

Road Safety Management in Australia: Building capacity through coordinated action

McIntosh, J.L. AM¹ & Howe, C.L.²

¹President, Australasian College of Road Safety & Chair, Australasian New Car Assessment Program

²Executive Officer, Australasian College of Road Safety

Abstract

Reducing road trauma must be at the forefront of the Australian productivity and national economic debate, not simply a factor in transport management. The purpose of this submission is to draw attention to this vital subject, and to call for greater coordination of our response to address this major public health issue.

Road trauma is arguably the highest ranking public health issue we face as a nation today. Each week in Australia 25 people die and 600 are seriously injured, and the ripple effect of each road trauma event to our families and communities is enormous.¹ Federal government estimates put the annual cost of road trauma to our economy at \$27b (Australian Transport Council, 2011) – more than the size of our national defence budget.

If the aim of the National Road Safety Strategy (NRSS) is reached – a target of a 30% reduction in road trauma by 2020 - this trauma will still have cost the Australian economy a massive \$264b over the decade to 2020. If we increase Australia's target to 50% (in line with the goals of Europe) we will save the economy \$37b by the year 2020. More importantly, countless lives and injuries will be saved, as well as the ripple effects that will be felt across Australian society.

Notwithstanding the impacts to society, the current level of economic impact from road trauma is simply unacceptable, and must be recognised as a significant factor hindering Australia's productivity. It is only in this way that we can collectively expedite reductions in road trauma. The potential economic and social gains to Australia must not be ignored.

It is now apparent that Australia's performance in generating road death and injury reductions has not kept pace with world's best standards. As detailed in the body of this report, Australia's performance has not improved to the same degree as many Organization of Economic Cooperation and Development (OECD)² countries since the year 2000. Australia's ranking has therefore been slipping, and we need to commit to measuring our achievements on a global scale if we are to make the progress that our society deserves.

¹ Australia's National Road Safety Strategy 2011-2020 (NRSS)

² The Organization for Economic Cooperation and Development (OECD) is a unique forum where the governments of 34 democracies with market economies work with each other, as well as with more than 70 non-member economies to promote economic growth, prosperity, and sustainable development.

<http://usoecd.usmission.gov/mission/overview.html>

The NRSS, launched in 2011 and now being reviewed, still has no cohesive action plan or budget linked to the proposed achievements, despite the efforts of many federal, state, professional and other bodies mentioned in the body of this report. This report outlines potential reasons for Australia's declining road safety performance, and puts forward suggestions for improvement – many of which lie with an increased commitment to collaboration.

Recommendations outlined in this report are as follows:

1. Increase the commitment to collaboration and inclusion across all levels
2. Develop overarching plans to decrease the current fragmented approach
 - a. Develop a National Road Safety Action Plan
 - b. Develop a National Road Safety Budget
 - c. Initiate a coordinated focus on injuries – collection of data and accurate baselines
 - d. Encourage broad recognition of the economic and productivity gains from reducing road trauma, across all portfolios, organisations and the Australian community
 - e. Develop a Road Safety Communications and Marketing Plan
 - f. Develop a National Road Safety Research Plan to complement the NRSRF
 - g. Develop Safety Targets for Vehicles and Roads
 - h. Encourage constituency across the community – an innate desire to expedite trauma reductions
 - i. Develop demonstration projects - Collaborative identification and implementation of new programs
3. Support increased international collaboration
4. Increase our leadership capabilities
5. Commit to continued measurement of our success against world best standards
6. Remain courageously patient (and committed), and celebrate the achievements!

Introduction

The economic and social impacts of road trauma have been comprehensively outlined in the 2013 ACRS Submission to Federal Parliamentarians (ACRS FP Submission, 2013) and the 2013 ACRS Submission to the Productivity Commission Inquiry into Public Infrastructure (ACRS PC Submission, 2013).

Stakeholders at all levels – from government to community to the general public - should be educated that there are primarily three areas where Australia as a nation can benefit greatly from improved road trauma outcomes:

- Increasing Australian productivity and national economic growth
- Returning Australia to a position at the forefront of global road trauma reductions
- Saving lives and injuries, and immense social and personal trauma.

In this report we quantify the longer-term economic costs of road trauma using federal government baseline figures. In particular we consider the 30% reduction target outlined in Australia's NRSS, and a comparative 50% target preferred by many European countries. We also review Australia's current standing on the international stage in terms of historical road trauma reductions.

All indicators are discussed and reviewed in terms of performance measures, and we provide recommendations to improve Australia's performance over the longer term. In this way Australia can benefit greatly from an increase in Australia's productivity, resurrection of our past recognition as a world leader in road trauma reductions, and an increase in our nation's health and wellbeing that we can be proud of.

Economic impacts of road trauma

Australia's NRSS estimates the annual cost of road trauma in 2011 to be \$27b per year, and sets a target of a 30% reduction in the number of deaths and serious injuries from road trauma by 2020. If the aim of the NRSS is reached, this level of trauma will still have cost the Australian economy a massive \$264b over the decade 2011-2020 (Figure 1).

If we increase Australia's target to 50% (in line with the goals of Europe) we will save the economy \$37b (Table 1). This is an enormous gain for Australia's economy, a cost-saving that can provide vital support to the Australian economy. Most importantly, an additional 1,540 Australian lives and 35,570 serious injuries will be saved – as well as the associated ripple effects on Australian society.

The enormity of the economic impact of road trauma should not be underestimated, and our ability to combat this productivity burden should also not be underestimated.

Figure 1: Cost of road trauma to the Australian economy
 \$Billion cumulative 2011-2020 (see Appendix 1 data)



Table 1: Australian road trauma costs 2011-2020
 Potential additional savings with a 50% vs 30% reduction target

Year	Deaths saved (No.)	Injuries saved (No.)	Cost saving \$b*
2011	28	650	0.56
2012	56	1,300	1.15
2013	84	1,950	1.77
2014	112	2,600	2.43
2015	140	3,250	3.13
2016	168	3,900	3.87
2017	196	4,550	4.65
2018	224	5,200	5.47
2019	252	5,850	6.34
2020	280	6,500	7.26
Total	1,540	35,750	36.62

* assumes 3% CPI, and utilises \$27b figure estimate in NRSS 2011-2020

The cost of road trauma is spread throughout the Australian community, across all government portfolios and all sectors of society. The reduction of road trauma, as well as the associated ripple-effect from death and injury on our roads, should no longer be viewed as purely the domain of transport management - it should be communicated as a key society-wide and ‘whole of government’ objective.

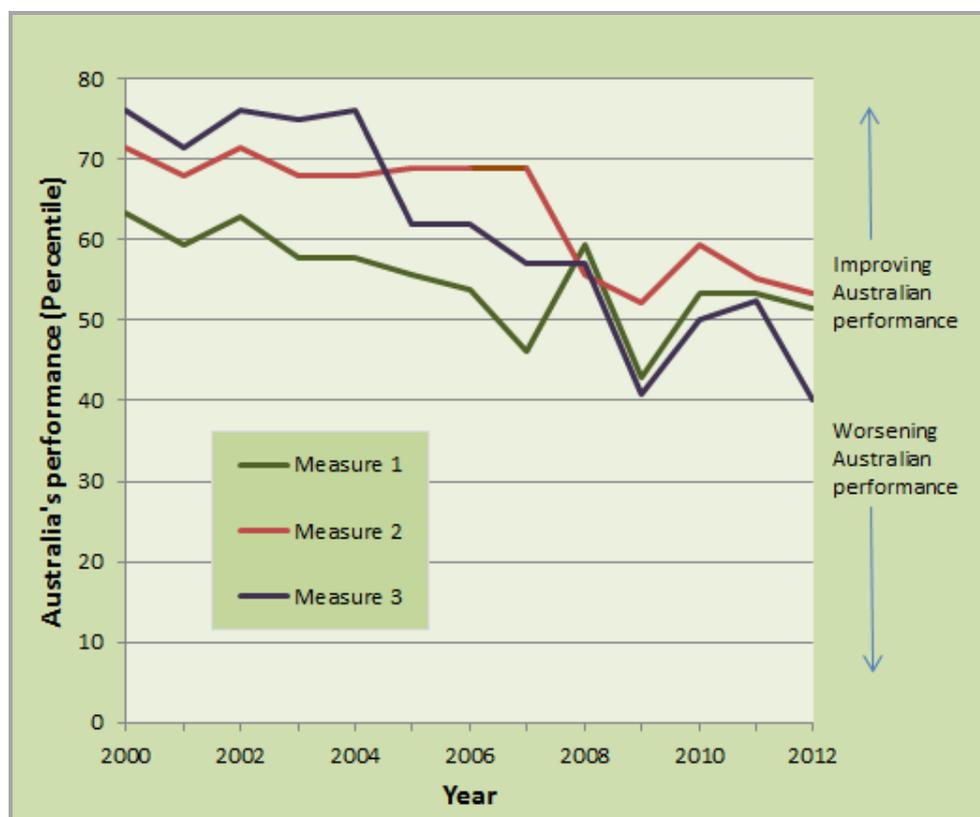
In order to meet this goal Australia would benefit greatly from a more coordinated approach across all sectors and government portfolios.

