal issues in contact lens practice with special reference to the practice of orthokeratology. *Ophthalmic Physiol Opt* 2003;23(2): 151–61.
- 8 Vernick JS. Lobbying and advocacy for the public’s health: what are the limits for nonprofit organizations? *Am J Public Health* 1999;89(9): 1425–9.
- 9 Oneill C, Jamison J, McCulloch D, Smith D. Age-related macular degeneration: cost-of-illness issues. *Drugs Aging* 2001;18(4): 233–41.
- 10 Polack S, Brooker S, Kuper H, Mariotti S, Mabey D, Foster A. Mapping the global distribution of trachoma. *Bull World Health Organ* 2005;83(12): 913–9.
- 11 Resnikoff S, Pascolini D, Etya’ale D, Kocur I, Pararajasegaram R, Pokharel GP, Mariotti SP. Global data on visual impairment in the year 2002. *Bull World Health Organ* 2004;82(11): 844–51.
- 12 Banerjee SR. Agricultural child labor in West Bengal. *Indian Pediatr* 1993;30(12): 1425–9.
- 13 Lockyer S, Creaser C, Davies JE. Availability of accessible publications: designing a methodology to provide reliable estimates for the Right to Read Alliance. *Health Info Libr J* 2005;22(4): 243–52.
- 14 Shaikh SP, Aziz TM. Pattern of eye diseases in children of 5–15 years at Bazzertaline Area (South Karachi) Pakistan. *J Coll Physicians Surg Pak* 2005;15(5): 291–4.
- 15 Schmier JK, Halpern MT, Covert D. Validation of the Daily Living Tasks Dependent on Vision (DLTV) questionnaire in a U.S. population with age-related macular degeneration. *Ophthalmic Epidemiol* 2006;13(2): 137–43.
- 16 Mannar MG. Successful food-based programmes, supplementation and fortification. *J Pediatr Gastroenterol Nutr* 2006;43 Suppl 3: S47–53.
- 17 Aguayo VM, Baker SK. Vitamin A deficiency and child survival in sub-Saharan Africa: a reappraisal of challenges and opportunities. *Food Nutr Bull* 2005;26(4): 348–55.
- 18 Kumaresan JA, Mearns JW. The global elimination of blinding trachoma: progress and promise. *Am J Trop Med Hyg* 2003 Nov;69(5 Suppl): 24–8.
- 19 Amazigo UV, Brieger WR, Katabarwa M, Akogun O, Ntep M, Boatman B, N’Doyo J, Noma M, Sékétéli A. The challenges of community-directed treatment with ivermectin (CDTI) within the African Programme for Onchocerciasis Control (APOC). *Ann Trop Med Parasitol* 2002;96 Suppl 1: S41–58.
- 20 Grant AH. Homo quintadus, computers and ROOMS (repetitive ocular orthopedic motion stress). *Optom Vis Sci* 1990;67(4): 297–305.
- 21 TDR News 1998;(56): 1. Advocacy to address disabling diseases: TDR holds brainstorming session.
- 22 Green LW, Kreuter MW. *Health Program Planning*, 4th ed. NY, London: McGraw-Hill, 2005.
- 23 Bartholomew KL, Parcel GS, Kok G, Gottlieb NH. *Intervention mapping: designing theory- and evidence-based health promotion programs*. California, Mayfield Publishing Co., 2001.





# Turning fine words into action: suggestions for high-level advocacy

**Richard Porter**

Deputy Director, IAPB, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK.

Advocacy is a crucial activity for achieving the goals of VISION 2020: The Right to Sight. Progress towards the elimination of avoidable blindness depends on political will and on making available more human and financial resources. In order for this to happen, advocacy is necessary: it can influence the policies and practices of key decision makers, particularly governments, the World Health Organization (WHO), and development and funding bodies.

The passing of two resolutions in support of VISION 2020 at the World Health Assembly meetings of 2003 and 2006 was a good start. These resolutions call on member states to prepare national VISION 2020 plans and to mobilise resources for their implementation. They also require WHO itself to provide support to these member states.

These resolutions were the result of extensive advocacy and lobbying by many members and partners of the International Agency for the Prevention of Blindness (IAPB), led by IAPB's Eastern Mediterranean Region team. However, the resolutions are only the start of the process. In the long run, if VISION 2020 is to succeed, it must be given higher priority and be supported by more funding. The challenge now is for national and international

leaders in eye health to persuade WHO and national governments to turn these fine words and sentiments into action. This can only be achieved through carefully planned, coordinated, and sustained advocacy, aimed both at WHO and at national governments.

Advocacy is needed at international level to ensure that eye health is included in WHO's action plans for the different WHO regions, e.g. Africa or Southeast Asia. These regions determine their own priorities in consultation with the member states in their region. In order to ensure that WHO gives additional support to VISION 2020 in a particular region, it is important that governments press for this support at WHO regional meetings. IAPB regional coordinators should direct their advocacy efforts towards the leaders of those countries best placed to play this role (i.e. those who have the most influence in that region).

On a national level, advocacy is needed to ensure that the prevention of visual impairment is included in the country cooperation strategy document (CCS). This

document is drawn up by WHO for each country in which it operates. It reflects the medium-term vision of WHO for its cooperation with a specific country and defines a strategic framework for achieving this vision. If the elimination of avoidable blindness is not in this document, it is unlikely to be included in the country's 'joint programme', the plan that attaches a budget to the priorities identified in the CCS.

Although the CCS is drawn up in collaboration with each country's government, the process is led by the country WHO representative. Advocacy should target the country WHO representative, as well as the national government concerned, as the latter can put pressure on the WHO representative to include the elimination of avoidable blindness in the CCS. The timing and processes of the document's preparation should be taken into account.

Similarly, poverty reduction strategy papers (PRSPs) represent a good opportunity for advocacy at national level. PRSPs form the first step in the implementation of the Millennium Development Goals (see article on page 62). They are prepared and updated every three years by many countries, a process which involves the government itself as well as external development partners, including the World Bank and the International Monetary Fund. In some countries, the inclusion of blindness prevention in a PRSP could be a realistic advocacy objective.

To have maximum impact, national advocacy activities should be closely coordinated among relevant individuals and organisations. Such coordination should be the responsibility of national VISION 2020 committees, who should develop advocacy strategies with specific and clear objectives and action plans. The support of leading international non-governmental organisations (NGOs) and IAPB coordinators will be important in this process.

While there are plenty of challenges, there is also plenty of encouragement to be derived from advocacy successes to date, which have resulted in higher priority being accorded to blindness prevention and in the allocation of increased resources. The example of Pakistan is described on page 65, but similar success has been achieved in other countries, India and Australia being notable examples. It is worth noting that, both in India and in Australia, the VISION 2020 national bodies are very active, have a clear advocacy agenda, and enjoy strong support from the NGO community. This is the model which needs to be replicated.

**'If VISION 2020 is to succeed, it must be given higher priority and more funding'**



**Training in advocacy:** In 2006, a total of 23 people involved in eye care and in promoting the VISION 2020 agenda participated in an advocacy workshop, which was facilitated by a professional advocacy consultant. For more information, contact Kovin Naidoo, 272 Umbilo Road, Durban, 4000, South Africa. Email: [k.naidoo@icee.org](mailto:k.naidoo@icee.org). SOUTH AFRICA



# The challenges of advocacy in sub-Saharan Africa



## Kayode Odusote

Director, Division of Human Resources Development, West African Health Organisation, WAHO Headquarters, 01 BP 153, Bobo-Dioulasso 01, Burkina Faso.

VISION 2020: The Right to Sight has achieved significant results in its first five years of existence.<sup>1</sup> The factors that contributed to these successes include:

- increased political commitment
- increased commitment from eye health professionals
- increased commitment and support from national and international non-governmental organisations (NGOs)
- increased involvement of, and partnership with, the corporate sector.

However, VISION 2020 has not achieved the same level of success in all parts of the world. In sub-Saharan Africa, where a large number of people still suffer from blindness, national governments have not shown much political commitment. This is despite the fact that they have signed the VISION 2020 declaration, which means that they endorse all World Health Assembly resolutions on the initiative. In addition, commitment from health professionals remains limited to a few converts and the private or corporate sector is only involved at a very basic level. Were it not for the commitment and support of the few NGOs operating there, the initiative would have struggled to make any progress after its launch in 2002.

In the West African sub-region, in particular, the need for advocacy features prominently on the agenda of every meeting or workshop to plan or review national VISION 2020 plans. It is true that advocacy is needed in order to speed up implementation of the plans and make progress towards achieving the goals of the initiative. However, little or nothing happens after these meetings. Two possible causes are:

### 1 Lack of government commitment.

National governments are expected to lead and be the champions of VISION 2020 in their countries. Unfortunately, governments still need to be on the receiving end of advocacy efforts. They cannot yet be expected to be advocates for VISION 2020. Usually, the coordinator or manager of a country's national programme is responsible for working towards the objectives of national VISION 2020 plans. But these leaders, and their counterparts in other areas of public health, often find it difficult to get support from their own governments.

2 **Lack of know-how.** Advocacy requires planning, strong evidence, and effective delivery of messages – the latter requires strong communication skills. However, most people involved in the implementation of VISION 2020 are health practitioners with

limited knowledge or skills in social communication. Although they may have the ability to put together strong evidence, they may not be able to select the best facts for advocacy and create a coherent message. Their evidence could therefore be of limited interest to, or have limited impact on, politicians or economists. Similarly, selecting the appropriate medium and time for the effective delivery of a message does not figure in the training curriculum of health practitioners.

## What should be done

In sub-Saharan Africa at least, non-governmental institutions and organisations need to lead advocacy for change at national and sub-regional levels. They need to form a coalition among themselves and with international organisations, as the power of advocacy will be increased if more people support the same objectives. The coordinator or manager of a country's national programme could lead the formation of such a coalition. He or she should also provide relevant information for planning the strategy and choosing the targets of such advocacy.

