

Murray McGavin on the global scale of preventable blindness and its cure



Restoring sight to the blind

William Osler Master Clinician

William Osler (1849-1919) was one of the 'Big Four' (Welch, Halstead, Kelly and Osler) who established the fame of the Johns Hopkins Hospital in the USA. All four were influenced by the impact of active Christianity, and the hospital itself was founded on Christian principles.

He was described as 'a master clinician, an inspiring teacher, a forceful speaker and a fascinating orator....' He occupied the Chair of Medicine at the Johns Hopkins and later became Regius Professor of Medicine at Oxford, founding the Quarterly Journal of Medicine. In an address to students he said, 'Begin the day with Christ and His prayer - you need no other. Learn to know your Bible... In forming character and shaping conduct, it still has its ancient power.'

It was the summer of 1968, high in the mountains of Afghanistan, in the valley of Bamiyan. Mongol horsemen led by Genghis Khan had swept into this valley 800 years earlier, killing everyone, 'even the rats and the flies'. Jock Anderson FRCS had organised an eye camp and our tents were pitched near to a 175 foot high Buddha carved out of the rock face. Muslim militia had subdued the region around AD700 and had hewn off the eyes and nose of the huge statue. Our camp site was situated at the feet of the 'sightless' Buddha.

A small Christian team of eye doctors and nurses, with our Afghan colleagues, saw many patients, operated in one of the tents and cared for post-operative patients in other tents. What an absolute delight it was to stand back from a newly operated cataract patient, having given him his temporary spectacles, and ask him to count fingers at a distance of nearly six metres. He

was right. The 'ward' cheered. This man had been blind for about 12 years.

Soon afterwards one of the patients stopped me outside the tents. 'You gave sight back to that Afghan, why will you not operate on me? I'll give you more money'. This man, sadly, had bilateral absolute glaucoma and his optic nerves had been severely damaged. But how do you explain this to a patient? For many, an eye operation is simply an eye operation - to restore sight.

In later years I looked at the figures for those presenting at the NOOR Eye Institute in Kabul in one year. Of those in whom the diagnosis proved to be glaucoma, 47% had no light perception in one eye and, in the vast majority, vision was reduced to counting fingers or worse in the second eye. The needs are very great. But how widespread is blindness and visual impairment in the world?

Visual Impairment and Blindness

What does it mean to be blind? In the early 1970s the World Health Organisation realised that there were more than 70 definitions of blindness in UN member states. After much deliberation the WHO definition of blindness was agreed: visual acuity of less than 3/60 (or less than counting fingers at 3 metres) using best corrected vision in each eye - or a central visual field of less than 10° in the better eye.

Using this definition, together with the definition of visual impairment as less than 6/18 in the better eye, estimates of blindness and visual impairment can be made in countries and regions.

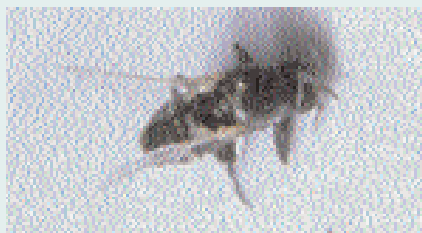
Treatable Blindness

So much could be said about these different causes of blindness. Cataract requires skilled surgeons to provide operative care, now with intraocular lens implants. Glaucoma is often difficult to diagnose in the early stages. Trachoma, the most important infective cause, has decreasing prevalence worldwide, as hygiene and public awareness improves. Vitamin A deficiency in children may lead to corneal scarring in those who survive. Over 60% of these children will die within months or years. There is an epidemic of diabetes around the world and the sight-saving laser involves considerable costs. Merck and Co have given Mectizan (ivermectin) free for the treatment of Onchocerciasis and only one or two doses a year are required.

The Challenge of World Blindness

It is estimated that around 45 million people are blind in the world by WHO definition and a further 135 million are visually impaired. Around 80% of the world's blindness is in developing countries and over 80% of this blindness could be avoided, that is, either prevented or cured.

It is no surprise that there is an imbalance of eye care personnel comparing industrialised and developing countries. For example, in the United Kingdom and North America there is approximately one ophthalmologist for 20-30,000 people. In sub-Saharan Africa



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there is one ophthalmologist for one million people. In many situations, particularly rural areas, eye care provision is much poorer as the majority of ophthalmologists work in the big cities. You cannot ignore these cold statistics.

Co-operation in the Prevention of Blindness Worldwide

There has been excellent co-operation in the field of eye care services amongst organisations with similar concerns for the prevention of world blindness. The World Health Organisation's Programme for the Prevention of Blindness and Deafness has 19 Collaborating Centres including our own International Centre for Eye Health (ICEH) in London. Our Director, Professor Gordon Johnson, previously served in Newfoundland with The Grenfell Mission.

