Community Eye Health

Volume 17 Issue No. 49 2004

AN INTERNATIONAL JOURNAL TO PROMOTE EYE HEALTH WORLDWIDE

SUPPORTING VISION 2020: THE RIGHT TO SIGHT

Low Vision Care: The Need to Maximise Visual Potential

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Low Vision: Definition and Numbers

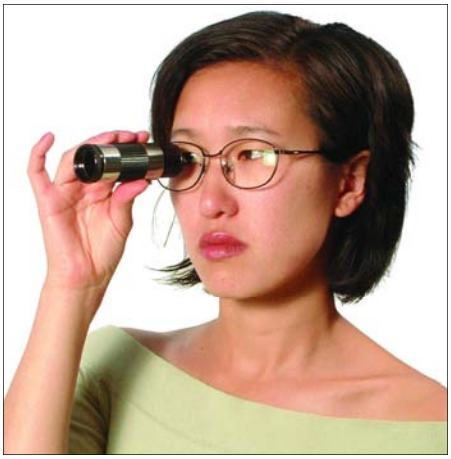
People with low vision have residual vision with some light perception, but their vision loss does not lend itself to improvement by standard spectacles or medical or surgical treatment. Such persons have the potential for enhanced functional vision if they receive appropriate low vision care services.

Traditionally, low vision services have suffered from neglect in organised eye care. Despite the efforts of some internationally recognised institutions and individuals, the coverage of low vision care and the uptake of services where available, have remained low, even in most industrialised countries. In low-income countries, the coverage has been almost negligible.

This shortage is partly due to a lack of awareness about the importance of low vision services among professional groups involved in the delivery of eye care. Unattended low vision has far-reaching consequences: developmental effects in children, and functional, socio-economic and quality of life implications for all those affected across the life spectrum. However, few outcome studies have been carried out to assess the effects of uncorrected low vision or the benefits of low vision care.

Magnitude of the Problem

It is generally recognised that the problem of low vision is significant and that it is increasingrapidly,particularlyinthecontext of the 'greying' of populations. However, the true magnitude of the problem is not precisely known. The reason for this lies first with the lack of an agreed definition of what comprises 'low vision'. The second reason is that the underlying causes of visual impairment categories 1 and 2 in the World Health Organization's Tenth Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) are not always reported in population-based surveys.



Telescope for distance viewing
Photo: Sarah Squire

The grades of visual impairment that currently comprise 'low vision' include categories 1 and 2 (Low Vision categories in ICD-10). This classification defines low vision as corresponding to visual acuity of less than 6/18 but equal to or better than 3/60, or corresponding visual field loss, to less than 20 degrees, in the better eye with best possible correction.

'Low vision', as limited to patients requiring low vision care, is defined by the Bangkok definition:

"A person with low vision is one who has impairment of visual functioning even after treatment and/or standard refractive correction, and has a visual acuity of less than 6/18 to light perception, or a visual field less than 10 degrees from the point of fixation, but who uses, or is potentially able to use, vision for the planning and/or execution of a task."

Management of Low Vision in Children – Report of a WHO Consultation 1992

In neither definition is reference made to near vision, which is an important function to be assessed in determining the need for, and the provision of, low vision care.

***Community Eye Health* 2004; 17: 1–16** **Issue No. 49**

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Volume 17 Issue No. 49 2004

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The Right to Sight

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ISSN 0953–6833

An attempt has been made to break down the currently available data on visual impairment (low vision, i.e., categories 1 and 2) and blindness (categories 3, 4 and 5) to identify the magnitude of those persons requiring low vision care.

Box 1 illustrates a breakdown of currently used blindness and low vision data. This data is based on some assumptions which would not be applicable universally, as they take into account the varying potential for surgical treatment among those who are 'blind', with vision of light perception or better, and among those of 'low vision' (categories 1 and 2) with curable causes including cataract and corneal opacities.

The prevalence of blindness and of those requiring low vision care vary between regions, based on the underlying causes and the level of socio-economic and health systems development. In the absence of a clear definition applied in population-based surveys, and failure to determine the underlying causes of categories 1 and 2 of visual impairment, the data on the magnitude of low vision will remain imprecise.

It is gratifying to note that the global initiative VISION 2020: The Right to Sight includes low vision care together with the correction of refractive errors among the five globally identified disease control priority areas. It is imperative to obtain reliable data on the magnitude and causes of low vision. Greater clarity in the definition of low vision, limiting it to those requiring true low vision care, would be invaluable in collecting data for planning and programmatic purposes. In addition, there is a need for a standardised protocol for use in population-based surveys, preferably as an integral part of surveys on blindness and visual impairment.

Box 1: Currently used blindness and low vision data

There are currently an estimated 180 million visually impaired persons globally. Of these, 45 million are blind, of whom approximately 20 % (i.e., 9 million) have no perception of light. These latter persons require mobility training and other forms of rehabilitation. Out of the total of 171 million which comprises 135 million persons with 'low vision' (ICD-10) and 36 million blind with residual vision, (i.e., with light perception or better but less than 3/60), an estimated 60% can be improved with surgical treatment, mainly for cataract and some for corneal opacity. This accounts for an estimated total of 103 million persons who would benefit from treatment. (Note: Those requiring standard refractive correction would have been already excluded from this group by virtue of the definition in ICD-10). The remaining estimated 68 million persons require low vision care and are likely to benefit from such care.

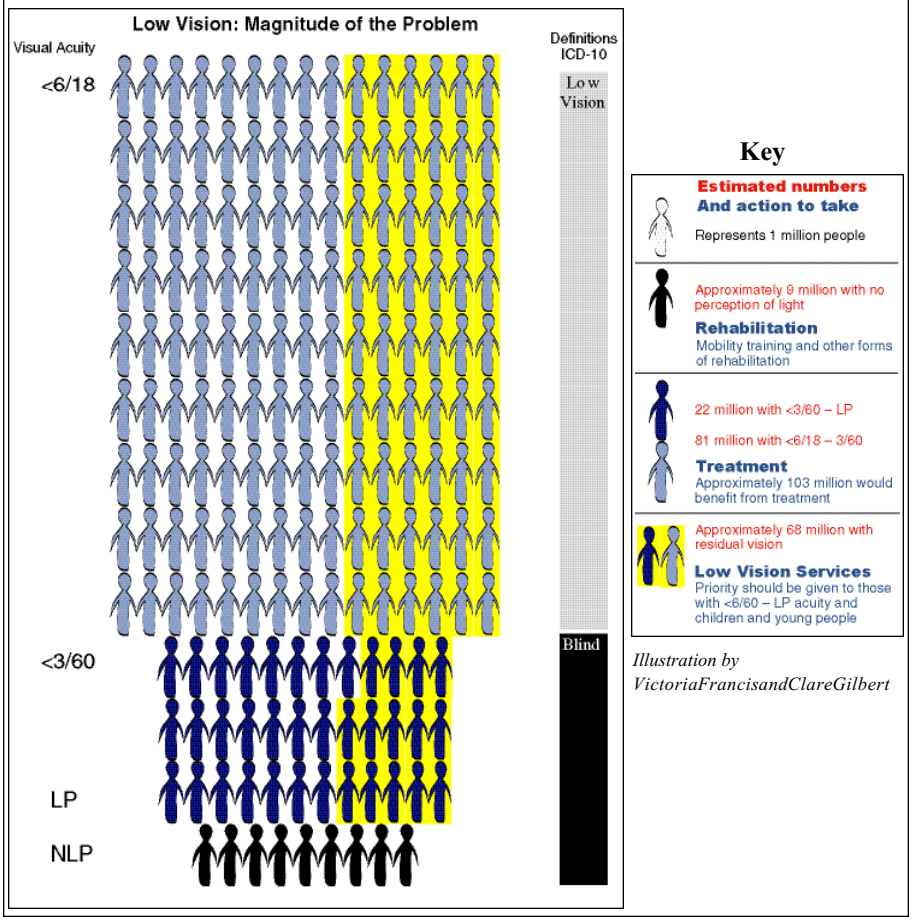

Illustration by VictoriaFrancisandClareGilbert

Vision Assessment and Prescription of Low Vision Devices

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Assessment of vision and prescription of low vision devices are part of a comprehensive low vision service. Other components of the service include training the person affected by low vision in use of vision and other senses, mobility, activities of daily living, and support for education, employment or leisure activities. Specialist vision rehabilitation agencies have services to provide access to information (libraries) and activity centres for groups of people with impaired vision.

