Popularising eye health services in southern Mexico: community workers meet a felt need




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Introduction

Programmes for blindness prevention in southern Mexico face multiple challenges. The people in greatest need live in remote rural villages. Mountain ranges and bad roads make access to these villages difficult. Multiple languages (16 distinct languages in the state of Oaxaca alone) along with a diversity of customs and beliefs, make effective communication challenging. It is impossible for an ophthalmologist acting alone to gain the access needed to serve these communities well.

Figure 1. Location of Mexico



Community eye health promoters

The government, churches, and NGOs are already involved in a wide variety of programmes to meet social needs in these communities. Workers who either live in the community or travel there on a regular basis are involved in initiatives such as nutrition programmes, basic health care, sanitation, and social work. They understand the local languages. They know regional customs and how to work with local authorities. These workers, equipped with the necessary knowledge and skills, are ideally positioned to deliver eye health services. Furthermore, government agencies, NGOs, and churches are pleased to have their workers acquire new skills and bring eye health services to the villages.

Most often this is done on a part-time basis as workers 'piggy-back' eye services onto their other routines. In this way there is little or no additional expense. The newly trained workers are known as community eye health promoters (CEH promoters).

Training

To be enthusiastic partners in blindness prevention, and not merely functionaries, community eye health workers must understand what they are doing and why they are doing it.



Visual acuity testing. MEXICO

Fr Pablo Merne

Since many workers have little or no experience in health care, and no formal education beyond primary school, we developed a workshop using language and concepts tailored to their level of experience and schooling. For instance, the terms 'white part' and 'transparent part' are used instead of conjunctiva and cornea. The visual pathway is reduced to six simple steps: light (forming an image) passes through the cornea, pupil, and lens and is captured by the retina; this image is transmitted by the optic nerve to the brain where vision occurs. Students achieve a rudimentary understanding of the anatomy and physiology of the visual system.

CEH promoters learn to measure visual acuity using E charts in a programmed, standard routine. Standard-sized E characters to measure visual acuity are produced inexpensively in large quantities and mounted on stiff cardboard. Each promoter is equipped with E cards and a six-meter-long cord; these items form a portable vision-testing kit which can be used easily with all ages and levels of literacy.

The assessment is simple: vision must be 20/60 or better (20/40 for children). Lids must be clean, and able to open and close. The white part must be white. The transparent part must be transparent. The black part must be black.

Once they have acquired a basic knowledge of structure and function, as well as hands-on experience with visual acuity measurement, CEH promoters quickly understand the possible causes of decreased vision. Slides and a model eye make the concepts more graphic. Promoters master the subject of cataract and can diagnose advanced cataract using two criteria: vision is equal to or lower than 20/200 and the pupil is white. They comprehend the risks of diabetes and glaucoma. Refractive errors make sense.

The detection of problems is only the first step. The training also includes what to tell the patient. Using a list of questions frequently asked by patients and family, students participate in interactive classroom role-playing dramas in order to deepen their own understanding of problems and to prepare them to assist patients. CEH promoters are prepared to give a simple, clear explanation to patients about what their findings imply, answer questions, dispel myths and motivate patients to seek help when needed.



Fr Pablo Merne

Supplying spectacles for reading. MEXICO

Spectacles for presbyopia: meeting a need

Surveys reveal that 'tired vision', or uncorrected presbyopia, is a major preoccupation in rural communities. CEH promoters quickly learn criteria for diagnosing presbyopia. They practise determining the appropriate correction for patients by using a kit which contains lenses from +1.50 to +3.00 in half-dioptre steps, along with a needle and thread for illiterate patients and printed material for those who can read.

The provision of spectacles for presbyopia brings patients, both women and men, willingly to the promoters, and gives their work credibility and authority. Patients, promoters, and participating organisations are extremely enthusiastic

about this programme.

The programme is self-sustaining. The bulk purchase of spectacles for presbyopia from a regional marketplace reduces costs. Spectacles can then be provided to patients at cost or cost-plus. Some programmes reward CEH promoters with a small stipend from the sales.

