

INQUIRY INTO VULNERABLE ROAD USERS

Organisation: NSW Health
Name: Dr Richard Matthews AM
Position: Acting Director-General
Telephone: (02) 9391 9000
Date Received: 4/08/2010

THIS PAGE INTENTIONALLY BLANK

P10/611

Mr Geoff Corrigan MP
Chair
Parliamentary Joint Standing Committee on Road Safety (Staysafe)
Parliament of NSW
Macquarie Street
SYDNEY NSW 2000

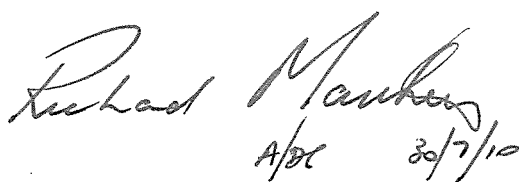
Dear Mr Corrigan,

Inquiry into Vulnerable Road Users

Please find attached the NSW Health submissions to the above current inquiry being undertaken by the Parliamentary Joint Standing Committee on Road Safety (Staysafe) in respect to vulnerable road users.

The Department of Health welcomes the opportunity to provide input in respect to the Committee's Terms of Reference and the attachment provides a range of background and relevant statistical information for the Committee's consideration.

Yours sincerely



A/DC 30/7/10

Dr Richard Matthews AM
Acting Director-General

Inquiry into Vulnerable Road Users

Terms of Reference:

The Committee will inquire into and report on vulnerable road users, specifically motorcycle and bicycle safety, with particular reference to:

- (a) patterns of motorcycle and bicycle usage in New South Wales;
- (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;
- (e) the integration of motorcyclists and bicyclists in the planning and management of the road system in NSW;
- (f) motorcycle and bicycle safety issues and strategies in other jurisdictions; and
- (g) any other related matters.

NSW Health's comments in relation to the Terms of Reference of the Inquiry:

(a) Patterns of motorcycle and bicycle usage in New South Wales.

NSW Bike Plan

Cycling is a good way of incorporating physical activity into people's everyday lives which in turn promotes healthy lifestyles and can help prevent chronic disease. However, it is vital that the safety of cyclists is considered in any initiatives which promote increased participation in cycling. In this regard, the Centre for Health Advancement (CHA) has represented NSW Health on the Steering Group for the NSW Bike Plan which aims to encourage people to ride more often and more safely in NSW.

The NSW Bike Plan is a whole-of-government project overseen by the Premier's Council for Active Living (PCAL). The Bike Plan sets out a comprehensive approach to promote cycling in NSW and addresses a broad range of strategies ranging from a 10 year plan for infrastructure, to a wide range of social programs and actions including cycling skills and awareness training and the provision of information for cyclists.

The Bike Plan sets out that in 2008, over half a million NSW adults rode a bike. The Bike Plan also reports that an estimated 159,000 trips were made by bike on an average weekday in Greater Sydney in 2010.

(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.

The Report of the Chief Health Officer provides data on the number and rate per 100,000 NSW residents of hospitalisations (sourced from NSW Admitted Patients Data Collection) related to motor-vehicles in NSW, including all cases involving motorcycle riders. For pedal cycle riders, the Report only includes those cases in which a motor-vehicle was a counterpart to the injurious event.

For motorcycle riders, these data show an increase in the age-standardised rate of hospitalisation from 40 hospitalisations per 100,000 residents in 1998/99, to 64 hospitalisations per 100,000 residents in 2006/07 (with a total of 4,307 such hospitalisations in NSW in 2006/07).

For cyclists, there was no significant increase in the rate per NSW resident of hospitalisations for pedal cyclists injured in collisions with motor-vehicles (from 5 hospitalisations per 100,000 residents in 1998/99, to a rate of 5.4 hospitalisations per 100,000 residents in 2006/07 - equating to 364 hospitalisations in 2006/07). No data was provided on the rate of hospitalisation for pedal cyclists injured in events that did not involve a motor-vehicle.

Using data from the Health Outcomes Information and Statistics Toolkit (HOIST) – a data access, analysis and reporting facility established and operated by the Centre for Epidemiology and Research, Population Health Division, NSW Department of Health - the NSW Injury Risk Management and Research Centre (IRMRC) has investigated hospitalisations and deaths resulting from on-road ('traffic') and off-road ('non-traffic') incidents for NSW residents who are motor cyclists and pedal cyclists.