At a tertiary low vision clinic, a team of low vision specialists assesses infants, children and adults who need complex assessments and high power low vision devices. The staff in a tertiary clinic would also provide training and support for secondary level clinics and primary low vision care. Secondary low vision clinics can provide low and medium power magnification devices and rehabilitation.

Vision Assessment

The low vision assessment is usually conducted by an ophthalmologist or optometrist but could be carried out by an appropriately trained orthoptist (vision therapist/ophthalmic technician), ophthalmic medical officer or other health worker.

The aim of the first appointment is to understand how low vision has impacted on the person's daily activities and what he or she does or wants to do. At the end of the interview there should be an understanding of what low vision devices and other low vision services the person needs. The essential question is, how has the impaired vision affected the person's quality of life?

Fig.1:LogMARdistancevisualacuitychart

Visual Acuity

To assess both near and distance vision it is essential to use LogMAR tests rather than traditional Snellen tests. In a LogMAR (logarithm of the minimum angle of resolution) test the 'steps' between each size are the same throughout the test. This is necessary to determine the need for magnification. Typically, the distance visual acuity tests based on designs by Bailey and Lovie[1] have 5 letters in each line so that there are sufficient symbols to reliably test both good and poor vision (Figure 1). Other tests use the logarithmic principle of regular steps in size but have been produced as single letters or groups of letters, numbers or symbols on cards. The directional E, Landolt rings and LH symbols can be used when letters or numbers cannot be named. Matching tests such as the LH symbols were designed to test vision of young children (Figure 2).

Vision should not be described as 'count fingers' or 'hand movements'. The test distance should be reduced to obtain a measure of distance visual acuity so that the required magnification can be calculated.

Distance visual acuity should be measured with a pinhole to assess possible refractive error. A multiple pinhole is preferable for people with low vision.

Ideally, ***near vision*** should be tested using passages of print (in the LogMAR format) but if not possible, letters, numbers or symbols can be used. The smallest print read and the distance should be recorded. Magnification is prescribed to improve the reading distance, print size able to be read, or both.

Contrast sensitivity is the ability to detect objects at low contrast. Contrast sensitivity is usually tested with letters, numbers or symbols at standard or intermediate distances. This measure has been shown to relate visual functioning and activities of daily living more closely than visual acuity measured with high contrast tests. As contrast sensitivity is usually affected in people with low vision, it is an important test to help in the prescription of low vision devices, so that lighting and other non-optical devices can be considered.

Fig. 2: Demonstration of LH cards used to test visual acuity in children
Photo: Richard Le Mesurier

Similarly, people with eye disease causing low vision are often severely affected by ***glare***. Vision should be tested under various levels of lighting to determine if filters are needed to reduce glare.

A list of equipment to assess vision has been recommended by the WHO/IAPB Low Vision Working Group (WHOLVWG) as the minimum needed to set up tertiary, secondary and primary level low vision clinics (page 8).

Refraction is an essential part of a low vision assessment to ensure the most appropriate correction of refractive errors. Most low vision devices are used in conjunction with refractive correction. For many older people, their low vision devices will be bifocal glasses with a 'high plus' reading addition in the lower segment of the glasses.

Components of a ***routine eye examination*** should also be included such as the external and internal examination of the eyes to determine ocular health, testing of visual fields and colour vision. As mentioned previously, the WHOLVWG has prepared a list of the minimum requirements and this includes ophthalmic equipment required to set up a low vision clinic (page 8). Most of this would normally be available in an eye clinic and so might not need to be specially purchased for a low vision clinic.

Assessment might not lead to the provision of low vision devices but will add important information for the person with low vision, their family, eye/health workers, rehabilitation workers or educators, and for planning programmes.

Prescription of Low Vision Devices

Low vision devices (LVD) help low vision patients to maximise their remaining vision and live independently. Types of LVDs are described in more detail in the article 'Low Vision Devices and Training" on pages 6, 7 of this issue. Basically, LVDs are either optical or non-optical. Optical devices have one or more lenses to modify or enlarge an image and they need to be prescribed by an eye care worker (ophthalmologist, optometrist or refractionist). Non-optical devices do not have a lens system but can make it easier to see objects. They can be prescribed as part of a low vision assessment but are often recommended by educators or rehabilitation workers.

LVDs should be considered for all ages from young children to the oldest adults. LVDs are not just for reading but are designed to observe the world around us – children can inspect toys and look for animals. Use of magnifiers is preferred instead of preparing material in large print.

To prescribe LVDs the following should be taken into account:

- Types of tasks at home, work or school (Near, intermediate or distance)
- Outcome, e.g. N8 print size (newsprint) or 6/12 distance acuity
- Hands free or hand needed to hold/guide LVD
- Non-optical devices used in combination, such as lighting, bold pens for writing.

The power of the magnifier is calculated from the LogMAR visual acuity. For example, if the best corrected acuity is 6/75 (20/250) or 0.08 and the desired outcome from magnification is 6/12 (20/40) or 0.5, a 6x magnifier should be tried. This is obtained by dividing the denominators (75 by 12) or from the decimal equivalents 0.08/0.5 = 6.25. The magnifier should be tried with the material or objects needed by the patient. Magnification prescribed should be as low a power as possible to give a wider field of view.

Most LVDs are difficult to use because of the limited field of view through the lens. Training is necessary for both children and adults. It is important that they understand how to use the device/s prescribed and the limitations.

Referral

After the low vision clinic assessment and prescription of LVDs, the need for training or other services should be discussed with the patient and family. Low vision clinic staff need to be aware of the range of specialist and community-based services that could be needed by people with low vision.

Reference

1 Bailey IL, Lovie JE. New design principles for visual acuity letter charts. *Am J Optom Physiol Opt* 1976; **53**:740-745.

Establishing Low Vision Services at Secondary Level

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Introduction

VISION 2020: The Right to Sight has provided a new impetus to the concept of comprehensive eye care encompassing eye health promotion and prevention of blindness, treatment of eye disease and rehabilitation services for people with incurable eye conditions. The hitherto under-developed component of 'low vision', along with services for refractive errors, has been identified as a priority area for intervention. Low vision care provides assistance to those who have some remaining vision, through use of low vision devices, training in the effective use of residual vision, and advice on environment. It also links eye care with education and rehabilitation services to ensure a comprehensive eye care service.

Low vision services can be offered at primary, secondary and tertiary levels. At the primary level, community-based workers identify and refer people with low vision to a higher level of service and advise on environmental modification. At the tertiary level, a team of trained professionals offer advanced care in a specially developed low vision clinic. The critical interface between these two levels is that of secondary, district level low vision care.

Defining the Population for a Secondary Level Service

VISION 2020 recommends planning eye care programmes for a defined unit of population such as a district. In most countries this constitutes the intermediate level administrative unit.[1] The populations of districts may vary considerably from a few hundred thousand to a million or more. For the purposes of this article, an arbitrary population of 0.5 million will be used to estimate the need and structure of service required. It is important to consider population density, geographical coverage and accessibility while planning for low vision services at a district level.

Calculating the Need for a Low Vision Service

The need for a low vision service can be calculated using data from population-based studies such as prevalence of blindness and low vision surveys. If the accurate prevalence of low vision is not known, the number of people with low vision can be estimated by multiplying the number who are blind (vision < 3/60 in the better eye) by a factor of 3. The majority of these would be those with treatable causes such as refractive errors and cataracts. However, there will be those with incurable eye conditions with some residual vision which can be effectivelyutilisedwiththeprovision of low vision care. Such conditions may include retinal degenerations, dystrophies, albinism, and conditions where normal vision may not be achieved even after treatment, such as diabetic retinopathy and glaucoma. Depending on the cataract surgical rate and coverage of refractive services, it is estimated that approximately 20–25% of the total number of visually impaired people may benefit from low vision services.[2]

Components of a Secondary Level Low Vision Service

Low vision care at secondary level is an 'add-on' service where some eye care is already available. The same human resources and infrastructure can be used with some additional training, equipment and a supply of low vision devices.