OECD comparisons

The 2013 ACRS Submission to Federal Politicians outlines the extreme toll that road trauma takes on the Australian Community (Attachment 1). It is concerning to note that while the overall trend is a gradual decline in road trauma, Australia’s performance is worsening compared to other OECD countries. In Australia we can do more.

Whichever measure is used - fatalities per 100,000 population (Measure 1), fatalities per 10,000 registered vehicles (Measure 2), or fatalities per 100 million vehicle km (Measure 3) - Australia’s performance in comparison to OECD countries has been declining since the year 2000.

Figure 2: Australia's performance in lowering the national road toll
Comparison with performance of other OECD countries 2000-2012 (see Appendix 2 data)



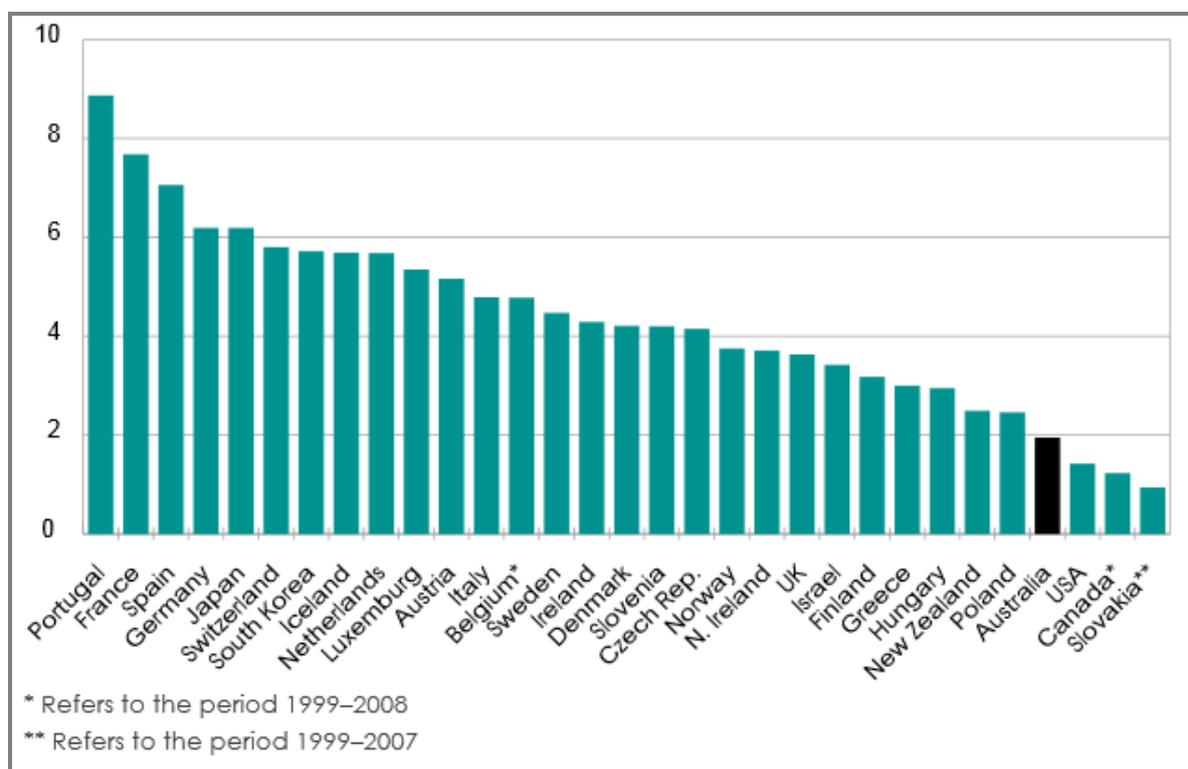
Globally in the year 2000, Australia had the 11th lowest rate in terms of fatalities per 100,000 population, the 8th lowest in terms of fatalities per 10,000 registered vehicles and the 5th lowest in terms of fatalities per 100 million vehicle kilometres travelled (Appendix 1).

Since that time, Australia has slipped from these levels through to 2012:

- Fatalities per 100,000 population – Australia has fallen from the 63rd to the 52nd percentile.
- Fatalities per 10,000 registered vehicles – Australia has fallen from the 71st to the 53rd percentile.
- Fatalities per 100 million vehicle km – Australia has fallen from the 76th to the 40th percentile.

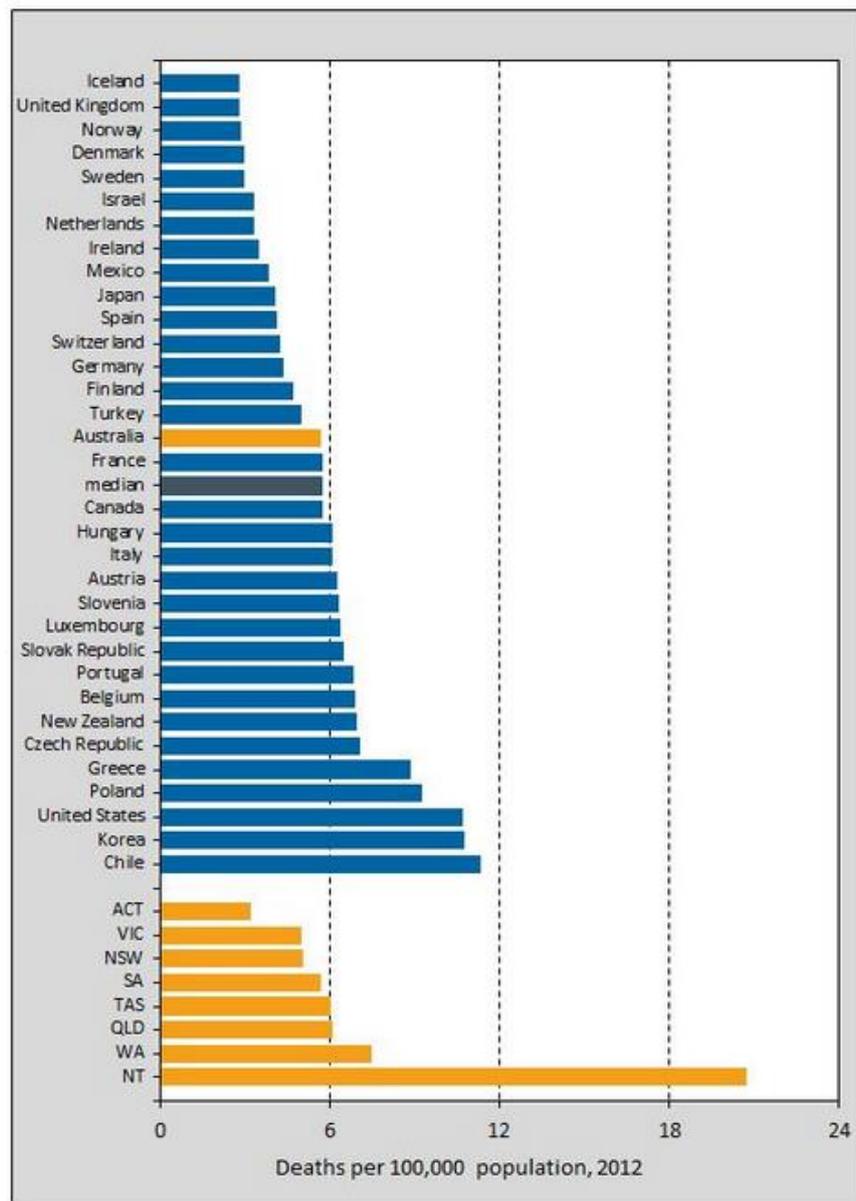
To further illustrate this point, Australia’s NRSS points out that Australia’s average annual percentage decrease in road deaths (1999-2009) rated fourth from last amongst 31 OECD countries (Figure 3).

Figure 3: Average annual percentage decrease in road deaths
Amongst OECD countries, 1999-2009 (NRSS 2011-2020)



Australia currently sits 16th out of 33 OECD countries in terms of road deaths per 100,000 population (Figure 4). Figure 4 illustrates that certain Australian jurisdictions are performing significantly better than others, and would have a higher ranking against other OECD countries in their own right. Therefore we have greater potential for gains in individual jurisdictions.

Figure 4: Road deaths per 100,000 population
OECD Nations and Australian states/territories, 2012 (BITRE)



Currently there is inadequate recognition within Australia of our overall decline in terms of world best performance rankings. Recognition would undoubtedly lead to open and collaborative discussions around building a collective response aiming to lift our international standing.

Why is Australia slipping behind other OECD countries, particularly when we have so much of the expertise to stop this decline within our national borders? Why are some Australian jurisdictions performing significantly better than others? How can we help to close this gap?

Australia has the expertise and leadership to bring about a sustainable percentage decrease in road trauma that provides an exemplary model for all countries to follow. As a nation we need to re-think and realign some of our overarching activities to enable us to reach this goal. Our recommendations for achieving this goal are discussed in greater detail in Section 5.

Collaboration and coordination activities

Although there are many good examples of effective road trauma reduction programs occurring in organisations across Australia (a small selection of these are listed in Attachment 2), there is a fragmentation and disconnection that detracts from Australia achieving the maximum benefit and effect of these programs. This is hindering the potential gains that Australia can make.

