

# South Australian Road Safety Action Plan

## 2008-2010



**Safer Roads. Safer Speeds. Safer Road Users. Safer Vehicles.**



Government of South Australia  
Department for Transport,  
Energy and Infrastructure







# Road safety is everyone's responsibility

## A message from the Minister for Road Safety, Hon Carmel Zollo, MLC

In September 2003 the Government released the *South Australian Road Safety Strategy 2003-2010*, outlining a comprehensive approach to reducing road trauma. Through the *South Australian Strategic Plan 2007*, the Government has recommitted to achieving two road safety targets - less than 90 fatalities and less than 1000 serious injuries each year by 2010.

While South Australia has seen the largest proportionate decline in fatalities of any State or Territory since 2003 and serious injuries have declined by 15% between 2000 and 2007, further intervention will be required in order to meet our targets.

It is therefore timely to develop this *South Australian Road Safety Action Plan 2008-2010* to take us through to the end of 2010. This *Action Plan* highlights the key priority actions under the areas of Safer Roads, Safer Speeds, Safer Road Users and Safer Vehicles over the next three years, in order to achieve our 2010 targets.

This *Action Plan* recognises the importance of community engagement and participation in road safety. This will involve working more closely with Community Road Safety Groups and Local Government so that we can better target road safety initiatives and programs in communities. Strategically influencing and engaging with profit and not for profit organisations on road safety issues and linking road safety messages with other community programs will also be important.

The *Action Plan* also highlights the close liaison between key road safety stakeholders and this will continue to be further strengthened. The Department for Transport, Energy and Infrastructure, the Road Safety Advisory Council, SA Police, the Motor Accident Commission, Local Government, the transport, health and education sectors, the Centre for Automotive Safety Research and the RAA all play critical roles in reducing road trauma.

Road safety is everyone's responsibility, and this *Action Plan* has been developed to inform, support and empower the South Australian public to take action to reduce road trauma. I look forward to working collaboratively with the community and all road users and representative groups to achieve our goals.



Hon Carmel Zollo MLC  
Minister for Road Safety

# Safer than ever before

There have been over 12,700 lives lost in South Australia as a result of road crashes since 1950. Since recording of serious injuries began in 1968, about 101,000 people have sustained serious injuries requiring admission to hospital. The direct cost of road crashes to South Australia is estimated to be approximately \$900 million each year. This does not account for the immeasurable grief for families and friends of those killed or seriously injured.

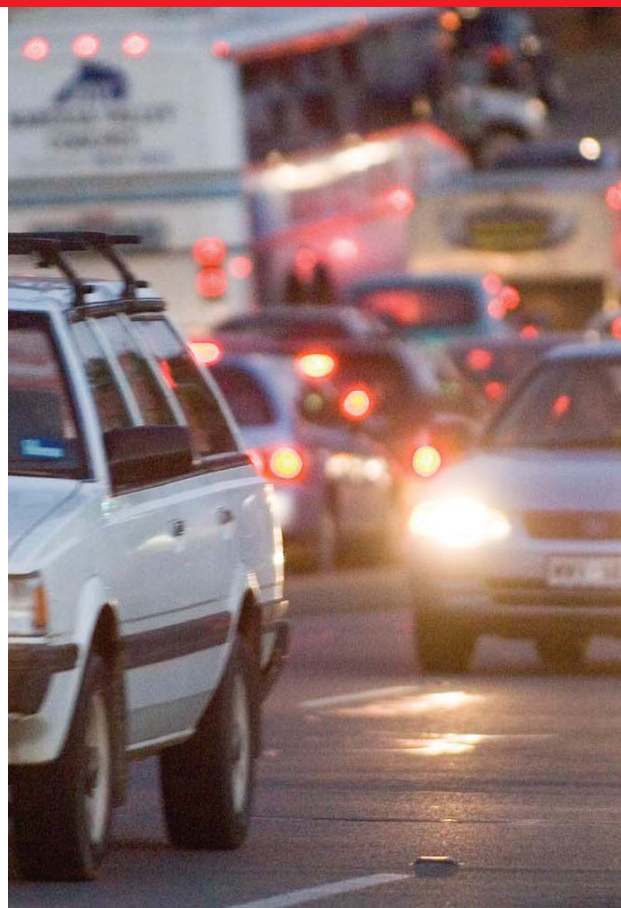
Though the impact of road trauma is significant, we are safer on our roads in South Australia than ever before. Over the past 25 years, the number of vehicles on the road and the amount of vehicle travel has increased by between 40% and 50%. At the same time fatalities and serious injuries have decreased by more than 50%. Over the last five years in particular, an extensive range of road safety initiatives have been introduced that collectively have contributed to the South Australian road toll falling to an all time low in 2006.

