

**From:** roadsafetystrategy@infrastructure.gov.au on behalf of Office of Road Safety <roadsafetystrategy@infrastructure.gov.au>  
**Sent:** Monday, 22 March 2021 3:42 PM  
**To:** RoadSafetyStrategy  
**Subject:** National Road Safety Strategy 2021-30 - have your say submission - Shalendra Ram & Brett Hughes [SEC=OFFICIAL]  
**Attachments:** tas-submission-letter-on-draft-nrss-210322-final.pdf

Submitted on Mon, 2021-03-22 15:39

Submitted values are:

**Name**

Shalendra Ram & Brett Hughes

**Organisation**

Transport Australia society

**Email**

**State**

ACT

**Which area/s of the draft Strategy are you commenting on (select all that apply):**

Targets for reducing deaths and serious injuries , The themes – safe roads, safe road use, safe vehicles and speed management , Movement and place, The social model , Data and performance management, Governance, Infrastructure planning and investment , Regional roads , Remote areas, Vehicle safety , Heavy vehicle safety , Workplace road safety, Indigenous Australians, Vulnerable road users , Risky road use , Other/not listed

**What is your primary area of interest in road safety?**

This submission covers all aspects of the draft National Road Safety Strategy..

While Engineers Australia focusses on engineering, other complementary issues are equally important.

**What road safety issues are the most important to address?**

Because road safety strategies need to be integrated, holistic and comprehensive, all issues raised in the submission are important to manage road safety properly and achieve the objectives.

**What do you believe are the strengths of this draft Strategy?**

The attached submission notes several strengths of the draft NRSS, particularly:

- investing in and reforming the nine Priority Areas,
- the six Long Term Directions,
- transforming the system,
- the need to improve Australia's road safety culture amongst all participants.

However, several of these issues need much more clarity, elaboration and action than has been described in the draft National Road Safety Strategy..

TAs also supports the general strategic approach, such as the principles stated for road safety management, however this aspect needs more work to ensure it is clear and can be translated into practice.

**Is there anything important that you think is missing from this draft Strategy?**

The attached submission notes several additional important points for inclusion, as well as significant clarification and expansion of other content.

**Do you give permission for your submission to be published on this website following the end of the consultation period?**

Yes

22 March 2021

**Office of Road Safety**  
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## **SUBMISSION ON THE DRAFT NATIONAL ROAD SAFETY STRATEGY 2021-30**

This submission on the draft National Road Safety Strategy 2021-30 (NRSS) continues from the submission made by Engineers Australia's Transport Australia society (TAs) to the Office of Road Safety late last year on the Discussion Paper on Road Safety which is based on the 2019 TAs Road Safety Discussion Paper.

Because TAs is open to all people with an interest in transportation across Australia this submission represents a diverse range of expert skills and practitioner experience, unparalleled by any other non-government group. TAs seeks to improve public debate on strategic transport issues and continues to be concerned with the horrendous level of road trauma in Australia and the difficulties in continuing to sustain the improvements in safety that have been achieved in the past. This submission describes perspectives and recommendations to realise further improvements to road safety that are crucially required.

In response to the draft National Road Safety Strategy 2021-30:

### ***TAs supports:***

- investing in and reforming the nine Priority Areas,
- the six Long Term Directions, although these need much more action than has been described in the draft NRSS,
- transforming the system; however, true transformation of the transport system as a whole has not been addressed in the draft NRSS,
- the need to improve Australia's road safety culture amongst all participants which the Social Model approach could enable but has not yet adequately described.

### ***Strategic Approach***

TAs supports the principles stated for road safety management, but there are several others that should be added to guide the finalisation and implementation of the NRSS, including:

- preventing human trauma or harm must be embedded in the strategy as the highest priority,
- applying programs that represent best value for effort,
- being prepared for future issues,
- learning from and applying proven solutions from other jurisdictions and fields of safety rather than reinventing solutions,
- adopting wider system safety principles and practices that have been successful in managing safety in other industries,
- taking a wider approach to the transport system as a whole and involving more participants and policy tools.

Several of the draft concepts, including the Social Model, Movement & Place (M&P) and the new data hub, are appropriate but are poorly described for how they will contribute to the outcomes.

TAs supports the general integrated and holistic approach to the management of speed described in the NRSS, although this needs further elaboration.

Actions to improve capability for managing road safety, for road users and other participants need to be developed and applied.