Next is the need for practical training or guidance in advocacy. We can learn from human rights and civil society advocacy and also from efforts in other health sectors. For teaching purposes, existing training resources for advocacy can be adapted by adding examples from other, more successful, VISION 2020 programmes.

Lastly, there is the question of evidence. We need credible evidence on the health and economic impact of VISION 2020, which can be defended and explained by the person delivering the message. There is no doubt that this type of credible evidence can change policies and improve funding for programmes. This has been demonstrated with PROFILES, a database approach to advocacy and policy development for nutrition<sup>2</sup> developed by the Academy for Educational Development. This tool for advocacy uses current scientific knowledge to estimate the cost and effectiveness of proposed nutrition interventions. It combines local data with established statistical models to generate graphs that clearly show the impact of the problem. If such a tool could be developed for eye health, it would help support advocacy on a bigger scale. We need this to obtain both the political commitment and the resources necessary to achieve the objectives of VISION 2020.

### References

- 1 State of the World's Sight, VISION 2020: The Right to Sight 1999–2005. Executive Summary. WHO Publication. Geneva 2005.
- 2 Burkhalter BR, Abel E, Aguayo V, Diene SM, Parlato MB, Ross JS. Nutrition advocacy and national development: the PROFILES programme and its application. Bull World Health Organ 1999;77(5): 407–15.



Kovin Naidoo





# Convincing governments to act: VISION 2020 and the Millennium Development Goals



**Hannah Faal**

Senior Eye Care Programme Consultant, West Africa, Sightsavers International, PO Box 18190, 58 Patrice Lumumba, Airport, Accra, Ghana.



**Clare Gilbert**

Reader, International Centre for Eye Health, Chief Medical Advisor, Sightsavers International, UK; London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK.

Many countries have signed the declaration of VISION 2020: The Right to Sight and have established national committees for the prevention of blindness. However, some governments still need to be convinced to allocate the resources needed to achieve the objectives of VISION 2020.

In planning advocacy aimed at governments, one has to choose those facts and arguments that will be most likely to convince them to act. One approach is to use studies that show the economic benefits of VISION 2020. For example, for each US dollar spent on eye care and on the prevention of vision loss, there is a five-dollar return to the community.<sup>1</sup> In addition, it is estimated that VISION 2020 – if successful – will provide a global saving of US \$223 billion over 20 years.<sup>2</sup>

The Gambia provides a key example. This low-income African country has demonstrated that an eye care programme based on the principles and recommendations of VISION 2020 can give an economic rate of return of 10% over a ten-year period (1986–1996).<sup>3</sup>

Another approach to advocacy aimed at governments is to focus on the relationship between VISION 2020 and the Millennium Development Goals (MDGs) – the United Nations’ action plan to lift the world’s population out of extreme poverty, and its consequences, by 2015.

Worldwide, governments of low- and middle-income countries are under enormous pressure to achieve the MDGs. Demonstrating to governments that a commitment to VISION 2020 will help them achieve these goals, rather than divert resources away from them, can be a way to convince governments to become more actively involved in the prevention of blindness and to allocate the necessary financial resources.

Indeed, seven of the eight MDGs depend on measures linked to the implementation of VISION 2020. This means that progress towards the goals of VISION 2020 will also help governments to achieve the MDG objectives – a win-win situation.

In most countries, the first step in translating the MDG targets into action involves

drawing up Poverty Reduction Strategy papers (PRSPs). This is how each country tailors the MDGs to its circumstances, sets its priorities, and involves key individuals and organisations in civil society and the corporate sector. Understanding the process of drawing up PRSPs at the national level, and finding ways to include prevention of blindness in these plans, is an essential step in linking VISION 2020 to the MDGs.

What follows is adapted from the International Agency for the Prevention of Blindness (IAPB) publication ‘Blindness, poverty and development – the impact of VISION 2020 on the Millennium Development Goals’.<sup>4</sup> We hope that the facts given here will help you to persuade your government to commit the resources needed to support VISION 2020.



## MDG 1: Eradicate extreme poverty and hunger

**Target 1.** “Halve, between 1990 and 2015, the proportion of people whose income is less than US \$1 a day.”

**Target 2.** “Halve, between 1990 and 2015, the proportion of people who suffer from hunger.”

We tend to think of poverty purely in economic terms (e.g. low income and expenditure, unemployment, debt, lack of land ownership, and poor housing) but this only describes one aspect of poverty. In fact, the notion of poverty also encompasses other aspects of life, such as a lack of access to services (e.g. education, health care, poverty alleviation and literacy programmes, or development assistance). There are also social and psychological elements to

consider when we think about poverty: lack of social contact, limited marriage prospects, poor self-esteem, exposure to stigma, violence, and abuse of authority, and not having the ability to make one’s

needs and feelings known in society. Poverty can, therefore, be thought of as the absence of opportunities to lead a life of dignity and respect.

If we think of poverty in this broader sense, the link between poverty and blindness becomes clearer; poverty can be both a cause and a consequence of blindness. Communities living in poverty are more likely to be affected by vitamin A deficiency, measles infection, and trachoma, all of which increase the risk of blindness. Conversely, individuals who are blind are less likely to be able to access eye care services, education, or rehabilitation. People who are blind remain ‘impoverished’ in the broadest sense of the word.

There is also a considerable body of evidence that blindness can lead to or exacerbate poverty, through lower productivity and inability to contribute to the family income. Studies have also shown that, after successful cataract operations, a high proportion of individuals return to their previous activities.

A successful VISION 2020 initiative would mean that, instead of the projected 75 million people worldwide likely to be blind by the year 2020, the number of people who are blind would be limited to 24 million. In view of what we have just mentioned, this will therefore reduce poverty and the proportion of people with an income of less than US \$1 a day, as well as the proportion who suffer from malnutrition.



## MDGs 2 & 3: Achieve universal primary education, promote gender equality and empower women



**Target 3.** “Ensure that all boys and girls complete a full course of primary schooling.”

**Target 4.** “Eliminate gender disparity in primary and secondary education preferably by 2005, and at all levels by 2015.”

**‘Worldwide, governments are under pressure to achieve the Millennium Development Goals’**



**The minister of health inaugurates the National Centre for Refraction and Low Vision training on World Sight Day, 11 October 2007. MADAGASCAR**

Approximately 90% of visually impaired children in low-income countries do not go to school, and in most countries there are more boys than girls in schools for the blind. Some of the factors which prevent visually impaired children from attending school are: lack of infrastructure, suitable educational materials, or qualified teachers, as well as distance between home and school and lack of awareness on the part of parents. In addition, the lack of provision for children with low vision or refractive errors may also reduce school attendance and academic performance.

Blindness among adults in the family may keep children away from school. This is because, in many low-income countries, blind adults often depend on children of school-going age and on other family members to help them in their daily tasks.

VISION 2020 initiatives can contribute towards the MDG of universal primary

education in four ways:

- reducing blindness in adults, so that sighted children do not need to stay at home as carers
- preventing blindness in children
- ensuring that children with significant uncorrected refractive errors are identified and given the spectacle correction they need
- linking eye care services to special education or other educational services for children who are visually impaired or blind.



#### **MDG 4:** **Reduce child mortality**

**Target 5.** "Reduce by two-thirds the mortality rate among children under five."

It has been estimated that up to half a million children become blind each year; this roughly means that a child becomes blind every minute. It has also been estimated that, in low-income countries, up to 60% of children who become blind die within one or two years of becoming blind. The most important reason for this is that many of the conditions that lead to blindness in children are also causes of child mortality (e.g. measles, vitamin A deficiency, congenital rubella syndrome, or meningitis).

Global initiatives to control vitamin A deficiency and measles infection are succeeding not only in preventing child deaths, but also in preventing blindness. One of the VISION 2020 targets is to eliminate corneal scarring in children by the year 2020, and another is to almost halve the prevalence of blindness in children by

*Continues overleaf* ▶

controlling the avoidable causes. Both of these targets, if achieved, will contribute towards reducing child mortality. VISION 2020 activities can also reduce child mortality by improving water supplies and sanitation in areas where trachoma is endemic. This is likely to reduce diarrhoea, which is an important cause of vitamin A deficiency in children.



### MDG 6: Combat HIV/ AIDS, malaria, and other diseases

**Target 7.** "Halt and begin to reverse the spread of HIV/AIDS."

**Target 8.** "Halt and begin to reverse the incidence of malaria and other major diseases."

People living with disability, including blindness, may be more exposed to infectious diseases, because they are often not included in health promotion activities and cannot receive health education messages which rely on good vision (e.g. posters). People who are disabled also have reduced access to outreach and treatment services and find it more difficult to follow treatment instructions if these are in written format. In short, preventing blindness may help to reduce the incidence of infectious diseases such as HIV and malaria.

In addition, VISION 2020 may help to combat neglected infectious diseases through the example of the African Programme for Onchocerciasis Control (APOC). APOC has been highly effective at delivering Mectizan® to millions of people in Africa on an annual basis.

This provides a successful model, which has been adopted for the delivery of health interventions for other infectious diseases (for example, impregnated bed nets for malaria control).



### MDG 7: Ensure environmental sustainability

**Target 10.** "Reduce by half the proportion of people without sustainable access to safe drinking water."

One of the components of the SAFE strategy for trachoma elimination is to improve environmental hygiene by improving water supplies and reducing the number of potential breeding sites for flies.

If this 'E' (for environment) component of the SAFE strategy could be implemented in areas where trachoma is endemic, this would contribute towards achieving MDG 7.



### MDG 8: Develop a global partnership for development

**Targets 12–15 & 18** The actions countries must take at regional, national and international level in support of MDGs 1–7.

The strength of VISION 2020 lies in the existence of strong partnerships at all levels. At the international level, IAPB represents WHO and over 70 international and national organisations involved in the prevention of blindness.

At the national, regional, and community levels, VISION 2020 encourages strong partnerships between ministries of health, national and international organisations, professional organisations, and civil society groups. These are brought together in national prevention of blindness and/or VISION 2020 committees, which aim to improve eye care services and eliminate avoidable blindness.

