Joint Response to the

# Draft National Road Safety Strategy 2011-2020

Contributing Organisations

**Amy Gillett Foundation**

**Bicycle NSW**

**Bicycle Transport Alliance, WA**

**Cycling Australia**

**Cycling Promotion Fund**

**Retail Cycle Traders Association**

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# Background

This document incorporates views on the Draft National Road Safety Strategy (NRSS) (Standing Committee on Transport 2010). It has been compiled from responses received by experts in road safety as well as bicycling groups.

The Cycling Promotion Fund and the Amy Gillett Foundation have coordinated the administrative and writing task.

Significant input has been received from many areas including the following groups and individuals:

- Amy Gillett Foundation (AGF)
- Bicycle NSW
- Bicycle Transportation Alliance of WA (Inc) (BTA)
- Cycling Australia
- Cycling Promotion Fund
- Pedal Power ACT
- Retail Cycle Traders Association
- Dr Jan Garrard
- Dr Leigh Glover
- Prof Narelle Haworth
- David Healy
- Marilyn Johnston
- Alton Twine

The process has included reviewing the Draft NRSS and seeking comment from known experts and groups, reviewing relevant publications (including other submissions and proceedings of parliamentary committees such as the NSW Staysafe Committee report (Parliament of NSW 2010) and attempting to synthesise the main comments.

These tasks have been completed in a very time constrained manner. The authors would welcome the opportunity to further discuss the development of the NRSS and maintain a dialogue both in the development and implementation of the Strategy.

# Summary of Submission

The safe use of the Australian road network and the reduction in trauma for the transport of people and goods requires a cultural shift away from competition for space to shared use. Designing for shared use requires the prioritisation of vulnerable road users. This will improve the safety for all road users.

The Australian Transport Council (ATC) needs to adopt bold strategies to support the ambitious targets or we will continue to lag behind in the management of safe road networks.

In revisiting the Draft NRSS the ATC would be well advised to incorporate actions to:

- Acknowledge the increased value of shared modality and increased priority of vulnerable road users e.g. bicyclists and pedestrians, in infrastructure design
- Introduce research protocols to identify participation and exposure rates, and crash typologies for vulnerable road users including on road, shared paths and off-road paths
- Introduce criteria such that all road infrastructure funding incorporates inclusion of bicycle infrastructure at the time of design and of new and upgraded infrastructure.
- Work towards removal of FBT tax incentives for new cars and generally seek to reduce demand for private motorised transport, especially in urban areas
- Adopt three yearly road-worthiness checks for all registered vehicles
- Adopt a nationally agreed Benefit Cost Ratio for the development of bicycling infrastructure
- Work in partnership with community groups to deliver behaviour change programs and other campaigns to educate drivers on sharing the road with all road users – the success of “a Metre Matters” exemplifies the type of cross sector collaboration that is possible
- Modify learner driver education and testing to promote a culture of shared road usage rather than identifying bicycle riders and pedestrians as hazards – the RoadRight program is such an example
- Increase financial and institutional support of AustCycle (nationally accredited bicycle education and safety program) to increase reach to all Australian school-aged children and a significant proportion of the adult population.
- Review road rules and legislation to place greater emphasis on the safety of vulnerable road users. Such opportunities may include zoned speed limits, legislating the passing distance by motorists around bicyclists, legislating that left turning motorists give way to bicyclists also turning left.

# Principle concern

Our principle concern is that the Draft NRSS proposes only marginal changes to the existing system, which will only result in achieving marginal changes to safety outcomes. The ambitious goals that were rightly set in this area will not be achieved if this Draft is adopted without significant changes.

We believe that one of the key improvements needed is a strategic focus on the most vulnerable road users.

By vulnerable road users we mean; the young and the old, people with disabilities and people using modes of transport such as bicycling, walking and motor cycling who are particularly susceptible to impacts from large-mass, fast-moving vehicles as well as crashes caused by road design, engineering, individual skill and decision making issues. A fuller definition and exposition of the position of vulnerable road users is set out by Haworth (Haworth 2006).

Vulnerable road users make up a significant percentage of road use. In 2009, over 1.92 million people over the age of 15 years rode a bicycle regularly (at least three times a week).

By adopting the viewpoint of the most vulnerable users, there will be a consequent increase in safety for all users. This approach is consistent with the approach being taken in the countries that lead the league tables in road safety and is arguably why Australia is falling off the pace and has failed to achieve previous road safety targets.

We endorse a 'safe system' approach that as a starting point is the perspective of the most vulnerable users in assessing each element of the system in any context. The 'safe system' approach is otherwise open to misinterpretation as an excuse to eliminate vulnerable users from the system.