Human Resources

The possibilities include ophthalmologists, optometrists, refractionists, ophthalmic clinical officers/technicians and nurses. However, identifying who is going to provide low vision care will not only depend on the availability but also on the existing work load and the national VISION 2020 strategies. The cadre selected would need to have some basic clinical skills such as assessment of visual acuity and refraction (objective and subjective). They will require additional training in assessment of visual function, calculation of magnification needs, prescription of low vision devices, and counselling skills to provide guidance on education, vocation and environment. These skills can be taught through the existing training curricula or courses, or specially designed workshops for in-service candidates.

Infrastructure and Equipment

The low vision service is best positioned within an overall national strategy and established in the existing infrastructure using the same consulting room with some extra equipment. The service may initially be provided weekly (5 new and 5 follow-up patients can be examined and assisted in one clinic session). As the patient load increases, the number of clinic days may be increased. A supply of low vision devices will be required, some of which can be produced locally, such as spectacle magnifiers, and some will need to be imported. If the service is established as part of a national VISION 2020 programme, a central low vision devices bank for bulk purchases can be established to meet the needs of secondary clinics. The Low Vision Working Group of VISION 2020 has endorsed a standard list of ophthalmic equipment, vision assessment equipment and low vision devices for tertiary, secondary and primary level clinics (page 8).

Conclusion

For the last 50 years, low vision care has remained in the shadows of conventional eye care. With the growing aging population, newer treatments available for previously untreatable eye diseases, increasing vocational and social demands, and recent developments in making low vision care more accessible and affordable, low vision now seems poised to take a prominent position in comprehensive eye care services.

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Further reading

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Low Vision Devices and Training

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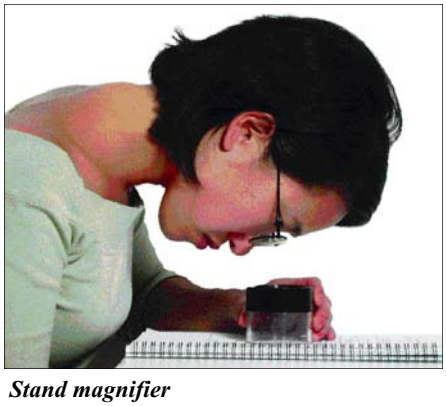
Introduction

Vision is the ability to see with a clear perception of detail, colour and contrast, and to distinguish objects visually. Like any other sense, vision tends to deteriorate or diminish naturally with age. In most cases, reduction in visual capability can be corrected with glasses, medicine or surgery. However, if the visual changes occur because of an incurable eye disease, condition or injury, vision loss can be permanent. Many people around the world with permanent visual impairment have some residual vision which can be used with the help of low vision services, materials and devices.[1] This paper describes different options for the enhancement of residual vision including optical and non-optical devices and providing training for the low vision client.

Low Vision Devices

There are several ways in which an image can be enlarged for a low vision client:

- ***optical magnification*** – magnifying the object by means of a lens or combination of lenses i.e. magnifiers and telescopes
- ***relative size magnification*** - increasing the size of the object, for example large print books or televisions with larger screen size
- ***relative distance magnification*** - reducing the distance of the object, for example, moving the reading material closer to the eye or going closer to the writing board.



Stand magnifier

Photo: Sarah Squire

Optical Low Vision Devices

Optical devices consist of one or more lens placed between the eye and the object to be viewed, which increase the size of the image of the object on the retina. Low vision devices work on the principle of optical magnification and provide an enlarged image of the object.

• Magnifiers

Magnifiers can be prescribed as hand-held, hanging, stand, illuminated hand-held, illuminated stand, spectacles or bar and dome magnifiers. Spectacle magnifiers are the most commonly prescribed magnifiers. They come as full aperture, half-eye, or bifocal with base in prisms for binocular viewing.

• Telescopes

For people with low vision, telescopes with magnification powers from 2x to 10x are prescribed. These are prescribed for distance, intermediate and near tasks. Types of telescope include hand-held, clip-on, spectacle mounted and bioptic designs. Traditionally the power of low vision devices is denoted as x, which means the relative increase in the image size to the object size. For example a 2x would mean an increase in the image size by two times. As different manufacturers use different methods to calculate this, there is a growing trend to move away from this labelling and denote the powers of magnifiers in dioptres or as equivalent viewing distances (EVD).

• Glare Control Devices

As glare may be a significant disabling factor in many eye conditions, tinted lenses are routinely prescribed along with 'caps', 'hats' and visors. Absorptive filters are tinted lenses, which are used to counter glare. They come in different tints at various levels of absorption and different cut-off points for the visible spectrum of light.

For an accurate and appropriate final prescription, the low vision clinic should have a range of magnifiers, telescopes and absorptive filters.

Non-Optical Low Vision Devices

Non-optical devices are items designed to promote independent living. They alter environmental perception through enhancing illumination, contrast and spatial relationships. A useful slogan to remember the key to non-optical devices is 'Bigger, Bolder, Brighter'. Devices may include illumination devices such as lamps and reading stands, check registers, writing guides, bold-lined paper, needle-threaders, magnifying mirrors, high contrast watches, and large print items such as books.

Hand- held magnifier

Photo: Sarah Squire

To provide advice on non-optical devices, there should be a range of options available for demonstrating and training the client in their use. This advice can be given by any appropriately trained eye care worker.

Electronic Devices

For people with severe visual loss, electronic devices are an option. There are two types; optical devices which display the task in a magnified form from a television monitor, and non-optical electronic devices which are conversion systems that convert text into a speech system.

• Closed Circuit Television

Electronic optical devices make use of a zoom television camera to magnify materials onto a television screen. They are called closed circuit televisions (CCTVs). The advantage of a CCTV is in its greater amplitude of magnification of 3x to 100x, normal working distance and reversed polarity (e.g. white on black). The disadvantages are the cost and the bulk of the system that makes it quite immovable.

• Conversion Systems

Non-optical electronic devices include talking watches, talking calculators and speech and Braille conversion systems.

With further developments in electronics, more and more devices are becoming available for people with low vision. It is important to keep up-to-date with these developments so that the best options can be offered to clients with low vision.

Training: Equipping Low Vision Clients with Skills and Confidence

Functional vision may be improved with training. Many people can learn to make better use of their low vision and can function efficiently with only small amounts of visual information. Objects and print can be recognised when they are blurred or when only parts of them can be seen. Visual functioning plays a very significant role in promoting independent living in people with low vision. Whether the disability is mild, moderate, severe or profound, if people with low vision are given proper training in visual skills, they more often than not show an improved performance in their day to day activities and move closer to leading an independent life.

Essentially, there are two types of training:

- ***Effective use of residual vision*** by teaching the client visual skills such as eccentric viewing, tracking, scanning and pursuit movements. There are many exercises and training programmes available for clients
- ***Use of prescribed devices*** especially telescopes and magnifiers.

The final advice and prescription need to conform to the client's needs, and should be culturally appropriate, affordable and accessible.

How to Access Resources for Low Vision Devices

One of the major impediments to providing low vision services has been the high cost of low vision devices available on the market. The Low Vision Resource Centre of the Hong Kong Society for the Blind now supplies low vision devices and assessment materials at affordable cost to developing countries. The new Centre has catalysed development of low vision programmes in many countries and is likely to have an even greater impact in the future. The LVDs and the assessment materials and equipment listed in the Recommended Standard List (page 8) are available from the VISION 2020 Low Vision Resource Centre of the Hong Kong Society for the Blind. The catalogue is on www.hksb.org.hk

Reference

1. Asia Pacific Low Vision Workshop. Report of a Workshop. Hong Kong, 28-30 May, 2001. WHO/PBL02.87. Available online at http://whqlibdoc.who.int/hq/2002/WHO_PBL_02.87.pdf

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Low Vision Courses

Information about Low Vision courses can be found in the publications section of the VISION 2020 website.
www.V2020.org

Abstract

The development of the LV Prasad-Functional Vision Questionnaire: a measure of functional vision performance of visually impaired children

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PURPOSE: To develop a reliable and valid questionnaire (the LV Prasad-Functional Vision Questionnaire, LVP-FVQ) to assess self-reported functional vision problems of visually impaired school children. METHODS: The LVP-FVQ consisting of 19 items was administered verbally to 78 visually impaired Indian school children aged 8 to 18 years. Responses for each item were rated on a 5-point scale. A Rasch analysis of the ordinal difficulty ratings was used to estimate interval measures of perceived visual ability for functional vision performance. RESULTS: Content validity of the LVP-FVQ was shown by the good separation index (3.75) and high reliability scores (0.93) for the item parameters. Construct validity was shown with good model fit statistics. Criterion validity of the LVP-FVQ was shown by good discrimination among subjects who answered "seeing much worse" versus "as well as"; "seeing much worse" versus "as well as/a little worse" and "seeing much worse" versus "a little worse," compared with their normal-sighted friends. The task that required the least visual ability was "walking alone in the corridor at school"; the task that required the most was "reading a textbook at arm's length." The estimated person measures of visual ability were linear with logarithm of the minimum angle of resolution (logMAR) acuity and the binocular high contrast distance visual acuity accounted for 32.6% of the variability in the person measure. CONCLUSIONS: The LVP-FVQ is a reliable, valid, and simple questionnaire that can be used to measure functional vision in visually impaired children in developing countries such as India.