Supporting VISION 2020 therefore helps to strengthen global partnerships for development.

**Target 17.** "In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries."

## Practical tips 2

As is always the case with advocacy, you should approach governments prepared to answer the questions: 'What is in it for us?' and 'Why should we do as you say?'. Here are some suggested answers:

- Eliminating blindness and low vision is really important. After death and cancer, this is what people fear most
- You promised you would (remind them of the MDGs, or World Health Assembly resolutions and World Health Organization (WHO) regional strategic documents that they may have already signed)
- VISION 2020 is a WHO-supported programme and is contained in the WHO Medium-Term Strategic Plan 2008–2013
- The elimination of avoidable blindness does not cost that much and it is very cost-effective. It is possible to make the best use of existing resources and to

## Practical tips 1

One of the best tools for advocacy is to demonstrate that VISION 2020 succeeded in countries or districts that are similar to the ones in which you are trying to effect change.

What you say should be supported by evidence based on research and by a thorough knowledge not just of the subject, but also of the situation in which national government finds themselves at present. What are their current goals, needs, and obstacles? Make sure you take those into account.

You will also need to know which are the highest levels and forums at which decisions are made, and you need to be prepared to engage with decision makers at those levels.

VISION 2020 programmes ensure the availability of essential drugs for blindness prevention through the establishment of international, national, and regional partnerships for the control of onchocerciasis, trachoma, and childhood blindness.

## Conclusion

Without the appropriate investment by governments, development agencies, and other funding bodies to support the implementation of the VISION 2020 programme, the MDGs will remain unattainable.

### References

- 1 Taylor, HR. LXIII Edward Jackson Memorial Lecture: eye care: dollars and sense. *Am J Ophthalmol* 2007;143: 1–8.
- 2 Frick KD, Foster A, Bah M, Faal H. The magnitude and cost of global blindness: an increasing problem that can be alleviated. *Am J Ophthalmol* 2003;135: 471–476.
- 3 Frick KD, Foster A. Analysis of costs and benefits of the Gambian eye care programme. *Arch Ophthalmol Chic* 2005;123: 239–243
- 4 Visit [www.v2020.org](http://www.v2020.org) or email [communications@v2020.org](mailto:communications@v2020.org)

integrate the elimination of avoidable blindness into the health system

- There are many others prepared to help: the corporate sector, local and international non-governmental organisations (NGOs), and professional bodies
- VISION 2020 is not a vertical, NGO-driven programme. It is a comprehensive, integrated health programme. It is interested in, and will deliver on, the same things you care about, such as primary health care and strengthening your own health system
- The VISION 2020 programme is meant to be implemented by government. Therefore, its success will get you votes! People appreciate having their sight restored. Civil servants need to see with reading spectacles to do their work, and children at school will realise their full potential with good vision.



# Charting new frontiers of hope in Pakistan



**Asad Aslam Khan**

Chairman, National Committee for the Prevention of Blindness; National Coordinator, National Programme for the Prevention and Control of Blindness, Pakistan.

In 2001, following several years of hard work by key figures in the field of blindness prevention, the federal minister of health for Pakistan signed the VISION 2020 declaration. However, despite this high-level political commitment, no government funding was allocated to the prevention of blindness.

Prior to 2001, great progress had already been made in reducing the prevalence of blindness in Pakistan. The first national coordinator for prevention of blindness, Mohammed Saleh Memon, had introduced community eye health to Pakistan; his successor, Mohammed Daud Khan, had initiated training programmes for eye care professionals and introduced district comprehensive eye care.

These efforts received much support from national and international non-governmental organisations (NGOs). However, Pakistan's National Committee for the Prevention of Blindness was concerned that it would not be sustainable in the long term, as the government wasn't directly involved in it. An advocacy strategy was therefore developed, with the aim of establishing a national programme for the prevention of blindness within the existing health system of Pakistan.

## The advocacy strategy

This advocacy strategy consisted of different components, yet all aiming towards a single goal: active involvement and financial commitment from the Pakistani government. The elements of this strategy are described below.

### Decentralising the prevention of blindness programme and making it more accessible

This was achieved by involving provincial secretaries of health in the creation of provincial committees for the prevention of blindness. As a result, it became possible to coordinate, plan, and make decisions about the programme at provincial level. It was also possible to establish partnerships with international NGOs and to bring policy makers and decision makers into closer contact with the programme.

### Involving district administrators in the planning of eye care programmes

Evaluation of existing comprehensive eye care programmes at district level pointed out that there was poor ownership by district administrators. A solution was to involve



Muhammed Bilal/Sightsavers International

them in the planning stage; this ensured that they became active members of the programme. The strategy involved building the leadership and management skills of health officials and district ophthalmologists, and it resulted in greater ownership at district level.

### Training more eye health workers to stimulate the creation of eye care posts

New institutes of ophthalmology were established and others upgraded. Training a larger eye health workforce, including a substantial proportion of mid-level eye care personnel, provided a good argument for the creation of posts within the existing health care system.

### Making the ministry of health responsible for the prevention of blindness

Blindness had always been perceived by the Pakistani government as a clinical condition; there was no awareness about the importance of prevention, health promotion, and rehabilitation. The author and his team advocated for avoidable blindness to be included in the ministry of health's non-communicable disease and disability programmes, which include prevention, health promotion and rehabilitation. The team worked with the National Health Policy Forum and through them were able to build relationships with the Federal Planning Division. This helped them to convince the ministry that blindness is a non-communicable disease and an important disability.

During the period 2002–2006, the federal minister of health was appointed president of the World Health Assembly (WHA) and president of the WHA executive committee. Every meeting between him and members of Pakistan's National Committee for the Prevention of Blindness was used to advocate for prevention and control of blindness as a priority in the area of non-communicable diseases and disability. This was done by providing him and other senior bureaucrats with national situation

**Pakistan's national blindness prevention programme was launched by government in 2005. PAKISTAN**

analyses, policy studies and blindness survey reports, and by arranging field visits to district community eye care programmes and institutes of ophthalmology. This resulted in active support by the minister and senior government functionaries for WHA resolutions on the prevention of blindness and disability between 2005 and 2006.

## A positive outcome

On 15 April 2005, the minister not only chaired a meeting of the National Committee for the Prevention of Blindness for the first time, but he also directed the committee and the federal secretary of health to develop a national plan for the prevention and control of blindness. A representative from the Federal Planning Division lent further support by stating that, if the ministry submitted a proposal for the programme within two weeks, they would allocate it a national budget.

On Friday 29 April 2005, the federal secretary of health signed the proposal, which had been completed in record time. This meant that, for the first time in the history of eye care in Pakistan, the government had made a financial commitment to the prevention of blindness: a grand total of US \$51 million over five years.

Since then, the national programme for the prevention and control of blindness (2005–2010) has resulted in government commitment to upgrade eye departments in 27 teaching, 63 district, and 147 sub-district hospitals. A total of 2,719 posts are being created for eye care at teaching hospital, district and sub-district levels, and primary eye care has been recognised as a prevention and health promotion strategy.

Prevention and control of blindness now has a modest budget line in the Public Sector Development Plan, where government budgets are recorded (making it one of the priorities of policy makers). In the years to come, this could be increased and additional support could be sought from institutional donors.



# Advocacy to improve the delivery of eye care



**RD Thulasiraj**

Executive Director, LAICO, Aravind Eye Care System; President, VISION 2020: The Right to Sight: India, Lions Aravind Institute of Community Ophthalmology, Aravind Eye Care System, Annanagar, Madurai 625 020, Tamil Nadu, India.

Advocacy has a role to play in any eye care initiative. It can help individuals or organisations to obtain more resources, and it can support programme implementation and service delivery. This article focuses on using advocacy as a tool for improving the delivery of eye care services – both in terms of reaching more people, and in terms of improving the quality of services available for specific eye conditions.

When planning an advocacy strategy aimed at improving eye care delivery, it is important to identify those groups who are in a position to make a difference. These are the targets for advocacy – the people at whom you need to direct your efforts. They can make important decisions that directly affect service delivery or simply influence others in a way that will improve the situation.

If these key target groups can see the benefits of what is being advocated, it will be easier to both get their support and ensure that this support is sustained. For example, education officials would like a reduction in school drop-outs; diabetologists would like better compliance to follow-up, and so on. Hence, it is important

that the design of an intervention or programme should offer benefits to all – it should be a ‘win-win’ solution. Those who are advocating for better delivery of eye health services (whether they are eye health providers, hospital managers, or VISION 2020 national coordinators) should therefore clearly communicate these benefits – supported by the relevant evidence – to the groups that are the targets for their advocacy.

## Target groups for advocacy

The following groups are key targets for advocacy:

### Policy makers (government)

Policy makers at all levels of government should be targeted by those advocating for better eye care delivery. Policy makers are in a position to create and implement regulations. They can also offer incentives and monitor compliance.

Let us take the example of refractive error. Amongst the section of the population undergoing formal education or already in employment, one of the major eye care interventions required is refractive error

services. In this case, a key group of policy makers to target could be those in education and industry (or labour), as they are in a position to improve access to refractive error eye care for these two population groups. For example, they can encourage eye examinations of students by instituting school screening programmes; they can also encourage eye examinations among the workforce by providing financial incentives to companies who screen their employees for refractive error.

Advocacy messages targeting policy makers should focus on the positive impact that initiatives will have, which in turn will reflect well on policy makers themselves. In the case of refractive error services, advocacy can focus on the positive impact these services will have on education (better attendance and better academic results) and on the increased productivity that will result in the workforce.

### Community leaders

These individuals, who can be elected community leaders, local industrialists, village elders, or heads of local voluntary organisations such as Lions and Rotary, have direct contact with the community and can exercise significant influence on them. The support of these individuals has a significant impact on general eye care,



Exhibits to create awareness about diabetic retinopathy. INDIA

especially on the success of community-oriented activities such as community outreach and screening.