While an economic estimation of the cost of road crashes is valuable, all lives have an unquantifiable value - all deaths and serious injuries are tragedies and are a significant cost to the nation. This is true irrespective of the mode employed for transport or other characteristics of the individual. The Safe System and Vision Zero objectives are consistent with this moral premise and we support it as a philosophical approach. It is important that this moral position is not lost as the Safe System concept is implemented.

Ultimately, a Safe System should see a significant change in the ways that we organise our transport system. This is likely to see a much greater use of active travel modes such as walking, bicycling and public transport. The NRSS should be working, in cohesion with other strategic initiatives in health and the environment, to achieve this outcome in a way that does not create adverse safety outcomes.

We recommend that:

1. Vulnerable road users be specifically prioritised - If the NRSS adopts the perspective of the vulnerable, all will be safer

2. A moral approach to road safety be adopted and advocated through the NRSS to stress the value of all lives

3. This approach be used in discussions across, and with all levels of Government to garner support for the NRSS goals.

# General

The Draft NRSS developed by the ATC, has a central aim to reduce the trauma created by the transportation or movement of people and goods by road across Australia. To achieve this, it has attempted to embody the concepts of Safe Roads, Safe Speeds, Safe Vehicles, Safe People. The strategy identifies a number of opportunities to increase the level of safety for all road users throughout metropolitan, regional and rural Australia to the year 2020.

In developing the strategy, the ATC has used a number of measures to identify critical areas of focus and future funding priorities.

The measures outlined in the document appear to define priorities which are heavily weighted towards motor vehicles and in particular, car drivers. This emphasis appears not to embrace 'shared' road use and increased shared modality road use. It also does not acknowledge the broad support for increases in bicycling, walking and use of public transport that link to substantial benefits for all Australians.

The Draft NRSS has made the separation of bicycle riders from high speed traffic a future priority not a primary outcome. We suggest that, given the expected increases in bicycling and other non-motorised modes (discussed below), and given existing targets for increased participation as embodied in key government policies such as the National Cycling Strategy 2011 -2016 (Austroads 2010) as agreed by Federal and State governments, **the prioritisation of non-motorised modes such as bicycling deserves to be much higher if the key outcomes and objectives of the Draft NRSS are to be achieved.**

The focus of the Draft NRSS also needs to be clarified. It is our view that the strategy needs to address the safety of both the overall transport task as well as the road system – whether the use of the road is for transport or some other purpose such as recreation or fitness.

We recommend that:

1. Vulnerable road users e.g. bicyclists, be specifically prioritised in the final NRSS
2. Specific actions be enumerated for vulnerable road users in each of the categories, Safe Roads, Safe Speeds, Safe Vehicles, Safe People
3. Specific targets for casualty reduction be identified for people walking and bicycling on an exposure and absolute basis, consistent with an increase in travel by these modes

# Vulnerability and risk

The risk of injury on our roads is borne most heavily by those groups who impose the least danger on others: walkers and bicycle riders, children and those with impaired mobility (vulnerable road users). The Draft NRSS identifies that vulnerable road user's account for 35% of deaths and almost 50% of serious injuries (Table 3 of the Draft NRSS).

We argue that the budgets provided to support improvements in safety for those groups who are at relatively greater risk than car drivers and passengers should be increased accordingly. Increasing the safety of vulnerable road users is likely to have a significant impact in increasing the numbers choosing non-motorised modes - safety and perceived safety is a major barrier to uptake of non-motorised modes (Noland 1992).

While Australia has been successful in reducing overall rates of road traffic fatalities and serious injuries, the benefits have not been equitably distributed across all road user groups. In the six years between 2003 and 2008, traffic-related fatalities for cyclists in Australia ranged between 26 and 43. On average there were 36 deaths per year, representing 2.3% of all road deaths for this time period. Passenger, pedestrian and driver deaths showed reductions (5.2%, 3.2% and 0.9% respectively), but there was no comparable trend in cyclist deaths (Department of Infrastructure Transport Regional Development and Local Government 2009).

Over the period 2000 to 2007, serious injury rates for cyclists (per 100,000 population) increased by 47 percent, while for all other modes (motorcycles aside), rates either remained steady or declined (Henley and Harrison 2009). This clearly needs to be seen in the context of uncertain participation rates.

