

options to respond, including a web questionnaire. Ethical approval was obtained from the London School of Hygiene and Tropical Medicine ethics committee prior to conducting the survey. Participants were provided with information sheets about the survey before their informed consent was sought.

**Results:** Seven out of ten countries responded. The result of the study shows that there is, to varying degrees, a shortage and maldistribution of ophthalmologists in some ASEAN member countries, particularly in Indonesia and CMLV countries (Cambodia, Myanmar, Lao People's Democratic Republic, and Viet Nam), where the burden of blindness is significantly higher. Furthermore, the integration of primary eye care into mainstream primary health care is incomplete. At secondary and tertiary level, the shortage of ophthalmologists has been supplemented by the use of mid-level eye personnel. However, their impact in addressing cataract (the main cause of blindness in the region) is restricted, as their roles are limited to carrying out basic eye tests, history-taking, and instrument care. Local training facilities are available for most levels of eye care workers, but questions about their quality and capacity remain unanswered. The working conditions of ophthalmologists in the ASEAN region are reasonable, and ophthalmologists are supported by professional and regulatory bodies. However, career structures for mid-level personnel are not available in all member countries.

**Conclusion:** In order to meet current needs, especially in countries with a high burden of blindness, there is an urgent need to address the shortage and maldistribution of ophthalmologists. Career structure and deployment of mid-level eye personnel need to be addressed and aligned to meet current eye care needs. The ASEAN region has the capacity to address its eye care needs and should do so through capacity building and service delivery programmes.

## Situation analysis of human resources for eye care in the North West Province of Cameroon



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**Aim:** To provide comprehensive information on existing human resources for the provision of comprehensive eye care services in the North West Province of Cameroon.

**Methods:** Quantitative data were collected using a pre-tested questionnaire administered to all consenting eye care workers in the North West Province. Data on service outputs were obtained using a checklist and other available documents. Qualitative data were collected by means of semi-structured interviews administered to staff of eye units, primary level eye care workers, and visual

rehabilitation workers.

**Results:** The North West Province, which has a population of 2.1 million, had 9 eye units, 3 ophthalmologists, 21 ophthalmic paramedics, 47 community-based rehabilitation workers trained in primary eye care, and 8 ophthalmic paramedic students. There were also 19 special education teachers in two schools for the blind. In addition, the province had 3,131 community-directed distributors of ivermectin. The duration and type of ophthalmic training of ophthalmic paramedics, as well as their educational backgrounds, were very diverse. Close to 90% of the staff in the eye units were employed by mission hospitals and the distribution of human resources in the province was grossly unequal. The cataract surgical rate had increased by 35% between 2002 and 2005, to a total of 414 per year. The coverage of refractive services and the number of patients consulted per outreach had remained constant during the same period, at less than 1% and at 30 patients, respectively. The main barriers to the provision and uptake of eye care services were lack of human resources, poor collaboration among stakeholders, cost of services, and patient beliefs.

**Conclusion:** The number, distribution, mix of skills, and output of eye care workers in the North West Province are inadequate. At provincial level, it would be desirable to have a committee for the prevention of blindness. It would be worthwhile to research consumer perceptions and barriers to the uptake of eye care services. At national level, an action plan, advocacy, and funding for in-country training of different levels of eye care personnel should be considered.

## Evaluating interventions/programmes

### Evaluation of the SAFE strategy for preventing trachomatous visual impairment in the Enemor and Ener District of Ethiopia



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**Background:** Although the SAFE strategy (Surgery, Antibiotics, Face washing, Environmental change) is increasingly implemented to control trachoma, its operational effectiveness is not well known.

**Aim:** To evaluate the implementation of the SAFE strategy in a trachoma control programme area in the context of VISION 2020.

**Methods:** A cross-sectional trachoma survey, focus group discussions, and routine data analysis were undertaken in July 2006 in the Enamor and Ener District of southern Ethiopia. Using multi-stage cluster sampling with probability proportionate to size and compact segment sampling methods, 544 households were selected from a population of 110,000. Individuals were examined for signs of trachoma and visual impairment, and the heads of two-thirds of households were interviewed about risk factors.

**Results:** Of the 2,510 people enumerated, 2,637 (95%) were examined. The prevalence of trichiasis (TT) in people older than 14 was 9.04% (95% confidence interval [CI] 7.4–10.6%). Trachoma was responsible for 13% of visual impairment in people older than 40. Follicular trachoma (TF) in children aged one to nine was 33.1% (95% CI 29.4–37.1%), while 56.1% (95% CI 52.7–59.5%) had clean faces. The percentage of households using latrines was 74.4% (95% CI 69.9–78.87%). The themes that emerged from discussions included distance and fear as barriers to surgery, appreciation of antibiotics, "quest for water" and "education with legal enforcement" in terms of facial and environmental hygiene. A minimum of US \$18 per person was invested on SAFE over five years. Although active trachoma and visual impairment were moderately reduced as

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A signpost advertising the services of a traditional healer in Bamenda, capital of the North West Province of Cameroon. Many interviewees in Henry Nkumbe's study made reference to the services of this healer. CAMEROON

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