Advocacy targeting community leaders needs to focus on the magnitude and impact of visual impairment and blindness, as well as on causes, treatment options, costs, and benefits. Once these leaders come to understand the problems and the possible solutions, they can usually be persuaded to support eye care work. It is useful to remember that many people in this group may also directly benefit from eye care services. In addition, they have a direct interest in the community they represent, as their position of influence is due in large part to their efforts to help the community.

Following successful advocacy to community leaders, it is likely that they will become proactive in promoting eye care and can be counted upon to provide tangible support for setting up outreach activities or permanent primary eye care facilities. They can also provide support for the development of a community-based referral system and can play a significant role in encouraging community members to sign up as potential cornea donors.

### Health professionals

Health professionals are key targets for advocacy to improve eye care delivery. For some eye conditions, community screening is not cost-effective; health professionals can be invaluable allies in finding patients at risk. They can also play a crucial role in early detection and referral. This is true not just of eye health professionals, but of health professionals in general. For example, midwives or obstetricians, as shown in the next section, can play a role in identifying babies at risk of retinopathy of prematurity.

### Better eye care delivery: specific eye conditions

This section examines advocacy to improve eye care for specific conditions. It is useful to be aware of the way in which care is usually sought and delivered for each specific condition, in order to identify key targets for advocacy in each case.

#### Diabetic retinopathy

Diabetes is often diagnosed by a physician and care is provided either by them or by specialist diabetologists or endocrinologists. In many developing countries, ongoing monitoring of diabetes is often done by workers in independent clinical diagnostic laboratories and medications are obtained directly from pharmacists, based on previous prescriptions. These groups of practitioners all therefore have access to

people known to have diabetes, who are otherwise hard to reach (it is not cost-effective to find people with diabetes through community screening<sup>1</sup>). They are therefore very well placed to identify diabetic retinopathy (DR), an ocular complication associated with diabetes. This condition, which eventually leads to blindness, can be halted, but not reversed – so early diagnosis is essential.

Unfortunately, most of these practitioners are unaware of DR and of its treatment.<sup>2</sup>

Even when they are aware of it, referral to treatment and follow-up is often far from satisfactory. At present, equipment that can remotely diagnose DR could be installed in the premises of professionals who see many patients with diabetes.<sup>3</sup>

Advocacy to address DR should be targeted directly at practitioners,

informing them of the important role they can play in preventing and treating it. Advocacy can also be targeted at decision makers within medical training institutions, to convince them to include the diagnosis and treatment of diabetic retinopathy, as well as patient counselling and remote diagnostic techniques, in their curricula. Such a curriculum should be adapted for the different audiences – physicians, health workers, pharmacy owners, and laboratory technicians/owners.

Successful advocacy can result in the following:

- increased attendance at DR services
- better follow-up and compliance
- a reduction in the number of patients presenting with late-stage DR.

#### Better eye care for children

Generally, paediatricians and other maternal and child health practitioners are in a very good position to identify conditions such as squint, congenital cataract, congenital glaucoma, and nystagmus in children. Similarly, midwives or obstetricians will be the first to know that a baby was delivered prematurely and grossly underweight – both leading risk factors for retinopathy of prematurity. With timely referral and intervention, many of these conditions can be addressed. Support from these groups of health practitioners is therefore essential to ensure that no child becomes needlessly blind.

Here again, advocacy should be targeted at health practitioners themselves, in particular at those who have influence amongst their peers (for example, the heads of professional bodies) and at those who have supervisory or management responsibilities. There should also be advocacy for the inclusion of these eye conditions (their causes, clinical manifestations, and management) in the training curricula of all

relevant practitioner groups.

Successful advocacy can result in the following:

- increased attendance in paediatric eye clinics (in the short term)
- a reduction in avoidable childhood blindness (in the long term).

#### Corneal infections

Field trials have shown that, for people with corneal infections, the combination of immediate use of antibiotics and referral to an eye hospital has dramatically reduced progression into ulceration and subsequent loss of vision.<sup>4,5</sup> The individuals who get corneal abrasions tend to be rural farm workers who often resort to treatment from traditional healers or primary health physicians. These healers, either by giving the wrong treatment or by delaying treatment or referral, often make the condition worse – this can lead to vision loss.

Advocacy in this regard should be targeted at primary care physicians and traditional healers. It should focus on education and on creating awareness about the causes and progression of corneal infection, and what interventions are possible at primary level.

Successful advocacy can therefore significantly reduce the incidence of corneal blindness, especially in the rural farming community.

#### Low vision and rehabilitation

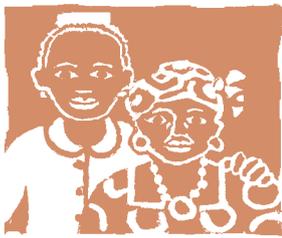
Although patients who are blind or have low vision often come into contact with eye care professionals, they are not always referred to rehabilitation or low vision services. This needs to change in order for these individuals to lead a more normal life and become productive members of the community.

In this case, advocacy has to be directed primarily at ophthalmologists and optometrists, in order to encourage them to refer patients to appropriate low vision or blindness rehabilitation services.

Successful advocacy can result in rehabilitation services that reach more people, both those who are blind and those who have low vision.

#### References

- 1 Hoerger TJ, Harris R, Hicks KA, Donahue K, Sorensen S, Engelgau M. Screening for type 2 diabetes mellitus: a cost-effectiveness analysis. *Ann Intern Med* 2004;140(9): 689–699.
- 2 Perumalsamy N, Ramasamy K, Kaliaperumal K, Sekar A, Karthika A, Nirmalan PK. A pilot study on awareness of diabetic retinopathy among non-medical persons in South India: the challenge for eye care programmes in the region. *Indian J Ophthalmol* 2004;52: 247–251.
- 3 Perumalsamy N, Sathya S, Prasad NM, Ramasamy K. Software for reading and grading diabetic retinopathy: Aravind diabetic retinopathy screening 3.0. *Diabetes Care* 2007;30: 2302–2306.
- 4 Upadhyay M, Karmacharya S, Koirala S, Shah D, Shakya S, Shrestha J et al. The Bhaktapur eye study: ocular trauma and antibiotic prophylaxis for the prevention of corneal ulceration in Nepal. *Br J Ophthalmol* 2001;85(4): 388–392.
- 5 Srinivasan M, Upadhyay MP, Priyadarsini B, Mahalakshmi R, Whitcher JP. Corneal ulceration in Southeast Asia iii: prevention of fungal keratitis at the village level in south India using topical antibiotics. *Br J Ophthalmol* 2006;90(12): 1472–1475.



# Improving gender equity in eye care: advocating for the needs of women



**Paul Courtright**



**Susan Lewallen**

Kilimanjaro Centre for Community Ophthalmology  
PO Box 2254, Moshi, Tanzania

Of the people who are blind in the world today, 64% are female.<sup>1</sup> There are three main reasons for this:

- in many countries, women live longer than men and are at greater risk of blindness from causes related to age (such as glaucoma and age-related macular degeneration)
- some blinding conditions, such as trachoma and cataract, are more likely to affect women than men, whatever their age
- women and girls do not access eye care services as often as men and boys.<sup>2,3,4</sup>

There have been efforts in some countries, such as Pakistan<sup>5</sup> and Tanzania,<sup>6,7</sup> which have been effective in increasing the use of services by women. However, most communities, political leaders, and even some eye care workers are not aware of this problem.

Ensuring equal access to eye care services for women will require advocacy at all levels: national, district, and community.

Although it is beyond the scope of eye care programmes to change gender roles and expectations, gender issues that affect VISION 2020 goals need to be addressed.

## National level

At the national level, for example national government or the national department of health (where policy and overall strategy are developed and agreed upon), advocacy should be focused on the following:

- getting decision makers to acknowledge that there are gender differences in access to eye care
- persuading decision makers to commit to finding ways to increase access to eye care for women of all ages.

Although data from local clinics, districts, and individual countries would be very useful to demonstrate the magnitude of the gender imbalance, these are often not available. However, you can still use global data, such as reports from the World Health Organization (WHO),<sup>8</sup> to inform people in government and in other organisations of the situation, the needs, and the potential solutions. Many organisations and governments have departments devoted to gender issues; it is helpful to contact key people in these departments and work with them at the national level.

Advocacy should also be focused on the

monitoring of VISION 2020 data by sex. Although the sex of patients accessing eye health services is often routinely recorded and reported at the district VISION 2020 level, this information usually isn't passed on and reported at the national level. In most settings, any change to the reporting format will be quite simple; the major challenge will be to convince decision makers that they should ensure this is routinely done. WHO, IAPB, and VISION 2020 could support this by changing existing reporting formats and requiring that data reporting at all levels be done by sex. Non-governmental organisations (NGOs) should also routinely collect data by sex.

## District level

As a first step, it is extremely helpful to generate local evidence; this can be done by collecting data from the reports of clinics and surgical

services (cataract, glaucoma, and childhood cataract) and by collecting data about spectacle sales. In-depth interviews with both men and women can

highlight the factors that limit the use of services by women and girls. This evidence can inform district health authorities and NGOs about the importance of being sensitive to the needs of women; such evidence can also be used to design programmes in a way that will allow and encourage women to access them.

## Community level

At the community level, advocacy needs to be targeted at both community members and eye care service providers. In our experience, some of the main messages at this level are:

### Restoring vision restores contribution to the household and community

In many communities in developing countries, it is often not recognised that women need eye care services – including sight-restoring operations – just as much as men do. Poor families need to make difficult decisions about how to use their scarce resources, based on complex considerations of costs and perceived benefits; they may not realise the value or benefits of sight-restoring surgery for women. Therefore, it is important to

help families recognise that cataract or trichiasis operations can restore sight and enable women to contribute to the family once again.

### Cataract surgery should be done when vision loss interferes with the activities of daily living

Due to well-known factors that make women less likely to access eye care services, women are generally more likely than men to be blind before they make use of eye care services.<sup>9</sup> Once women become blind, additional barriers (whether imposed by the society or by the individual) make it even more difficult for them to use eye care services.<sup>10</sup> It is better to promote the concept that eye care should be sought as soon as decreased vision starts to limit activities that are important to the person and to the family.