Reprinted courtesy of:
Invest Ophthalmol Vis Sci 2003; **44**: 4131–39.

Low Vision Email List

As part of efforts to promote knowledge transfer, Kilimanjaro Centre for Community Ophthalmology (KCCO) and the Ophthalmic Resource Centre for Eastern Africa (ORCEA), in collaboration with the Low Vision Unit at Kikuyu Hospital in Kenya, are planning a periodic email mailing on low vision. This will include regular information about low vision and early childhood intervention, case studies, useful articles, etc. If you wish to be included on the low vision mailing list, please send your request to kcco@kcmc.ac.tz .

News from VISION 2020: The Right to Sight

World Sight Day 2003 proved to be the most successful so far. Governments, Ministers of Health and key decision makers showed their support for VISION 2020 and the media coverage was extensive . A full report of all the events that took place is available on the redesigned VISION 2020 website.

The VISION 2020 website which was launched in March is fully accessible to low vision visitors and has new information and links. Partners and supporters of VISION 2020 are encouraged to visit the website and submit articles and comments for inclusion. For more information about VISION 2020: The Right to Sight please visit http://www.v2020.org or email info@v2020.org

Standard List for Low Vision Services: VISION 2020 Low Vision Group

Ophthalmic Equipment	Tertiary Level Low Vision Clinic	Secondary Level Low Vision Clinic
Streak retinoscope	✓	✓
Direct ophthalmoscope	✓	✓
Lensmeter (Focimeter)	✓	
Trial lens set (full aperture)	✓	✓
Universal trial frames	✓(2 sets)	✓
Paediatric trial frames (2 pairs of different sizes)	✓	✓
Trial lens holder	✓	
Halberg clip	✓	
Long handle occluder with pinholes	✓	✓
Cross cylinders (±0.5, ±1)	✓	
Pen torch and measuring tape	✓	✓
Vision Assessment Equipment		
Light box for visual acuity test	✓	
Distant LogMAR test charts – letter, number, tumbling Es, Landolt Cs (one of each type)	✓	✓
Near vision tests (same as distant but calibrated for 40 cm) Reading acuity test (continuous text in English and local language)	✓	✓
Symbol paediatric tests for matching and pointing (with and without crowding)	✓	✓
Preferential looking system	✓	
Contrast sensitivity test charts	✓	✓
PV-16 Colour Vision Test (double set)	✓	
'Amsler' grids	✓	
Hand disc perimeter	✓	
Tangent screen	✓	
Optical Low Vision Devices		
Spectacle magnifiers (half eyes)	6D to 12D in 2D steps with base in prisms 10 to 40D in 4D steps as half eye; total 9 pieces 10 to 40D in 4Dsteps as full aperture R+L; total 18 pieces	6D to 12 D in 2D steps 16D to 20D in 4D steps; total 6 pieces
Foldable and hand-held magnifiers with and without built-in light source	5D to 42D, total 15 pieces	5D to 17D; total 5 pieces
Stand magnifiers	with and without built-in light source, from 13.5D to 56D; total 9 pieces	with no built-in light source, from 13.5D to 40D; total 6 pieces
Dome and bar magnifiers	total 4 pieces	total 2 pieces
Hand-held monocular telescopes	2.5X, 3X, 4X, 6X, 8X and 10X with micro-lens for 8X and 10X telescopes; total 5 pieces	4X to 8X with micro-lens for 8X telescopes; total 4 pieces
Filters	of 5 different shades with UV protection and luminous transmission of 40%, 18%, 10%, 2% and 1%	of 4 different shades with UV protection and luminous transmission of 40%, 18%, 10% and 2%
CCTV Devices		
Colour television (20 inches)	✓	
Black and white hand-held CCTV magnifier	✓	
Full colour hand-held CCTV magnifier	✓	
Computer Devices		
Computer with laser printer and scanner	✓	
Computer software with text enlargement and voice output	✓	

Standard List for Primary Level Low Vision Care

Ophthalmic Equipment	Pen torch
Vision Assessment Equipment	WHO Low Vision Kit
Low Vision Devices	4 hand held magnifiers from 5Dto14D;total 4 pieces 4 standmagnifiersfrom 13.5D to 40D 2 telescopes, 4x and 6x

The approximate costs to equip clinics at the three levels are:

Tertiary:	US$ 14,000
Secondary:	US$ 4000
Primary:	US$ 100

Low vision and blindness in adults in Gurage Zone, central Ethiopia

M Melese
W Alemayehu
S Bayu
T Girma
T Hailesellasie
R Khandekar
A Worku
P Courtright

AIM: To determine the magnitude and causes of low vision and blindness in the Gurage zone, central Ethiopia. METHODS: A cross sectional study using a multistage cluster sampling technique as used to identify the study subjects. Visual acuity was recorded for all adults 40 years and older. Subjects who had a visual acuity of <6/18 were examined by an ophthalmologist to determine the cause of low vision or blindness. RESULTS: From the enumerated population, 2693 (90.8%) were examined. The prevalence of blindness (< 3/60 better eye presenting vision) was 7.9% (95% CI 6.9 to 8.9) and of low vision (6/24-3/60 better eye presenting vision) was 12.1% (95% CI 10.9 to 13.3). Monocular blindness was recorded in 16.3% of the population. Blindness and low vision increased with age. The odds of low vision and blindness in women were 1.8 times that of the men. The leading causes of blindness were cataract (46.1%), trachoma (22.9%), and glaucoma (7.6%). While the prevalence of vision reducing cataract increased with age, the prevalence of trachoma related vision loss did not increase with age, suggesting that trichiasis related vision loss in this population might not be cumulative. CONCLUSION: The magnitude of low vision and blindness is high in this zone and requires urgent intervention, particularly for women. Further investigation of the pattern of vision loss, particularly as a result of trachomatous trichiasis, is warranted.

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Br J Ophthalmol 2003; **87**: 677–80.

A critical review of the SAFE strategy for the prevention of blinding trachoma

H Kuper **AW Solomon**
J Buchan **M Zondervan**
A Foster **D Mabey**

Trachoma is an ocular disease caused by repeated infection with Chlamydia trachomatis. It is the leading cause of infectious blindness globally, responsible for 5.9 million cases of blindness. Although trachomatous blindness is untreatable, it is eminently possible to prevent and the World Health Organization promotes the use of the SAFE strategy (surgery to treat end-stage disease, antibiotics to reduce the reservoir of infection, facial cleanliness, and environmental improvement to reduce transmission of C trachomatis) for this purpose. In this review we have assessed the evidence base supporting the elements of the SAFE strategy. We find strong support for the efficacy of the surgery and antibiotics components, although the optimal antibiotic regimens have not yet been established. The evidence for an effect of health education and environmental improvement is weaker, and depends mostly on cross-sectional observational studies.

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Lancet Infect Dis 2003; **3**: 372–81.