In its analysis of hospitalisations of pedal cyclists and motor cyclists for NSW residents injured in traffic or non-traffic incidents, the IRMRC found that, between 1 July 1999 and 30 June 2009:

- For pedal cyclists injured in traffic accidents, there were 11,893 hospitalisations, and there has been a slight increase in the rate of annual hospitalisations (using adjusted rates) from 17.3 per 100,000 in 1999/00, to 20 per 100,000 in 2008/09;
- For pedal cyclists injured in non-traffic accidents, there were 12,044 hospitalisations, and there has been a slight decrease in the rate of annual hospitalisations (using adjusted rates) from 18.5 per 100,000 in 1999/00, to 16.1 per 100,000 in 2008/09;
- For pedal cyclists injured in traffic accidents, the counterpart to the injury was more commonly a non-collision (3,053 or 25.5%) than a car, pick-up truck or van (2,920 or 24.4%). However, the number of counterparts for non-collisions was not greater than the counterparts for motor vehicles overall (3,097 or 25.9%) - comprising two or three wheeled vehicles (37 or 0.3%), car, pick-up truck or van (2,920 or 24.4%) or a heavy transport vehicle or bus (140 or 1.2%);
- For pedal cyclists injured in non-traffic accidents, by far the most common counterpart to the injury was a non-collision (8,733 or 72.5%);
- For motor cyclists injured in traffic accidents, there were 17,318 hospitalisations, and there has been a substantial increase in the rate of annual hospitalisations (using adjusted rates) from 20.7 per 100,000 in 1999/00, to 31.3 per 100,000 in 2008/09;
- For motor cyclists injured in non-traffic accidents, there were 15,840 hospitalisations, and there has been an increase in the rate of annual hospitalisations (using adjusted rates) from 19.5 per 100,000 in 1999/00, to 23.3 per 100,000 in 2008/09;
- For motor cyclists injured in traffic accidents, the counterpart to the injury was more commonly a non-collision (5,489 or 31.7%) than a car, pick-up truck or van (4,576 or 26.4%). The number of counterparts for non-collisions was also greater than the counterparts for motor vehicles overall (5,138 or 29.7%) - comprising two or three wheeled vehicles (346 or 2%), car, pick-up truck or van (4,576 or 26.4%) or a heavy transport vehicle or bus (216 or 1.3%); and
- For motor cyclists injured in non-traffic accidents, by far the most common counterpart to the injury was a non-collision (10,584 or 66.8%).

In its analysis of deaths of pedal cyclists and motor cyclists for NSW residents injured in traffic or non-traffic incidents (at Appendix 2), the IRMRC found that, between 1 January 1998 to 30 December 2007:

- 97 pedal cyclists died as a result of injuries sustained in traffic accidents, and over the period there has been no significant change in the rate of annual deaths (using adjusted rates) from 0.14 per 100,000 in 1998, to 0.13 per 100,000 in 2007;

- 10 pedal cyclists died as a result of injuries sustained in non-traffic accidents, and there has been no significant change in the rate of annual deaths (using adjusted rates) from 0.01 per 100,000 in 1998, to 0.02 per 100,000 in 2007;
- For pedal cyclists who died in traffic accidents, the counterpart to the injury was most commonly a car, pick-up truck or van (53 or 54.6%), with a heavy transport vehicle or bus being the next most common counterpart (18 or 18.6%);
- For pedal cyclists who died in non-traffic accidents, by far the most common counterpart was a non-collision (5 or 50%);
- 509 motor cyclists died as a result of injuries sustained in traffic accidents, and following an increase, there has been a recent decrease in the rate of annual deaths (using adjusted rates). From 0.78 per 100,000 in 1998, the rate of annual deaths rose to 1.02 per 100,000 in 2001, before decreasing to 0.46 per 100,000 in 2007;
- 51 motor cyclists died as a result of injuries sustained in non-traffic accidents, and over the period there has been no significant change in the rate of annual deaths (using adjusted rates) from 0.07 per 100,000 in 1998, to 0.05 per 100,000 in 2007;
- For motor cyclists who died in traffic accidents, motor vehicles comprised a significant proportion of the counterparts to the injury with a car, pick-up truck or van (175 or 34.4%) and a heavy transport vehicle or bus (54 or 10.6%) together comprising 229 or 45%. However, fixed or stationary objects (163 or 32%) also comprised a significant counterpart to motor cyclist deaths in traffic accidents; and
- For motor cyclists who died in non-traffic accidents, the most common counterpart was a non-collision (24 or 47.1%). A fixed or stationery object was also a significant counterpart (15 or 29.4%) in motor cyclist deaths in non-traffic accidents.

