

## **ABSTRACT**

### **BACKGROUND:**

To assess prevalence and causes of vision impairment in Southeast Asia and Oceania in 1990 and 2010.

### **METHODS:**

Based on a systematic review of medical literature, prevalence of moderate and severe vision impairment (MSVI; presenting visual acuity  $<6/18$  but  $\geq 3/60$  in the better eye) and blindness (presenting visual acuity  $<3/60$ ) was estimated for 1990 and 2010.

### **RESULTS:**

In Oceania, the age-standardised prevalence of blindness and MSVI did not decrease significantly (1.3% to 0.8% and 6.6% to 5.1%) respectively, but in Southeast Asia, blindness decreased significantly from 1.4% to 0.8%, a 43% decrease. There were significantly more women blind (2.18 million) compared with men (1.28 million) in the Southeast Asian population in 2010, but no significant gender differences in MSVI in either subregion. Cataract was the most frequent cause of blindness in Southeast Asia and Oceania in 1990 and 2010. Uncorrected refractive error, followed by cataract, macular degeneration, glaucoma and diabetic retinopathy were the most common causes for MSVI in 1990 and 2010. With the increasing size of the older population, there have been relatively small increases in the number of blind (2%), and with MSVI (14%) in Southeast Asia, whereas increases have been greater in Oceania of 14% for blindness and of 31% for MSVI.

### **CONCLUSIONS:**

The prevalence of blindness has reduced significantly from 1990 to 2010, with moderate but non-significant lowering of MSVI. Cataract and uncorrected refractive error are the main causes of vision impairment and blindness; cataract continues as the main cause of blindness, but at lower proportions.