

INQUIRY INTO VULNERABLE ROAD USERS

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Mr Geoff Corrigan MP
Chair Staysafe Committee
Parliament of NSW
Macquarie St
Sydney NSW 2000

Dear Mr Corrigan,

Re: Inquiry into Vulnerable Road Users

Thank you for the opportunity to make a submission to the Parliamentary Joint Standing Committee on Road Safety (Staysafe) inquiry into 'Vulnerable Road Users'.

As you are aware, Youthsafe is a not for profit organisation and the peak body in NSW for prevention of serious unintentional injury in young people. Youthsafe holds full accreditation having been assessed as complying with all required Quality Improvement Council standards for community organisations in Australasia. Youthsafe's primary focus is young people aged 15 to 25 years but we also have some involvement with the 12 to 15 year age group as this is the period during which risk taking behaviour in adolescence begins to develop. Youthsafe addresses injury prevention wherever young people are at risk of injury, including on the roads, in workplaces and in sport, recreation and other social settings.

Youthsafe commends the Staysafe Committee on including injury as well as fatalities in the inquiry given that injury occurs with much greater frequency than road trauma fatalities and for serious injury, such as brain injury, the long term consequences are very significant for family and the community at large as well as the injured individual. When young people sustain serious injury the lifetime care implications in particular are significantly greater than those for older people.

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Youthsafe has noted the terms of reference for the inquiry and our submission primarily relates to the following items as applicable to young people:

- b) short and long term trends in motorcycle and bicycle injuries and fatalities across a range of settings, including on-road and off-road uses;*
- c) underlying factors in motorcycle and bicycle injuries and fatalities;*
- d) current measures and future strategies to address motorcycle and bicycle safety, including education, training and assessment programs;*

There are three main areas that Youthsafe would particularly like to draw to the attention of the Committee:

1. The risks associated with off-road motorcycles by adolescents which differ from the more regulated road environment.
2. Risks associated with quad bike use which appear to be an emerging trend.
3. Bicycle safety in young teenagers, particularly with respect to helmet use.

Injury data:

While motorcyclists and bicyclists represent a relatively small proportion of those injured and killed due to road trauma they are at greater risk of injury with injuries from motorbike crashes having more serious consequences and consuming more health resources than those from bicycles.

Claims profile information published in the Motor Accidents Authority of NSW 2009 annual report is indicative of this risk profile. Average incurred cost per claim for motor cycle riders is \$202,900, for pillion riders it is \$231,000 and for cyclists it is \$110,200 compared to \$59,200 for drivers and \$97,000 for passengers.

The significance of motorcycle injuries compared to motor vehicle occupants is illustrated by the following.

The rate of serious injury in terms of vehicle kilometres travelled for motorcyclists was thirty-eight times that for car occupants (395 motorcyclists compared to 10 car occupants were seriously injured per 100 million vehicle kilometres travelled)¹.

Males are more likely to be injured than females, particularly with regard to motorcycle use.

For males, the four most common frequently injured road user groups were, in order, motorcyclists, car drivers, pedal cyclists and car passengers. For females, the most frequently injured road users were car drivers, car passengers, pedestrians and pedal cyclists.²

Males were more likely to have been involved in a crash than females (45% vs 21%).³

¹ Berry, J G and Harrison, J E (2008), *Serious injury due to land transport accidents, Australia 2005-06*, Flinders University.

² Ibid.

³ de Rome, L. & Brandon, T. (2007), *A Survey of motorcyclists in NSW (2006)*, Motorcycle Council of NSW, Sydney.

Younger motorcyclists, particularly males are also at greater risk.

*Younger male riders were involved in more crashes per year of riding experience, with those under 25 years being especially over-represented in crashes for their years of riding.*⁴

Loss of control appears more common in off-road crashes and collisions more common in on-road crashes with younger motorcyclists also more likely to be involved in single vehicle crashes on the roads compared to other age groups.

*Younger riders were more likely to have been involved in single-vehicle crashes than older riders. Single vehicle crashes accounted for 57% of crashes involving riders under 25...*⁵

The mode of transport influences the body region injured in a crash with differences evident between motorcyclists and bicyclists compared to motor vehicle occupants.