ICEH carries out research into eye disease in developing countries, conducts courses for students from countries as far apart as Colombia and Mongolia (MSc, Diploma, Certificate) and has established an International Resource Centre which sends out the Journal of Community Eye Health, now reaching 171 countries. Come and visit us and discover our teaching and educational resources for the prevention of blindness! The Partnership Committee of



The Causes of Blindness Worldwide

What are the common causes of blindness worldwide? The following figures are estimates.

Cataract (age - related)	19.3 million
Glaucomas	6.4 million
Trachoma	5.6 million
Macular degeneration (age - related)	2.7 million
Vitamin A deficiency (xerophthalmia)	2.7 million
Diabetes (retinopathy)	2.5 million
Eye injuries	1.5 million
Onchocerciasis (river blindness)	300,000
Leprosy	100,000
Others	3.5 million

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International Non-Governmental Organisations (INGOs) meets yearly, usually in Geneva, to discuss co-operation in prevention of blindness programmes and rehabilitation of the blind and visually impaired. Amongst the 35 full member organisations and 36 ‘observers’ now represented at this two-day meeting are Christian organisations and representatives including CBM International (Christian Blind Mission International) whose Medical Director is Allen Foster OBE gave eleven years of service in Tanzania.

The International Agency for Prevention of Blindness (IAPB) organises assemblies of individuals and organisations dedicated to the elimination of ‘avoidable blindness’. The first meeting of the IAPB was in Oxford, in 1978 and since then meetings have been held in the USA, India, Kenya, Germany and most recently, in 1999, in Beijing, China.

Vision 2020 : The Right to Sight

On 18 February 1999, The Global Initiative for the Elimination of Avoidable Blindness - Vision 2020: The Right to Sight - was officially launched by Dr Gro Harlem Brundtland, Director General of the World Health Organisation. Vision 2020 will be led by WHO and the Task Force of IAPB (Collaborating INGOs).

Priorities focus on three broad categories :

- Disease Control : particularly Cataract, Trachoma, Onchocerciasis, Childhood Blindness, Refractive Errors and Low Vision.
- Human Resource Development : emphasising the primary health care approach and the training of all groups of eye care workers.
- Infrastructure and Appropriate Technology Development : modern technology and the provision of eye beds, locally produced eye medicines, refraction and spectacle provision, low vision devices and surgical instruments.

The Journal of Community Eye Health, with its unique circulation, will promote the development of Vision 2020 in the years ahead.

Heal the Sick

Afghan Persian has two similar words, ‘dawa’ which means medicine and ‘dwa’ which means prayer. Sadly, in the United Kingdom, the suggestion of prayer for the sick patient may be met with astonishment or, even fear. Yet, the Christian doctor

has surely a responsibility to pray for his or her patients, either quietly or openly, if possible. It was so good in early days in Central Asia to pray aloud for patients before surgery. It is good for the patient, for the surgical team and for the eye surgeon. One of our Afghan ophthalmologists was overheard saying to a colleague, ‘It’s very good when they pray!’.

One Saturday morning I was in the middle of a surgical list in an Afghan hospital when a nurse came breathlessly into the operating room. ‘That girl with hysterical blindness - she’s tried to strangle herself with a chain!’ The girl’s father and brother had had a fight and she had developed apparently functional visual loss. ‘Is she all right, meantime?’, I asked. ‘She’s settled’, was the reply. ‘Let’s finish the list, then we’ll go and see her’

Our British nurse Rosemary Weston and I walked into the girl’s room later that morning. Members of the family were there, including the girl’s mother. Have you experienced a patient’s family looking at you with questioning faces - ‘What are you going to do, doctor?’

I found myself asking them if they would like me to pray? Yes, that would be appreciated. Rosemary and I laid hands on the girl and, as we prayed in the name of Jesus, the sense of God’s presence was wonderful. My faith soared. We finished praying and looked at the girl. Nothing had changed. Very disappointed, I went home for lunch. An hour or so later, the Afghan resident phoned. ‘Dr McGavin, that girl, she can see perfectly and I’ve sent her home. Oh - and - er... Dr McGavin ... all the other patients want you to come and pray for them!’

Of course, it was ‘good psychology’, but I believe God intervened. Although her problems were not over, the next time I saw this young girl her expression was simply radiant!

Reflection

Each individual patient looks to us expressing the heartfelt hope, like the blind man in the Gospel story - ‘I want to see’ (Luke 18:41). As Christians concerned with health care, we may offer a dimension in service which can potentially meet both the physical and spiritual needs of those in our care. What a privilege and an opportunity! What a challenge!

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