Azithromycin treatment coverage in Tanzanian children using community volunteers

M Lynch **S West**
B Munoz **KD Frick**
HA Mkocha

PURPOSE: To determine which of two village-based strategies was more effective at recruiting residents for a trachoma mass treatment campaign. METHODS: The two strategies were to use either village government personnel to recruit residents for treatment, or to solicit interested community volunteers to recruit residents. Three villages were assigned to each strategy, and the outcome measured was treatment coverage of individuals, groups and the villages. RESULTS: Self-selected community volunteers were significantly more effective than village government personnel in recruiting villagers for antibiotic treatment (p<.0001). The differences were strongest for the group at highest risk for active trachoma, pre-school children; 73% of children in community volunteer villages were treated, compared to 63% in village government villages (p<.05). Children in villages using community volunteers and from larger families were more likely to be treated. CONCLUSION: These findings support using motivated community volunteers, rather than traditional government workers, for mass treatment campaigns where high coverage is necessary.

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Ophthalmic Epidemiol 2003; **10**: 167–75.

Barriers to accessing low vision services

TL Pollard **JA Simpson**
EL Lamoureux **JE Keeffe**

AIM: To investigate barriers to accessing low vision services in Australia. METHODS: Adults with a vision impairment (<6/12 in the better eye and/or significant visual field defect), who were current patients at the Royal Victorian Eye and Ear Hospital (RVEEH), were interviewed. The questions investigated self-perceived vision difficulties, duration of vision loss and satisfaction with vision and also examined issues of awareness of low vision services and referral to services. Focus groups were also conducted with vision impaired (<6/12 in the better eye) patients from the RVEEH, listeners of the Radio for the Print Handicapped and peer workers at Vision Australia Foundation. The discussions were recorded and transcribed. RESULTS: The questionnaire revealed that referral to low vision services was associated with a greater degree of vision loss ($p = 0.002$) and a greater self-perception of low vision ($p = 0.005$) but that referral was not associated with satisfaction ($p = 0.144$) or difficulties related to vision ($p = 0.169$). Participants with mild and moderate vision impairment each reported similar levels of difficulties with daily activities and satisfaction with their vision ($p > 0.05$). However, there was a significant difference in the level of difficulties experienced with daily activities between those with mild-moderate and severe vision impairment ($p < 0.05$). The participants of the focus groups identified barriers to accessing low vision services related to awareness of services among the general public and eye care professionals, understanding of low vision and the services available, acceptance of low vision, the referral process, and transport. CONCLUSION: In addition to the expected difficulties with lack of awareness of services by people with low vision, many people do not understand what the services provide and do not identify themselves as having low vision. Knowledge of these barriers, from the perspective of people with low vision, can now be used to guide the development and content of future health-promotion campaigns.

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Ophthalmic Physiol Opt 2003; **23**: 321–27.

Abstracts

Causes of low vision and blindness in rural Indonesia

Saw SM **Husain R**
Gazzard GM **Koh D**
Widjaja D **Tan DT**

AIM: To determine the prevalence rates and major contributing causes of low vision and blindness in adults in a rural setting in Indonesia. METHODS: A population based prevalence survey of adults 21 years or older (n=989) was conducted in five rural villages and one provincial town in Sumatra, Indonesia. One stage household cluster sampling procedure was employed where 100 households were randomly selected from each village or town. Bilateral low vision was defined as habitual VA (measured using tumbling "E" logMAR charts) in the better eye worse than 6/18 and 3/60 or better, based on the WHO criteria. Bilateral blindness was defined as habitual VA worse than 3/60 in the better eye. The anterior segment and lens of subjects with low vision or blindness (both unilateral and bilateral) (n=66) were examined using a portable slit lamp and fundus examination was performed using indirect ophthalmoscopy. RESULTS: The overall age adjusted (adjusted to the 1990 Indonesia census population) prevalence rate of bilateral low vision was 5.8% (95% confidence interval (CI) 4.2 to 7.4) and bilateral blindness was 2.2% (95% CI 1.1 to 3.2). The rates of low vision and blindness increased with age. The major contributing causes for bilateral low vision were cataract (61.3%), uncorrected refractive error (12.9%), and amblyopia (12.9%), and the major cause of bilateral blindness was cataract (62.5%). The major causes of unilateral low vision were cataract (48.0%) and uncorrected refractive error (12.0%), and major causes of unilateral blindness were amblyopia (50.0%) and trauma (50.0%). CONCLUSIONS: The rates of habitual low vision and blindness in provincial Sumatra, Indonesia, are similar to other developing rural countries in Asia. Blindness is largely preventable, as the major contributing causes (cataract and uncorrected refractive error) are amenable to treatment.

Reprinted courtesy of:
Br J Ophthalmol 2003; **87**: 1075–78.

Prevalence and causes of blindness and visual impairment in Bangladeshi adults: results of the National Blindness and Low Vision Survey of Bangladesh

BP Dineen **RR Bourne**
SM Ali **DM Huq**
GJ Johnson

AIM: To determine the age, sex, and cause specific prevalences of blindness and visual impairment in adults 30 years of age and older in Bangladesh. METHODS: A nationally representative sample of 12 782 adults 30 years of age and older was selected based on multistage, cluster random sampling with probability proportional to size procedures. The breakdown of the cluster sites was proportional to the rural/urban distribution of the national population. The examination protocol consisted of an interview, visual acuity (VA) testing, autorefraction, and optic disc examination on all subjects. Corrected VA retesting, cataract grading, and a dilated fundal examination were performed on all visually impaired subjects. The definitions of blindness (<3/60) and low vision (<6/12 to >or=3/60) were based on the presenting visual acuity in the better eye. The World Health Organization/ Prevention of Blindness proforma and its classification system for identifying the main cause of low vision and blindness for each examined subject was used. RESULTS: In total, 11 624 eligible subjects were examined (90.9% response rate) across the 154 cluster sites. A total of 162 people were bilaterally blind (1.53% age standardised prevalence) while a further 1608 subjects (13.8%) had low vision (<6/12 VA) binocularly. Visual acuity was >6/12 in the "better eye" in the remaining 9854 subjects (84.8%); however, 748 of these people had low vision in the fellow eye. The main causes of low vision were cataract (74.2%), refractive error (18.7%), and macular degeneration (1.9%). Cataract was the predominant cause (79.6%) of bilateral blindness followed by uncorrected aphakia (6.2%) and macular degeneration (3.1%). CONCLUSIONS: There are an estimated 650 000 blind adults (95% CI 552 175 to 740 736) aged 30 and over in Bangladesh, the large majority of whom are suffering from operable cataract. This survey indicates the need for the development and implementation of a national plan for the delivery of effective eye care services, aimed principally at resolving the large cataract backlog and the inordinate burden of refractive error.

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Br J Ophthalmol 2003; **87**: 820–28.

Causes of severe visual impairment and blindness in children in schools for the blind in Ethiopia

AB Kello
C Gilbert

AIMS: To determine the causes of severe visual impairment and blindness in children in schools for the blind in Ethiopia, to aid in planning for the prevention and management of avoidable causes. METHODS: Children attending three schools for the blind in Ethiopia were examined during April and May 2001 using the standard WHO/PBL eye examination record for children with blindness and low vision protocol. Data were analysed for those children aged less than 16 years using the EPI-INFO-6 programme. RESULTS: Among 360 pupils examined, 312 (96.7%) were aged <16 years. Of these children, 295 (94.5%) were blind or severely visually impaired. The major anatomical site of visual loss was cornea/phthisis (62.4%), followed by optic nerve lesions (9.8%), cataract/aphakia (9.2%), and lesions of the uvea (8.8%). The major aetiology was childhood factors (49.8%). The aetiology was unknown in 45.1% of cases. 68% of cases were considered to be potentially avoidable. CONCLUSIONS: Vitamin A deficiency and measles were the major causes of severe visual impairment/blindness in children in schools for the blind in Ethiopia. The majority of causes acquired during childhood could be avoided through provision of basic primary healthcare services.

Reprinted courtesy of:
Br J Ophthalmol 2003; **87**: 526–30.

