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# National estimates of the magnitude, causes and determinants of blindness and visual impairment in Sri Lanka

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## Introduction

The World Health Assembly in 2013 adopted the World Health Organization Global Action Plan for eye health – 'Towards Universal eye health: a global action plan 2014 -2019' with a call to all member nations to implement the plan according to national priorities. A major objective of the plan is for countries to generate data on magnitude and causes of visual impairment and eye care services for planning and advocacy. Sri Lanka has no such national data. Thus, the Sri Lankan government conducted a national population based cross-sectional survey to generate this information. The study used standardized survey methodology similar to the methods used in large-scale national surveys elsewhere; this is to allow comparisons. Furthermore, the study included qualitative research on visual function and quality of life of those visually impaired and those treated for visual impairment; and a study on self-reported ocular morbidity and eye service utilization. This is to demonstrate the higher burden of eye morbidities (especially Presbyopia) beyond distance vision; and reveal the eye health seeking behaviors and barriers to accessing eye care services in the Sri Lankan population. With the increasing wholesome care approaches for disabilities, the survey piggybacked a disability survey using the United Nations statistics division Washington Group tool to establish the relevance of visual disability within the spectrum of disabilities. This edition of the journal presents the results of the survey in eight articles covering prevalence and causes of blindness, functional low vision, cataract surgical coverage and outcomes, refractive error, visual function and quality of life, self-reported ocular morbidity and disability.

This survey reports prevalence of blindness of 1.7% among persons 40 years and older; and prevalence of moderate and severe impairment of 17%. Sri Lanka has a lower burden of blindness and visual impairment than most South East Asian countries. In addition, the study revealed better cataract service indices than among other low and middle-income countries. Cataract surgical coverage was 78.5% and 'Good' visual outcome was more than 75%.



However, the causes of blindness and visual impairment were mainly avoidable (cataract 66.7%, uncorrected refractive error 12.5%) similar to most low and middleincome countries. Furthermore, the distribution of blindness and visual impairment within the country is skewed with higher burden among some categories. The burden varied according to province, socioeconomic status and literacy level. This suggests that access to services is not uniform across different segments of the population. These inequities need to be addressed. The quality of cataract surgery though better than reported from many other low and middle income countries needs to be improved as cataract and cataract surgery related conditions (surgical complications, posterior capsular opacity, aphakia etc.) accounted for over 73% of blindness. In addition, cataract surgery complications were the major cause of functional low vision being responsible for 42.4% of irreversible visual impairment.

It reported that 67% of the study population had uncorrected refractive errors which were responsible for 46.7% of severe visual impairment and 12.5% of blindness, but the spectacle coverage was very low (17.7%).

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Therefore, refractive error services need to be improved especially to the underserved segments of the society, who have a higher burden. This becomes more pressing when the near reading glasses for presbyopia are included, as about <sup>3</sup>/<sub>4</sub> of the study population (in the self-reported ocular morbidity survey) reported near vision impairment.

The disability study reported disability prevalence of 3.8% in Sri Lanka with visual disability as the second major cause of disability (1.6%) after disability in walking or climbing stairs (1.7%).

The evidence detailed in this special supplement will help in establishing the baseline for future evaluation of blindness control efforts in Sri Lanka. It will also help in prioritizing the needs and in developing evidence-based strategies for planning for eye care under the aegis of the Sri Lanka Vision 2020.

# Conflicts of interest

The author declares that there is no conflicts of interest.