Indirect costs associated with accessing eye care services as a barrier to service use in Ethiopia

Melese M, Alemayehu W, Friedlander E, Courtright P.

BACKGROUND: The prevalence of blindness and visual impairment are high in Ethiopia and use of services is limited. Determining the barriers to use of eye care services is critical for planning strategies to prevent blindness.
METHODS: A population-based survey of the magnitude and causes of blindness and visual impairment in adults 40 years and older in the Gurage Zone, central Ethiopia was conducted. Among those individuals who had binocular or monocular vision 6/18, an interview to assess use of eye care services and reasons for a failure to use such services was undertaken.
RESULTS: Of 850 adults with visual impairment or blindness, 802 were interviewed. Cataract surgery accounted for the primary service currently needed by the blind, followed by trichiasis surgery; service needs were higher for women than for men. Use of services (27.8 per cent of sample) was associated with being male, binocular vision loss, and blindness. The primary reason for a failure to use eye care services were indirect costs (overall, reported by 40 per cent of respondents) associated with accessing the service. There were significant differences between men and women in the reasons for not using the services and between cataract and trichiasis cases but not when comparing binocular vs. monocular conditions, or patients with visual impairment vs. blindness.
CONCLUSION: The majority of the causes of visual impairment and blindness are treatable (cataract) or preventable (trachomatous trichiasis). The main barrier for seeking service is related to the indirect medical costs of the service. This suggests that efforts are needed to create mechanisms that 'bridge' communities and eye care facilities. A holistic approach that deals both with the organization of services and the sociocultural factors in communities that affect use is needed. The organization of trichiasis surgery at peripheral health centres and screening programmes which identify and facilitate transport to hospital for cataract patients is one approach. The indirect burden of accessing eye care on the family may be lessened by encouraging patients to have surgery earlier (before they require assistance to reach the hospital), and by improving the efficiency of existing services. Promotion of services must be gender-sensitive, ensuring that specific characteristics of the sociocultural roles of women be considered in order to improve uptake among women. Training and placement of cataract surgeons in rural hospitals would also enhance provision of eye care for the rural population.

Reprinted courtesy of:
Trop Med Int Health. 2004 Mar;9(3):426-31.

The cost-effectiveness of technology transfer using telemedicine

Johnston K, Kennedy C, Murdoch I, Taylor P and Cook C.

The high burden of disease in developing countries often makes it difficult for health systems in these countries to attain the same level of specialist skills as industrialized countries. Technology transfer is one way to improve specialist skills whilst at the same time reducing the burden of disease. This paper describes the use of tele-ophthalmology, a form of telemedicine, as a mode of technology transfer between the United Kingdom and South Africa. As the burden of eye disease in South Africa is high, the country cannot afford the level of ophthalmic specialization achieved in the UK. The paper estimates the cost-effectiveness of the technology transfer project in terms of a cost per Disability Adjusted Life Year (DALY) averted. We found the technology transfer project to be cost-effective in reducing the burden of eye disease, and that practitioners in South Africa also learned novel procedures that could help future patients and improve cost-effectiveness. Technology transfer using telemedicine is a cost-effective method that richer countries can employ to aid capacity building in the health care systems of poorer countries.

Reprinted courtesy of:
Health Policy and Planning. 2004; 19(5):302-09.

Reaching the poor with eye services

Experiences from the family practice unit, Manaus County, Brazil

Blindness is often concentrated in poor areas and socially deprived communities, making blindness prevention a social and political challenge. The blindness prevention program at the Family Practice Unit in Manaus County, Brazil, has developed a model to reach patients through the public health system. The approach aims to detect patients in the community and refer them to ophthalmologists based at the clinic. Two ophthalmologists work with family practitioners and community health workers to whom they provide training on how to screen and refer patients. Barriers such as distance, culture, costs, and lack of information are broken down with this approach.

Between the years 2000 and 2003, 15,129 patients were seen at the ophthalmology service of the Family Practice Programme in the city of Manaus. The projection for the year 2004 is 8,640 consultations among the four centers distributed at the north, south, east and west areas of the city. In 2003, 110 diabetic patients sent by family practitioners and community health workers were evaluated, demonstrating the need to improve the screening of diabetic patients in the city. Refractive errors were the reason for consultation in 80 per cent of the patients during 2000-2003. Conjunctivitis, eyelid problems, cataract, and glaucoma were other frequent causes of consultation. Only 6.8 per cent of the patients seen at the unit were referred to the general hospital for further diagnosis and treatment.

Demand for eye care services in this area has increased continuously since the start of this programme. The location of the unit in the community, the focus of the clinic on the poor, and the emphasis on information, seem to have created an efficient and popular service. Brazil has about 50 million people assigned to these Family Practice Units by the Public Health System. If each unit had an ophthalmology service like Manaus, Brazil could make a great impact on prevention of blindness at the community level. The model might also be applicable to other countries.

Paulo Roberto de Magalhães Silva
Programa Médico da Família (SEMSA), Manaus, AM/Brazil, Rua 05, Casa 48 conjunto Vila Municipal – Adrianópolis Manaus – AM Brazil CEP: 69 057 730.
email: luz@horizon.com.br

Preventing broomstick eye injuries in children in Accra, Ghana

Brooms, made from palm branches, have been associated with eye injuries in Ghana. We determined the epidemiology of broomstick eye injuries in Korle-Bu Teaching Hospital in Ghana.

Patients with broomstick eye injuries attending the Eye Clinic over 12 months were recruited after informed consent. In addition to clinical examination, information was collected by questionnaire, in-depth interviews, and passive participant observation to find out about the circumstances peculiar to the injury and access to eye care. This gave us clues to preventive measures.

We treated ten children and one adult. All the children were under 12 years of age, 80 per cent were males, 90 per cent were pupils, and 90 per cent were injured while walking back home from school. Injury occurred while the children were playing a game of shooting a piece of broomstick at each other using a rubber band as a sling. Half the injuries were cornea or scleral perforations that resulted in monocular blindness, usually from complicated cataract, and/or endophthalmitis.

We took advantage of a local national VISION 2020 workshop to discuss a public health approach to the problem. Plans to deal with the issue aim at educating children, teachers, parents and the general public on the dangers of rubber bands and broomsticks in the hands of children, and to promote the proper disposal of any items which could injure eyes. As devices children use for play change, we will also stress the general point about care of eyes. Communication strategies include discussion on eye injuries on television, and talks to children's clubs.

V.A. Essuman and C.T. Ntim-Amponsah
Ophthalmology Unit, Department of Surgery, University of Ghana Medical School, P.O. Box gp 4236, Accra, Ghana. Email: cnamponsah@hotmail.com