

Analysis of older driver mobility and safety associated with the removal of the New Zealand older driver on-road licensing test

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Abstract

Until recently, New Zealand had a licensing regime that included a specific on-road driving test for all drivers aged 80 and over. The test was dispensed with in December 2006 as there was good evidence that older drivers did not merit such a specific test. The aim of this study was to see what changes in travel patterns and crash rates occurred in response to the removal of the older driver licence test. Analyses of national surveys of travel behaviour and crash data were undertaken to identify any changes in mobility or safety of older people, controlling for age-related changes in the New Zealand population. There was only a small increase in distances driven by people aged 80 plus associated with the licensing change. No detectable change in the injury crash rates of older drivers was apparent. The fears of some commentators that the removal of specific older driver on-road tests would result in sharp increases in road trauma have not been realised. Although it is difficult to detect any significant increase in driving activity for this group, it is likely that the convenience of making relatively short trips as drivers would have been a major benefit to many older people who might otherwise have ceased driving because of the licence test.

Background

Older drivers have elevated crash rates in many countries, which can be used as a justification of specific licensing conditions targeted to this group, including on-road driving tests. In New Zealand, an older driver on-road driving test was introduced in 1999, which, together with certification of medical fitness, was a biennial requisite of driver licensing for drivers aged 80 and over. Following a medical check that health and eyesight were satisfactory for driving, the older driver undertook an on-road test of about 20 minutes' duration in which their ability to detect traffic hazards around the vehicle, as well as their ability to control the vehicle and adhere to the road rules, was assessed. The driving test was failed if the driver committed major errors (e.g., failure to stop or maintain vehicle position in the lane) or a combination of more minor errors.

From 2007 onwards, drivers at age 75, 80 and every two years after that were still required to obtain a medical certificate from their general practitioner (GP), who could make the following recommendations: the patient is medically fit to drive without conditions imposed; the patient is medically fit to drive with specified conditions (such as no night driving; only driving within 10km of their home); the patient is medically fit to drive but must undergo an on-road driving test; the patient requires further specialist assessment (a medical specialist or an occupational therapist) before they can be deemed medically fit to drive; the patient is not medically fit to drive. Previous analysis of older driver failure rates found that about 5% of drivers aged 80 plus, who sought to be licensed, failed the on-road driving test, often after more than one attempt (Keall and Frith, 2004). Under the new licensing system (from 2007 onwards), these drivers would presumably still be driving unless identified by their GP as being unsafe.

Methods

Three main data sources were analysed to provide evidence of changes in older driver travel mode choice, licensing rates and injuries: New Zealand Travel Survey data, licensing data and police-reported crash data.

Results

The proportion of the age group affected who were licensed to drive continued to grow. The amount of driving undertaken by people aged 75 plus increased substantially over two decades studied, approximately quadrupling from 1989/90 to 2007/10, but without an apparent jump in activity at the time of the licensing policy change. Over this time period there was a general decrease in the amount of time spent walking by this age group, but little evidence that there was any real decrease in walking activity that could be hypothesised to accompany a significant mode shift to motorised travel. The numbers of casualties arising from crashes involving drivers aged 80 plus changed over time in a way that was consistent with changes seen for drivers aged 70-79, again providing no evidence of change associated with the licensing policy change.

Discussion

To examine the potential public health impact of a change in licensing policy for older drivers, licensing data, travel activity estimates and crash data were all analysed, but no step changes at the time of the policy change were found. These results are consistent with a conclusion that the on-road driving test for people aged 80 plus had little impact on mobility or safety at a population level, even though many individuals would have been affected. The lack of safety effects is consistent with findings comparing jurisdictions with contrasting older driver licence renewal procedures (Fildes et al, 2008; Mitchell, 2008).

The current study has strengths and limitations. Strengths include the wide range of data sources that were available to be analysed. Weaknesses included the relatively small sample sizes for the group affected by the policy change and associated lack of power to detect real changes (if any). This was compounded in some cases by reliance on published data that combined the group of interest (those aged 80 plus) with drivers aged 75-79. Nevertheless, it can be concluded that the evidence available is inconsistent with the occurrence of major changes in safety or mobility at the time of the removal of the older driver on-road test as a general condition of licensing.

Conclusion

Along with other relevant studies comparing policies across different jurisdictions, this study does not support the generalised use of on-road testing as an assessment mechanism for all older drivers.

References

- Fildes BN, Charlton J, Pronk N, Langford J, Oxley J, Koppel S (2008) An Australian model license reassessment procedure for identifying potentially unsafe drivers, *Traffic Injury Prevention* 9:pp. 350–359.
- Keall MD, Frith WJ (2004) Association between older driver characteristics, on-road driving test performance and crash liability, *Traffic Injury Prevention*, 5:pp. 112-116.
- Mitchell KGB (2008) The Licensing of Older Drivers in Europe— A Case Study, *Traffic Injury Prevention* 9:pp. 360-366.