The NRSS needs to target improved safety for specific groups with individualised responses.

Post-crash response needs to be included in the NRSS.

### ***Performance Measures and Targets***

There should be performance measures and targets for each priority area. Doing this would improve accountability for achieving aggregate targets. A few States in the USA have done this in their Strategic Highway Safety Plans. Aggregate performance measures are too general and hide important detail as to where improvements are occurring and where they are not. Aggregate performance measures don't allow accountability, so it is not clear which areas are successful and which participants should be doing better.

### **Action Areas**

The priority areas need more specific actions particularly in the areas of:

- Infrastructure planning and investment,
- Regional Roads,
- Safe roads (particularly the need for major changes to road design practice to reflect Safe System principles),
- Vehicle Safety,
- Vulnerable Road Users, and
- Indigenous Australians.

In particular, the NRSS needs to commit to specific road safety programs that are high value and proven interventions, especially those that are low cost including:

- A regional road safety program,
- An urban road safety program with a focus on intersections,
- A program for vulnerable road users, and
- Road safety capability development.

### **Implementation, Enabling Actions and Next Steps**

The actions for each priority area require far more clarity.

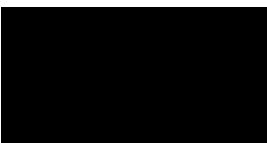
The strategy needs to specifically describe *who* is going to do *what* by *when*.

### **Further Engagement with TAs**

Additional explanation of the TAs comments on the draft NRSS is attached. TAs is keen to continue to the constructive dialogue with the national Office of Road Safety that has occurred recently. We have experienced and knowledgeable professionals who are willing and available to engage positively, so please contact us at any time. Please do not hesitate to contact the TAs representative on road safety, Dr Brett Hughes on 0477 346 814 or [P7Safety@gmail.com](mailto:P7Safety@gmail.com) in the first instance.

Yours sincerely

**Transport Australia society**



**Shalendra Ram**  
**Chair, TAs National Executive**  
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## Attachment - Explanatory Comments

### **Strategic Approach**

In general, the structure and objectives of the Strategy are supported. More detail is required in terms of how the objectives will be achieved.

Preventing human trauma or harm must be embedded in the strategy as the highest priority. If this does not occur, then the human outcomes are too easily compromised when costs and politics competed with them. This can be achieved with clear principles, performance measures for the strategy, projects and programs and with specific targets.

The six Long Term Directions are commendable however the road safety system has not been fully described nor has the transport system been described. Therefore, the directions need development to show their relevance to road safety management, and translation into practical actions than has been described in the draft NRSS.

The NRSS needs to look forwards to future issues (such as micro-mobility) and new solutions, many of which are already known from other fields or are emerging in in transport. The way people live and move has always changed and is likely to change further as the world emerges from the Covid pandemic. New technologies will change the transport system and the opportunities to improve road safety. Transport and safety practices in business and industry will change as new ways of operating evolve such as working from home and adoption of new styles of freight delivery.

There is an overemphasis on data. There is plenty of good data available, but it is poorly analysed or translated into useful information for policy making. So, collecting and organising more data alone is insufficient. Most road safety analysis is based on simple crash numbers, so a move to a thorough risk-based approach to road safety is required. This requires greater understanding of many more factors and influences than the current data and analysis allows and the development of more strategic, holistic and novel solutions.

Risk management also requires the adoption of a 'just culture' (or 'no blame' crash investigation) which is best practice for safety management in other industries such as aviation and rail. This includes a constant learning attitude and safety culture amongst all participants.

Movement and Place (M&P) is strongly supported as best practice for urban road management but doesn't relate to other priority areas such as remote areas, indigenous people, vehicle technology or workplace safety. It is not clear how it contributes to the outcomes intended.

The Social Model remains vague for practical application and needs more clarity. Unfortunately, the model in the diagram (p13) is dissimilar to the UK Health model that it originated from. This makes it difficult for participants in road safety to understand and apply. Several of the concepts included in the Social Model are appropriate but are poorly described for integration and application. It is unclear how they contribute to the outcomes. The Social Model has value if it enables engagement with all participants that can positively contribute to road safety (and also overcome oppositional participants). As such, it is applicable to several facets and stages of the road safety management process. Moreover, it is potentially most significant in changing social culture towards road safety. Therefore, it has three key parts:

- changing human beliefs which leads to safer behaviours,
- involving a much wider range of participants than has occurred in the past, and
- the road safety attitudes as the target subject.

