Submission No. 69

DRIVER EDUCATION, TRAINING AND ROAD SAFETY

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Date Received: 13/03/2017

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13 March 2017

Mr Greg Aplin MP
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Parliament of New South Wales
Macquarie Street, Sydney NSW 2000

Submission to the Inquiry on Driver Education, Training and Road Safety

Dear Mr Aplin,

The George Institute for Global Health is a not-for-profit medical research institute that conducts research on chronic disease and injury. Staff at the George Institute have been conducting injury and road safety research since 2000 when the Institute was first formed. With around 20 dedicated injury prevention researchers, the team is supported by a wider network of staff in statistics, health economics, and other divisions focusing on trauma care post-injury. The Injury Division has a large and diverse program of research into prevention and care of injury, with a strong focus on road injury. We have recently conducted research into motorcycle rider training and older drivers and currently have a substantial body of ongoing research work investigating novice drivers and driver licensing.

We note that the Committee will inquire into, and report on, the role of whole-of-life driver education and training in supporting improved road safety outcomes in New South Wales. We address several areas of focus for the committee as follows:

a) Trends in road safety research and crash statistics

We will not comment extensively on crash statistics as other agencies including the Centre for Road Safety will provide detailed updates. In summary however, road crash deaths in NSW have declined over many years, dropping from 28.9 deaths per 100,00 population in 1970 to 4.1 in 2014 [1], although showing increases since then, particularly for men and drivers in the oldest age group. Road deaths for men in NSW increased from a low of 211 in 2014, to 242 in 2015, and rising again to 287 in 2016. This mirrors similar increases nationally, with an overall 7% increase in road deaths in 2016 [2] and in the US, also with a 6% increase in 2016 [3]. In drivers aged 85 years and older, the absolute number of crashes has doubled over the past 10 years [4]. This is attributed in part to substantial increases in driving participation within this age group. Further detailed analysis of at risk groups, crash types and outcomes including mortality and serious injury is required to inform opportunities for intervention.

b) Evaluating current driver training, including the effectiveness of refresher training and skills updating, and adaptation to changing vehicle technology

At present in NSW, there is no compulsory driver training, with the exception of training for new motorcycle riders as part of the graduated rider licensing program. Novice drivers holding a learner licence may attend the NSW Government developed Safer Driver Program, but are not required to attend any other form of driver training.

It is clear that some training is needed for new drivers and riders, and this might include lessons with professional driving instructors, or compulsory training programs on bike handling for new motorcycle riders. In the early stages this includes development of skills needed to operate the vehicle, and once these skills have been mastered, onto some high order skills, including hazard perception and risk awareness. There is little research evidence about effectiveness of such training in reducing crash risk, although it seems likely that such training is beneficial and unlikely to cause harm.

However, there are various other forms of driver training that are available both during the learner licence and post-licence phases, which may include advanced or defensive car handling techniques including skid pan training. Although community expectation is that driver training is likely to be effective in producing safe drivers, there is no evidence that this is actually achieved and rather, some research suggests it may increase crash rates. This includes school based driver education, which has no safety benefits but can increase early licensure, therefore increasing crash exposure [5], and some forms of off-road road driver training, which has been shown to increase over-confidence [6]. There have been some suggestions that forms of low risk training following the Scandinavian “insight” model [7] may reduce crash risk, although, research evaluating this and similar approaches is limited in quality and does not make clear that adaptation or promotion of such training is a cost-effective approach. There is no research evidence that post-licence driver training is effective in improving safety or reducing crash rates for experienced drivers.

Driver training has also been found to be problematic for motorcycle riders. We have previously published a systematic review highlighting the lack of evidence for rider training [8], as well as conducting a large trial for VicRoads [9]. This trial enrolled 2,400 riders to assess effectiveness of on-road motorcycle coaching for novice riders. The coaching was found to have no safety benefits and may have actually decreased safety as riders who received the program reported more hours riding, more speeding behaviour and were more confident in their ability.

Consequently, driver and rider training is a contested space. Research studies have been unable to detect positive effects in population studies although some smaller simulator studies have demonstrated changes in hazard perception [10]. However, it is not clear that such shifts translate into safe on road behaviour. Training can do harm, and in the absence of robust

evidence should not be funded by Government agencies unless its efficacy has been proven by large, robust trials.