The ACRS continues to strive for increased collaboration and a more coordinated collective response to combat road trauma. ACRS initiatives have included encouraging national political parties to develop road safety policies, building new alliances such as with companies and national health research bodies, carer and disability organisations etc, expanding communication networks and publications, and compiling comprehensive submissions to government and the road safety community.

Increased collaborative efforts in the community sector, especially with the young and elderly, vulnerable road users, etc show what can be achieved, often with relatively small investment. These efforts can occur in tandem with the development and implementation of major infrastructure and technological changes that can support long-term change.

The collaborative development of sound overarching frameworks such as the recently developed National Road Safety Research Framework (NRSRF) should be considered a top priority to achieve the goals of the NRSS. This would help to elevate Australia's ranking in comparison to other OECD countries, as well as increasing Australia's productivity – provided we can address the existing disparity across Australian jurisdictions in road safety performance.

Encouraging and supporting collaborative organisations, particularly those with a proven track record, is important for a number of reasons. Primarily it empowers Australia's collective road safety community to make greater gains in road trauma reductions. Importantly it also increases efficiency and reduces potential duplications across competing or fragmented programs that have similar aims. A renewed focus on supporting collaboration will benefit Australia's road trauma outcomes, and will have flow on effects to the economy and social well-being of our nation.

Issues - Why is Australia falling behind in international (OECD) standings?

There are undoubtedly many complex contributing factors that are responsible for Australia's gradual decline in terms of our international (OECD) standings in road trauma reductions. Some of the major factors contributing to this decline are outlined below.

Road trauma viewed as a relatively minor problem within Australia

Tooth (2010) reports that 'The significance of road crash costs in Australia has been consistently underestimated, both in terms of the overall cost and the extent to which these costs are incorporated (i.e. internalised) in road-users' decisions'.

The road trauma 'problem' in Australia is not a minor one, and should not be overlooked. The cost of road trauma in Australia has been estimated at \$27bn pa, about 10% more than the annual Australian Defence Budget (NRSS). In the NRSS, Australian governments collectively agreed to aim for a reduction in road trauma (death and injury) by at least 30% by 2020. The flow-on benefits of this reduction for individuals, families, health professionals, emergency services, workplaces – in fact the entire community - would be immense; the economic saving over the life of the NRSS is estimated by the authors to be approximately \$55bn by 2020. If we were to increase our target to 50%, the saving to our economy would reach a massive \$90bn.

Each year at least 30,000 crash victims present at Australian hospitals. As outlined in the 2013 ACRS Submission to Federal Parliamentarians, there is a gradual emphasis being placed on the ripple effects of Australia's road toll and the deep burden road trauma is having on Australia as a nation. But much more can be done to increase this emphasis across the community:

'Each week there are 25 deaths and 600 serious injuries on our roads (that's 1,300 deaths and 32,500 serious injuries per year). Seen first-hand by our surgeons, this has an enormous impact on Australia's health system as a whole. The College supports all evidence-based initiatives that assist in the prevention of road trauma and the reduction of the devastating effects of injury'

Dr Michael Hollands
President, Royal Australasian College of Surgeons 2013

'Families experience firsthand the tragedy of these deaths and the impact of the serious injuries sustained in these accidents. Every day too many ordinary Australian families will be come a caring family – this means that one or more family members will need to change their own way of life to provide support (including emotional, personal, clinical and financial) to the injured person. Australian and international research indicates that these carers are likely to have significantly lower health and wellbeing (including social and financial)

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than non-carers, and that this impact increases with the duration of their caring responsibility.

Carers Australia strongly supports the Australasian College of Road Safety in its aim to reduce the level of deaths and serious injuries from road accidents in Australia through evidence-based strategies.'

Mr Tim Moore
President, Carers Australia, 2013

Major General Michael Jeffery AC CVO MC, as Governor General, and at that time Patron of the ACRS, said in 2006; 'Take the mortality rate (of road trauma) alone - if a similar statistic applied to Australians in battle, the public outcry would galvanise the country into action.'

Johnstone, Muir and Howard in their recent book *Eliminating Serious Injury and Death from Road Transport: A Crisis of Complacency* (2013) explore why societies and their elected leaders view road safety as a relatively minor problem. They examine the changes in the culture of road use that needs to occur if this public health problem is to be effectively resolved.

Johnston et al make the point that we focus too often on specific illegal behaviours such as drink driving and speed, spending time blaming the driver/victim. Too often we forget that most crashes, particularly non-fatal crashes are not caused by deliberate wrong doing. They say; 'Rather, they (crashes) are far more commonly the result of a simple mistake, a lapse in attention or an error of judgement made by an imperfect human being.'

The BITRE Report 'Road Safety: Modelling a Global Phenomenon' (BITRE, 2014) states: 'Injury rates, while linked with movements in fatality rates, often have their own sub-trends. Figure ES2 (Figure 5) shows for Australia, that although the fatality rate (a proxy for the general level of road safety) explains a lot of the injury rate decline, **there is a recent independent upward movement in the injury rate**'. This is a disturbing trend, masked perhaps by our focus on road deaths as the 'toll'.

The current 'levelling out' of the rate of injury from road crashes as depicted in Figure 5 is concerning, as is the graph produced by BITRE (Figure 6) for the same report which predicts a steady growth in the number of road injuries versus road deaths over the next 16 years to 2030 for most Australian states/territories (note: predictions based on the assumption of a 'nothing changes' approach).

Figure 5: Australia's road injury rate versus its fatality rate
 (Source: BITRE 2014 report – Road Safety: Modelling a Global Phenomenon Fig ES2)

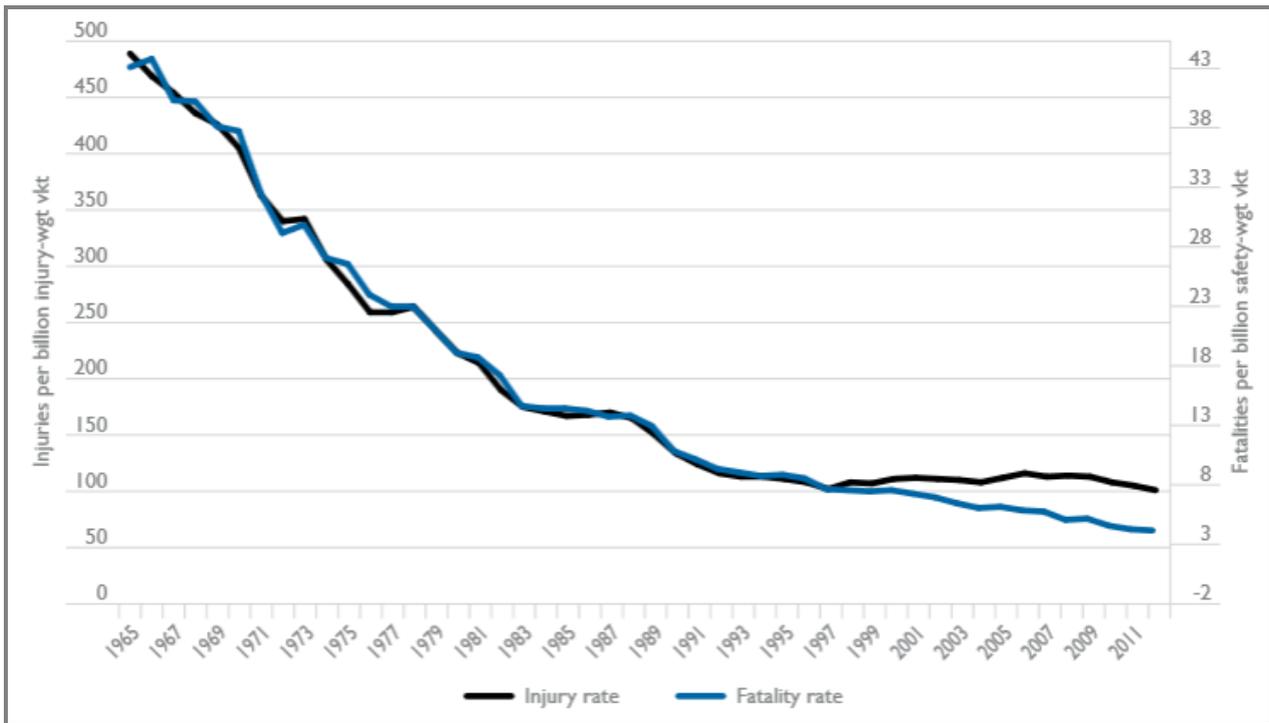
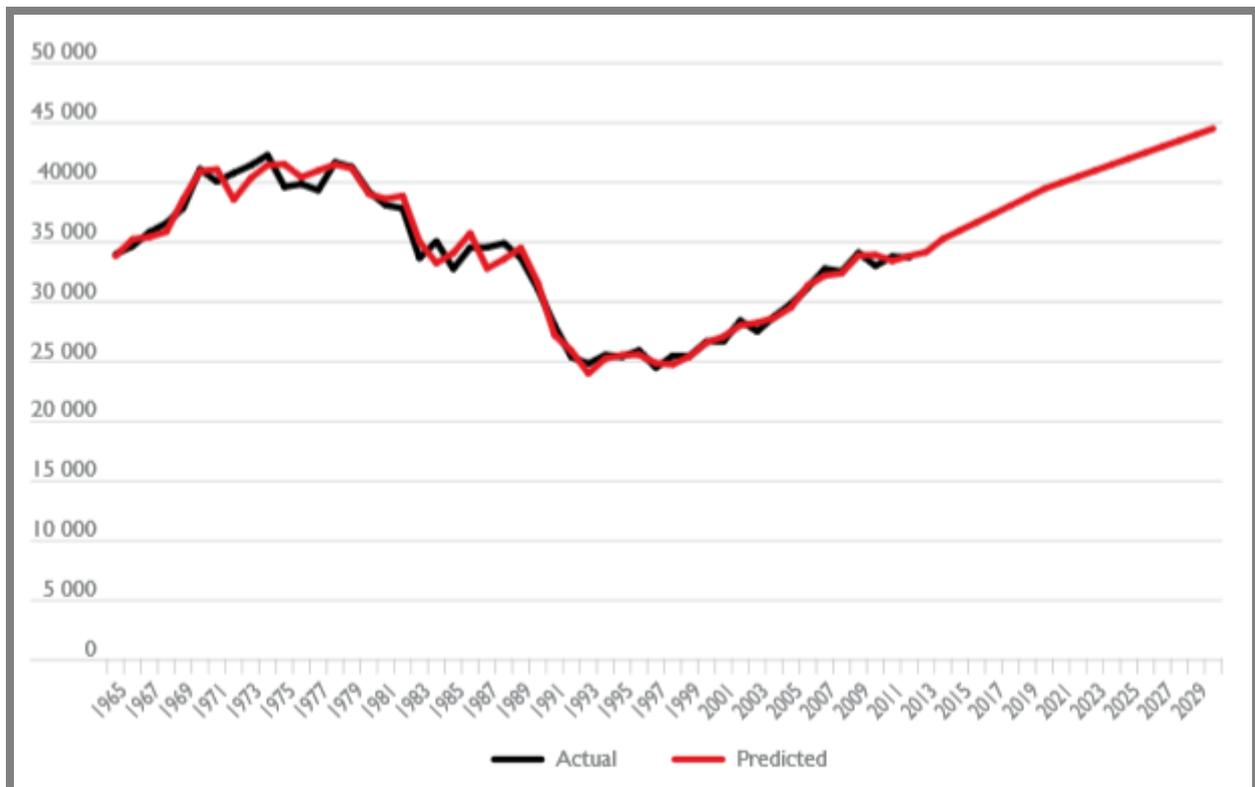