The focus of many of these initiatives has been on improving road user behaviour, through measures such as immediate loss of licence for high-level speeding and drink driving in 2005, the introduction of random roadside drug testing in July 2006, the establishment of the 32 Community Road Safety Groups operating across regional South Australia and the sponsorship of various road safety events and programs.

The introduction of enhancements to the Graduated Licensing Scheme (GLS) in 2005 has also contributed to a significant improvement in safety by encouraging new drivers to gain experience and skills under controlled driving and licensing conditions. These behaviour-oriented initiatives have been backed by wide ranging public information and police enforcement campaigns.

A reduction in the urban default speed limit to 50 km/h, a reduction in the speed limit from 100 km/h to 80 km/h in the Adelaide Hills, and a reduction of 1100 kms of rural road speed limits from 110 km/h to 100 km/h, have also resulted in a significant reduction in casualty crashes. Community requests for lower speed limits have been implemented and community engagement will continue to play a key role in increasing safety outcomes.

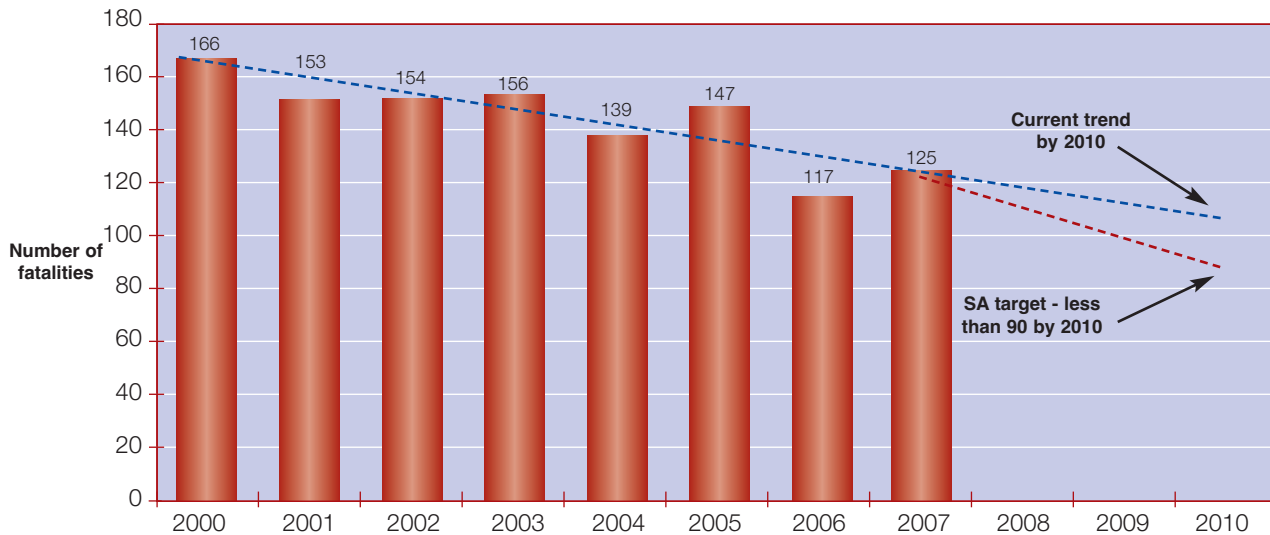
On other fronts, good progress has also been made in improving the safety quality of road infrastructure. A number of safety related infrastructure improvements have been made including sealing shoulders on rural roads, adding audio tactile edge lining, installing crash barriers, implementing Black Spot projects and construction of overtaking lanes.