This problem can be made worse by programmes that have rigid visual acuity

cutoff points for cataract surgery (for example, only operating on people with visual acuity <6/60 or <3/60). There is evidence that, once a patient is told, “your cataract is not mature, come back later,” many come back only much later, or they do not come back at all.<sup>11</sup>

Rigid visual acuity cutoff

points for surgery seem to be most common in settings where there is no counselling provided and where the potential benefits of cataract operations are not discussed with the individuals and their families. Operating on patients with moderate visual impairment, in addition to those with severe visual impairment or blindness, is strongly recommended. It should also be combined with a good quality counselling service whenever possible.

### Even older people can have eye operations

Advocacy is frequently needed to help communities understand that even older people can have eye operations. Many negative perceptions exist, for example: “Hospitals are places to go and die”, “I am too old for an operation”, or “There is no one to take care of me while I'm in hospital”. Elderly residents often do need assistance to access services. As transportation is probably the most significant barrier for this group, it is essential to work with communities and hospitals to ensure that elderly residents, particularly women, can get to the services. Women often have little experience travelling outside the

**‘Some communities don't appreciate that women need eye care services just as much as men do’**

A counselling coordinator speaks to a son about his mother's need for cataract surgery. TANZANIA



community. Experience suggests that, if key members in the community (e.g. religious leaders) understand the relative ease (and benefits) of cataract or trichiasis surgery, they can play a significant role in ensuring that everyone understands the value of eye care, even for the most elderly.

### Approaches to community advocacy

Getting these three basic messages into communities will require multiple approaches; there is no one way to do it. Some things to keep in mind are:

#### To reach women, you need to reach men

Since men often have better access to a family's financial resources and make the financial decisions, advocacy and counselling should be directed at them as well: the husband, if the woman is married, or an eldest son, if the woman is widowed. In some settings, village leaders or religious leaders may have influence over family decisions. Health care workers should be comfortable speaking to these individuals and groups and raising awareness about the needs of women. It may be helpful to involve men whose wives have had eye operations (and who have recognised the value of this) in advocacy activities.

#### Widows require a special approach

In most developing countries, a large proportion of elderly women are widows. In some settings, widows are shunned, stigmatised, and neglected. Reaching widows can therefore be particularly challenging as their children may live elsewhere and may have minimal contact with their mother. Eye care services such as operations often require the consent of a family member, and eye care workers should use whatever means available to contact the children of widows – whether through community structures or via cellphones/mobile phones. Community women's groups, where they exist, are most likely to know of widows needing eye care services and may be valuable in helping to encourage women to use these services.

#### Religious organisations can be powerful allies

In most settings in developing countries, religious organisations can be extremely helpful partners in reaching people, women in particular. Religious groups may also be able to assist people who are unable to afford eye care services. The credibility of religious groups comes from within the community and women, although usually not in key leadership positions, often have their own special groups within these organisations.

### Conclusion

Achieving equal access to eye care services for both men and women is a long-term goal, and ongoing advocacy at all levels is essential if VISION 2020 is going to reach women.

#### References

- 1 About-Gareeb I, Lewallen S, Bassett K, Courtright P. Gender and blindness: a meta-analysis of population-based prevalence surveys. *Ophthalmic Epidemiol* 2001;8(1): 39–56.
- 2 Courtright P, West SK. Contribution of sex-linked biology and gender roles to disparities with trachoma. *Emerg Infect Dis* 2004;10: 2012–16.
- 3 Lewallen S, Courtright P. Gender and use of cataract surgical services in developing countries. *Bull World Health Organ* 2002;80: 300–303.
- 4 Muhiit MA, Shah SP, Gilbert CE, Hartley SD, Foster A. The key informant method: a novel means of ascertaining blind children in Bangladesh. *Br J Ophthalmol* 2007;91: 995–999.
- 5 Sightsavers International. Final evaluation report: 10 district comprehensive eye care programmes (NWFP and FATA, Pakistan). SSI, Haywards Heath, UK: 2004.
- 6 Geneau R, Lewallen, S, Paul, I, Bronsard A, Courtright P. The social and family dynamics behind the uptake of cataract surgery: findings from Kilimanjaro Region, Tanzania. *Br J Ophthalmol* 2005;89: 1399–1402.
- 7 Geneau R, Massae P, Courtright P, Lewallen S. Using qualitative methods to understand the determinants of patients' willingness to pay for cataract surgery: a study in Tanzania. *Soc Sci Med* (in press).
- 8 WHO Information Sheet on Gender and Blindness, 2002. [www.who.int/gender/other\\_health/en/genderblind.pdf](http://www.who.int/gender/other_health/en/genderblind.pdf)
- 9 Jefferis JM, Bowman RJC, Hassan HG, Hall AB, Lewallen S. Use of cataract services in eastern Africa: a study from Tanzania. *Ophthalmic Epidemiol* (in press).
- 10 Chibuga E, Massae P, Geneau R, Mahande M, Lewallen S, Courtright P. Acceptance of cataract surgery in a cohort of Tanzanians with operable cataract. *Eye* (in press).
- 11 Vaidyanathan K, Limburg H, Foster A, Pandey, RM. Changing trends in barriers to cataract surgery in India. *Bull WHO* 1999;77: 104–109.



# The 'ngisipet' and trachoma prevention: solving the latrine problem in nomadic tribes

**Daniel S Morris**

Clinical Director, Ol Malo Eye Project, Kenya; Specialist Registrar, Royal Victoria Infirmary, Newcastle-upon-Tyne, UK.

**Julia Francombe**

Founder, Ol Malo Trust, PO Box 1195, Village Market, 00621, Nairobi, Kenya.

There is a global commitment to eliminate trachoma by 2020.<sup>1</sup> Many different governmental and non-governmental agencies, in conjunction with industry, are working hard to achieve this aim. It relies on implementing the whole SAFE strategy: surgical treatment for trichiasis (S), widespread distribution of antibiotics (A), face-washing with other hygiene measures (F), and environmental improvement (E).

A clean, reliable water supply is vital to this process. Equally important is changing the defecation habits of many tribal people, as this will decrease the number of flies that carry the disease. It is thought that the principal carrier of trachoma, *Musca sorbens*, lays its eggs mostly on human faeces lying exposed on soil and not on excreta of other species or on human faeces in latrines.<sup>2</sup> The World Health Organization recommendation is to use either latrines or what is referred to as 'ventilation-improved pits'.<sup>3</sup> However, for nomadic tribes, these present various disadvantages, the most obvious being:

- they are not portable, so are not useful to tribes who move around from day to day
- they are expensive, and multiple latrines would be needed to accommodate the nomadic lifestyle
- they are difficult to build in a semi-arid climate where mechanical digging tools are not readily available.

There may be additional concerns with the use of latrines. Experience with the Samburu tribe in Kenya has shown that both women and men are very private about their toilet habits. They would therefore never use a latrine, as it would make their intentions obvious to any observer. The Samburu in general, and especially the children, are also frightened of dark holes because of the possibility that they may harbour potentially lethal snakes. Unfortunately, latrines are little more than dark holes in the ground. Consequently, latrines that are installed by well-meaning organisations are often left



Julia Francombe



Julia Francombe

**The ngisipet, used by nomadic tribes to cover faeces. KENYA**

untouched. Latrines used as rubbish pits can also pose a danger to children.

The Ol Malo Eye Project, with the Ol Malo Trust, has been working on the elimination of trachoma from the Samburu tribe since 2003, with surgical camps, antibiotic distribution, and education. We were also successful at improving face-washing. However, we were uncertain about how to change the tribe's toilet habits, as the project was working with the Samburu at their invitation and within their cultural boundaries.

The option chosen was to teach the tribe members to cover their faeces. To help put this idea into practice, we employed the local spear-maker to make a small trowel

designed by Julia Francombe of the Ol Malo Trust. Samburu women were then paid to decorate the trowels with beads to make them more attractive to their owners and to identify different groups: unmarried girls, married women and their children, circumcised men, and elders. These trowels can be concealed inside the clothing so that the women's intentions are not obvious.

We called these trowels 'ngisipet', which literally means 'to cover up' in Samburu. They have been remarkably successful and are now fully incorporated into Samburu culture, so much so that the warriors and elders now wear them alongside their other decorations. The beading around the trowel now signifies the status of that person within the tribe. The trowels are distributed by local trachoma monitors who give advice on how to use them and on other aspects of preventing trachoma.

The success of the *ngisipet* is due in large part to the fact that the Ol Malo Trust works within the Samburu tribal structure, liaising closely with the women and the elders. Any idea, such as the *ngisipet*, is discussed in detail with the tribe, created in conjunction with the women, and then taken before a committee of elders for their approval. They consult the wider group of elders and then return to the Ol Malo Trust with their decision.

This approach should be encouraged for any organisation hoping to successfully work with a tribal culture. If the aims of VISION 2020 are to be met, it is vital that cultural interests and taboos are acknowledged when the SAFE strategy is being implemented.

It is important to stress that the *ngisipet* should only be offered to

nomadic people; some Samburu have settled permanently close to towns and their children attend schools. In this situation, when there has been a shift in culture, the use of fixed latrines can be encouraged. However, the *ngisipet* may be of use to other sub-Saharan nomadic tribes.

**References**

- 1 World Health Organization. Global elimination of blinding trachoma WHO/EB101.R5 Geneva, World Health Organization, 1998.
- 2 Emerson PM, Bailey RL, Mahdi OS, et al. Transmission ecology of the fly *Musca sorbens*, a putative vector of trachoma. *Trans R Soc Trop Med Hyg* 2000;94:28-32
- 3 Mariotti SP and Pruss A. The SAFE strategy. Preventing trachoma. A guide for environmental sanitation and improved hygiene. WHO/PBD/GET/00.7/Rev.1. Geneva, World Health Organization, 2000.