The draft strategy employs the measure of casualties to assess the safety of road infrastructure. The parties to this submission suggest that a highly appropriate additional indicator would be a measure of the rates of walking and bicycling across participation, incidents and deaths (not exhaustive). Not only would this create a more complete indicator for the level of safety of our transport network for vulnerable road users, it would allow identification of the specific impacts of improvement in safety for different user groups within the transport spectrum.

We recommend that:

1. The Department of Infrastructure  Transport Regional Development and Local Government carry out a 'root and branch' review of how its activities and that of State and Local Government departments identify the impact on the safety of vulnerable road user groups

2. Improved baseline and longitudinal data be shared on participation/volume of all road user types, as well as crash/injury/death statistics (see next section).

# Collection of data and modelling

In order to formulate a sound strategy, the ATC needs a solid understanding of crash types, causes and contributing factors, vehicle involved and location. For strategic development it also needs good estimates of exposure. Much of the strategic development in the Draft NRSS is influenced by the information assembled at Chapter 3 of the Draft .

One issue about the information (as identified by Haworth 2006) is the propensity for significant and rapid change in the size and composition of groups participating in bicycling and motorcycling. There are policy, economic and behavioural reasons why these groups are likely to increase rapidly in forthcoming years and a failure to anticipate these changes will render the NRSS modelling misleading and targets unachievable.

The data relied on inevitably have a number of biases. Two biases that particularly affect strategy development for bicycling are a significant focus on fatalities and a reliance on police data. These data have a number of problems especially from the point of view of bicycling and other vulnerable road-user groups. For instance, police data are unlikely to capture many of the serious crashes that occur on separated facilities. For the NRSS to use this data as a performance measure is thus likely to misrepresent actual performance in transport safety.

The use of population based data has the potential to be particularly misleading when it comes to evaluating the safety performance for vulnerable modes. Thus a population based analysis (for example, Henley and Harrison 2009 pp. 27-34) suggests a poor performance by Victoria and the ACT for bicycle serious injuries. However, on a travel time, or kilometres travelled, measure these jurisdictions are likely to perform better than others.

The measure of casualties per vehicle kilometres travelled (VKT) is used extensively in assessing safety for other modes. For example the Draft NRSS uses VKT to demonstrate the over–representation of heavy vehicles in death numbers. Heavy trucks and buses make up only 3% of registered vehicles but they account for 8% of VKT and are involved in 17% of total deaths and 3% of total serious injuries. There is a question as to whether VKT is an appropriate metric – arguably it conflicts with the Vision Zero philosophy in that it implies that more casualties are tolerable if there is more travel.

Whilst noting this difficulty with VKT as a measure, it is also worth noting that the ATC would be unable, at this time, to reliably determine any comparable rate of travel for bicycles. We submit that, with the National Cycling Strategy's objective to double the rate of

bicycling by 2016, the draft NRSS must employ or indicate a viable means of assembling the data necessary to understand the current safety status of non-motorised modes.

In Australia, bicycle usage and travel is determined using basic data including:

- The number of people who cycle in a particular year through ERASS data,
- Annual bike counts in major metro areas
- State and local government traffic counters on principal thoroughfares in major metro areas
- The distance people cycle for the journey to work through the census (every five years)
- Bicycle mode share of daily travel (and related information) from some capital-city household travel surveys.

Despite access to the data mentioned above, we would argue that without equivalent data sets such as robust VKT data for vulnerable road users such as bicycle riders, the ATC is unable to adequately determine ratios between injury/death and actual traffic either on the road, on bicycle lanes, on maintained shared paths or on off road paths.

We recommend that:

1. The Australian Bicycle Council (ABC) be funded to support exposure studies and crash typology studies for bicycling
2. The reinstatement of ABS surveys of bicycle ownership and use as previously carried out in the 1980s (Australian Bureau of Statistics 1982; Australian Bureau of Statistics 1989) which were sampled off the census and had high reliability
3. The Bureau of Infrastructure, Transport and Regional Economics (BITRE) be commissioned to analyse vulnerable road user traffic
4. The ABC implement a common data collection policy relating to bicycling across all jurisdictions.

# Future rates of bicycling

While rates of bicycle use are not well understood, the small but increasing amount of data available does indicate a substantial rate of increase.

The information available creates a remarkable picture:

- Cities continue to experience significant rider numbers; for example from 2007 to 2008 the City of Melbourne bike count highlighted a 47% increase in morning bike commuters.
- Participation in bicycling has increased by 32% in the same period (ERASS)
- Over 1.92 million people over the age of 15 years are riding a bicycle regularly (at least three times a week).

This data demonstrates that the numbers of people riding is increasing rapidly. With the populations of cities such as Melbourne expected to rise dramatically in coming years, bicycling participation is expected to continue to grow substantially.