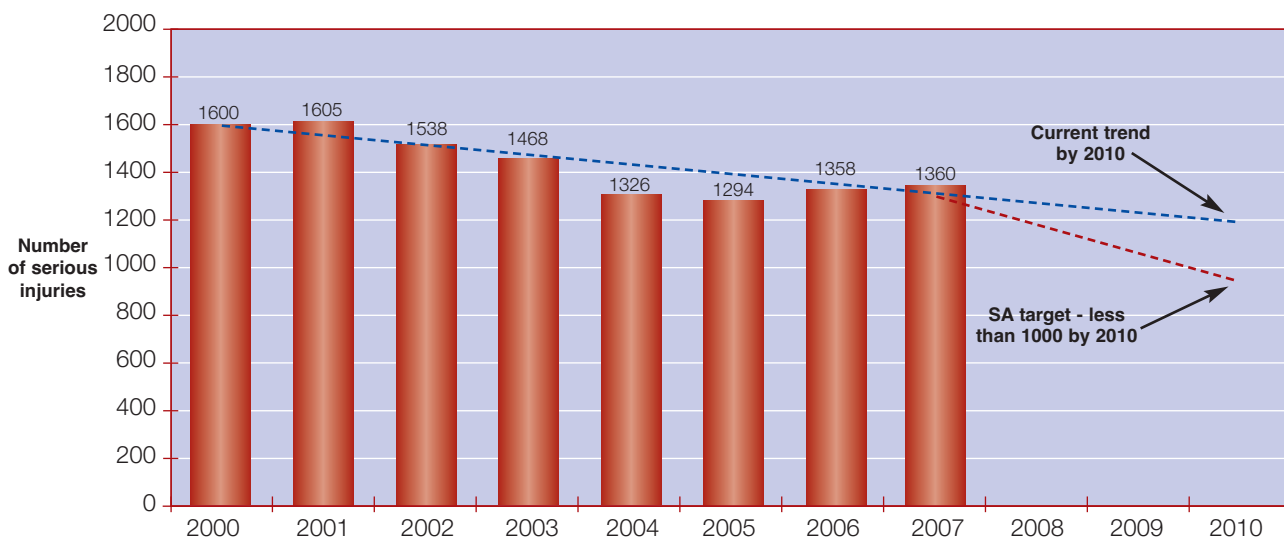
Also encouraging is the uptake of new vehicle safety technologies. Safer vehicles reduce the likelihood of death or serious injury in the event of a crash and electronic stability control can significantly prevent crashes whilst curtain side air bags can significantly reduce crash consequences.

However, despite the downward trend in fatalities and serious injuries, new initiatives need to be introduced and/or current programs intensified in order to meet South Australian road safety targets.

### South Australian fatalities due to road crashes 2000-2010



### South Australian serious injuries due to road crashes 2000-2010



# Towards a Safer South Australia

Across Australia, the Safer System approach is being used as the framework for improving road safety. The Safer System is based on extensive analysis, research and experience. It recognises that ongoing effort is required to ensure that road users are well informed and educated about responsible use of the road transport system, and action is taken when those responsibilities are not met. It also recognises that no matter how well road users are trained and educated about responsible road use, how much crash risks are understood, or how much enforcement of road rules is undertaken, human error is inevitable.

The Safer System approach therefore requires the road transport system to make allowances for human error, in the design and management of both the road environment and motor vehicles, and in the setting of speed limits. The centre of this system approach is the human tolerance to physical force – the amount of force that can be exerted on the human body beyond which fatal or serious injury can be expected to occur.

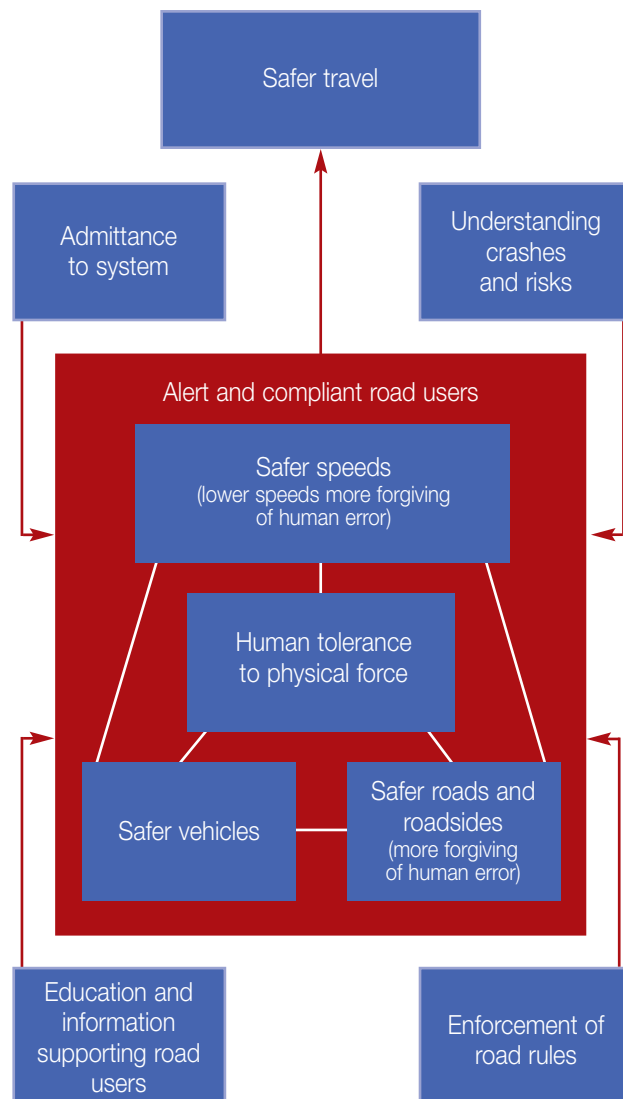
Using the Safer System principles, this plan outlines four areas containing the priority road safety actions in South Australia over the remainder of this decade.