Figure 6: Actual and predicted Australian road injuries
 (Source: BITRE 2014 report – Road Safety: Modelling a Global Phenomenon)



BITRE's recent report 'Road Deaths Australia: 2013 Statistical Summary' (BITRE, 2013) states that over the last decade, 'total annual deaths decreased by 24.6%. The estimated trend is an average reduction of 3.4% per year'. Although the overall death rate is showing a declining trend, 'both motorcyclist and pedal cyclist deaths show non-decreasing trends'. In addition, these recent statistics from BITRE show that deaths in the 65 and above age group are not decreasing in line with the overall decline.

The fact that recent injury trends are regrettably not showing a similar linear reduction as that seen for road death needs to be recognised and communicated across a broader spectrum – from federal government all the way through to the general community. Only in this way will the full extent of impacts from road trauma be adequately recognised and addressed.

Many trauma victims are incapacitated for life. The consequence of this trauma though does not sit solely with the families and carers of the trauma victims, or even just the medical professionals involved with them. Communities as a whole are greatly affected by these deaths and injuries, including workplaces, friendship networks, the unending toll on the mental health of emergency workers including police and ambulance workers, and many others.

This ripple effect, and the associated effect on our economy and national productivity, is not sufficiently recognised. Therefore efforts to reduce road trauma are in danger of remaining well below levels that are needed to address the problem sufficiently.

Australia's road trauma reduction target set too low

As stated in the NRSS:

'The primary measure of success of this strategy will be the actual reduction in the number of serious casualties on the roads. This measure will be used to monitor ongoing progress towards the 2020 fatality and serious injury targets.

As shown in the table below, a range of other high-level outcome indicators will also be used to track Australia's road safety performance over the decade.'

Table 2: High-level outcome measures (source: NRSS)

Number of deaths/serious injuries resulting from road crashes
Number of road crashes resulting in deaths/serious injuries
Number of deaths/serious injuries per 100,000 population
Number of deaths/serious injuries per 100 million vehicle-kilometres travelled
Number of deaths/serious injuries per 10,000 registered vehicles

The NRSS sets out the high-level indicators that will be used to measure the success of the NRSS, but it is widely accepted that our capacity to accurately monitor injury levels is inadequate, and figures are unreliable.

Australia's target of a 30% reduction in death and injury over 10 years, by world standards is relatively weak, and is not able to be adequately monitored due to the lack of reliable injury figures (both baseline and annual updates). We seem destined to fall further behind the top performers within the OECD, but particularly within Europe which has a collective reduction target of 50% within the Decade across all EU countries. As can be seen from Table 1, an additional saving of approx. \$36.6bn will be made if Australia's target reduction is increased from 30% to 50% over the life of the NRSS.

If Australia is serious about increasing our world ranking in terms of road trauma reductions, then a more challenging target and an adequate monitoring system must be developed and implemented – as quickly as possible. As far back as the National Road Safety Action Plan in 1994, Australia has documented the need to introduce a comprehensive system for collection of trauma data from hospitals. Here we are 20 years later and we still have the same unmet need. This will require a strong commitment from Australia's leaders.

Costs and solutions too narrowly focused, largely uncoordinated

The 'management of road safety', a broad term to describe activities which impact on the many factors around safe road use in Australia, is currently concentrated within state and federal governments.

Solutions and costs are still often simply considered to be predominately in the transport and mobility sectors (users, vehicles, roads, enforcement) while benefits (less injuries/fatalities, improved productivity, reduced community and social impact) occur in another sector (health, insurance, industry, community) as much as in the transport sector.

The NRSS states in 'Making it happen', that 'the interventions must be supported by a series of management functions focussed on achieving results... An outline of the priorities is as follows:

- Adopting a results focus for implementation of the strategy
- Ensuring effective coordination of activity among all key players
- Ensuring rules are in place to back commitment to road safety
- Identifying funding and prioritising allocation of resources to safety
- Promoting a shared responsibility for road safety
- Monitoring and evaluating road safety progress
- Investing in research and development, and knowledge transfer
- Continuing to monitor road safety technology trends and advances domestically and internationally'.

At present it is difficult to see where the full range of these priorities are being actioned in a coordinated way to adequately 'make a difference'. There have been and continue to be many successful programs working to reduce the road toll, however these efforts remain largely uncoordinated or connected to a 'bigger picture'.

The police in all states and territories have very active and effective road safety programs. They are seen to be the ‘public face of road safety’ and have comprehensive strategies and targets to reduce road deaths and injuries.

Their focus is on changing driver behaviour through education and enforcement and also through the introduction of smarter and more effective enforcement technologies. They have some cooperative programs with other stakeholders, primarily other government agencies.

Motoring organisations individually and under the umbrella of the Australian Automobile Association (AAA) (representing 7 million motoring members) have many road safety campaigns and programs to encourage improved driver awareness and behaviours (e.g. Keys2drive), to have safer road infrastructure (e.g. AusRAP) and are stakeholders in the safer vehicle program ANCAP.

The AAA prepared a detailed report ‘Benchmarking the Performance of the National Road Safety Strategy - March 2014’ concluding ‘the trend in fatalities since the commencement of the road safety strategy indicates that the target of at least 30 per cent reduction by 2020 will not be met’ (BITRE, 2014).

Various cooperative campaigns have operated locally, across regions or nationally. For example a decade ago the AAA together with the Australian Trucking Association and the Australian Local Government hosted a Safer Roads Campaign which included groups such as the Australasian College of Surgeons and the Australian Road Research Board (ARRB).

Some sections of the corporate sector have started to invest effort and resources to manage road safety risk. Organisations are changing mode use and travel choices, specifying and investing in safer systems with safer vehicles, safer roads as well as user training to reduce crash risks. Organisations are helped in this regard by groups such as insurers, the National Transport Commission (NTC), the Australasian Fleet Management Association (AfMA), the National Road Safety Partnership Program (NRSPP), the Australasian New Car Assessment Program (ANCAP), SafeWork Australia, KidSafe, 33900, Fatality Free Friday and the many specific user groups (cycling, trucking, pedestrians etc), but much more can be done.

It is also apparent that much more can be done to increase efficiency and collaboration between groups such as these. Leadership can assist to ensure a coordinated and collaborative approach is adopted.

Some insurers - predominately compulsory third party insurers - actively invest in programs and projects such as road infrastructure to reduce road trauma, although these investments or their participation is currently not well recognised. For example, the 2014 report by the Productivity Commission into alternative funding of public infrastructure suggested that road safety was a trade-off between the cost of regulation and the benefits. The potential of investments in smart or specific road safety infrastructure by insurers or road users, such as corporations, was ignored.

While there is an NRSS for the current decade (which is currently under review) there is no single overarching national government, business, professional, research implementation program, action plan or budget to achieve the NRSS projected saving of \$55bn.

