

Title: Vision standards for drivers in NSW

Authors: Dr Rebecca Q Ivers¹ B Optom, MPH, PhD

Professor Paul Mitchell² MD, PhD, FRACO

1. Institute for International Health, the University of Sydney
2. Department of Ophthalmology, the University of Sydney

Corresponding Author: Dr Rebecca Ivers
Senior Research Fellow
Institute for International Health
University of Sydney
PO Box 576
Newtown NSW 2042
Australia
phone +61 2 9351 0042
fax +61 2 9351 0008
email rivers@iih.usyd.edu.au

Topic Field: Older drivers

Objectives: Medical standards for drivers are clearly important in ensuring that the roads are safe for all users. Visual acuity is currently used as a screening test for visual impairment by many licensing authorities worldwide. The requirement for visual acuity standards for renewal of a driver licence in NSW became more stringent recently with a change from 6/18 to 6/12. The objective of this paper is to estimate the number of older drivers in NSW who are impacted by this change, based on projections from the Blue Mountains Eye Study.

Methods: The Blue Mountains Eye Study was a population based survey of eye disease in two post-code areas in the Blue Mountains area, west of Sydney, Australia. Of 4433 eligible residents, 3654 (82.4%) participated. Participants had a detailed eye examination, including tests of visual acuity, contrast sensitivity, disability glare and visual field. Lens and retinal photographs were taken and graded for presence of cataract, and other eye diseases. An interviewer administered questionnaire included questions about driving.

Results: There were 2379 participants who reported that they were still driving. After their visual acuity was corrected with the best possible spectacle correction, there were 9 women and 9 men still driving with visual acuity in this range. When projected to the number of older drivers in NSW, this corresponds to 5785 women and 4246 men who would be required to stop driving because of their visual acuity, most of whom would be aged 70 years and older. There were also 12 study participants still driving with substantial visual field defects, corresponding to approximately 4000 older individuals in the NSW driving community who could be expected to have such deficits.

Conclusions: There is little evidence that visual acuity in the range between 6/12-6/18 is associated with increased risk of crashes, yet many older drivers are likely to lose their licence as a result of these changes to the visual acuity standard. However, there are likely to be substantial numbers of older people with serious visual field defects still driving, who may be much more hazardous on the roads.