The Australian Government has supported the development and implementation of several strategies which impact on the Draft NRSS which will either contribute to an improvement of road safety for bicycle riders or benefit from such an improvement. These include the National Cycling Strategy, the National Greenhouse Strategy, land use planning, taxation and finance strategies as well as social policy.

The promotion of bicycling for transport, urban amenity and environmental benefits; bicycle educational programs; bicycle infrastructure development and travel behaviour change programs all either promote greater rates of bicycle riding or benefit from increased bicycling to achieve their objectives.

The Draft NRSS makes references to support the outcomes of the National Cycling Strategy 2011-2016. This strategy has identified a target of doubling the rate of bicycling by 2016.

There are a number of recognised barriers to increasing the rate of bicycling, including the level of real and perceived safety (Bauman A. 2008).

In a recently released study (Lamont in press 2010), surveying the impediments to the development of bicycle tourism in Australia, respondents clearly identified the fear of road

trauma due to driver attitudes and lack of appropriate infrastructure as major reasons preventing bicycling tourism as a mainstream activity rather than simply a niche activity.

Australia needs to improve infrastructure for bicycling, but as importantly, driver education and behaviour change campaigns need to support greater safety for those currently choosing not to use vulnerable modes based on a fear of the road environment.

A strong focus on improving the road safety for vulnerable road users such as bicycle riders will not only achieve the objectives of the Draft NRSS, but also have significant flow-on benefits for a range of related and complementary government policies and programs.

We recommend that:

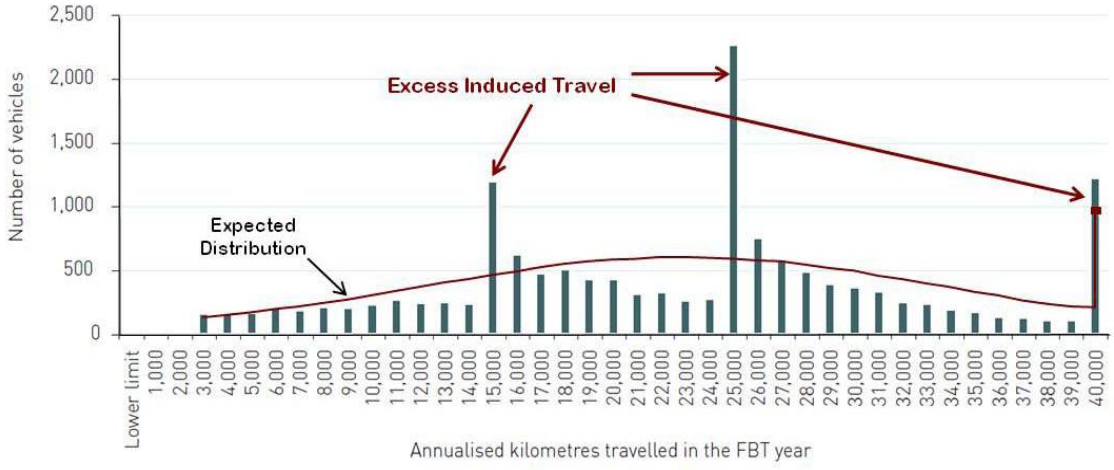
1. The Government should establish a long-term, strategic program for walking and bicycling, supported by significant and reliable recurrent funding and located within one central department or agency. A key aim of such a program should be to make bicycling an accepted alternative to cars and buses as a transport choice for shorter trips. This would go well beyond the existing National Cycling Strategy in that the program would have a significant budget and a clear mission.

2. The NRSS include a performance measure that identifies the extent to which 'fear of the road environment' is deterring participation in walking, bicycling and motor-cycling. This measure would provide a powerful indicator of progress in creating a culture of safety on our roads. Questions can be included in the national Community Attitudes to Road Safety survey to gather this information.

# Negative safety outcomes of funding incentives

The Draft NRSS has proposed improvements to the safety of car drivers through subsidising the price of purchasing new cars through tax concessions. These concessions would be designed to make the purchase price of new cars cheaper, reducing the age of the car fleet in Australia.

We submit that road safety would be better improved by taking old and unsafe cars 'off' the road. This should be done without tax incentives that make new cars cheaper. This could be achieved by a mandatory road worthiness check every three years for vehicles over 10 years of age, with increasing requirements for safety features (especially active safety features) in second hand cars.