However, it is important to note that the data used in the Report of the Chief Health Officer and in the analysis undertaken by the IRMRC has a number of limitations.

Firstly, the data is based on total population, and not on the number of motor-cyclists/ cyclists or their exposure (i.e. the number and duration of their trips). It is therefore not possible to infer the relative risk of injury for each mode from this data.

Secondly, whilst the location of residence of an injured person is recorded, the location where they sustained their injury is not - meaning it is not possible to deduce the particular risk factors behind the accident.

Thirdly, the completeness and accuracy of the hospitalisation data depends on the level of detail and accuracy of the information recorded by clinicians in the medical record of the injured person. In addition, this data does not include figures from emergency departments, General Practitioners and Physiotherapists, or those involved in an accident that do not report to hospital and so it is likely to underestimate the true burden of injury.

| |
|---|
| <p>(c) Underlying factors in motorcycle and bicycle injuries and fatalities.</p> |
|---|

With respect to this particular Term of Reference the Clinical Safety, Quality and Governance Branch suggests the Inquiry considers the use of Pharmaceuticals as contributing factors in motorcycle and bicycle injuries and fatalities, specifically:-

- The adverse effects of pharmaceuticals when used in normal doses therapeutically. This includes any that may cause central nervous system effects such as drowsiness, vision impairment and dizziness.
- The effect of the combination of alcohol and adverse effects of pharmaceuticals when used in normal doses therapeutically, particularly benzodiazepines and other sedatives.

- Misuse of Pharmaceuticals, particularly benzodiazepines, opioids and stimulants.
- Trends in Pharmaceutical use associated with accidents and any emerging patterns of concern for possible intervention.

The Ambulance Service of NSW suggests the Inquiry consider the use of protective clothing in order to reduce the incidence and/or seriousness of injury:

- In order to reduce the severity of head and brain injuries, the NSW Road Rules 2008 requires motorcyclists (and passengers) and bicycle riders to wear an approved helmet. The wearing of other protective clothing, such as leather pants, jacket, gloves, and covered boots for motorcyclists, or reflective clothing for bicycle riders, is not mandatory.
- The RTA Motorcycle Riders' Handbook states that protective clothing can significantly reduce injury in a crash, protect the rider from weather, and improve comfort when riding.
- Similarly, research conducted by the Motorcycle Council of NSW in 2003 found that protective clothing can prevent or reduce some types of injury; make riders safer and more alert by reducing discomfort, fatigue and dehydration; make riders more visible; and that European standards set minimum levels for the construction and test performance of all protective clothing that claims to provide protection from injury.
- According to the Motorcycle Council, in Europe, motorcycle clothing can only be lawfully designated "protective" if it is capable of providing protection from injury, rather than simply weather. European standards set minimum levels for the construction and test performance of motorcycle jackets, trousers, suits, impact protectors, boots and gloves. The tests examine abrasion, tear, burst and impact resistance.
- Ambulance Service paramedics attend a significant number of motorcyclist accidents and treat a wide range of injuries, many related to the lack of protective clothing worn. In order to reduce injuries of this kind, the Ambulance Service suggests that there be a mandatory minimum standard of protective clothing for motorcyclists (eg: pants, jackets and boots) and that these should conform to the European standards (This suggestion will require examination as to the practicality in so far as children are concerned).