*Shoulder and upper limb injuries were the most common among motorcyclists (35%) and lower limb injuries were the second most frequent (29%). Shoulder and upper limb injuries were the most common among pedal cyclists (44%) and head injuries were the second most frequent (26%).*⁶

Trends and underlying factors:

Off-road motorcycle use

Information about off-road motorcycle use is less readily available than on-road motorcycle use as this is a largely unregulated arena. As indicated above, characteristics of off-road motorcycle crashes and on-road motorcycle crashes differ. The riding environment is a significant influential factor. For instance, for off-road motorcycle crashes natural obstacles such as ditches and logs and man-made obstacles such as fences, poles, gutters and jumps are most often the immediate cause. When off-road collisions occur they are generally with other motorbikes rather than other vehicles found in on-road environments.

Risk factors for off-road motorcyclists also include the following:

- The younger age at which adolescents ride, particularly if more powerful vehicles are used.
- Riding alone rather than as part of an organised event with rules – this also has implications for assistance in the event of a crash.
- Greater propensity to go without protective gear.

It also appears that the limited and remote locations of off-road riding venues are a contributory factor to riding in unauthorised areas. This can include use of unregistered off-road vehicles on public roads.

⁴ de Rome, L. & Brandon, T. (2007), *A Survey of motorcyclists in NSW (2006)*, Motorcycle Council of NSW, Sydney.

⁵ Ibid.

⁶ Berry, J G and Harrison, J E (2008), *Serious injury due to land transport accidents, Australia 2005-06*, Flinders University.

Quad bikes

Earlier this year Youthsafe undertook a literature review on off-road injury associated with motorcycles and quad bikes as part of our involvement with the Commission for Children and Young People Injury Prevention Reference Group and its consideration of this issue.

An emerging trend is use of quad bikes for work purposes in rural settings and also for recreational purposes.

A 'quad bike' is defined as a specifically designed motorised vehicle that operates on four low pressure, high flotation tyres; has a saddle-type seat that is designed for a single operator; has handlebars for steering control; and may be either 2 or 4 wheel drive.

There are also other forms of small utility vehicles designed for off-road use that fall into the same all terrain vehicle (ATV) category as quad bikes.

Crashes involving quad bikes are now among the leading causes of injury death on Australian farms. Death is often due to crush injury associated with quad bike roll-over or injury associated with the victim being flung onto a hard surface as a result of a quad bike crash (*Australian Centre for Agricultural Health and Safety, 2009*). Head injuries contribute to around 25% of quad bike related deaths in Australia, largely related to not using a helmet. A *Rural and Remote Road Safety Study* undertaken in north Queensland between March 2004 and June 2007 points to risk factors and characteristics of quad bike crashes (*O'Connor, Hanks & Steinhardt 2009*). The research identifies a 43% increase in ATV sales Australia wide over 5 years. This reflects changing farming practices with a move away from horses, 2 wheel bikes and tractors for farming tasks and use of ATVs for recreation by many people.

Recognised risk factors for ATV crashes include:

- Younger age groups (especially under 16 years).
- Males.
- Inexperience.
- Lack of helmet use.
- Greater engine size.

The main findings of the study include the following:

- Recreational ATV crashes constitute 33% of all ATV crashes on private land.
- Head, neck and upper limb injuries are the most common.
- Alcohol use and not wearing a helmet adds to crash risk among recreational riders.
- Nature of crash is associated with reason for travel, that is rollover crashes are more likely to occur among those undertaking agricultural travel while falls from a quad bike are more likely among those using a quad bike for recreational purposes.
- Recreational riders and passengers on private property tend to be male and young in age and more likely to be under the influence of alcohol than agricultural riders and recreational riders on commercial properties (supervised settings).

Bicycle safety

An ATBS report published in 2006 on *Deaths of cyclists due to road injuries* stated:

Though there are no comprehensive indicators of the extent of use of bicycles for transport in Australia, there is some evidence suggesting the growing popularity of cycling for commuting to work and school and for recreation.

This report went on to identify failure of cyclists and other road users to observe each other on the road as the most frequent major factor in fatal road crashes involving cyclists and stated:

For cyclists, their visibility remains a key safety issue.

This report also pointed to not wearing a helmet as a significant factor in bicyclist fatalities, particularly in the 10 to 19 age group.