Research presented by Hughes (Hughes 2010) identifies that tax incentives for the purchase of driving cars induces greater driving distances and greater numbers of cars on the road for longer periods of time. The above graph demonstrates the impact of the 15,000km, 25,000km and the 40,000km FBT tax thresholds and the extra possible 'induced' distances which cars travel to meet those thresholds at certain times of the year.

Tax incentives for the purchase and operation of motorised vehicles have the strong likelihood of promoting greater use of motor-vehicles and therefore greater exposure to the risk of road transport crashes. Whilst the adverse safety impacts may not be well recognised, it is important that the NRSS identifies how government policy in other areas should be adapted to reduce dangers associated with use of motorised transport.

The utilisation of tax concessions to affect road use would be far more effective through the withdrawal of FBT concessions, which would have the effect of reducing the actual kilometres travelled. The withdrawal or restructure of the FBT rules to encourage drivers to travel greater distances would improve road safety.

There are other areas where high-cost low-benefit government subsidies are provided to the motor vehicle industry. These should be evaluated and rationalised with the dividends being applied to enhancing the safety and amenity of vulnerable users. For example, it has been suggested in submissions by the Bicycle Transport Alliance of WA that parking levies in the CBD of all major Australian cities be imposed to finance infrastructure that allows the separation of cars and bicycles where necessary.

We recommend that:

1. the NRSS address subsidies to the use of motor vehicles
2. the NRSS seek to have any dividends from reduced subsidies to the motor vehicle industry applied to improving road safety for all road users.

# Safer road environment

## Physical Infrastructure

Physical infrastructure is critical to the safety of both experienced and inexperienced vulnerable road users including bicycle riders.

The Draft NRSS has identified targeting infrastructure treatments and supporting measures that address safety issues for vulnerable road users. This step needs to be extended to include the development of infrastructure which promotes greater use of road networks for bicycles.

The benefit-to-cost ratio for developing bicycle infrastructure has been accepted as a positive return. In the past two years, there has been a number of Demand Assessments and Economic Appraisals completed which identify a positive Benefit Cost Ratio (BCR) for bicycling infrastructure. These reports have included; Inner Sydney Regional Bicycle Network 2010, Economic Feasibility Assessment of the Active Transport Queensland 2009, and Evaluation of the costs and benefits to the community of financial investment in the Naremburn to Harbour Bridge Active Transport Corridor 2010. Each report has utilised a range of values for a variety of influencing factors providing positive ratios.

To support greater development of the required infrastructure in support of safer bicycling, an agreed BCR framework should be identified and promoted.

The formal adoption of an agreed BCR framework would further promote increased/improved infrastructure for greater safety, and increased numbers of bicycle riders willing to utilise bicycles to travel to work.

Page 24 of the Draft NRSS identifies common treatments for improved safety. This box highlights the undervaluing of bicyclists and pedestrians in the road hierarchy. There are no specific safety improvements for vulnerable road users.

For e.g., at point three of the interventions - there is a strong focus on the separation of vehicles, and as an apparent 'add on', separation of vulnerable road users 'where possible'. The language reinforces the hierarchy of 'do whatever possible' to improve safety of motorised vehicle occupants, but vulnerable road users, especially bicycle riders are an 'afterthought', when they should be equally considered.

## Speed

As noted in the Draft NRSS, one of the most beneficial measures for improving the bicycling and walking environment is lowering vehicle speeds.

The current implementation of the general urban speed limit of 50 km/h is supported as the first stage in speed limit reduction. The introduction of a consistent application of lower speeds in metropolitan areas is necessary e.g. Brisbane CBD has recently implemented 40km/hr speed limit. High activity areas require lower speeds - even the 40 km/h for schools and high pedestrian activity areas is still too high – it is at least 10 - 20 km/h above the speed where children will survive a collision with a motor vehicle.

Grundy indicates that the introduction of 20 mph (32 kmh) zones in London has resulted in a casualty reduction of 41.9% - "the percentage reduction was greatest in younger children and greater for the category of killed or seriously injured casualties than for minor injuries" (Grundy 2009).

## Route treatments and rights of way

Increasing numbers of off-road shared paths and new separated cycleways create an urgent need to revise the current rules e.g.:

- Recognised and consistent types of crossings for both shared paths and bicycle-only paths: Currently there is no crossing type which offers an equitable level of service and safety. The lack of a dedicated shared path crossing type creates ambiguity and an unnecessary severance of off-road facilities (e.g. bicyclists are not permitted to use pedestrian crossings on a shared path road crossing).
- Priority crossings of intermediate low-volume side streets for paths paralleling major roads: A bicyclist travelling in on-road bicycle lanes fitted to a through-road has right of way over exiting and entering traffic, as do other vehicles using the through-road lanes. If the bicycle facility is instead located off-road, the bicyclist currently loses their travel priority at each intervening side street intersection. This deficiency in the road rules makes it very difficult for transport facility designers to provide off-road bicycle facilities of a sufficient level of service to meet community expectations. It also places naive users of off-road bike lanes in considerable danger of misinterpreting their right of way.
- Recognised, consistent and safe "bollards" at the entry and exit of shared paths to slow bicycle traffic and obstruct vehicle entry.