The reports to national Parliament by the Hon Catherine King in 2013, with a complementary response by the Hon Darren Chester were important, but regular high level benchmarking Australian performance against world best practice in reducing road trauma should be an issue for the Prime Minister and all of us.

Successful road safety coordination initiatives are occurring in other countries. These initiatives may help to inform Australia's future efforts, and include those detailed below:

- New Zealand – the National Road Safety Council NZ – ‘NRSC agencies’ refers primarily to the Ministry of Transport, NZ Transport Agency, Police and ACC. In addition to these four organisations, NRSC associate members are Local Government NZ (LGNZ), Energy Efficiency and Conservation Authority (EECA), Ministries of Justice, Health, Education, and Ministry of Business, Innovation and Employment (Department of Labour) (NZ NRSC, 2012)
- Europe – the European Transport Safety Council - ETSC is a Brussels-based independent non-profit making organisation dedicated to reducing the numbers of deaths and injuries in transport in Europe. Founded in 1993, ETSC provides an impartial source of expert advice on transport safety matters to the European Commission, the European Parliament, and Member States. It maintains its independence through funding from a variety of sources including membership subscriptions, the European Commission, and public and private sector support for various activities (ETSC)
- United Kingdom – the Parliamentary Advisory Council for Transport Safety - The Parliamentary Advisory Council for Transport Safety (PACTS) is a registered charity and an Associate Parliamentary Group. Its charitable objective is ‘To protect human life through the promotion of transport safety for the public benefit’. Its aim is to advise and inform members of the House of Commons and of the House of Lords on air, rail and road safety issues. It brings together safety professionals and legislators to identify research-based solutions to transport safety problems having regard to cost, effectiveness, achievability and acceptability. In recent years it has paid increasing attention to the links between transport safety, sustainability and public health (PACTS)
- Sweden – the SAFER Vehicle and Traffic Safety Centre at Chalmers is a joint research unit using competence from 27 partners from the academy, society and industry. SAFER provides multi-disciplinary research and collaboration to eliminate fatalities and serious injuries, making Swedish society, academy and industry a world leader in vehicle and traffic safety.

There has been progress in Australia to increase the level of bipartisan federal political interest in road safety. In May 2013 the ACRS presented the 2013 ACRS Submission to Federal Parliamentarians, to promote a higher profile for road trauma amongst Australia's leaders.

In June 2013, the then Federal Minister for Road Safety, Hon Catherine King and her Opposition Shadow Minister, Mr Darren Chester made concurrent statements to the House of Representatives on progress on the NRSS (Federal Minister for Road Safety, 2013) (Chester, 2013).

Darren Chester concluded his address

'...I finish where I started. I believe that elevating the issue of road safety in our national debate is an important measure. I commend the government for the work it has done in that regard. I welcome the minister's progress report. I commit the coalition to continuing to work in a bipartisan manner wherever possible to further the goals of the National Road Safety Strategy in the interests of saving lives and in the interests of reducing trauma and delivering economic benefits to all Australians'

Mr Chester in May 2014 (Chester, Parliament of Australia), speaking in the House of Representatives said;

'There are two other matters I want to raise today in relation to the Appropriation Bills. One is a far more bipartisan initiative which I am sure the Deputy Speaker is aware of. It is the formation of the new Parliamentary Friends of Road Safety group. It is a friendship group which has the support of me as a co-chair and Senator Alex Gallacher and has been initiated by members from both the House of Reps and the Senate and has received strong support in the six or eight weeks since its formation. The new parliamentary friendship group has an aim to elevate the issue of road safety to a new level within the Commonwealth and to help provide national leadership on issues relating to road trauma...Driver behaviour enforcement measures are important, but, in the complex equation of road trauma and improving road safety, we cannot be shy as a state government or as a federal government in recognising that the investments we make in road safety and infrastructure help to improve the outcomes for drivers, their passengers and other road users.'

This was in line with the Coalition's Road Safety Strategy, announced by the Leader of the National Party and now Deputy Prime Minister the Hon Warren Truss and Darren Chester in August 2013 (Federal Coalition, 2013).

'The Coalition will improve road safety through greater investment in roads, targeted training to learner drivers and parents, closer co-operation with state and territory governments and through undertaking a major study into road trauma...

The Coalition will continue to work with local, state and territory governments; motorists' associations; the Australian Automobile Association; road safety organisations like the Australasian College of Road Safety and the Australian Road Safety Foundation; as well as motorists and car makers to reduce road trauma.'

This overarching statement set a new direction for national road safety - a national commitment to specific programs and a national commitment to collaboration. It is vitally important that Australia as a nation seizes this opportunity - carpe diem. We need to harness and build on this momentum to ensure road trauma costs and solutions are adequately addressed, across all portfolios, and in turn ensure that our efforts are more coordinated.

Leadership and collaboration not of sufficient scale or breadth

As outlined above, management of road safety is currently concentrated within State and Federal Governments. The pressure on these departments is enormous, particularly in light of the current financial climate where we have seen large reductions in the workforce in these areas. The benefits to be gained from a commitment to strengthen Australia's leadership, collaborative approach, and management of road safety are also enormous.

With the benefit of reduced road trauma as stated in the NRSS, estimated to be around \$55b by 2020, there needs to be recognition that it is imperative for Australia's economy and productivity to invest heavily in upgrading our leadership capacity - both across government and non-government sectors. This significant investment will bring financial and social benefit to our country many-fold over the coming years. It will also ensure we can regain an improved ranking against world's best standards.

We have seen the benefits - more strategic and better-coordinated funding over time, and strategic solutions, particularly in Europe. These benefits include better injury outcomes and a substantially reduced impact on the community and economy.

Australia needs:

- Collaboration to lead to consensus on key strategies for action
- Sustainable partnerships that can deliver specific support and change over time
- Funding that recognises the need for and benefit of investment in key changes
- A consistent face to the community to support the development of new behaviours that in turn are more attuned to improved safety outcomes.

Leadership and stakeholder landscape undergoing continual change

Australia's federated system forces responsibility for road trauma reductions to be spread across a wide landscape of national, state, local governments, community groups and many other non-government stakeholder organisations. At the moment there is little clarity around which organisations are responsible for implementation or oversight of various aspects of the NRSS.

As an example of the continually shifting landscape, during development of the National Road Safety Research Framework in 2012/2013 the College, together with the National Health and Medical Research Council and the Department of Infrastructure and Regional Development (at that time the Department of Infrastructure and Transport), developed the 'Road Safety Stakeholder Mud Map' included at Attachment 3.

Even during the brief period between the development of that Mud Map and today (approximately 18 months) the landscape has changed considerably, particularly at a national level. In addition, apart from this Mud Map there is no *current* flowchart outlining road safety stakeholder relationships that is available and promoted publicly.

The rapidity of change in organisational/management structures is proving detrimental to well-managed oversight of the NRSS. How can road safety stakeholders adhere to a 'bigger picture' such as the NRSS when the landscape is constantly changing? If a document of this nature was available and updated regularly it would help all stakeholders to understand this 'bigger picture' in terms of responsibilities and oversight of the NRSS, and would engender a greater sense of inclusion and ownership by all parties. It would also undoubtedly create efficiencies.

An example of a new program that has been initiated during the last 12-18 months is the National Road Safety Partnership Program – a program aimed at addressing corporate road safety. This new program offers a collaborative network to support Australian businesses to develop a positive road safety culture. Whilst this new program provides a boost in terms of safety outcomes for Australian businesses, there is some overlap with similar programs that are already in place. These existing programs include the Fleet Safety Coalition, the Australasian Fleet Management Association, and CARMA for example.

There doesn't appear to be a mechanism in place to ensure a collaborative, efficient outcome is achieved to address each initiative. The number of organisations operating in the same space has the potential to be confusing for the community who are seeking access to the most reliable resource. Are relevant commonwealth bodies also included in these decisions?

When looking at today's NRSS there is minimal linkage to past National Road Safety Strategies or Action Plans – at least none that is available publicly, to the wider group of stakeholders. The College has maintained an extensive collection of hard copy material and we have therefore been able to locate hard copies of relevant reference material that is not currently available online. This includes the National Road Safety Strategy 2001-2010 as well as National Road Safety Action Plans for 1994, 1996, and 2001/2002. The connections between aims of past strategies and action plans and those set out in our current NRSS are not immediately evident.

For example, the Foreword for the NRSS 2001-2010 includes the following:

'In Australia's federal system of government, road safety strategy and policy measures are principally driven by the States, Territories and local government who conduct their own comprehensive programs. The Commonwealth role is to collate statistics, conduct and coordinate research, fund National Highways and the treatment of black spots, regulate new vehicle standards and monitor vehicle safety recalls, and facilitate the sharing of ideas among stakeholders'.

If we look at a particular aspect of this statement, the Commonwealth role is not specifically stated in the current NRSS. Specifics such as responsibility for the role of 'conducting and coordinating research' are not mentioned in the current strategy, apart from inclusion as broader actions within the first three years to 'engage with key stakeholders to exchange expertise, experiences and research' and 'ensure that jurisdictional and Austroads road safety research programs adequately support the objectives of this strategy'. The development of the NRSRF went some way to filling this gap, but there is still a lack of coordination and ownership of this Framework that will detract from potential achievements.