There is strong evidence about the effectiveness of bicycle helmets in helping to prevent head injuries, which can result in serious lifelong disability. Wearing an approved and properly fitted bike helmet can reduce the risk of head injury by more than 60%. Mandated helmet use on the roads has been an important step in the right direction.

Teenagers have been identified as less likely than other cyclists to wear a bike helmet, even if they have been in the habit of wearing a helmet during childhood. While various measures are in place to address this, it is an issue which warrants ongoing attention.

Factors which contribute to increased risk of injury in adolescence:

As Youthsafe has indicated in previous submissions to the Staysafe Committee there are a range of factors specific to young people that contribute to their increased risk of injury generally. These risk factors compound the injury risks inherent in motorcycle, quad bike and bicycle use and include the following:

- The still maturing adolescent brain – particularly the areas of the brain responsible for identifying risks and making better judgements about how to manage risks are not fully mature until the mid to late 20s.
- New levels of independence and responsibility.
- Inexperience with new activities and with alcohol/drugs.
- The strong influence of peers during teenager years.
- Attitudes and behaviours established early on in a young person's life.
- A desire for experimentation and thrill seeking.
- Societal expectations of young people as risk takers.
- Common beliefs in young people about their inability to control safety.
- Fatigue due to busy lifestyles, which often include a combination of study, work and socialising and a potential for new media to impact on amount of sleep.

Injury prevention and safety measures:

Ways in which Youthsafe has contributed to motorcycle, quad bike and bicycle safety for young people to date have primarily included:

- Literature reviews – such as the review of off-road use of motorcycles and quad bikes to understand the nature and scope of the issue.
- Participation in the Commission for Children and Young People Injury Prevention Reference Group – one of the identified priority areas for this group is off-road motorised small vehicle use.
- Resource development and distribution – Youthsafe developed a parent fact sheet '*Heads up on helmets*' which is provided free through schools, community based professionals and at special events such as the RTA Bike Week.

- Supporting community based professionals to develop and implement best practice strategies – for example Youthsafe is advising a youth worker working with a group of highly at risk teenagers who are engaging in risky use of off-road motorcycles about development of an appropriate education intervention suited to participants with low levels of literacy.

An area where Youthsafe considers more could be done is off-road motorcycle and quad bike use, particularly issues related to recreational use, including use of motorcycles and quad bikes in unauthorised settings and inadequate use of helmets and other protective gear.

An action research approach has potential to assist understanding of the motivational and behavioural drivers for young, mostly male, at risk riders. This type of approach would be more prevention focused than the academic research to date which has primarily been descriptive.

Youthsafe has effectively used action research before, for example in the safe alternative transport area. Here a combination of literature review, service reviews and evaluation, consultations and workshop resulted in recommendations about strategies to improve practice. Youthsafe is currently in the process of implementing one of the key strategies with support from NSW Health.

Supporting injury prevention amongst young people:

Youthsafe considers young people have the right to live full lives which are free of serious injury while pursuing activities that are normal and interesting for them. In engaging in these activities it is important for young people to have the opportunity to develop new levels of independence and responsibility and learn to manage risk. Youthsafe respects the rights of young people and considers that during their developmental years they should be supported in identifying and managing risk to be able to more safely participate in typical activities for young people.

Youthsafe advocates that approaches for improving the safety of young people should be:

- Evidence based.
- Multi-strategic.
- Positive and supportive, recognising the need for young people to learn independence and responsibility.
- Engage a wider community as well as young people, including parents/family, local communities in which young people are involved and policy decision makers.
- Integrate risk management into activities which are normal for young people and important to their development.

While Youthsafe's initiatives in the area of motorcycle and bicycle safety are limited at this stage, we have a high level of credibility and capacity to contribute appropriate expertise to the development of further injury prevention initiatives, particularly in undertaking action research; planning, implementing and evaluating education programs; developing information resources and supporting community based programs. Youthsafe's programs and resources are developed in consultation with target audiences, stakeholders and experts in the field; are pilot tested and refined before implementation; and are subject to evaluation.

I trust this submission will be of assistance and look forward to the outcome of the review.
Please contact me if you would like further information or to discuss any related matters.
Yours sincerely



Anne Deans
Youthsafe Chief Executive

This submission has been prepared on behalf of Youthsafe by Anne Deans, the Chief Executive.
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