With respect to the development of safe novice drivers, the NSW driver licensing system is an effective and evidence based program. There is very strong evidence from a multitude of research studies from Australia, the US, Canada and NZ that graduated driver licensing (GDL) systems are effective in reducing crash risk in novice drivers [11-14]. More recently, there have been requests for the implementation of lifetime training for drivers with the intent to upskill and refresh driving skills for all active drivers. Whilst it seems intuitive that such approaches would improve road safety, there is no research evidence to support this. Further, community testing of drivers at various stages of life would be exceptionally expensive and is unlikely to reap benefits in terms of crash reductions.

NSW has aged-based licencing which requires annual medical assessments from age 75, an on-road driving test from age 85 years to maintain a full licence but the choice to opt for a distance-restricted modified license. The licensing system was reformed in 2008 to allow private driving instructors to administer the on-road test. These instructors also provide driver refresher courses and training in preparation for the on-road test. The uptake and safety benefits of these lessons have not been evaluated.

There are many programs available around the world to promote safety for older drivers. These include education delivered through classroom modules [15], video programs [16], workbooks [17] and one-on-one counselling [18]. There was one systematic review published in 2009 which synthesised the evidence for the effectiveness of these programs and found few randomised controlled trials evaluating older driver retraining [19]. Despite limited evidence, this review cited sufficient encouraging results to further pursue training for older drivers. Our recent research evaluated an individualised, education based safe transport program. Similar to other studies, we found the program could engage older drivers in the process of self-regulation and increase knowledge of safe driving practices, however there was little change to driving exposure [20]. This program included discussion of how age-related declines in function impact driving ability and in-office testing of the study participants. One unexpected finding was that there was an increase in depressive symptoms in those receiving the program, who had poor function. It follows that caution is needed before investment in programs to identify safety concerns in older drivers, considering the possible negative consequences of raising these issues with older people. The significant negative impacts caused by ceasing driving without support have been widely reported and include isolation, anxiety, depression [21] and decreased cognitive function [22].

A more holistic approach would include increasing the scope and awareness of public and community transport as many drivers are not aware of available options. Innovative and novel interventions such as subsidisation of private forms of transport, including Uber ride-sharing and taxis, as well as the formation of volunteer driving groups in rural and regional communities, may reduce reliance of older drivers on vehicle transport as well as the burden

placed on family and carers when they do retire from driving. Australian-based driving cessation programs such as Behind the Wheel [23] and the University of Queensland Driver Retirement Initiative (UQDRIVE) [24] have been evaluated locally with mixed results. We also recommend that multiple stakeholders including driving instructors, occupational therapists, general practitioners, the RMS and family and carers are involved and support older drivers in the transition to retiring from driving.

In summary, current evidence demonstrates that that the most appropriate and cost-effective approach for young drivers would be to maintain the current regime of testing drivers on entry to the system, maintaining or strengthening the GDL system for drivers and riders, but to avoid compulsory training (given the lack of evidence of effectiveness) and significantly strengthen public awareness through campaigns on changes to road rules, street signage and police enforcement. While there is GDL for young drivers, age-based licensing in NSW provides some structure for retirement from driving. The aged-based licensing system was reviewed by the 2012 Older Drivers Taskforce (http://www.transport.nsw.gov.au/newsroom/media-releases/licensing-system-maintained-safeguard-older-drivers) which made the broad recommendation to maintain the current system. Similar to young drivers, caution is needed in investing in driver training and safe-driving programs due to lack of evidence for effectiveness. Further, there is no evidence that suggests that re-training or testing of drivers throughout their driving lives would reduce crash rates.

c) The needs of any particular driver groups

There are various groups who require support for entry to the licensing system. These include young disadvantaged groups who are required to meet 120 hours of supervised driving during the learner phase, but have difficulty securing suitable supervising drivers or cars. These may be people from economically disadvantaged backgrounds and can include recently arrived migrants, and Aboriginal people [25, 26].