Support for patients losing sight

S Trauzettel-Klosinski
GA Hahn

This overview on support of patients losing sight is based on a literature survey regarding reading disabilities and orientation and on results of experience trials performed at the University Eye Clinic Tubingen. In reading disorders, the main goal of rehabilitation is to regain or maintain the ability to read newspaper print. The fundament of rehabilitation is the use of optical and electronical devices and the application of specially designed training programs. The ability of a person with low vision to achieve successful orientation and mobility rehabilitation depends on residual vision, posture and balance, body image, auditory and tactile abilities, intelligence and personality. Rehabilitation efforts focus on the enhancement of residual vision applying magnifying contrast-enhancing and photomultiplying devices. The main pillar of orientation and mobility rehabilitation is a training especially designed for the patient's needs. Rehabilitation efforts must be tailored to the type of vision loss and to specific functional implications—the success rate is high. An optimal fitting of the required spectrum of low vision aids should be provided to the patient, and importantly, professional teaching and training is recommended. Activities of daily living, orientation and mobility, and psychological concerns must be addressed. Close cooperation with other branches of rehabilitation is essential.

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Dev Ophthalmol 2003;**37**:199-214.

News for Ophthalmic Nurse Readers

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Tanzanian Distribution of the Journal

Tanzanian readers have received this issue of the Journal from the Kilimanjaro Centre for Community Ophthalmology (KCCO). KCCO will continue to distribute *Community Eye Health* to Tanzanian readers.

The address is:
ORCEA, KCCO, KCMC,
PO Box 2254, Moshi, Tanzania
Fax: + 27 275 3598
email: riso@kcmc.ac.tz

Modification of the no-stitch technique in extracapsular cataract extraction by a single radial suture. Effect on postoperative astigmatism

H Haberle **N Anders**
S Drosch **DT Pham**
J Wollensak

Self-sealing intrascleral wound construction with a trapezoidal 12-mm incision for extracapsular cataract extraction and implantation of a standard PMMA IOL with a 6.5-mm optical diameter using the no-stitch technique has been well established at our clinic since 1991. This technique allows cataract surgery in a nearly closed system. In consideration of our earlier results, the no-stitch technique was modified by a single perpendicular suture in the middle of the 12-mm incision to reduce postoperative induced astigmatism further. We examined 200 consecutive patients 6 months after surgery (no-stitch vs one-stitch wound closure). The preoperative average astigmatism was 0.86 +/- 0.68 D (1.01 +/- 0.95 D). Preoperatively 37% (47%) of the eyes had With the Rule Astigmatism and 47% (39%) Against the Rule Astigmatism. Six months after surgery 10% (8%) of the cases showed With the Rule Astigmatism and 72% (65%) Against the Rule Astigmatism. Induced astigmatism was stabilized to 1.43 +/- 0.87 D (2.11 +/-1.43 D). Compared with sutureless wound closure, the one-stitch technique had no long-term effect on the axes of astigmatism but significantly diminished induced astigmatism about 0.5 D.

Reprinted courtesy of:
Ophthalmologe 1995; **92**: 261–65.
[Article in German]

SICS correspondence

Thank you to all readers who sent letters in response to the last issue on Small Incision Cataract Surgery. Unfortunately, it is not possible to publish all letters. We have also been notified of additional centres which offer training in SICS. Sue Stevens will continue to add to the list of training centres and resources and we hope to publish this on our website.

Evidence-Base for Low Vision Rehabilitation

Richard Wormald
MSc FRCS FRCOphth
Co-ordinating Editor,
CochraneEyesandVisionGroup(CEVG)
International Centre for Eye Health
London School of Hygiene and
Tropical Medicine
Keppel Street, London WC1E 7HT, UK

Evidence-based practice means asking the question "what is the evidence for the effectiveness of a given intervention and how much of a difference might it make to the well being of your patient?" When all medical intervention has been tried to prevent or alleviate the effects of visually disabling disease, all that can then be offered is help to make the best possible use of residual vision. How is this best achieved?

This is of course a complex problem since rehabilitation covers many different aspects of activity; mobility is one (use of a cane or guide dog) and reading aids another. Other aspects include help in the home with daily tasks and social rehabilitation; ensuring particularly elderly visually impaired people do not become isolated. The need for psychological support must not be forgotten since losing sight is often compared with severe bereavement and much help can be provided to people who need help to come to terms with their loss and get on with their lives.

Some of these interventions are delivered in the context of social services, so research underlying the effectiveness of these methods falls within the domain of social rather than medical science. But this does not mean that good evidence is not needed. Low vision therapists often argue amongst themselves about what they believe to be the best way, citing examples of individual successes, but in the end these arguments are nothing more than expressions of opinion. Often views can be very strongly held which means that the necessary scientific objectivity to conduct unbiased investigations is lacking.

In terms of the medical model for low vision interventions, such as vision aids and mobility and orientation training, there is little good evidence to be found. On the Cochrane library, there is one review on mobility and orientation and another protocol on vision aids for reading. Another review from the USA is listed in the Database of Abstracts of Reviews of Effectiveness and a total of 19 randomised controlled trials of some relevance to low vision in the Central Controlled Trials register. The review on mobility and orientation found no studies meeting the inclusion criteria, and comments on the paucity of good evidence in the whole field.

One problem is that these studies need validated outcome measures, including quality of life as well as vision. While an increasing number now exist, there is a need for researchers in the field to agree on common standards which can be used by different groups to allow comparisons and summaries to be made of the findings.

There is growing awareness among participants in this area of research that the evidence base is poor and steps are now being taken to remedy the situation.

Abstract

Strengthening capacity in developing countries for evidence-based public health: the data for decision-making project

M Pappaioanou **M Malison**
K Wilkins **B Otto**
RA Goodman **RE Churchill**
M White **SB Thacker**

Public Health officials and the communities they serve need to: identify priority health problems; formulate effective health policies; respond to public health emergencies; select, implement, and evaluate cost-effective interventions to prevent and control disease and injury; and allocate human and financial resources. Despite agreement that rational, data-based decisions will lead to improved health outcomes, many public health decisions appear to be made intuitively or politically. During 1991-1996, the US Centers for Disease Control and Prevention implemented the US Agency for International Development funded Data for Decision-Making (DDM) Project. DDM goals were to: (a) strengthen the capacity of decision makers to identify data needs for solving problems and to interpret and use data appropriately for public health decisions; (b) enhance the capacity of technical advisors to provide valid, essential, and timely data to decision makers clearly and effectively; and (c) strengthen health information systems (HISs) to facilitate the collection, analysis, reporting, presentation, and use of data at local, district, regional, and national levels.

Assessments were conducted to identify important health problems, problem-driven implementation plans with data-based solutions as objectives were developed, interdisciplinary, in-service training programs for mid-level policy makers, program managers, and technical advisors in applied epidemiology, management and leadership, communications, economic evaluation, and HISs were designed and implemented, national staff were trained in the refinement of HISs to improve access to essential data from multiple sources, and the effectiveness of the strategy was evaluated. This strategy was tested in Bolivia, Cameroon, Mexico, and the Philippines, where decentralization of health services led to a need to strengthen the capacity of policy makers and health officers at sub-national levels to use information more effectively. Results showed that the DDM strategy improved evidence-based public health. Subsequently, DDM concepts and practices have been institutionalized in participating countries and at CDC.

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Soc Sci Med 2003; **57**: 1925–37.
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Exchange

Community Eye Health is introducing a forum for exchange of inspiring experiences and insights in community eye care. If you have achieved something exemplary, or learnt something interesting in your work, please send us a short description in no more than 200 words. Since inviting contributions in the last issue, we have received a number of interesting stories, some of which are included on pages 13 and 14.

Please send your contributions to: **The Editor**, ***Community Eye Health,*** **International Resource Centre, ICEH, London School of Hygiene & Tropical Medicine, Keppel Street, London WC1E 7HT. Email: victoria.francis@lshtm.ac.uk**

Cuba is advancing positively towards the goals of VISION 2020

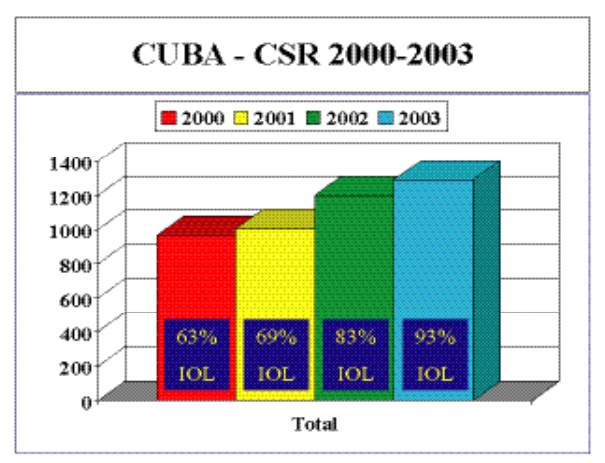
The National Eye Health Programme of Cuba (population 11.2 million with 620 ophthalmologists) is advancing positively toward the goals of VISION 2020. The number of **cataract** surgeries increased from 10,800 in 2000 to almost 15,000 in 2003, with the percentage receiving an IOL increasing from 63% to 93 % (Table 1). This improvement was particularly impressive in provinces outside Havana. A Rapid Assessment of Cataract Surgical Services planned for April 2004 will help direct programme activities towards the more underserved provinces and establish a national baseline for future programme evaluation. The programme is a joint effort between the MoH and the Church Council of Cuba, supported by CBM and the German Ministry of Economic Collaboration.