## Professional knowledge and training

Bicycle groups regularly report instances of local traffic committee members who display a lack of knowledge on the use and design of quality bicycle facilities. There are training

courses available (e.g. NSW RTA courses developed in 2003 to accompany its Bicycle Design Guidelines) for professional practitioners regarding road treatments that are beneficial to the safety and amenity of vulnerable users. Incentives need to be provided such that members of local traffic committees and others are encouraged to participate in these courses.

We recommend that:

1. BITRE adapt existing BCR models to establish a national BCR framework

2. The Department of Infrastructure Transport Regional Development and Local Government continue successful bicycle infrastructure funds to ensure key bicycle projects are completed

3. Implement national compliance regulations for minimum standards of bicycle infrastructure in road designs

4. The Australian Road Rules be reviewed and updated to permit the safe design and operation of separated cycleways and bicycle lanes within the road corridor and to explicitly require vehicles travelling along a through road to give way when attempting to turn across the path of bicyclists using bicycle facilities (either on- or off-road) along the same road

5. Members of traffic committees (local road authority representatives, council staff and Police) to complete training courses on design for vulnerable road users as part of their regular in-service training requirement. Places could also be offered to Road Safety Officers and Sustainable Transport/Access Officers of local Councils for skill development

6. Introduction of permanent 30km/hr speed restrictions in school zones and some residential areas.

7. Introduction of permanent 40km/hr speed restrictions in CBD zones.

# Behaviour and education of road users

The education of both drivers and bicycle riders is critical to the safety of all road users.

We submit that there are serious inequalities in the way different road user groups are represented in key educational and official settings that have a direct negative impact on the safety of vulnerable road users such as bicycle riders.

## Driver licensing and education

The Victorian drivers test is one 'example' that can be used to highlight the issue. In each of the example tests online (http://webapps.vicroads.vic.gov.au/vrne/vrlpq.nsf/30e17e0161c950e6ca256f39001c1724?OpenForm) there are questions involving bicycle riders in which the 'cyclist' is identified or portrayed as a 'hazard'. The language and type of question immediately develops or reinforces the thinking that people who choose to ride a bicycle do not belong on the road and are in fact in the way of cars travelling on the road. Licence testing should reflect the rights of all road users and use questions which develop a shared road culture and not imply road ownership by one type of vehicle.

The behaviour of motorists towards bicycle riders has a critical impact on the safety of all bicycle riders, as well as a person's willingness to ride a bike. In recently released research from the Monash University Accident Research Centre (Johnson 2010), it was found that in 87% of incidents between cars and bicycles, cars drivers were at fault and most did not know they acted in a reckless manner. The study found that the most prevalent incidents occurred as a result of the motorist "side swiping" the bicyclist or turning left in front of rider.

The introduction of programs to educate and develop respect towards vulnerable road users would be expected to reduce the incidence of bicycle injuries.

Program campaigns such as the AGF Road Right and 'A Metre Matters', promotes an awareness and changed culture for the safe sharing of roads for all users.

Changes in behaviour can also be brought about by incentives. Changing the onus for insurance purposes such that, in the event of a motor-vehicle vulnerable user collision, the driver of the motor vehicle is assumed to be at fault and their insurance responsible for all injuries is likely to bring about pressure for behaviour change. This will be promoted by insurance companies who are likely to encourage drivers to respect the interests of vulnerable users if their payouts are likely to be affected.

Review of road rules to address common situations where drivers place bicyclists at risk would also bring about improved awareness and culture change.

We recommend that:

1. the licensing system be reviewed such that motor vehicle license holders are assessed on their awareness of vulnerable users

2. the onus of proof be reexamined such that vulnerable users (who may not be in a position to give evidence on their own behalf) are treated equitably and incentives offered for particular care on the part of motor vehicle operators

3. regular ongoing license testing be introduced rather than lifetime licensing

4. the NRSS should support behaviour change and information programs such as the 'Metre Matters' campaign and the Road Right Program

5. Road rules be reviewd to introduce legistation that maximises the safe sharing of roads and protects vulnerable road users, such as; legislating that motorists provide one metre when passing bicyclists, permanently reduced speed limits in the CBD and school zones, legislating that motorists, when turning left must give way to bicyclists also turning left.