# Community Eye Health MSc dissertations

The seven Exchange articles that follow are based on the dissertations of students at the International Centre for Eye Health, London School of Hygiene and Tropical Medicine, who graduated in 2007.

## Poor vision and barriers to treatment among commercial vehicle drivers in Plateau State, Nigeria



**Barka David Lass**

ECWA Evangel Hospital, Zaria  
Bye-Pass, PMB 2238, Jos, Nigeria,  
West Africa.

Email: [dflass@yahoo.com](mailto:dflass@yahoo.com)

In Nigeria, deaths from road traffic accidents have increased from 18 per month in 1988 to 102 per month in 2000. Victims include drivers, passengers and pedestrians. Although there is a minimum legal requirement for visual acuity before a driver's licence can be issued, this is not implemented in practice.

This study investigated the visual acuity of minibus drivers providing public transport in Jos, Plateau State, Nigeria.

Four of the six major stations where people come to board these vehicles were randomly selected and a total of 673 drivers were recruited. Their distance vision was assessed using a Snellen chart and their eyes were examined by an ophthalmologist. Data were collected using modified survey forms used for the rapid assessment of avoidable blindness (RAAB). Information on barriers to treatment was obtained from all drivers with visual acuity  $<6/12$ .

A total of 53 drivers (7.8%) had presenting binocular vision  $<6/12$ . This represents the proportion of drivers in this study who would have failed to meet the legal requirement for a driver's licence.

Untreated cataract was the main cause

of presenting binocular vision of  $<6/12$ , followed by uncorrected refractive error. The main barriers to treatment were lack of knowledge of where to obtain ophthalmic services, lack of time to go for treatment, and not being aware of the problem.

It is therefore recommended that all commercial vehicle drivers have a comprehensive eye examination before obtaining a driving licence in Plateau state. An eye care service should also be put in place to meet the needs of commercial vehicle drivers.

## RAAB survey of Pemba and Unguja islands, Zanzibar



**Susan Kikira**

PO Box 43, Jinja, Uganda.

Email: [skikira@hotmail.com](mailto:skikira@hotmail.com)

No recent survey data are available about the magnitude and causes of avoidable blindness in Zanzibar. This study aimed to address this by conducting a rapid assessment of avoidable blindness (RAAB) survey. The RAAB survey is a relatively quick and cheap method, as it only includes people aged 50 and over (the prevalence of avoidable blindness is highest in this group). This minimises the sample size required.

The RAAB survey was conducted on Pemba and Unguja islands during July 2007. Visual acuity (VA) was measured and lens status was assessed. All eyes with VA  $<6/18$  were examined to diagnose the cause of visual impairment. All participants with VA  $<6/18$  who had also previously had a cataract operation were interviewed.

A total of 3,160 persons aged  $\geq 50$  were

examined (a response rate of 98.8%). The prevalence of blindness was 3.7% (defined as VA  $<3/60$ , with available correction, in the better eye). Avoidable causes accounted for 75% of blindness.

Cataract was the leading cause of blindness (67%), followed by posterior segment diseases (25%). Cataract (47%) and refractive error (39%) were the leading causes of visual impairment in both eyes.

A total of 30% of the eyes that had been operated on for cataract had a poor outcome (visual acuity  $<6/18$ ). The most common reported barrier to receiving cataract operations was 'unaware of treatment' (36%).

Of the 95 patients affected by poor outcome, 15 did not attend for post-operative care. The greatest barrier to receiving post-operative care was 'not advised' (80%). Most of the patients who mentioned this as a factor were from the private sector. The other barriers were 'distance to travel too far' (6.7%), and 'fear of returning after surgery' (6.7%).

In conclusion, there is a need for:

- routine monitoring of cataract operations to improve outcome
- more optical services to address refractive errors
- better public awareness about the available eye health services
- better coordination between the government and private sector; this will allow patients operated on in the private sector to be followed up in the government sector
- guidelines for the routine management of cataract patients, including counselling techniques to lessen the anxiety of patients before and after operations.

**One of the minibus stations (or 'parks') in Jos, NIGERIA**



## Analysis of eye care services in South Africa's public sector



**Karin Lecuona**

Ward D4, Groote Schuur Hospital, Observatory, 7925 Cape Town, South Africa.

Email: [karin.lecuona@uct.ac.za](mailto:karin.lecuona@uct.ac.za)

This analysis of eye care services was conducted to support the development of appropriate objectives and strategies for South Africa's national VISION 2020 strategy, which is currently in preparation.

Questionnaires about human resources, facilities, and number of cataract operations and refractions performed were sent to hospitals with eye units and to provincial coordinators. Semi-structured interviews were held with VISION 2020 committee members to describe how services were implemented. The study was limited to the public sector, which serves 80% of the population.

The study found that cataract services had been established in 43 of the 53 districts in South Africa. There were 65 ophthalmic nurses, 5 managers, 78 optometrists, and 124 cataract surgeons. The ratio of eye surgeons to population was 1:305,721, whereas the recommended ratio is 1:250,000.

The cataract surgical rate (number of operations per year, per million population members) was 1,056; this is just over half the rate of 2,000 needed in South Africa. There were 62 hospitals with eye units, but most used the theatre facilities only once per week. Although refraction services had been implemented in most districts, standardised refraction figures were not available.

Human resources could not be deployed where they were needed. Ophthalmic nursing was seen by some planners as

specialised nursing and therefore not appropriate in primary care, a priority in South Africa. The appointment of ophthalmologists in district hospitals was also seen as contradictory to the principles of primary care.

District health committees had a limited effect on curative services because they lacked members with executive powers and functioned more as discussion groups. Committee members appeared to lack managerial and leadership skills.

It is therefore recommended that the national policy on the deployment of human resources in eye care services be reviewed. The effectiveness and structure of district committees should be improved and leadership and managerial training for committee members should be coordinated.

## Evaluating the role of Anganwadi workers as key informants to identify blind children in Pune, India



**Tasnim H Parkar**

G18, Swapnashilp Society, near Gandhi Lawns, Kothrud, Pune, Maharashtra 411 038, India.

Email: [drtasnim@hotmail.com](mailto:drtasnim@hotmail.com)

The key informant method has been found to be a cheap and reliable way of identifying blind children. This study aimed to evaluate the suitability of Anganwadi workers as key informants to identify blind and severely visually impaired children in Pune slums.

Anganwadi workers and helpers are engaged by the government to work in the state-operated Integrated Child Development Scheme (ICDS). This scheme caters to the health and pre-school education needs of children from birth to six years of age and also to the health and nutrition needs of pregnant women, nursing

mothers, and adolescent girls.

A total of 200 Anganwadi workers were selected from the ICDS services in the slums. They were trained as key informants to identify blind and severely visually impaired children. Each Anganwadi worker was responsible for an area that included 250–350 children up to 15 years old, thereby covering a total of 63,030 children. Children identified by the key informants as potentially blind or severely visually impaired were examined by an ophthalmologist according to the World Health Organization Prevention of Blindness survey methods. The major anatomical site and cause of visual loss was determined for each eye and each child.

A total of 39 blind or severely visually impaired children were identified by the key informants (56% boys and 41% girls). In total, 23 of these children (59%) were blind from avoidable causes.

The prevalence of blindness was estimated to be 0.06% (95% CI 0.04–0.08%), which compares well with the World Health Organization estimate for India of 0.08%.

In conclusion, Anganwadi workers can be used as key informants in Pune slums. This may be a useful way to estimate the magnitude and causes of childhood blindness in slums in India.

## Causes of childhood blindness and available services in schools for the disabled in southern Viet Nam



**Tran Huy Hoang**

Poor People Clinic, Ho Chi Minh City Eye Hospital, 611 / 2 Dien Bien Phu Street, District 3, Ho Chi Minh City, Viet Nam.

Email: [tranhuyhoang0000@yahoo.com](mailto:tranhuyhoang0000@yahoo.com)

No research is available about the causes of childhood blindness in Viet Nam, which makes it difficult to plan interventions. The aim of this study was to investigate the causes of childhood blindness in Viet Nam by examining children in schools for the disabled.

A total of 264 school children from nine schools in southern Viet Nam were enrolled in this study. Half of the participants were from Ho Chi Minh City, while the rest were from other provinces.

Data were collected using the World Health Organization Prevention of Blindness recording form and children were examined by an ophthalmologist. Data were also collected on educational and rehabilitation services available at those schools.

Retinopathy of prematurity (ROP) accounted for 83.9% of blindness among those aged five years or younger, for 37.7% among those aged 6–10, and for 8.5% in those aged 11–16. In children from Ho Chi Minh City, it was the most important single



**Tran Huy Hoang (far left) and his research team at Ho Chi Minh Eye Hospital, VIET NAM**

cause of childhood blindness, accounting for 46.3% in total. Corneal scarring was not a major cause of blindness, accounting for only 12.4% of all cases, but it was found more frequently in children aged 11–16 from provinces other than Ho Chi Minh City.

Rehabilitation services were limited; there was no psychological support or vocational training outside of that provided in the national curriculum.

A survey of disabled schools gives a biased view of the main causes of blindness and, ideally, a population-based survey would need to be done. The fact that ROP is present in a larger proportion of younger children than older children could indicate an increase in this condition over time; this may warrant further investigation. ROP appears to be the most important single cause of childhood blindness in children from Ho Chi Minh City, and it should therefore be a priority for intervention. In addition, more direct support should also be given to blind children in schools for the disabled.

## The prevalence of presbyopia and the feasibility of community distribution of near spectacles in adults in Zanzibar, East Africa



**Heidi Laviers**  
Email: [Laviers@hotmail.com](mailto:Laviers@hotmail.com)

Presbyopia, the age-related inability to focus at near distances, is a relatively neglected field of study, particularly in disadvantaged populations where literacy rates are low. This study aimed to assess the prevalence of presbyopia, its impact on quality of life, and people's willingness to pay for presbyopic correction in Zanzibar, East Africa.