Additionally the NSW Ambulance Service Research Institute has conducted a study of the injury severity and the location of vehicle collisions in NSW. Studies of this type could potentially identify the nature of injuries in at risk locations.

| |
|---|
| <p>(d) Current measures and future strategies to address motorcycle and bicycle safety, including education, training and assessment programs.</p> |
|---|

NSW Bike Plan

Chapter 3 of the NSW Bike Plan 'Make Bike-Riding Safe for All' sets out a number of measures aimed at promoting safety for cyclists. The BikePlan targets the needs of particular groups of cyclists including:

- Primary and secondary school children – by providing resources to school communities and informing them of safe cycling skills programs run by non-government organisations which meet NSW Government requirements;
- New, returning and experienced cyclists – by distributing safety advice to community groups, developing trainers' skills in cycling proficiency, targeting areas where increased cycling is expected (particularly Parramatta, Liverpool and Penrith) with skills training and promoting contact with Bicycle User Groups; and
- Training and racing cyclists – promoting safe riding practice through a Code of Conduct.

The Bike Plan includes several strategies which aim to increase awareness of and responsibilities towards more vulnerable road users including through:

- Information and campaigns regarding road user awareness aimed at the public, cyclists and transport industry associations;
- Enforcement of cycling related road rules; and
- Increasing learner/novice drivers' understanding of cyclists' needs.

The Bike Plan also promotes the use of the right safety equipment for bike-riding, particularly around encouraging and enforcing helmet-wearing.

Area Health Service Initiatives

Health Promotion Units in the Sydney South West Area Health Service (SSWAHS) and Northern Sydney Central Coast Area Health Service (NSCCAHS) have been actively involved in promoting safer cycling in their area.

SSWAHS and NSCCAHS have both obtained vouchers from the Department of Environment, Climate Change and Water (DECCW) to fund Austcycle Coaches to conduct cycling skills courses in their Areas. In SSWAHS, over 40 courses were held in 2009/10 attracting around 700 participants, whilst in NSCCAHS 28 courses were held in 2009/10 for a total of 277 participants. In 2010/11, SSWAHS also intend to facilitate cycling skills courses, which will be conducted by Austcycle trainers, in primary and secondary schools in the Macarthur area.

NSCCAHS have been working with local partners to report on and plan local road safety activities such as the Central Coast Road Safety Group which comprises representatives from Gosford City Council, Wyong Shire Council, the Roads and Traffic Authority (RTA) and the Police.

In addition, SSWAHS is one of the partners involved in the Australian Research Council Linkage Project '*Safer Cycling: A partnership project to better understand cycling patterns, hazards and incident*' alongside the UNSW School of Public Health, the IRMRC, the RTA, Bicycle NSW and Willoughby Council. The 3 year (2010-13) Safer Cycling research project will evaluate the number of injuries and near misses that cyclists have encountered in NSW.

Related work indirectly supported by the NSW Department of Health

Whilst, the Roads and Traffic Authority are the lead agency for road safety matters in NSW, the NSW Department of Health indirectly supports some activity in road safety, as described below.

Kidsafe

The NSW Department of Health provides core funding to Kidsafe NSW, a non-government organisation dedicated child injury prevention. Kidsafe NSW also receives funding for specific projects from other government agencies, including for road safety initiatives. Kidsafe NSW is a source of information for parents and others on preventing injuries to children, including from use of bicycles.

Youthsafe

The NSW Department of Health, via NSCCAHS, and the RTA provide funding to Youthsafe, a non-government organisation dedicated to the prevention of serious injury in young people aged 15 to 25 years in NSW. Road safety is a major focus of Youthsafe's work, given the extent to which road trauma contributes to death and serious injury in young people. Youthsafe primarily works with community based professionals who are involved with young people and through education facilities.

Youthsafe also recognises the value of a whole of community approach and seeks to engage parents, the wider community and policy/decision makers as well as young people. Youthsafe values young people and their views and uses positive, supportive youth friendly strategies linking into normal youth activities. Youthsafe's resources and programs routinely include consultation with the target audiences and are refined through pilot testing or other evaluation activities. As part of its suite of road safety resources, Youthsafe has developed a factsheet for parents about

encouraging bicycle helmet use in teenagers and another on helping teenagers to travel safely to school, including by bike.

Farmsafe

The NSW Department of Health, via the Hunter New England Area Health Service, also provides funding to Farmsafe NSW, a non-government organisation dedicated farm safety. Farmsafe NSW and Farmsafe Australia have a series of resources promoting farm safety available on their websites, including information on preventing motor-vehicle injury.