## Bicyclist education

The ability to ride a bike safely and with sufficient base-level skills has significant benefits for road safety in addition to the other individual and environmental benefits.

There has been some resistance to the provision of skills training for road users in the past. There is evidence that advanced driver training may contribute to increased crash risk, particularly for young males (Mills, Hall et al. 1999) This problem is recognised in the Australian driver training industry (Hill and Fickling 2006) and it is suggested that attitudinal and cognitive factors play a greater role in crash involvement than operational skills. Training in advanced vehicle handling skills may create a false sense of confidence leading to increased risk taking behaviour.

However, there is increasing evidence that crash involvement among motor cyclists is associated with a relative lack of skills (Liz de Rome, Stanford et al. 2004) and that

participation in post licence training actually reduces crash involvement among motor cyclists. There is a strong case that the same applies to bicyclists. Observations of bicycling skills and behaviours in the community suggest that there are a wide range of unsafe behaviours in common usage. Increasing the recognition that bicycling training is required is likely to improve rider behaviours.

Despite the old saying 'it's like riding a bike', bicycling is actually a learned skill which can deteriorate with lack of use. There is a significant need for bicycling education and training in the Australian community to allow more people to ride bikes, keep bike riders safe and engaged as well as realising the benefits of increased levels of participation in bicycling.

Balancing, pedalling, manoeuvring and stopping a bicycle are just the beginning of the skills needed to be proficient. Each of these skills can be improved through training along with hazard recognition and the acquisition of cognitive skills regarding road riding risks. There is an increasing body of research supporting the effectiveness of bicycling proficiency training across a range of domains (The Royal Society for the Prevention of Accidents 2001; Telfer B, Rissel C et al. 2005).

The recently developed national bicycle training program, AustCycle, is the only truly national grass roots bicycle educational safety and skills program in Australia. It provides an accredited curriculum endorsed by the National Coaching Accreditation Scheme for the acquisition of bicycle riding skills. It runs under a licensing model that is designed to allow an extensive rollout via accredited Providers across the country. The model ensures that incentives are in place for Providers to offer quality training services to a wide range of people across all types of riding environments.

AustCycle requires the collaboration of government departments responsible for education, health, recreation, transport and the environment to support this rollout while commercial sponsorship is emerging.

The NSW Department of Environment Climate Change and Water has supported AustCycle Providers via a pilot voucher scheme. This has been successful in delivering training to a significant number of inexperienced bicycle users. AustCycle has also been funded by the Department of Health and Ageing (DOHA) as a three year approved program under the Federal Healthy Communities Initiative. This is important program-based funding but is not sufficient for AustCycle to achieve completely inclusive engagement as a national safety program. For this it requires funding to support promotion and training for its Providers and Teachers.

The funding of AustCycle is critical to ensure that future generations have the skills required to be safe on the road while bicycling.

We recommend that:

1. Resources devoted to driver training and education be increased alongside an ongoing license testing regime

2. Training of vulnerable road users in the area of safe bicycling, motorcycling etc. be addressed as a priority

3. The NRSS commit to supporting AustCycle to deliver bicycle training and educational opportunities to all Australians, with a focus on school-age children.

# Adapting the NRSS key areas to create a Safe System for vulnerable users

The discussion above has drawn out some major concerns about the approach of the Draft NRSS. Below we have attempted to show some examples of how the Draft should be specifically ameliorated using the existing framework of cornerstone areas.

## Safe roads

As highlighted earlier the improvement of infrastructure for the most vulnerable road user will improve the safety for all road users.

Some key elements that require further attention under this area are:

- Prioritisation of infrastructure with an established benefit for vulnerable road users to ensure safety for all road users
- Review of the equity of Black Spot funding allocations in light of underreporting of bicyclist serious injury crashes
- Intersection design treatments, particularly in view of increased use of separated bicycle and shared use paths
- Review safety barrier and shared path "bollard" designs from a bicyclist perspective incorporating learnings from motorcyclist studies (Grzebieta R.H., Jama H. et al. 2009). Location of safety barriers and the use of un-shrouded W form beams may be implicated in prevention and severity of bicyclist crashes.
- Address professional and practitioner knowledge gaps through provision of design courses specifically addressing the perspective of the vulnerable road user.

## Safe speeds

The Draft correctly identifies speed as a factor that is strongly associated with crash involvement and severity.