There is considerable information available about these aspects that needs to be described, developed and applied.

Cultural change is correctly identified as needed, especially in relation to road speed. It is questioned if portfolio engagement is sufficient. Broader community engagement is essential and therefore requires a sound basis with proper planning design and funding. This has been the experience of other jurisdictions that have achieved best practice in road safety. They engaged in a national level conversation.

Capability for managing road safety is inadequate and there is often an inadequate culture of road safety. We need strategic actions to improve all skills in strategy, analysis, design, implementation and operation by governments, businesses, consultants and road users. A national capability audit is the first step which needs to be followed by a thoroughly implemented skills development strategy.

There are several specific groups not mentioned that we need to focus more clearly on. The "one size fits all approach" does not work because road users (even in identified groups) aren't homogenous. Young drivers, vulnerable road users and other specific groups need individual attention.

The "Clear governance arrangements" proposed are supported but how this is to be achieved is unclear since there is no description of the proposed framework. Performance monitoring and application of funding also need rigorous and ethical processes, proper oversight and transparent management.

### **Performance Measures and Targets**

The honest reporting of recent rising crash rates and failure to achieve 2020 safety targets is commendable. Accurate information, together with skilled analysis and interpretation is the key to developing good policy. The information suggests that continuing previous road safety management practices will not be sufficient to achieve the objectives required and stated in the draft NRSS.

All of the key messages on page 5 are supported. However, statistics and the need for action on vulnerable road users (pedestrians, cyclists and motorcyclists) also need to be highlighted. On a per capita and per kilometre travelled basis, these are all shown to be overrepresented in casualty crashes.

There should be targets for each priority area. Doing this would improve accountability and clarity regarding progress towards achieving aggregate targets. A few States in the USA have done this in their Strategic Highway Safety Plans. Aggregate performance measures are too general and don't provide any information about what is expected, where gains are being made and where better results are required. Performance measures need to be sufficiently detailed to guide investment and action. Aggregate performance measures don't allow accountability, so it's not clear which areas are not improving and therefore which participants need to do better.

### **Infrastructure Planning and Investment**

Funding to ensure the completion of Austroads planning and design guidelines to match Safe System principles is urgently required. Commonwealth funded projects should specifically describe road safety benefits, not in terms of microeconomics, but in terms of human life and serious injuries. Reducing road crash casualties needs to be built into project assessment guidelines with the same rigour as it is for reductions in travel time and vehicle operating cost.

Intersection design standards need review to make safety a higher priority. Intersections are one of the most common places for serious crashes in urban areas. Past intersection design has been driven primarily by traffic capacity and road geometry concerns. Safe System principles are not yet integrated into design. The prevailing orthodoxy to prefer the use of traffic signals in urban traffic management needs to be challenged on safety grounds. It is contrary to the trend in best practice nations. For instance, the use of signalised intersections above speeds of 70 km/hr needs to be prevented on Safe System grounds and removed from design standards. Roundabouts, plateaux and other traffic safety treatments consistent with Safe System principles should be prioritised instead.

The NRSS needs to commit to a specific urban road safety program that includes proven treatments, which are often low cost such as intersection treatments (e.g., roundabouts, road diets and traffic calming).

### **Road Planning and Design**

The adoption of Movement and Place principles is supported as best practice for urban road management. However, its description in the draft NRSS is not technically correct and its relevance to road safety is unclear. There is a need for a fuller explanation of how M&P is relevant to the draft NRSS and why it should be the peak of the Social Model in the diagram on page 13. A better inclusion at this point would a description of the human outcomes (fatalities and serious injuries) represented by the targets for the NRSS. M&P does not inform other priority areas including Indigenous Australians, Risky Road Use, Vehicle Safety and Workplace Road Safety.

The adoption of a Safe System approach is also strongly supported (pages 13-14). We still need a paradigm shift in the way we design, build and audit roads in Australia. Tweaking current practices is not going to achieve the reduction in road deaths and serious injuries on our roads that we are entitled to. Safe System is often oversimplified and needs to be carefully nuanced and applied in practice. Operating situations, individuals, types of vehicle, the operating context, social situations and economic environment can all alter how road safety is best managed in specific circumstances; a 'one size fits all approach' is too simplistic.