The George Institute have published research showing associations between licensing, employment and education for Aboriginal people, and also developed and evaluated a driver licensing support program for Aboriginal people across NSW, the Driving Change program [27-29]. This program of research has highlighted the considerable barriers to licensing as well as the need for licensing support programs [30]. Such programs provide much needed support for novice drivers to meet the requirements for supervised driving practice, which is a considerable 120 hours for NSW learner drivers (under 25 years of age). Typically this involves a combination of financial support for professional driving lessons and establishment of a mentoring program that facilitates access to a supervisory mentor driver and car. Additionally, our research has highlighted that beyond supervised driving practice, disadvantaged populations face multiple barriers to licensing, including: 1) Access to proof of identification documents; 2) literacy and/or language issues; 3) Unresolved state debt with resultant licensing sanctions; 4) High cost of testing and licensing fees; 5) Reduced access to service providers in regional and remote communities [27, 28, 30, 31].

While funding is now available through the RMS and CfRS for such programs across NSW, it is limited in scope does not provide coordinated support for licensing programs. Research from Queensland found that services prefer to have an overarching agency providing training and guidance on licensing programs, to ensure they meet community needs and have appropriate resources and training. We strongly recommend a substantial increase in funding and coordinated support from a central agency to service providers. Furthermore, there is a critical need for support programs to address the multiple and intersecting barriers to licensing, by providing case management through all stages of the licensing system. This could support both Indigenous and non-Indigenous novice drivers, whilst simultaneously improving road safety in an effective and equitable way.

Another population group which have different needs to that of general Australian drivers are those individuals experiencing cognitive decline. As diagnosis of conditions such as Alzheimer's is typically late, there are likely gaps when attempting to detect and prevent older people with significant cognitive decline from driving. Furthermore, many drivers with cognitive decline may continue to drive even when it is not safe; a cohort study of more than 10,000 participants found that 15% of older women and 61% of older men with moderate cognitive decline continue to drive [32]. One explanation is that older people with cognitive impairment do not have the insight to know their driving is unsafe. Some drivers forget that their license has been revoked and other drivers refuse to give up driving as it is their lifeline to the community and they do not wish to burden family and carers. Meeting the needs of older drivers with cognitive impairment is a challenging area where more work needs to be done to develop appropriate support systems.

e) The needs of metropolitan, rural and regional drivers

Crash and death rates in rural and regional areas are high and are not deceasing in line with urban rates. This is attributed to higher exposure on high speed roads, less police enforcement, lower seatbelt use and drink driving. For this population, one appropriate and evidence based approach is the management of speed by use of enforcement. We would strongly recommend the use of point to point cameras already installed on the road network to manage speed for private cars coupled with continuing strong community campaigns on speed, pedestrian safety [33] and drink driving. Further, ensuring that all new cars are sold with high levels of safety will vastly improve morbidity and the risk of mortality if a crash is to occur [34].

Reluctance to retire from driving is common across metropolitan, rural and regional areas. However, the implications are likely greater outside of metropolitan areas where there are few alternatives. Reassuringly, it has been shown by our work and that of others that older persons already self-regulate and restrict their driving [20], though the timeliness of this decision is uncertain [23]. Fears of losing touch with the community as well as becoming a burden to family and carers may compel individuals to continue driving.

These are significant issues for a population which is expanding and experiences difficulties with retiring from driving in metropolitan, rural and remote areas. Increasing driver training will not address these issues and will only add complexity when renewing licenses as well as increasing the burden on family members and carers. We strongly recommend that other solutions for this population are investigated and that existing systems are expanded in regional and remote areas in order to produce long term safety benefits across NSW.

f) The needs and expectations of passengers and other road users
Pedestrians and cyclists

There are important issues related to other road users that are currently not being met by drivers of motorised vehicles. These relate to drivers who are unaware of road rules relating to rights of pedestrians and cyclists in urban settings. With increased density of urban settings there is an important need to reduce speeds and build road infrastructure that better and more safely supports movement of pedestrians and cyclists. However, there is also an important need for sustained mass communication campaigns aimed at drivers about the rights of cyclists and pedestrians, as well as about any changes to road rules. In the absence of evidence about re-testing and training of drivers, this is likely a more cost effective approach.

Older drivers

There are currently significant gaps in support services which prevent older persons retiring from driving when they can no longer respond safely to the demands of driving. This endangers themselves, their passengers and other road users. Current research illustrates that older drivers require specific support systems [35] in order to facilitate an end to their driving. This population is responsible and receptive to retiring from driving and simply require the necessary supports to decrease their reliance on driving and maintain their mobility. We strongly recommend a holistic approach to meeting transport needs, rather than implementing driver training as there is no evidence for significant safety benefits for this group and other road users they may encounter.

Kind regards

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Associate Professor Lisa Keay

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