A nationally representative sample of 400 people aged 40–50 years with distance visual acuity  $>6/18$  was selected from a RAAB survey being conducted in Zanzibar. Visual function and quality of life questionnaires were administered, followed by clinical assessment by an optometrist. Near visual acuity (defined as the ability to read N8 at 40 cm using a logMar E chart) was assessed with and without distance correction. Participants requiring a simple near addition were given free ready-made spectacles. They were asked about barriers to the uptake of services and their ability and willingness to take part in a community scheme to distribute near vision spectacles.

The overall prevalence of presbyopia was 89.2%. Of those who needed correction, only 17.7% had spectacles. Barriers to accessing services included 'not considered a priority' (33%) and 'lack of money'



Heidi Laviers

### Testing visual acuity. ZANZIBAR

(30.6%). Participants were, on average, prepared to pay US \$2.13 for a pair of spectacles (spectacles distributed during the survey cost US \$2.00) and 79.3% of those asked were willing to participate in the distribution scheme if it were introduced in their village. After adjusting for age, presbyopia, and presenting visual acuity, there was an association between 'having difficulty with near tasks' and living in a rural area, being female, and being illiterate. Lower quality of life scores were associated with being older, being female, living in a rural area, and being illiterate, after adjusting for occupation, presenting visual acuity, and presbyopia.

In conclusion, there is a need to increase the availability of affordable spectacles for near correction in Zanzibar, especially for women and those living in rural areas. Further research is needed to assess the use of and satisfaction with spectacles provided during this study and to measure changes in quality of life and visual function. A large proportion of participants were willing to take part in the distribution scheme (79.3%), which justifies further research into the feasibility of such a scheme.

## The characteristics of patients presenting with advanced proliferative diabetic retinopathy in Shanxi Eye Hospital, China



**Zhigang Yuan**  
Shanxi Eye Hospital, 100 Fudong Street, Taiyuan City, Shanxi Province, China, 030002.

Email: [zhig.yuan@gmail.com](mailto:zhig.yuan@gmail.com)

In Shanxi Eye Hospital, approximately one-third of diabetes patients who come to

the retinal eye clinic are in an advanced stage of diabetic retinopathy (DR), a diabetes complication. They are said to have advanced proliferative DR. In nearly all cases, the vision of patients with advanced proliferative DR could not be restored, even after they had received complex vitreo-retinal surgery.

The aim of this study was to explore the socioeconomic characteristics of patients presenting with advanced proliferative DR and who hadn't yet received laser treatment for proliferative DR. It also explored the barriers to eye care. It is hoped that this study will be a first step in addressing prevention of blindness from advanced proliferative DR in this region.

One hundred and fifty-eight consecutive diabetes patients were recruited from the retinal outpatient clinic of the hospital: all were attending for the first time and had never received laser treatment before. The patients' socioeconomic status was recorded and ophthalmic examinations were performed. Patients presenting with advanced proliferative DR were also invited to either in-depth interviews or focus group discussions to determine barriers to eye care.

Of the 158 patients recruited for this study, 24.7% presented with advanced proliferative DR. Late presentation was significantly associated with education, occupation, health insurance, family size, and presenting complaints. However, the only variable independently associated with late presentation was education. The main reasons were lack of awareness and not having been referred to eye specialists by their physicians.

It is recommended that physicians in Shanxi province be informed about the risks of DR in patients with diabetes. In addition, a hospital-based screening programme among diabetes patients will serve to both identify early-stage DR and educate patients about this complication.

# How to measure intraocular pressure: applanation tonometry



**Sue Stevens**

Nurse Advisor to the *Community Eye Health Journal*, International Centre for Eye Health, London School of Hygiene and Tropical Medicine, Keppel Street, London WC1E 7HT, UK.



**Clare Gilbert**

Reader, International Centre for Eye Health; Chief Medical Advisor, Sightsavers International, UK.



**Nick Astbury**

Consultant Ophthalmic Surgeon, Norfolk and Norwich University Hospital NHS Trust, Colney Lane, Norwich NR4 7UY, UK.

All adults attending an eye unit should have their intraocular pressure (IOP) measured, unless there is a contraindication (e.g. trauma or corneal ulcer). Many people with glaucoma have no symptoms and do not know they have the condition. All children who have had cataract surgery should also have their IOP measured at every follow-up visit, if possible. Finding glaucoma early allows treatment to be given which will preserve sight. Although elevated IOP is not the only sign of glaucoma, measuring it is simple and quick to do. It should therefore be done routinely on all adults attending eye care facilities. Applanation tonometry, described in this article, is the preferred method (the 'gold standard'). Schiötz tonometry, which will be described in a future issue, is a useful screening test which can be performed by nurses or ophthalmic technicians.

**Equipment**

- Tonometer, either Goldmann (used on slit lamps) or Perkins (hand-held)
- Applanation prism
- Local anaesthetic drops
- Fluorescein strips
- Clean cotton wool or gauze swabs.

**Preparation**

- Ensure the prism has been sterilised with isopropyl alcohol 70% (methylated spirit) or sodium hypochlorite, and wiped dry with a clean swab (residue of the disinfectant may cause a caustic burn on the cornea)
- Check that the graduation marked '0' on the measuring prism is aligned with the white marker point on the tonometer head
- Check the calibrated dial of the tonometer is set at 10 mmHg
- Ensure that the patient is sitting comfortably at the slit lamp: at the right height, with their chin on the rest and their forehead against the headband (or in a chair with their head supported, if using the Perkins tonometer)
- Set the magnification of the slit lamp at x10.

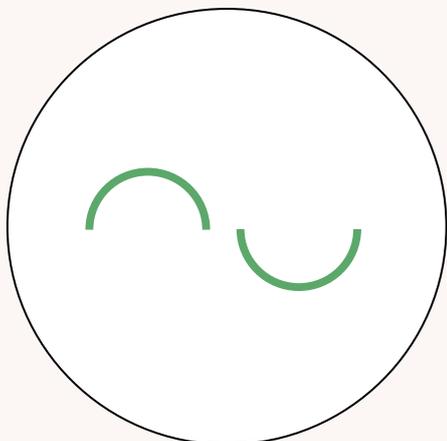
**Method**

- Instil the local anaesthetic drops and then the fluorescein. Only a very small amount of fluorescein is needed
- For measuring the IOP in the right eye, make sure the slit beam is shining onto the tonometer head from the patient's right side; for the left eye, the beam should come from the patient's left side
- Move the filters so that the blue filter is used to produce a blue beam
- Make sure the beam of light is as wide as possible, and that the light is as bright as possible. This makes visualising the fluorescein rings easier (with the slit diaphragm fully open)
- Ask the patient to look straight ahead, open both eyes wide, fix his or her gaze and keep perfectly still
- With the thumb, gently hold up the patient's top eyelid, taking care not to put

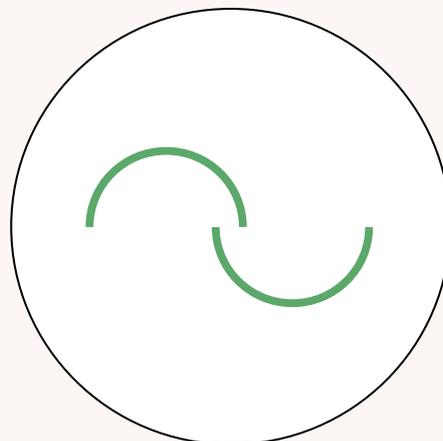


- any pressure on the eye
- Direct the blue light from the slit lamp or the Perkins tonometer onto the prism head
- Make sure that the tonometer head is perpendicular to the eye
- Move the tonometer forward slowly until the prism rests gently on the centre of the patient's cornea
- With the other hand, turn the calibrated dial on the tonometer clockwise until the two fluorescein semi-circles in the prism head are seen to meet and form a horizontal 'S' shape. (Note: the correct end point is when the inner edges of the two fluorescein semi-circle images just touch)
- Note the reading on the dial and record it in the notes
- Withdraw the prism from the corneal surface and wipe its tip
- Repeat the procedure for the other eye
- Wipe the prism and replace it in the receptacle containing the sterilising fluid.

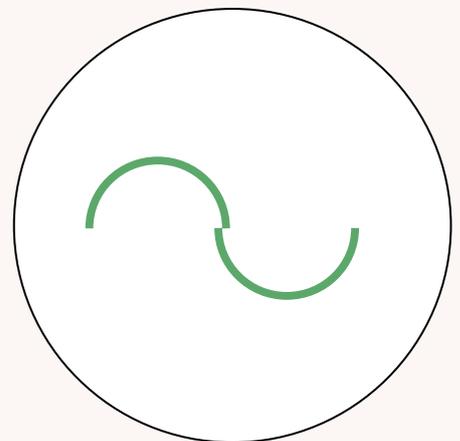
**Applanation tonometry rings viewed through the Goldmann prism**



High intraocular pressure before the end point is reached will result in this image. Continue to turn the calibrated dial on the tonometer clockwise to reach the correct end point.



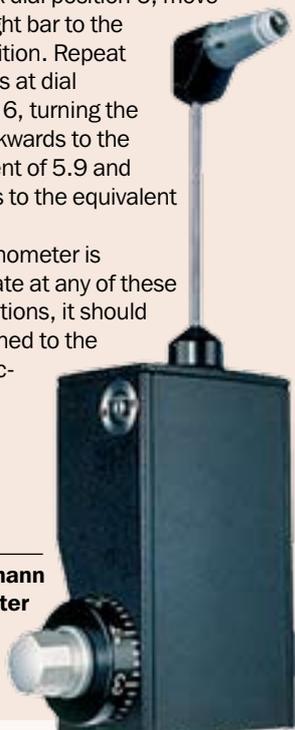
Low intraocular pressure will result in this image. Turn the calibrated dial on the tonometer anticlockwise to reach the correct end point.



This is the correct end point – the inner edges of the rings are just touching. This will give a correct reading of intraocular pressure.