Motor vehicles, including two, three and four-wheeled motor bikes, are a notable cause of serious and sometimes fatal injury on farms, affecting both children and adults. A recent analysis undertaken for Farmsafe identified 124 deaths in Australia (40 in NSW) due to quad-bikes between July 2002 and June 2009, including 27 deaths of children less than 16 years of age. Most of the deaths occurred in agricultural settings. The report highlights issues for consideration in the prevention of such injuries.

| |
|--|
| (e) The integration of motorcyclists and bicyclists in the planning and management of the road system in NSW. |
|--|

No NSW Health comment.

| |
|--|
| (f) Motorcycle and bicycle safety issues and strategies in other jurisdictions. |
|--|

No NSW Health comment.

| |
|---------------------------------------|
| (g) Any other related matters. |
|---------------------------------------|

The following related matters are also drawn to the attention of the Inquiry:-

Children safety matters

Notwithstanding aspects of *Kidsafe* and *YouthSafe* above, it is also suggested that the Inquiry could also examine cognitive aspects associated with the safety of children using roads generally with specific regards to motorcycle and bicycle safety.

It is also suggested that children could possibly be identified as a “vulnerable group within a vulnerable group” (eg: Suggested solutions such as the introduction of mandatory protective clothing as an adult safety measure may not necessarily translate to child safety due to aspects of enforcement and compliance affordability).

Considering the safety of different road user groups in an integrated way.

It is suggested that recommendations made for promoting the safety of a particular road user group should also consider the potential for unintended negative impacts on other types of road (and pathway) users. For example, it is possible for a pedestrian to suffer serious injury as a result of a collision with a pedal cycle - in NSW between July 2000 and June 2005 there were 163 hospitalisations of pedestrians resulting from collisions with pedal cycles.

This suggests, for example, that care should be taken to ensure that measures to separate pedal cyclists from motor-vehicles are implemented in ways that do not increase the risk of injury to pedestrians or inappropriately discourage pedestrian use of certain spaces.

An additional group of potentially vulnerable road users – users of mobility scooters

While not specifically within the terms of reference of the present inquiry, it may be valuable to note that users of mobility scooters, predominately elderly people, are another category of potentially vulnerable road users. In its capacity as a product safety regulator, the Australian Competition and Consumer Commission (ACCC) has recently released a brochure about mobility scooter safety.

The brochure highlights that 71 mostly elderly people have died from mobility scooter accidents in Australia since 2000, and provides advice on safer use of mobility scooters. The ACCC has also commissioned research to better understand the issues involved in accidents involving mobility scooters and options for preventing such events.

Issues related to the safe use of mobility scooters should be considered within planning for the safety of vulnerable road users.

Mechanisms for funding and coordinating action to prevent off-road motor vehicle injury

While there is a specific lead agency in NSW for road safety, there is no one agency with specific responsibility for prevention of off-road motor vehicle injuries. Motor-cycles are one vehicle type involved in off-road injuries, but numerous other vehicles types are also used off-road, including quad bikes, cars, utility vehicles, trucks and special purpose vehicles for agriculture and other uses.

The issues involved in understanding and addressing off-road motor vehicle injury are complex, given that off-road motor vehicle use encompasses the use of a variety of vehicles for a variety of purposes and in a variety of settings. For example, activities include transport (such as on farms), work, organised leisure activities (such as motor-cross events), and informal leisure activity. Settings include farms, workplaces, parks and reserves, motor-sports venues, car parks and driveways.

While there have been some initiatives aimed at supporting inter-agency collaboration for a sub-set of these issues (notably the child driveway safety initiative led by the Motor Accidents Authority), there may be value in considering options for ongoing government coordination and funding directed to the monitoring and prevention of injury from off-road motor vehicle use among all ages groups in NSW.

For example, investment could be made in commissioning regular reports on the number and circumstance of off-road motor vehicle fatalities using information from the National Coroners Information System (similar to the report for Farmsafe of quad-bike related fatalities, cited above), and in bringing together those with relevant expertise and/or responsibilities to consider the implications of the data and consider ways to address the issues arising.