The proposed three pillars as opposed to the previous four requires explanation of the reason for the change to improve understanding and practical application.

Road signage on urban and regional roads, particularly for roadworks, urgently needs review to ensure better practice. Many signs are inappropriate, confusing, unnecessary, unhelpful or out of date. There are inconsistencies between road signage in different States around Australia. This is undesirable in the context of an increasingly national freight industry. The standards for road signage, and consistency of practice both need significant improvement. The NRSS should commit to a review and reform of road works signage including greater national consistency.

### **Regional Roads**

The prioritisation of regional roads and targeting high volume roads with treatments like wide medians, widened shoulders and roadside flexible safety barriers is strongly supported. This was one of the single most effective measure to achieve fatal crash reductions in other jurisdictions that adopted vision zero/safe system policies.

The level of traffic that constitutes "high" volume requiring intervention needs to be quantified. This is necessary to measure the extent of work required and identify an adequate budget. Sweden commenced with a targeted intervention level of AADT of 4,000 vehicles per day for flexible safety barriers. Benefit cost analysis undertaken for State governments suggests those levels are also realistic for Australian implementation.

The NRSS needs to commit to a specific regional road safety program that includes high value proven treatments such as wide medians, widened shoulders, edge lining and flexible barriers.

### **Vehicle Safety**

With the end of local vehicle manufacturing, there would be safety and efficiency benefits from transitioning Australian Design Rules to match best practice vehicle safety standards in other countries Australia imports vehicles from. European or Japanese design rules are recommended.

A growing proportion of the Australian vehicle fleet, including more than 50% of new car sales, are SUVs and 4WD Utility vehicles of large size and weight, driving a growing disparity in vehicle mass, which is contrary to Safe System principles. This is not identified as a problem and no actions are identified to address it.

The adoption of new safety technologies in Australia has been slow and accelerating this should be a major action of the new NRSS.

There is no mention of the proliferation of micro-mobility options such as scooters, e-scooters and e-bikes. A national approach to safety for these would be desirable.

The use of ANCAP should be strengthened and linked to regulation. Four-star crash rated cars should be the minimum for all new vehicles (unless exempted for functional purposes). Government and industry should commit to purchasing only five-star crash rated vehicles.

### **Vulnerable Road Users**

Greater detail in understanding the different causes and locations of crashes for each target group is required to identify effective policy responses.

Pedestrian and cyclist casualties are primarily in urban areas which suggests that there has been inadequate attention to pedestrian and cyclist need in road and intersection design, road-space allocation, and speed and traffic management.

Young road users and motorcycle casualties are a particular concern and their relationship with exposure and risk needs to be better understood. More detailed research and engagement with these and other high risk groups is required.

There is a lack of adequate safe road infrastructure for pedestrians and cyclists. This gap needs to be measured, programmed for correction, and funded.

The NRSS needs to commit to a specific road safety program for vulnerable road users which applies proven treatments.

### **Workplace Road Safety**

TAs supports the incorporation of road safety into normal businesses in workplaces. Vehicles are workplaces but road safety has been generally ignored and by occupational safety regulators in particular. It is vitally important to engage new participants in workplaces to achieve road safety outcomes which will contribute to changing the community and business culture of road safety. Doing so would be an integral part of applying the Social Model. Road safety for work vehicles should be seen as an extension of existing duties of care for workplace safety.

The safety of road workers is one important group to specifically include in workplace road safety initiatives. There remains a culture of giving priority to traffic flow and maintaining capacity over the safety of workers on our roads. Adoption of Safe System principles describes that we should never have unprotected workers on the road in proximity to traffic travelling at 30 km/h or more. This approach should be mandated in all States and Territories in accordance with OS&H law. It would also ensure that there is a level playing field at the project tender and quotation stage when the current system favours those that use the least expensive method of traffic control, not the safest. One of the most high-risk operations is setting up and taking down signage as the road environment is fully modified. On routes with higher speeds and heavy vehicles, workers need additional levels of protection (shadow vehicles, truck mounted attenuator, tail vehicles, etc) to mitigate the risks entailed in this operation.

### **Speed Management**

Speed is a determining issue for road safety outcomes but needs to be managed strategically and holistically as other jurisdictions have begun to do<sup>1</sup>. TAs supports the approach to speed management described by the European Commission<sup>2</sup>:

“Speed management as a package.