The current NRSS does state however that ‘there is scope for greater national collaboration to determine and implement ‘best practice’ approaches in key road safety areas’. This is a step in the right direction, but there is no Action Plan to delegate ownership or responsibility. As stated above, in the past there were Action Plans in place to support each NRSS. Why is there no longer a similar system in place to encourage ownership and accountability for us all?

The concerns outlined above go some way towards illustrating the issues faced by all stakeholders, in being able to adhere to a ‘bigger picture’ such as the NRSS, when there is little stability in terms of the Australian road safety landscape.

Initiatives in assisting and being a connector

National and other road safety strategies and international action plans all have the same aim; to improve road safety results. All countries aim to be world leaders in this regard, not least of all Australia.

As noted above, Federal MP Darren Chester sees a need to ‘elevate the issue of road safety to a new level within the Commonwealth and to help provide national leadership on issues relating to road trauma.’

It is obvious that leadership and cooperation would help to develop scale and synergy to accelerate what Johnston et al suggest are necessary to achieve ‘six vital steps to zero’ - with a renewed focus.

These six are;

1. Constituency - a strong public demand for change
2. Committed leadership - to help create constituency and drive change
3. Climate of Safety
4. Capacity building - professionals need capacity to embrace transformational change
5. Cooperation and coordination
6. Courageous patience

A level of transformational change is already occurring in vehicles, roads, transport modes, pricing, insurance and importantly personal ‘connectedness’. Just as these changes are disruptive to conventional activities in many other sectors of the economy, they will be as disruptive for traditional methods of personal and freight logistics and travel. Travel demand itself is changing.

Recognising, coordinating, and building on opportunities across these and many other sectors to help reduce road trauma, will be a new major challenge for Australia. Some countries, for example Japan, France and Sweden, have made major policy moves to ensure they address the rapid introduction of new mobility technologies (2013 ACRS PC Submission).

The College is currently assisting in many ways to reduce road trauma and create a greater ‘connectedness’ amongst all stakeholders, including bringing a stronger focus to the need for increased funding support, collaboration and strong leadership. Some of these achievements are outlined below.

ACRS Achievements

The ACRS has always, and will continue to, operate in order to achieve the six vital steps to zero as outlined by Johnston et al 2013, as well as to achieve the aims of the NRSS and the UN Decade of Action for Road Safety.

Since the commencement of the NRSS in 2011, the College has progressively implemented actions to improve connectivity between professionals, practitioners and institutions (government and non-government) to help build capacity. It has continued cooperative work at national, state and local levels, and through Chapter programs often linked to national activities.

The College has opened effective dialogue with many other stakeholders and related organisations, including for example political parties, the 33,900 Road Safety Collaboration, the Federal Parliament, the National Health and Medical Research Council, Police, Local Government, carer and medical associations, etc.

These actions have included (amongst others);

- The holding of multiple Australasian and Chapter events across a diverse range of subjects, from older drivers to safer vehicles, road safety communications and the safe system.
- Together with ARRB, hosted a round table in Parliament House Canberra In preparation for the launch of the Global Decade of Action for Road Safety, on 3 March, 2011 (ACRS & ARRB, 2013), connecting professionals, academics and practitioners.
- Presentation of a comprehensive Submission to Federal Parliamentarians prior to the 2013 election (ACRS, 2013). This submission, actively supported by the Australasian College of Surgeons and Carers Australia, set out the ripple effects of road trauma across 13 different Federal Government policy portfolios and called for all federal politicians to:
 - Reflect on the personal impact of the road trauma ripple effect, and
 - Ask all Australians to do the same;
 - Provide strong leadership and support for a coordinated approach towards road trauma reduction; and
 - Raise our collective level of ambition and commitment to recommended directions as outlined in the body of this report.

(Similar steps suggested by Johnston et al above)

- Supporting the development of the newly established - May 2014 - federal Parliamentary Friends of Road Safety group (Parliament of Australia, 2014).
- Maintaining a close connection with the College's eminent Patron the Governor-General of Australia, His Excellency General the Honourable Sir Peter Cosgrove AK MC. Support from the Governor-General has included activities such as the most recent Governor-General's video message (Governor-General of Australia, 2012), prepared for a recent conference, as well as personal presentation of College awards (Governor-General of Australia, 2006). Major General Michael Jeffery, also ACRS Patron during his term as Australia's Governor General, provided strong support as referenced above (Governor-General of Australia, 2006).
- The holding of successful Australasian road safety conference in 2013 in Adelaide, in Sydney in 2012 and Melbourne in 2011. The 2013 conference for example had a road safety communications theme. The messages from that conference along with other communications program information are being workshopped further through the College Chapter network in a 2014/2015 series of seminars (ACRS, 2014) .
- In partnership with a major business organisation, 3M, ACRS developed the prestigious 3M-ACRS Diamond Road Safety Award (ACRS, 2014). This annual award has provided

recognition to exemplary road safety initiatives, including those from major company and community organisations to invest to reduce road safety risks. Award winners include:

- The BHP-Billiton Mitsubishi Alliance in Queensland (ACRS 3M Award, 2013);
 - An innovative multifaceted community and hospital driven program to ensure adequate seating for vehicle passengers with disabilities - Project TOCAN (ACRS 3M Award, 2012); and
 - A cooperative program lead by a local police sergeant to coordinate infrastructure, education, community and enforcement road safety actions in a regional town – Project RAPTAR (ACRS 3M Award, 2011).
- In partnership with the National Health and Medical Research Council, holding a National Road Safety Research Workshop during 2013, culminating in the development of a Draft National Road Safety Research Framework (ACRS NRSRF, 2013). This work has already encouraged more cooperative research projects and has the potential to encourage the building of better scale in Australian road safety research. It is planned that this framework will be considered for joint endorsement by the Federal Health and Road Safety Ministers.
 - During 2011 the College initiated an ACRS Weekly Alert e-newsletter which has in 2013 been converted to an online version. Circulation of the e-newsletter is increasing amongst ACRS membership as it provides an easily digestible weekly snapshot of the many road safety-related news items and events around Australasia and the rest of the world. The newsletter has a wide readership averaging 700-1,100 per week, and is a key tool in the development of connectedness and capacity building (ACRS Weekly Alert Newsletter).
 - The College has developed and now maintains an online database of papers for annual Australasian Road Safety Research Policing and Education conferences. This has provided researchers, authors and the general public with an accessible, up-to-date repository of these important publications (ACRS - ARSRPE Papers, 2014).
 - A similar online database for ACRS conference and journal papers is being developed. This is planned to come online mid-2014 on the ACRS website (ACRS - ACRS Conference & Journal Papers, 2014).
 - ACRS continues to publish the quarterly ACRS Journal, which is the only road safety dedicated peer-review journal (ACRS - ACRS Journal, 2014). A guest editor program has been introduced encouraging cooperation with like-minded groups. One recent example was an edition focusing on global safer vehicle programs which reported on world NCAP programs to introduce safer vehicles. This was a world first.
 - The College has proposed a project to merge the Australasian Road Safety Research Policing and Education Conference and the ACRS Conferences to encourage further reduction in duplication and increased cooperation. It is envisaged that a successful merger of the two most prominent/ eminent road safety conferences in the southern hemisphere will build synergy and maintain ongoing themes to also help build scale and capacity. This will also provide an enhanced opportunity for coordination and cooperation, as well as

encouraging participation from other specialists and practitioners across the broader road safety/trauma spectrum.

- Through its membership the College has a unique capacity to draw a wide diversity of people involved and interested in road safety together and to facilitate much of the collaboration and commitment needed to make a substantially bigger difference than we have achieved in Australia in recent years.

Recommended Actions

The NRSS launched in 2011 and now being reviewed, still has no cohesive action plan or budget linked to the proposed achievements, despite the efforts of many federal, state, professional and other bodies mentioned in the body of this report.

It is instructive to consider the recommendations from the Wegman Report for South Australia (Wegman, 2011-12) as an example of a proposed national work program. The report reflects world best practice for improving road safety results – vitally important if we want to again become a global leader in road trauma reduction. The report is also useful in demonstrating where existing programs are overlooked, perhaps misunderstood, or where they are already poorly resourced.

ACRS recommendations aimed at increasing Australia's commitment and achievement in terms of road trauma reductions are outlined below.

Increase commitment to collaboration and inclusion across all levels

Develop a central repository for reliable documentation such as flow charts which outline relationships across the road safety spectrum (e.g. Attachment 3 – 2013 NRSRS flowchart, already outdated). The flowchart should have clear responsibility for ownership and maintenance of this document, and assurance that this document will be publicly available for the entire community to refer to. This will inevitably be a 'living document' due to the fluid nature of politics, funding and organisational structures.

Recognising that reducing road trauma does not have to always be an additional cost or regulatory burden must be a key factor of the design and implementation of a Towards Zero vision. System designers and investors need to realise that safer roads, safer vehicles, safer mobility systems can in many cases be achieved at relatively small costs to the very large benefits.

Develop overarching plans to decrease the current fragmented approach

Develop a National Road Safety Action Plan

Develop a National Road Safety Action Plan that is encumbered with a sense of ownership by the entire community. Obtain collective agreement by road safety groups themselves (government at all levels, business, researchers, practitioners, insurers, community groups)

to a Road Safety Action Plan which builds national and international partnerships, reduces duplication, and which leaders can join and promote.