One of the most effective injury prevention strategies for cyclists and pedestrians is lower vehicle speed. For road users who lack vehicle crash protection, human tolerance to injury by a car is exceeded if the vehicle is travelling at more than 30 km/h. While most unprotected road users survive if hit by a car travelling at 30 km/h, the majority are killed if hit by a car travelling at 50 km/h (World Health Organisation 2008).

The draft strategy recommendation for speed reduction in 'high pedestrian/cyclist areas' takes the first step to the creation of a safe travel environment, but does not provide adequate safety for all pedestrians and cyclists. Creating environments which are determined to be 'high pedestrian/cyclist areas'could support a culture that cyclists or motorists do not belong on any other section of the road network. This will mean that the road system remains unsafe for the many pedestrians and cyclists who are not necessarily in high pedestrian/cyclist locations. It also creates a perverse incentive to design out vulnerable users where it is inconvenient from a road capacity viewpoint. An emphasis on road capacity has historically been the key performance indicator for road authorities - the vestigial impact of this emphasis needs to be repeatedly addressed.

The implementation of a uniform 30km/hr speed limit in residential streets is a key element of bicyclist and pedestrian safety in countries with relatively low injury rates for cyclists and pedestrians (Pucher and Dijkstra 2000; Pucher J, Dill J et al. 2010).

The implementation of a 40km/hr speed limit in CBD zones (recently introduced in Brisbane) is another key element.

This submission supports working with community organisations to develop support for speed control initiatives. This is something Government needs to do with the community not to the community.

## Safe vehicles

As noted in our opening comments, the primary focus of the road safety strategy should be towards the more vulnerable users sharing the road with large mass vehicles rather than towards the occupants of vehicles who are already relatively well protected.

Thus, this submission supports active safety measures over passive measures. Introducing intelligent speed adaptation devices together with ABS braking services, heads-up displays and other technologies that assist in reducing crash involvement are clearly desirable if they can reduce crash involvement. These need to be introduced in a way that does not result in risk homeostatic responses from drivers.

Car design that emphasises pedestrian protection in the event of a crash needs to be promoted and unsafe designs should be regulated and penalised. There is a case for introducing absolute liability provisions for unsafe pedestrian-impact vehicle designs and allowing the insurance industry to assist in driving design in a safer direction. The popularity of SUVs and light commercial vehicles that fail to provide for pedestrian or bicyclist safety in the event of an impact are particularly troubling.

We support the introduction of Global Technical Regulation (GTR) 9, an international vehicle standard developed by the United Nations, which requires vehicle manufacturers to design the front of vehicles to absorb the energy of a collision with a pedestrian or other "vulnerable" road user.

The introduction of GTR 9 needs to be supported with modifications to laws supporting 'bull bars'. These, and similar modifications, make survivable impact speeds much lower than they need to be and possibly reinforce a feeling of invulnerability in drivers of vehicles equipped with them.

Bicycles and bicycle equipment also need to comply with safety standards. For example, the street use of un-braked fixed-wheel bicycles needs to be addressed.

The past emphasis on promoting conspicuity for pedestrians and bicyclists can be maintained. However, there is likely to be an increasing prevalence of utility bicycling in 'normal' clothes. The system needs to be sufficiently safe to allow for this type of riding and avoid the approach of 'blaming the victim'. Similarly, safety measures which promote the use of reflective clothing among pedestrians could be considered as virtually an admission of failure on the part of the safety authorities.

## Safe people

The Draft NRSS strongly identifies driver responsibility as a key element in meeting the short term road safety targets. The question of driver liability for collisions with cyclists and pedestrians needs to be reconsidered.

Placing the onus of proof on drivers involved in collisions with pedestrians and cyclists has been adopted in several countries, including some of those identified in the NRSS as leading the world in road safety. This change increases the burden of responsibility for drivers to be accountable for their actions to a level which is commensurate with the level of vulnerability in the event of collision.

Road user education and testing also needs to be reflective of the requirements of improved shared modality. A reflexive treatment of pedestrians or bicyclists as 'hazards' needs to be addressed, together with the promotion of road-sharing, rather than an 'owning the road', as a thinking style.

Review of road rules to introduce legislation that maximizes the safety of vulnerable road users will also increase the emphasis on "sharing" versus "owning" the road.

Specific education of bicyclists is also important for improved safety on shared roads. Support for the AustCycle program is crucial. AustCycle, with the appropriate institutional and financial support from government agencies, can help to establish norms of responsible, respectful, efficient and safe bicycling in the community. It should be assisted to expand into schools and workplaces through voucher support and education systems.

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