*There is no single solution to the problem of excess and inappropriate speed. A package of countermeasures is necessary, increasing the effectiveness of each of the individual measures. The most appropriate combination of measures will differ with circumstances. As a start, a good balance between road design, speed limit, and public perception of appropriate speed is vital.”*

The draft strategy notes that speed management is critical, but it again it does not provide specifics of how this will be achieved. Speed management should not rely on speed zoning and enforcement alone as sufficient tools. The NRSS should endorse urban road design being used as a principal activity in conjunction with the appropriate speed limit to reduce vehicle speed, rather than rely entirely on lowering of speed limits. Road users, the general community, businesses and other participants need to be engaged to overcome objections to safer travel speeds as part of transforming road safety culture. In the USA and countries like Australia, it has been common practice to take what is assumed to be a “conservative” approach and base the road design on the 85th percentile speed, that is, a design speed higher than the proposed speed limit. This has had the effect of encouraging drivers to travel faster than the speed limit, which has a detrimental impact on road safety.

Other jurisdictions are ahead of Australia in reforming their speed management through road design. Australia should review urban street design guidelines and adopt best practice road design, such as the CIHT UK’s *Manual for Streets (1 & 2)*, which has a different approach to design speeds, lane widths and other details. This more holistic approach prioritises vulnerable road users over motorized traffic and adopts multifaceted and complementary speed management tools. A national approach to urban speed limits is highly desirable, especially in urban areas as in many OECD countries. There is a need for national leadership on lower speed limits particularly in urban areas and on unsealed or low standard roads. The new NRSS should clearly endorse urban road design being used in conjunction with the appropriate speed limit to reduce vehicle speed, rather than rely entirely on lowering of speed limits.

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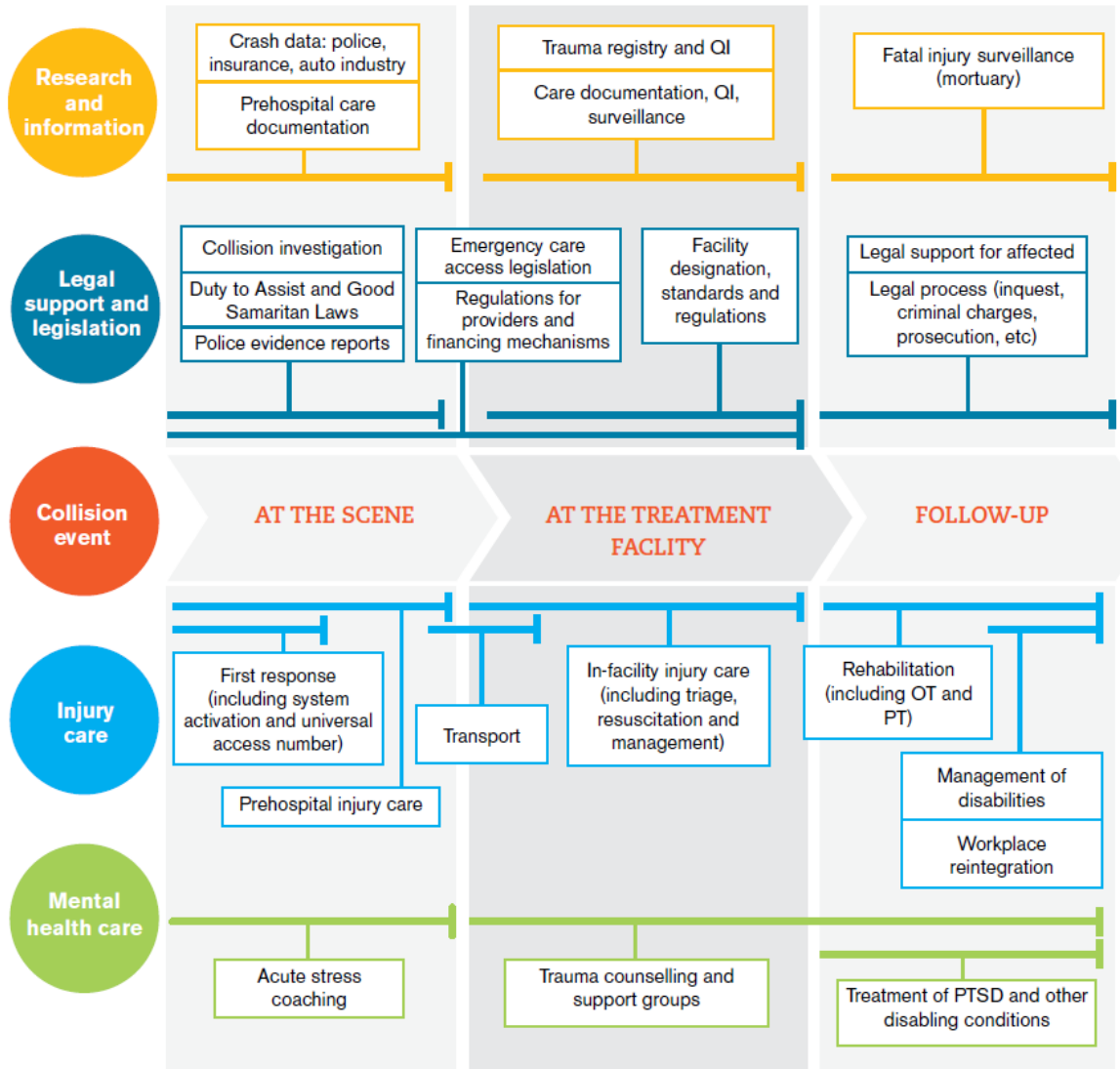
<sup>1</sup> For example, Chartered Institution of Highways & Transport (CIHT) (2010). *Manual for Streets 2: Wider Application of the Principles*, CIHT, London.