**Safer Roads** – designing, constructing and maintaining roads and roadsides to reduce the risk of crashes, and minimise the severity of injury if a crash occurs.

**Safer Speeds** – setting speed limits that take into account the level of risk on the road network and the benefits of lower speeds in minimising the incidence and severity of injury in the event of a crash.

**Safer Road Users** – informing and educating users about safe use of the road, licensing motor vehicle drivers/riders, and taking action against those who do not comply with the rules.

**Safer Vehicles** – designing and maintaining vehicles to minimise the risk of crashes, and the severity of injury to motor vehicle occupants, pedestrians, and cyclists if a crash occurs.







The aim of this *South Australian Road Safety Action Plan 2008-2010* is to help bring about a major reduction in road trauma. The focus is on measures that have the greatest likelihood of achieving significant reductions in crashes and trauma, and are known to be cost effective based on evaluation and targeted road safety research.

This *Action Plan* has been developed as a unifying document for all government agencies concerned with road safety to continue to work towards reaching South Australia's fatality and serious injury targets by the end of 2010. Particular governmental responsibilities lie with:

- Department for Transport, Energy and Infrastructure (DTEI), which is responsible for managing the State arterial road network, regulating the safety of drivers and vehicles, safety management and coordination activities such as data analysis and policy development.
- Motor Accident Commission (MAC), which is responsible for third party injury insurance, and the State Government's road safety advertising and information program.
- South Australia Police (SAPOL), which is responsible for road safety enforcement.
- Local Government, which represents community interests and manages local road networks.

Many other Government agencies play a significant role, including the Departments for Health, Education and Children's Services and South Australian Emergency Services. The *Action Plan* does not attempt to focus on every agency that is involved with road safety, but each of the nominated agencies within the *Action Plan* can be expected to engage effectively with all such stakeholders as they take leadership in their area. Private and commercial user groups, relevant businesses, local government and Community Road Safety Groups all need to continue to be involved in a multitude of activities that are related to improving road safety and reducing the impact of road crashes on the community.

The Road Safety Advisory Council (RSAC) has a particular role to play in bringing various interests together and providing the Government with advice on road safety. The specialised Task Forces that report to the RSAC also play a key role in examining road safety issues and providing advice on programs and initiatives.



# Safer Roads

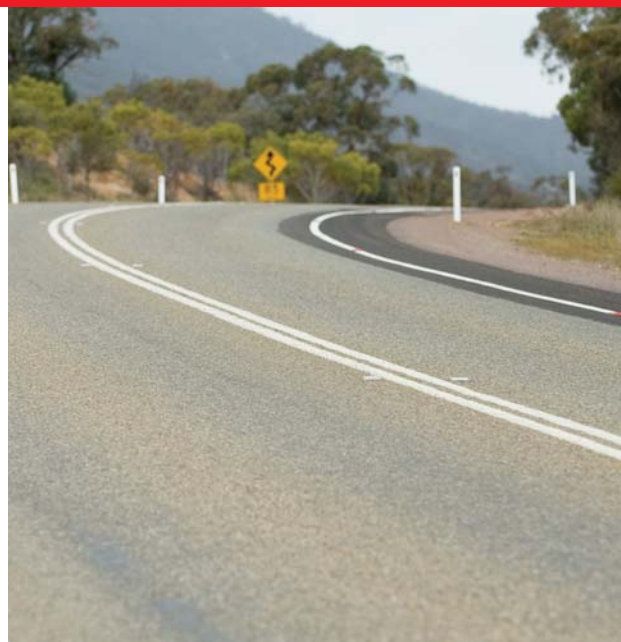
## Safer and more forgiving roads and roadsides

Treatments on the road and roadside can play a significant role in either preventing a crash, or minimising trauma in the event of a crash occurring. Alongside the safety improvements that can be expected from major road infrastructure projects and ongoing maintenance programs, more attention needs to be placed on improving the crashworthiness of the current road network.