Develop a National Road Safety Budget

Develop and implement a national road safety budget to focus attention and enhance resource coordination. That budget though should recognise the size of the problem (\$27 billion+ annually) and the scale needed to be effective. Give adequate consideration to funding at sufficient scale, some of which funding could come through careful review and redistribution of funding to current programs.

Initiate a coordinated focus on injuries – collection of data and accurate baselines

Urgently develop an agreed standard national definition of ‘serious injuries’, using world’s best practice to formulate and implement this definition. Use this definition to ensure accurate baseline and monitoring data is collected to enable a results-driven focus on serious injury outcomes for the NRSS.

Encourage broad recognition of the economic and productivity gains from reducing road trauma, across all portfolios, organisations and the Australian community

Develop a plan to encourage broad recognition of the economic and productivity gains to be made by significantly reducing road trauma – across all portfolios, organisations and the Australian community. Road trauma should be assessed as a vital factor in the Australian national economy and a national budget which recognises the real scale of the problem; set to ensure that reduction targets are met with safety targets included in all road infrastructure, vehicle and technology related spending as well as in mobility planning.

Develop a Road Safety Communications and Marketing Plan

Develop a road trauma reduction Communications and Marketing Plan, ensuring input from a wide range of organisations, including media and communications specialists. Communications today is national and international. While local, regional and state based messages to drivers and road users may best made locally, the equipment, the engineering, the information and experiences which will promote safe systems are at least national and often international.

Develop a National Road Safety Research Plan to complement the NRSRF

Develop a national road safety research plan and national research budget involving government and industry, which should include a national database of incidents and research

which has a focus on timely and practical results. The Australian Research Council has no benchmark plan to support road safety research, and such work is not even listed in their Fields of Research (FOR). Road safety research must be elevated as a key national field of endeavour.

Develop Safety Targets for Vehicles and Roads

Develop targets to ensure safety is actively encouraged in vehicles and also roads. Real reductions in reducing trauma are occurring with newer, safer vehicles in the fleet (Anderson, 2014). All fleet managers as well as private consumers should be actively encouraged to specify and buy the safest vehicles - 5 star ANCAP cars and light commercial vehicles.

Equally, new motorcycles, trucks and buses should be set targets to be equipped with new safety assist technologies to keep up with world best practices. Imported vehicles must be encouraged to be at world best safety levels.

Ambitious targets should be set for AusRAP safety ratings for national highways and major roads. Leading countries have such targets;

- Sweden - 75% of travel on safe (3 or 4-star) roads by 2020.
- Netherlands - minimum 3-star for national roads by 2020.
- New Zealand - 4-star for “roads of national significance”.
- World Bank Projects are adopting minimum 3-star designs.

Encourage constituency across the community – an innate desire to expedite trauma reductions

Financially support and encourage collaborative organisations such as the ACRS, who have been proven to deliver results and who achieve results with a high Benefit Cost Ratio (BCR). Utilise experiences of other countries such as Sweden, New Zealand, the UK and Europe to guide Australia’s efforts to increase constituency across the entire community and full range of government portfolios.

Develop demonstration projects - Collaborative identification and implementation of new programs

Develop and implement a suite of significant demonstration projects to highlight new effective programs. These programs should be widely communicated and implemented. They may be area specific or linked to similar international projects which are already underway.

Support increased international collaboration

Empower Australia's leading research and management facilities to increase international collaboration, particularly where similar programs are operating across a variety of countries.

Increase Australia's leadership capabilities

Empower road safety groups themselves - government at all levels, NGO's, business, researchers, and practitioners - to collectively agree to an action program which builds national and international partnerships, and which leaders can join and promote.

Commit to continued measurement of our success against world best standards

Ensure there are adequate mechanisms in place to regularly monitor and report national achievements on a global scale, including against OECD country achievements.

Remain courageously patient (and committed), and celebrate the achievements!

Celebrate achievements by, for example, supporting recognition of outstanding achievement across local, national and international communities.

Conclusions

The 2014 ACRS Submission to the Australian Road Safety Community informs all Australian road trauma reduction stakeholders of the significant impact we can have on the productivity of Australia, and the collective social benefit we can bring to our nation, by reducing road trauma.

We can bring Australia's ranking amongst OECD nations back to historical levels where we were once world leaders. We can even exceed this target. We can bring Australia's target reductions in line with those of Europe, and we can raise our collective ambition to meet this target.

Much can be done, and not necessarily requiring a significant outlay from the government. We have successfully reduced road trauma rates dramatically over the last 40 years despite past views that such reductions were not possible. Reduction rates, particularly road injury rates, have now plateaued (or may even be rising) even though we have better knowledge and technologies.

We need to reignite that past determination to save lives and prevent injuries.

The causes and consequences of road trauma impact many federal departments, and exist regardless of which party makes up the majority in Parliament. Our ability to address road trauma is therefore spread across these many portfolios, meaning a collaborative effort across all portfolios has the greatest potential to increase the wellbeing of our nation.

International studies and well-researched recommendations emphasise the value and critical importance of national political leadership in road safety policy. The transport system is a public good, and on that basis alone governments, including the Federal Government, should make the safety of our transport system a priority.

The College urges all road safety stakeholders to:

- Consider fully the serious impact of road trauma on Australia's productivity;
- Accept that Australia's achievements in reducing road trauma is declining by world's standards; and
- Raise our collective level of ambition and commitment, to meet the recommended directions as outlined in the body of this report.

The ability for all of us to 'make a difference' that is felt by all Australians is a real incentive to drive genuine change across the many systems and organisations involved in achieving road trauma reductions.

We look forward to continuing to work together to make significant reductions to the level of road trauma experienced in our nation. The wellbeing of our nation as a whole will benefit greatly as a result. In turn, all of you, as determined and committed road safety stakeholders, will achieve a high level of personal and professional satisfaction.

We welcome comments, suggestions, and above all, support for the proposed recommendations.

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Attachments

Attachment 1 - 2013 ACRS Submission to Federal Parliamentarians (excerpt)

Imagine the consequences...

Imagine if our nation was providing defence forces to combat war overseas, and that *25 soldiers were dying and 600 being seriously injured each week* - week after week, year after year. Imagine if there was no end in sight, and the wartime fatalities had increased in the last calendar year compared to the year before. The public and political pressure to end these mass casualties would be immense.

Imagine if there were 5 Boeing 737 crashes every week in Australia, with *25 passengers dying and 600 being seriously injured each week*. The public outcry would be enormous, the effects on our nation soul destroying. Every effort would be made to stem this tide of death and injury.

Imagine if there was an epidemic which consistently, year after year, was the leading cause of casualty in our population for 1-44 year olds. Imagine if it was the leading cause of death and injury in our young people between the ages of 15-24. The forces mobilised to counteract this epidemic would be enormous.

Imagine the effects on health system if our hospitals were dealing with the injured from these plane crashes, war events or epidemics – *over 600 people per week* - reaching the emergency doors with serious injuries, enduring lengthy hospital stays and for some a lifetime of disability.

Imagine the strain on our disability services and community support structures if our communities were dealing with these injured people – *over 600 people per week* – some requiring extensive and costly lifetime support.

Imagine the consequences of these deaths and injuries on our communities – the 25 deaths per week resulting in outpourings of grief from our families and communities, and the 600 people each week who are released from hospital to be cared for by families and communities in the longer term.

Imagine if the annual costs to our economy of these plane crashes, wartime efforts or epidemics was estimated to be over \$27 billion. This is more than Australia's current annual defence budget of \$26 billion. The political and social pressure to solve this problem would be enormous.

This is the road trauma reality – 25 people dead and 600 seriously injured every week.

Week after week.

Year after year.

The impact of road trauma is all-encompassing, covering the full spectrum of the political agenda. A much stronger focus on saving lives and injuries on our roads, covering all age groups and user groups, and including all facets of road crashes such as trauma services and post-crash care, would have a major impact on our economic and social well-being. Many solutions are simple and cost-effective.