Three days in the mountains: an example

There is no central database recording blindness prevention efforts in the villages of Southern Mexico, but a look at the experience of one team in Oaxaca indicates the effectiveness of CEH promoters. A team of six people worked in a group of villages for three days. None of them were health workers but all had participated in a three-day community eye health training. Two days were needed to travel to the villages. As a result of the three days spent by the CEH promoters in the mountains:

- 384 people over the age of 35 years received an eye examination
- 170 pairs of spectacles for presbyopia were distributed
- 43 people were referred to the ophthalmologist. The vision of those referred was:

20/100	30 eyes
20/200	24 eyes
20/400	18 eyes

The diagnoses of the people referred was cataract (17 eyes), pterygium, referred when the pterygium is at the border of the pupil (6 eyes), refractive error and/or other disease (20 patients).

Clearly, the promoters were able to address significant unmet needs.

Conclusion

The challenge to reach those most in need of eye services in regions that are geographically remote and culturally diverse, can be met by persons who already live or work in these communities. With brief but appropriate training, they become enthusiastic partners in blindness prevention. Most CEH promoters 'piggy-back' this work onto their other routines so that eye care is integrated with other health and development issues. Providing spectacles for near vision, something that people need, and which enhances their lives, helps to build trust and confidence in other eye care services and greatly increases the effectiveness of blindness prevention programmes.

Joseph Michon



Supplying spectacles for sewing. MEXICO



CASE STUDY CAMBODIA

Creating demand for cataract services: a Cambodian case study



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Background

Following decades of civil disturbance in Cambodia, by the early 1990s there were few doctors remaining in the country, and little in the way of eye care services.

With NGO support, training centres were established to train medical graduates and nurses as 'basic eye doctors' and 'basic eye nurses'. These workers were then placed in provincial eye units to serve the eye care needs of those provinces. However, it soon became clear that, despite evidence that blindness, including cataract blindness, was prevalent, patients were not attending these provincial eye units. Attention was therefore given to finding out more about the barriers preventing patients benefiting from these services.

Key barriers to access to cataract surgical services

Poverty

This is an underlying factor, one survey having rated over 90 per cent of the referred patients as 'poor' or 'very poor'. Even when the actual operation is free, the associated costs of transport and food, when patients are away from home, are often too much for patients to afford. Many will simply not consider seeking services, assuming such services will be beyond their means. Poverty interconnects with other barriers, such as the lack of someone to accompany and care for the patient while in hospital. A caretaker would need to take time away from their work; for many poor people, this could have a significant impact on the family income and contribute further to household impoverishment. In rural economies, potential caretakers can often not afford to spend a day away, particularly during harvesting season.

Attitudes towards expenditure on the elderly

Linked to poverty, are the attitudes to spending scarce resources on the elderly. We found that children, and the patients themselves, do not perceive the need or value in spending resources on medical care of the elderly patients.

Fear

This includes the direct fear of having a poor outcome from the operation, and a less rational fear of the whole concept of surgery and hospitals.

Lack of knowledge

Lack of knowledge has to some extent been addressed through efforts to educate the population about the availability and quality of eye care services. However, lack of a clear understanding of the nature of cataract, and of the possibility of treating it, is often still found to be a barrier to uptake of surgical services.



Sith Sam Ath

Patients waiting at the provincial eye unit of Kampong Thom, while nurse Mr Ty Seiha tests vision. CAMBODIA

Lack of trust in local medical personnel

In some communities there is a prevailing attitude of mistrust of locally trained surgeons, combined with the feeling that foreign doctors are better. This is compounded when a foreign surgical team arrives (often unannounced) and does free surgery, undermining the good work and trust being built up by the local eye doctor.

Some approaches to overcoming the barriers

The National Programme for Eye Health (NPEH), eye units working with NPEH initiatives or with NGO support, and individual eye doctors in Cambodia, have attempted a range of approaches to overcome these barriers. These are briefly described below.

Outreach screening activities for cataract or other causes of blindness extend the reach of provincial or district eye unit to the surrounding community. The doctor, supported by the unit eye nurses, or the nurses themselves, usually provide the outreach screening. This is a key method for promoting the uptake of cataract surgery. It provides an opportunity for community education in eye disease and the options for eye care, as well as the actual screening process. However, our experience tells us that providing an outreach screening service does not entirely overcome the barriers to uptake.

We find that of those referred to the eye unit at outreach screenings, only around

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