## Calibration of the Goldmann tonometer

- It is possible to check the calibration of the tonometer; this should be done every six months. Calibration is done at dial positions 0, 2, and 6 (equivalent to 0, 20, and 60 mmHg)
- Insert the prism in the holder and place the tonometer on the slit lamp
- At dial position 0, the feeler arm should be in free movement. If the dial is turned backwards a small way (to the equivalent of position -0.05), the arm should fall towards the examiner. If the dial is turned forwards a small way (to the equivalent of position +0.05) the arm should fall towards the patient
- If the arm doesn't respond in the above way, the tonometer is inaccurate at dial position 1
- To check dial positions 2 and 6, the check weight is used (this is normally found in the case with the tonometer prisms or in the drawer of the slit lamp). There are five markings engraved on the bar. These represent 0 centrally, then 2 on either side, and 6 towards the edges
- Line up the adjustable holder with index mark 2 on the weight. With the longer end of the bar facing you, put it into the slot on the side of the tonometer and push it all the way in
- Repeat the above steps (for dial position 0), with the dial now at position 2. This time, turn the dial backwards to the equivalent of 1.95 and forwards to the equivalent of 2.05
- To check dial position 6, move the weight bar to the end position. Repeat the steps at dial position 6, turning the dial backwards to the equivalent of 5.9 and forwards to the equivalent of 6.1
- If the tonometer is inaccurate at any of these dial positions, it should be returned to the manufacturer for recalibration.



A Goldmann tonometer

## NEWS

### Better vision for safer roads: an instance of accidental advocacy in Nigeria

While former MSc student Barka David Lass was testing the vision of commercial drivers at a minibus station (or 'park') in Jos, Nigeria, in July 2007, he was spotted by a television crew, there to film a news insert on lost property. The producer was so taken by Lass's research (conducted for his MSc dissertation, summarised on page 71) – that an interview with him was broadcast on national news the very same day.

Nigeria has seen a five-fold increase in the number of deaths due to traffic accidents over the last twenty years. The interview with Lass highlighted the fact that, although drivers have to satisfy a minimum legal requirement for visual acuity in Nigeria, not even the vision of commercial drivers is routinely tested before licences are issued.

After the news item, Lass was invited to participate in a television programme on vision and safe driving, broadcast by the Plateau Radio Television Corporation. Other participants included representatives of the Vehicle Inspection Office and of the Federal Road Safety Commission.

The participants talked about the definition of vision, how to assess it, and what constitutes good vision for driving. Other topics included the high number of road traffic accidents in Nigeria, the relationship between vision and accidents, and the various laws and penalties related to vision and driving. The programme was watched in over six states and in the federal capital territory of Nigeria.

The following recommendations were put forward at the end of the discussion:

- all commercial vehicle drivers applying for a licence should undergo a comprehensive eye exam, conducted by an ophthalmologist
- all commercial vehicle drivers should have their vision tested before their driving licences can be renewed (every four years)
- staff of the Federal Road Safety Commission and of the Vehicle Inspection Office should be trained to assess vision, so that they can carry out periodic checks on drivers.

Since his return to Nigeria after completing his MSc at the International Centre for Eye Health in London, Lass has met with the producer of the programme; together, they are working on ways to ensure that these recommendations are carried out.



Barka David Lass

The television interview with Barka David Lass and representatives of the federal road safety commission and vehicle inspection office. NIGERIA

### Million-dollar advocacy success for VISION 2020 Australia

The fierce competition between political parties during the run-up to the 2007 elections provided an opportunity for VISION 2020 Australia to secure more than AUS \$100 million in funding for eye health and vision care.

VISION 2020 Australia had worked with its global partners to produce a comprehensive proposal to eliminate blindness and visual impairment in the Southeast Asia and Pacific region. In July 2007, this was presented to the minister and shadow (opposition) minister responsible for overseas aid.

On World Sight Day, 11 October, Shadow Minister for International Development Assistance Bob McMullan pledged AUS \$45 million over two years to fund the proposal to prevent blindness and improve vision care in the region. Two weeks later, Foreign Minister Alexander Downer pledged funding of AUS \$60 million over ten years to implement part of the proposal.

More information on VISION 2020 Australia's advocacy work is available on the VISION 2020 Australia website: [www.vision2020australia.org.au](http://www.vision2020australia.org.au)



VISION 2020 Australia

Australia's shadow minister for international development assistance on World Sight Day. AUSTRALIA





# Useful resources for advocacy

## General

**An introduction to advocacy: training guide** by Ritu R Sharma. This training guide introduces the concept of advocacy and provides a framework for developing an advocacy campaign. The guide is designed for a workshop setting, but can also be used as a self-teaching device. Available for free download. [www.globalhealthcommunication.org/tools/15](http://www.globalhealthcommunication.org/tools/15)

**The how and why of advocacy** by BOND (British Overseas NGOs for Development). Provides good information on advocacy aimed at producing policy change. Available free of charge from the website [www.bond.org.uk/pubs/index.html](http://www.bond.org.uk/pubs/index.html) or directly from the supplier: BOND, Regent's Wharf, 8 All Saint's Street, London N1 9RL, UK.

**Environmental toolkit for advocacy** by the Environmental Law Institute. Although this detailed 111-page book is focused on environmental advocacy, many of the same principles can be applied to advocacy for eye health. Available for free download and copying in low- and middle-income countries. [www.eli.org/pdf/africa/Advocacy%20Tools%20Handbook%20Final%203.pdf](http://www.eli.org/pdf/africa/Advocacy%20Tools%20Handbook%20Final%203.pdf)

**PROFILES nutrition advocacy.** For more information, write to Academy for Educational Development, Global Health, Population, and Nutrition Group, 1825 Connecticut Avenue, NW, Washington DC 20009, USA. Visit [www.aedprofiles.org](http://www.aedprofiles.org) or email [PROFILES@aed.org](mailto:PROFILES@aed.org)

**The Advocacy Institute of the Institute for Sustainable Communities.** Visit [www.advocacy.org](http://www.advocacy.org)

## National and international

**Blindness, poverty and development** by IAPB. Download from [www.v2020.org](http://www.v2020.org) (under 'Publications') or write to LV Prasad Eye Institute, LV Prasad Marg Banjara Hills, Hyderabad 500 034, India.

**Poverty Strategy Reduction Papers (PRSPs).** Read more on [www.imf.org/external/np/exr/facts/prsp.htm](http://www.imf.org/external/np/exr/facts/prsp.htm)

**Country Cooperation Strategies (CCSs).** Read more on [www.who.int/countryfocus/cooperation\\_strategy/en/](http://www.who.int/countryfocus/cooperation_strategy/en/)

**Millennium Development Goals.** Read more on [www.undp.org/mdg/basics.shtml](http://www.undp.org/mdg/basics.shtml)

## Gender

**WHO Information Sheet on Gender and Blindness, 2002.** [www.who.int/gender/other\\_health/en/genderblind.pdf](http://www.who.int/gender/other_health/en/genderblind.pdf)

**Previous Community Eye Health Journal articles**

**Increasing uptake of eye services by women.** Vol 19, Issue 60, 59–60.

**Gender and blindness: eye disease and the use of eye care service.** Volume 16, Issue 45, 11–12.

## ANNOUNCEMENTS

### Meetings

**World Congress on Optometric Globalisation** 11–13 April, 2008, London, UK. For more information, email the World Council of Optometry at [wco@pco.edu](mailto:wco@pco.edu) or fax +1 215 780-1325.

**Unite For Sight Fifth Annual International Health & Eye Care Conference** 12–13 April, 2008, Connecticut, USA. For more information, visit [www.uniteforsight.org/conference/2008](http://www.uniteforsight.org/conference/2008) or write to Unite For Sight, 31 Brookwood Drive, Newtown, CT 06470, USA.

**World Ophthalmology Congress** 28 June to 2 July, 2008, Hong Kong. For more information, visit [www.woc2008hongkong.org](http://www.woc2008hongkong.org) or write to Angela Cho, Department of

Ophthalmology & Visual Sciences, The Chinese University of Hong Kong, 3/F, Hong Kong Eye Hospital, 147K Argyle Street, Kowloon, Hong Kong.

**IAPB General Assembly** 25–28 August, 2008, Buenos Aires, Argentina. For more information, write to Louis Pizzarello, Secretary General, International Agency for the Prevention of Blindness, IAPB Central Office, LV Prasad Eye Institute, LV Prasad Marg, Banjara Hills, Hyderabad 500 034, India.

### Training

**Short course in Tropical Ophthalmology** 9–11 April, 2008. **Objectives:** To familiarise participants with the main causes of blindness in the world, with emphasis on the tropics. **Target audience:** Ophthalmologists from

high-income countries. **More information:** Visit [www.Lshtm.ac.uk/prospectus/shortsto.html](http://www.Lshtm.ac.uk/prospectus/shortsto.html). For applications, email [registry@Lshtm.ac.uk](mailto:registry@Lshtm.ac.uk) or write to Registry, 50 Bedford Square, London WC1E 7HT, UK.

**Planning for VISION 2020** July 2008. **Objectives:** To familiarise participants with the goals and objectives of VISION 2020: The Right to Sight and the planning principles involved in establishing community eye health programmes at regional or national level. **Target audience:** Ophthalmologists and eye health charity programme managers. **More information:** Visit [www.Lshtm.ac.uk/prospectus/short/spv.html](http://www.Lshtm.ac.uk/prospectus/short/spv.html). For applications, email [registry@Lshtm.ac.uk](mailto:registry@Lshtm.ac.uk) or write to Registry, 50 Bedford Square, London WC1E 7HT, UK.

**Community Eye Health JOURNAL** Supported by:

**sightsavers** INTERNATIONAL  
Sightsavers International

The late Dr Hans Hirsch

**cbm**  
together we can do more  
Christian Blind Mission (CBM)

**ORBIS**  
saving sight worldwide

**cnhf**  
Conrad N. Hilton Foundation

**DARK & LIGHT**  
BLIND CARE  
Dark & Light Blind Care

**Next issue**

The next issue of the *Community Eye Health Journal* will be on the theme **Cataract complications**

Gawn McIlwaine