In addition, a national programme to prevent blindness from **retinopathy of prematurity** has been established. The aim is to provide screening and treatment in all neonatal units in Cuba by the end of 2006.

A pilot **low vision programme** was initiated in 2003 in four of the twelve provinces with a view to expansion over the next few years. This programme is co-ordinated with the Ministries of Education and Health.

Table 1. Number of Cataract Surgeries in Cuba (estimated 95 % of all cataract surgeries perfomed in Cuba)

Year	# surgeries	% IOL	CSR
2000	10,827	63	964
2001	11,267	69	1,003
2002	13,461	83	1,199
2003	14,710	93	1,310
V2020 Goal	**40,000**	**>98**	**3,000**



Lisa Macdonald *Project Adviser, CBM South America*
Elina Ceballos *Coordinator, National PBL Program Cuba*
Raul Hernandez *Hospital Pando Ferrer, Havana, Cuba*

Photo: Hannah Kuper

The value of volunteers

Whilst carrying out our evaluation of the SAFE strategy to control trachoma in 8 countries, I have been struck by the contribution made by many volunteers. In addition to the impressive work carried out by the health teams, in some places we found community volunteers performing a valuable role. One example from Ethiopia springs to mind; despite slim resources and no promise of reward, a community health volunteer and member of a women's association, having learnt about trachoma during a one day training, used her initiative and skills to play her part in controlling trachoma by making her own teaching aids to raise awareness about trachoma in schools and in her community. While there are obviously many matters for debate when we consider what should and should not be expected of volunteers in primary health care, we should not forget the energy which can be generated in projects which allow people to feel that they can make a difference to the health of their community.

Marcia Zondervan
Trachoma Initiative in Monitoring and Evaluation (TIME) Group
International Centre for Eye Health, UK

Sight restored at 101: a story from China

"How many fingers do you see?"
"Five" exclaimed an excited Sue-lan Feng who, at 101 years old, had been blind for two years; "it's great to have a bright future again at my age!"

During pre-surgery inspection, Dr He reminded Madam Feng to hold still. "You mean I can't even blink?" The dear old lady seriously wanted to clarify.

It took merely ten minutes, yet vision was restored for the centenarian lady who had suffered from cataract for some twenty years. This was the first cataract surgery for a centenarian from Shenyang (population 7.2 million in north eastern China), but the second for He Eye Hospital Group.

The intraocular lens implantation was by no means without intricacies, considering the advanced age of the patient. Dr He chose phacoemulsification small incision ECCE as the procedure, not only to reduce any possible complications and risks, but also to offer Madam Feng a painless experience, and a speedy recovery.

This episode benefited more than Madam Feng herself. Her daughter and son-in-law, 64 and 65 respectively, could take care of her easier now because their prayers for her restored vision were answered.

Sholto Chan
International Liaison, He Eye Hospital, Shenyang, China

Exchange

Gender and use of cataract surgical services: experiences from Munawwar Memorial Hospital in District Chakwal, Pakistan

Problem identified

In 2000 a survey of cataract blindness in our district showed that an estimated 3,095 people were bilaterally blind due to cataract, 647 males and 2,448 females (79%). The cataract surgical coverage for persons at VA<3/60 was 93% for males and 74% for females, a significant difference. At the <6/60 and the <6/18 level the differences were not significant (Haider S, Hussain A, Limburg H. *Ophthalmic Epidemiology* 2003, Vol.10, No.4, pp. 249-258. (http://www.szp.swets.nl/szp/journals/op104249.htm)

Action taken

It was not possible to provide an exclusive service to females, but we examined barriers specific to women and took a series of measures to raise awareness, improve detection, streamline referrals, improve access, reduce costs, and to make the programme more friendly to the patients' family members.

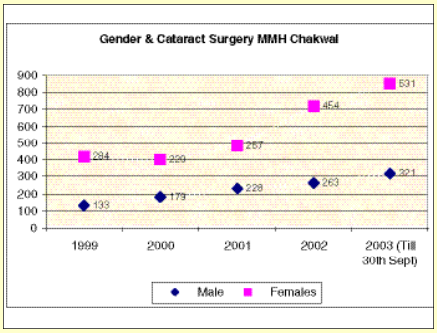
Photo: Sajjad Haider

The following were put in place:

- A resident facility so the family can reach home for the evening
- Day case surgery to reduce effort and indirect costs
- Service over the weekends, when a younger family member may more easily accompany the elderly female patients
- Cost reduction through subsidy
- Transport to reduce indirect costs and improve access
- 1,650 Primary Health Care workers within this district were trained in Primary Eye Care, including detection and referral of the female blind.

Outcome

Community detection of cataract improved from 160 cataract patients identified at community level in 2001, to 463 identified in 2003. We were also able to increase the acceptance of surgery considerably in the four years. The rate of cataract surgery in females has remained consistently higher than males. The volume of cataract surgery has doubled but the male/female distribution remains roughly the same. Increasing the coverage in females with bilateral cataract may require more focused interventions.



Sajjad Haider and **Arif Hussain**
Munawwar Memorial Hospital, Chakwal, Pakistan (www.mmh.sdnpk.org)
Hans Limburg ***Consultant, International Centre for Eye Health, London, UK***

Letters to the Editor

Astigmatism after Sutureless Cataract Surgery

Dear Editor,

I read the current *Community Eye Health* (Issue 48) with a lot of interest as these are the issues we deal with daily. An aspect which I feel needs further discussion is astigmatism after the sutureless surgery. Some claim that this gives more against-the-rule astigmatism and hence recommend that at least one suture will give more of a with-the-rule astigmatism. Question: is this true and is this of any consequence to the quality of life for the patient?

Dr. Kibata Githeko
Lighthouse For Christ Eye Centre, Mombasa, Kenya

Editor's note

A member of our editorial committee, Dr David Yorston, has kindly agreed to respond to this question.

Dr Githeko raises an interesting point. The sutureless wound leads to a flattening of the cornea in the direction of the wound. If it is placed superiorly, the cornea will be flatter along the vertical axis than along the horizontal. This causes "against the rule" astigmatism. Placing a suture might reduce this flattening effect. There is some evidence for this. A 1995 paper from Berlin showed that a single suture reduced the astigmatism by 0.5D (Haberle H, Anders N, Drosch S, Pham DT, Wollensak J. See abstract on page 11 of this issue.)

However, the paper does not say if this increased the number of people with good unaided acuity. Dr Githeko asks the very pertinent question "is this of any consequence to the quality of life for the patient?" Using a stitch may reduce astigmatism, but, unless it reduces it enough to improve patients' unaided vision, I don't think it will improve their quality of life. On the other hand, using a stitch increases the risk of suture-related complications, such as erosion and irritation. Albrecht Hennig has pointed out that it also significantly increases the time taken to carry out the surgery, and adds to the cost.

The only way to be sure if the benefits of placing a suture outweigh the possible risks would be to perform a randomised trial.

David Yorston
Specialist Registrar
Moorfields Eye Hospital, UK

Sterilising Instruments

Dear Editor,

With reference to John Sandford Smith's article: Sutureless Cataract Surgery in Issue 48 of *Community Eye Health*, I would like to make the following recommendation.