<sup>2</sup> European Commission (2018). *Speed and Speed Management*, European Commission, Directorate General for Transport, European, Road Safety Observatory.

**Post-crash response**

The NRSS needs to include a comprehensive approach to post-crash response. Other jurisdictions routinely include post response care in their road safety strategies including the Decade of Action for Road Safety (2011–2020). In the USA it is a federal requirement of State Strategic Highway Safety Strategies. Others are also moving to include it more routinely<sup>3</sup>. Post-crash response is complex multidisciplinary and multifaceted<sup>4</sup> and should not be oversimplified to emergency responders and helicopters as the following diagram indicates. For instance, the first people on the scene of crashes are victims and bystanders and there is a long sequence of activity following that, through to post driving assessments and adaptation.

FIGURE 2. KEY COMPONENTS OF THE POST-CRASH RESPONSE



QI = Quality Improvement; PT = Physiotherapy; OT = Occupational Therapy

Source: WHO (2016)

**Stakeholder and User Capability**

Other safety domains recognise that both capacity (the amount of resources) and competency (skills, knowledge and experience) are both required to achieve safety outcomes. This has been recognised by State road safety capacity reviews and has been recommended by previous road safety inquiries.

Different participants require different capabilities and all need to be adequate, but preferably at a high standard. Driver education, road management, safety management and workplace road safety all need to continue to improve in government, business, road users and others. Therefore, the new NRSS needs to commit to a program to improve skills, knowledge and experience of participants in many roles.

<sup>3</sup> For example, Welle et al (2018). *Sustainable & Safe: A Vision and Guidance for Zero Road Deaths*. World Resources Institute and World Bank Global Road Safety Foundation in conjunction with Bloomberg Philanthropies and FIA Foundation.

<sup>4</sup> World Health Organisation (2016). *Post-crash Response: Supporting Those Affected by Road Traffic Crashes*. Geneva, Switzerland: WHO.

### **Implementation, Enabling Actions and Next Steps**

These are critical sections, but important details are lacking, so more information is required.

For instance, the section on Indigenous Australians is important but does not describe any action proposed to improve road safety. Given the large health gaps between indigenous and other Australians, this omission is a substantial weakness in the strategy.

There is a need to expand the strategy to more specific actions to achieve the objectives and implementation of which can be measured.

The strategy needs to specifically describe *who* is going to do *what* by *when*. For instance, the Social Model rightly points to engaging more participants to achieve road safety outcomes and foster a positive culture of road safety, but it does not describe how this is to be achieved and which are the most important groups.

In the introduction there are references to linking funding to road safety. This is an important advance, and is supported, but no detail is given of how it will be done.

Other nations have legislated to make road safety a duty of care for responsible stakeholders in the same way as environmental and workplace safety duties of care exist. Australia has had several road safety strategies, but none have had legislative support, including this one.

The intention to develop a supporting Action Plan and update it every five years is strongly supported. It is essential that the development of the Action Plan includes stakeholder consultation to help with coordination, participation and commitment, as application of the Social Model would demand.