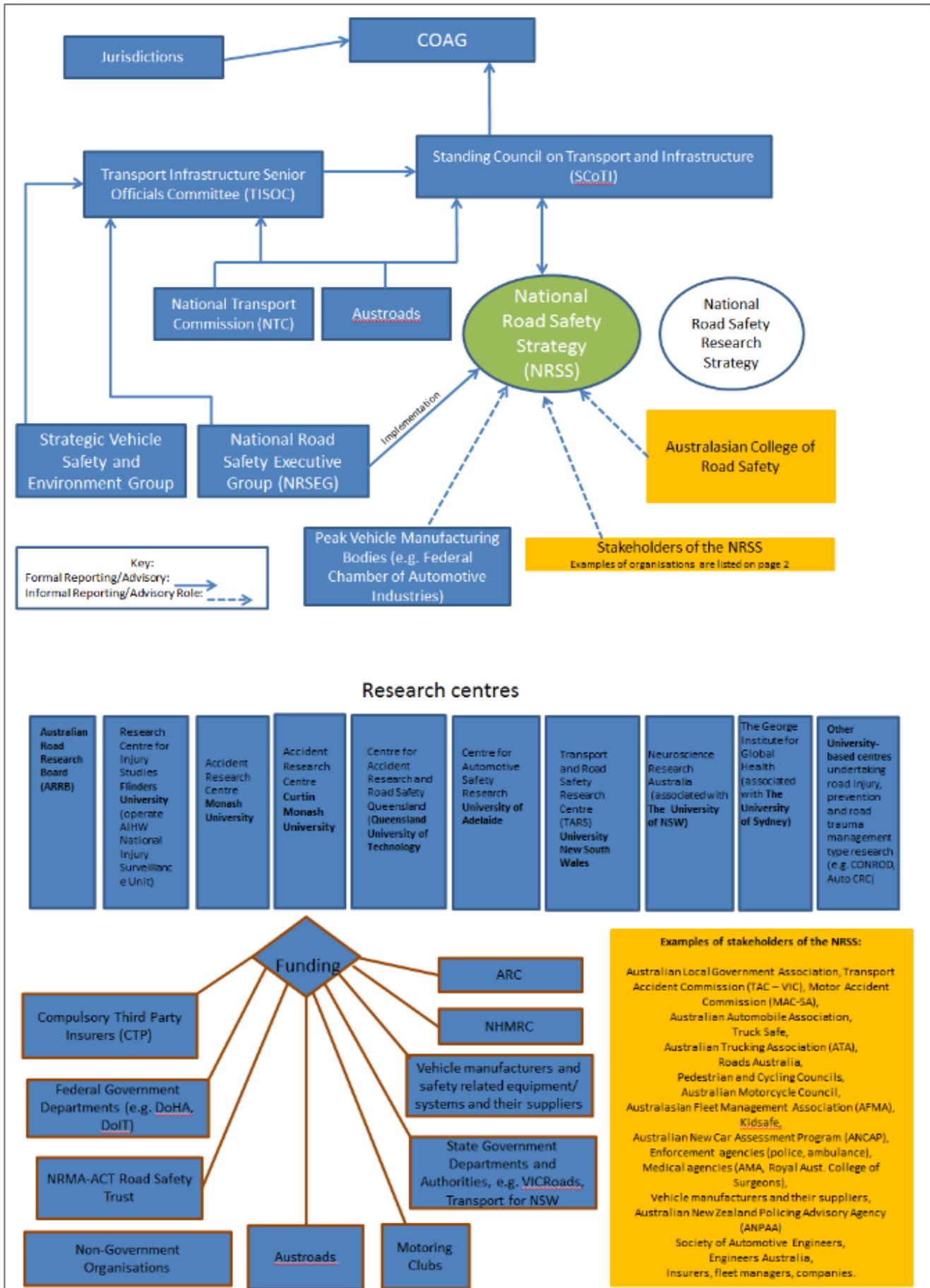
Attachment 2 – A small selection of current participants in Australia

Governments and non-government organisations are variously involved with good intent and outcomes in road safety activities. A small selection of these is listed below;

- *Federal government agencies across nearly all portfolios* – including those not immediately associated with transport management, such as health, social services, disability care, etc
- *SCOTI*
- *The Federal government* with responsibility for new vehicle safety with the Australian Design Rules
- *The National Transport Commission*
- *The National Road Safety Remuneration Tribunal* and the *National Heavy Vehicle Regulator*
- *ARRB*, providing research, consulting and information services to the road and transport industry
- *The Austroads' Safety Taskforce* - managing 32 projects with a budget of \$2m to progress the Program's objective to prevent death and serious injuries using a safe system approach. This Program is determined by the Austroads Safety Task Force, which has representatives from state and territory road agencies, the National Transport Commission, the Commonwealth Department of Infrastructure and Regional Development, and the Australian Local Government Association. The comprehensive research program relates to each of the four cornerstones of the safe system: safe roads and roadsides, safe vehicles, safe speeds and safe road users
- *State and local government road, transport and policing agencies* with specific responsibilities relating to road construction, operation and enforcement
- *Five university based research and teaching centres*; (CARRS-Q, TARS UNSW, MUARC, CASR, Curtin-MUARC)
- *Other research institutions* – including the AIHW, the George Institute, Flinders University, Deakin University etc
- *Research funding bodies* – including the Australian Research Council, the National Health and Medical Research Council, the NRMA-ACT Road Safety Trust etc
- *Specific interest groups* - such as Australian Trucking Association (Truck Safe); the Australian Automobile Association with the NRMA, RACV, RACQ, RACSA, RACWA, RACT and AANT (Keys2Drive, AusRAP; UCRS); the Australian Transport Workers Union, the Pedestrian Council; the Motorcycle Council and the Australian Bicycle Council, the Amy Gillett Foundation, the National Road Safety Partnership Program, the Australasian Fleet Management Association, the 33,900 Road Safety Collaboration, the Road Accident Action Group, the Australian Road Safety Foundation, Service Groups and many, many more
- *Healthcare representative groups* – including the AMA and the Royal Australasian College of Surgeons
- *Disability, Carer and Respite agencies groups* – including the NDIA and Carers Australia
- *ANCAP* - the Australasian New Car Assessment Program
- *ACRS* - the Australasian College of Road Safety
- *Insurance agencies*
- *Police and enforcement agencies*
- *Legal organisations*
- *Emergency organisations and medical professionals, including hospitals*
- *Work safety organisations*
- *And many, many more...*

Attachment 3 – Road safety stakeholder mud map (2013)

Extracted from the 2013 Draft National Road Safety Research Framework.
 - Although barely 18 months later, this chart is already out of date -



Appendices

Appendix 1

Appendix 1: Australian road trauma costs 2011-2020
Comparison of costs (\$b) – 30% vs 50% reduction targets

Year	Road Trauma cost baseline figures (assuming annual trauma reduction = 0)			30% reduction target against NRSS baseline figures				50% reduction target against NRSS baseline figures			
	Deaths (No.)	Injuries (No.)	road trauma cost \$b*	% reduction**	Deaths (No.)	Injuries (No.)	road trauma cost \$b*	% reduction**	Deaths (No.)	Injuries (No.)	road trauma cost \$b*
NRSS baseline	1,400	32,500	27		1,400	32,500			1,400	32,500	
2011	1,400	32,500	27.81	3%	1,358	31,525	26.98	5%	1,330	30,875	26.42
2012	1,400	32,500	28.64	6%	1,316	30,550	26.93	10%	1,260	29,250	25.78
2013	1,400	32,500	29.50	9%	1,274	29,575	26.85	15%	1,190	27,625	25.08
2014	1,400	32,500	30.39	12%	1,232	28,600	26.74	20%	1,120	26,000	24.31
2015	1,400	32,500	31.30	15%	1,190	27,625	26.61	25%	1,050	24,375	23.48
2016	1,400	32,500	32.24	18%	1,148	26,650	26.44	30%	980	22,750	22.57
2017	1,400	32,500	33.21	21%	1,106	25,675	26.23	35%	910	21,125	21.58
2018	1,400	32,500	34.20	24%	1,064	24,700	25.99	40%	840	19,500	20.52
2019	1,400	32,500	35.23	27%	1,022	23,725	25.72	45%	770	17,875	19.38
2020	1,400	32,500	36.29	30%	980	22,750	25.40	50%	700	16,250	18.14
Total	15,400	357,500	318.81		11,690	271,375	263.88		10,150	235,625	227.26

* assumes 3% CPI, and utilises \$27b figure estimate in NRSS 2011-2020

** assumes linear reduction over 10 years i.e. 42 deaths and 975 serious injuries (30%), and 70 deaths and 1,625 serious injuries per year (50%)

Appendix 2

Appendix 2: Australian road trauma reduction performance
In comparison to OECD countries, 2000-2012

Year	Fatalities per 100,000 pop				Fatalities per 10,000 registered vehicles				Fatalities per 100 million vehicle km			
	Rate	Position (rank)	No. OECD Countries	Percentile*	Rate	Position (rank)	No. OECD Countries	Percentile*	Rate	Position (rank)	No. OECD Countries	Percentile*
2000	9.5	11	30	63	1.5	8	28	71	0.9	5	21	76
2001	8.9	11	27	59	1.4	9	28	68	0.9	6	21	71
2002	8.8	10	27	63	1.3	8	28	71	0.9	5	21	76
2003	8.2	11	26	58	1.2	9	28	68	0.8	5	20	75
2004	7.9	11	26	58	1.2	9	28	68	0.7	5	21	76
2005	8.1	12	27	56	1.2	9	29	69	0.8	8	21	62
2006	7.8	12	26	54	1.1	9	29	69	0.7	8	21	62
2007	7.6	14	26	46	1.1	9	29	69	0.7	9	21	57
2008	6.8	11	27	59	0.9	12	27	56	0.7	9	21	57
2009	6.8	16	28	43	1.0	11.0	23	52	0.7	13	22	41
2010	6.05	14	30	53	0.8	11.0	27	59	0.6	11	22	50
2011	5.72	14	30	53	0.8	13.0	29	55	0.6	10	21	52
2012	5.72	16	33	52	0.8	14.0	30	53	0.6	12	20	40

Source Data https://www.bitre.gov.au/publications/ongoing/files/jirsc_2012_AllTables.xls

*Percentile = percentage of OECD countries that rank below Australia in terms of Fatality rate