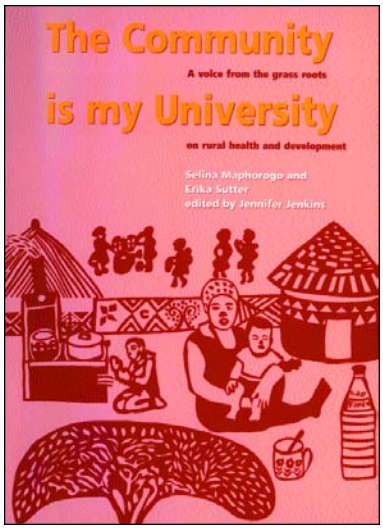
If surgical knives are soaked in povidone iodine or autoclaved, a 'protector' needs to be placed on the tip of the knife before soaking/sterilistion takes place. 'Protectors' can be made out of old intravenous infusion tubing or silicone pieces. If the knives are placed directly into a metal kidney dish without a protective rubber mat or gauze on the bottom of the dish and without the tip protected, they will soon become blunt.

Ingrid Cox
Training Advisor
CBM International, Kenya

Book Review

The Community is my University – a voice from the grass roots on rural health and development

By **Selina Maphorogo and Erika Sutter**
Edited by **Jennifer Jenkins**
Kit Publishers 2003



Reviewed by Victoria Francis
Editor, *Community Eye Health*

Many of our readers will know of the pioneering example of community-based trachoma control, the Care Group Project in South Africa, starting in the late 1960s. Dr Erika Sutter, an ophthalmologist working from Elim Hospital, aimed to move the focus of trachoma prevention out of the hospital and into the community. This of course would not have been possible without a strong partnership with the community, facilitated largely by Selina Maphorogo over 28 years of sustained involvement. Within three years of the founding of the Care Groups, the prevalence of active trachoma had decreased by 50%, and some years later the disease had almost disappeared from the area and the Care Groups were concerning themselves with other aspects of health and development. The movement has now grown to approximately 250 groups with about 10,000 people actively involved.

How did all of this come about? *The Community is my University* provides a rare insight into a community health promoter's perspective on bridging the gap between biomedical professionals and local communities. The first author, Selina Maphorogo, was the link between the hospital and the community and found herself in the position of 'translator' for both sides, not only of language, but of perceptions, capabilities and sensitivities. This gave her a unique insight into what makes community projects succeed or fail, and an opportunity to develop skills in how to motivate and maintain community engagement. At the same time, she was encouraged to go further with her formal education; poverty had forced her to leave school early, and it was not until her contact with the 'Trachoma Team', that she was given opportunities for more training, culminating in travel to Manchester and London. Over the two decades, a remarkable partnership between the doctor and the community worker grew, building the trust and confidence which is evident in the co-authoring of this book.

There is, therefore, a personal story to tell as well; this is not a dry text book. Selina Maphorogo begins by charting her personal story: from domestic worker to community health promoter. What follows is a description of how the Care Groups grew from the early beginnings to a more organised structure with a stronger voice. From chapter 4, the book becomes more reflective about what makes Care Groups work (from leadership to project financing) and the importance of building relationships within village structures. In Chapters 6 (The joys and frustrations of being a Care Group Motivator) and 7 (Motivating and Mediating) Selina Maphorogo describes what she has learnt about her role, and then goes on in Chapter 8 to make suggestions based on lessons from experience. We pick up again on the most recent developments of the Groups in the final chapter which describes their response to the AIDS epidemic. Erika Sutter's postscript provides an analysis of Community Based Health Care within a global setting and discusses policy issues for community participation in health.

The book is written in simple 'spoken' English derived from interviews, and is rich in examples and case stories. A number of pages are dedicated to photographs, presenting the story of the Care Groups in vibrant colour. The authors hope that the book will be useful to people working in health or development projects, or training and supervising community workers, helping them to avoid mistakes and move more rapidly towards the goal of establishing truly community-based projects.

The Community is my University is available from Kit Publishers,
P.O. Box 95001 1090 HA Amsterdam
www.kit.nl/publishers
ISBN 90 6832 722 4
Price: Euro 22.50 (£15.00)

Portuguese-language Educational Resources

Helen Keller International has two primary eye care manuals available in Portuguese. One is a manual for training community health workers and the other is a reference manual for the trained worker. For more information, please contact cmacarthur@hki.org and lmorales@hki.org or write to: Training and Community Education, Helen Keller International, 352 Park Avenue South, Suite 1200, New York, NY 10010, USA.

International Society for Geographical & Epidemiological Ophthalmology (ISGEO) Congress

Dubai
September 25–26, 2004

The 18th ISGEO congress will be held in Dubai from September 25-26, 2004 directly following the International Agency for the Prevention of Blindness congress (September 18-24, 2004). Special sessions of the ISGEO congress are dedicated to: trachoma, cataract & outcome assessment, gender and blindness, and childhood blindness and rehabilitation. Free papers are also welcome.

The deadline for submission of abstracts is March 31, 2004. Abstracts should be submitted to Dr Paul Courtright (pcourtright@kcmc.ac.tz). Abstract and registration forms available from Dr. Courtright and at http://www.kcmc.ac.tz/kcco

News and Notices

Eye Diseases in Hot Climates: New Fourth Edition

John Sandford-Smith

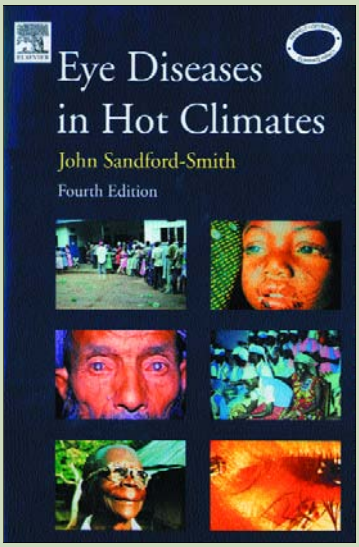
Eye Diseases in Hot Climates is a comprehensive clinical textbook which covers the whole range of eye diseases but concentrates on the major preventable and treatable causes of world blindness.

The fourth edition of the book contains new chapters on practical refraction, HIV/AIDS and the eye, and children's eye diseases. The other chapters have been revised and updated. The text is direct and clear and there are numerous colour illustrations as in previous editions.

This book is written specifically for the doctor, nurse or medical assistant who is seeing and treating eye patients in a tropical or developing country.

Ordering Information

Price: UK£12.00/US$20 plus £5/$9 (airmail) or £3/$5 (surface) post and packing. Payment by credit card or banker's order, drawn on UK or US bank account only please. Please make payment to: London School of Hygiene & Tropical Medicine and send to IRC/ICEH, LSHTM, Keppel St., London WC1E 7HT, UK.
Tel. 00 44 20 7612 7973.
Email: sue.stevens@lshtm.ac.uk



Attention all past ICEH students

The International Centre for Eye Health is compiling a database of contact details for all our past students.

Please send details of

1. Your current work
2. Your contact address

Email: Adrienne.Burrough@lshtm.ac.uk or write to Adrienne at our address below.

IRC Contact Details
International Resource Centre, ICEH,
London School of Hygiene
& Tropical Medicine,
Keppel Street, London WC1E 7HT, UK.
email: Anita.Shah@lshtm.ac.uk

FRENCH EDITION

l'attention des lecteurs de langue française

A special French issue of selected articles from Community Eye Health is planned for June 2004. If you would like to receive this special issue, please send details of your name, occupation and address to:

Anita Shah
Community Eye Health Journal,
International Centre for Eye Health,
London School of Hygiene and
Tropical Medicine, Keppel Street,
London WC1E 7HT
Email: Anita.Shah@lshtm.ac.uk

INDIAN EDITION RELAUNCHED

We are pleased to announce that, beginning with this issue, an Indian edition of the Journal with a four-page supplement will be distributed to readers in India. This initiative has been developed under the auspices of the VISION 2020 India Forum and is funded by Orbis India. The Indian edition is published by the International Centre for the Advancement of Rural Eyecare under the direction of Dr BR Shamanna, who is also the new Indian edition editor. For further details, please contact:

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Fax: 00 91 40 2401 1293;
Email: library@icare.stph.net or
icareresourcecentre@yahoo.com

Forthcoming Issue of *Community Eye Health*

Our next issue will be on the theme of **Childhood Cataract**

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Christian Blind Mission

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The West Foundation