Improvements need to be focused on those roads carrying the greatest volume of traffic with the highest crash risk. Consideration needs to be given to regional needs, and Black Spot treatments will continue to address safety on high crash sites and complement the overall safety on key routes. Safety by design must be an integral part of transport planning and increasingly become a key element in land use planning to ensure longer term safety benefits for all road users.

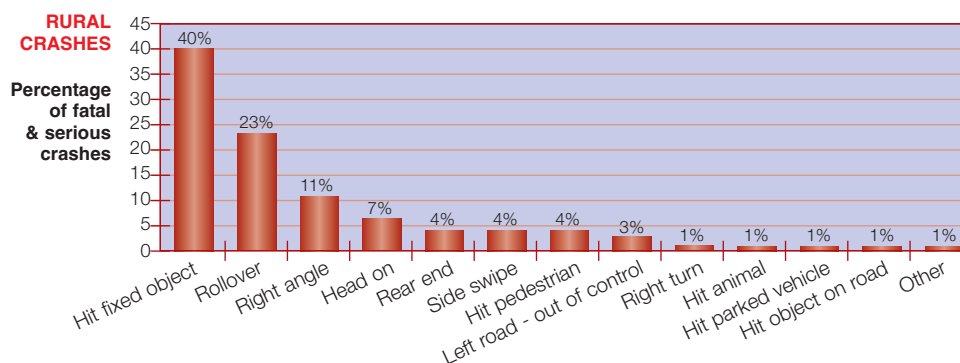
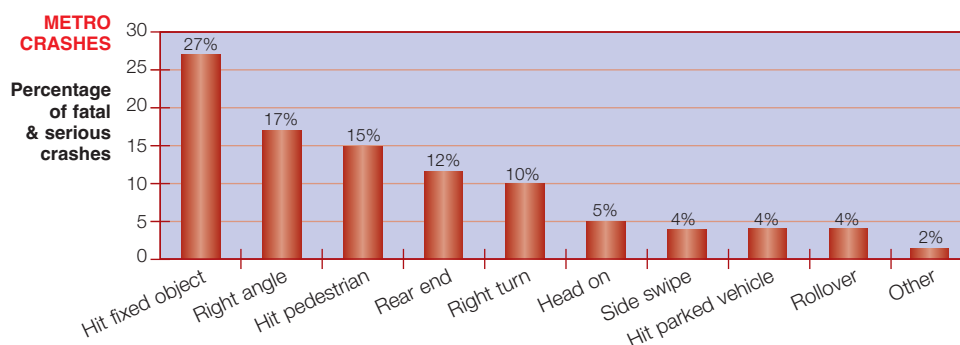
### What is known:

- Greater levels of investment in improving the crashworthiness of roads could reduce road trauma by up to 48%.
- Black Spot treatments continue to provide strong crash cost reductions, with returns currently estimated at \$7 for every \$1 spent.



- Shoulder sealing can reduce crash risk by up to 40%.
- Nearly two thirds of country fatalities and serious injuries occur on straight sections of roads.
- The most common type of fatal and serious injury crash in South Australia is hitting a fixed object. In rural areas 40% of serious casualty crashes are due to hitting a fixed object, while in metro areas 27% are hit fixed object crashes.
- Trees are the most common hazard in rural crashes, and stobie poles the most common in metropolitan crashes.
- On average, 20 fatal and 280 serious injury crashes occur at intersections each year in metropolitan Adelaide.

Hitting fixed objects is South Australia's number one crash problem





# Safer Roads

## Actions through to 2010:

STRATEGY	ACTIONS	RESPONSIBILITY
1. Identify and treat hazardous locations	• Review metropolitan Adelaide's road safety to investigate improvement options and their impact on different road users and traffic efficiency.	DTEI
	• Ensure that rural road safety improvements are targeted at rural roads with high crash volumes identified through road safety audits.	DTEI
	• Continue to invest in the State Black Spot Program and support the Federal Black Spot Program.	DTEI/Local Government
	• Continue programs to address poorer performing rural intersections, and to improve skid resistance.	DTEI
	• Improve access and safety for pedestrians and cyclists by continuing the arterial bike lane program, local links and off road shared paths.	DTEI/Local Government
	• Continue upgrading of level crossings.	DTEI/Local Government
	• Upgrade and expand roadside rest areas for heavy vehicles and all road users.	DTEI
2. Make roads and roadsides more forgiving	• Target shoulder sealing at high priority roads based on traffic volumes and the nature of the road and crash rates.	DTEI/Local Government
	• Develop and implement prioritised programs to reduce the risk from roadside hazards in regional and metropolitan areas.	DTEI/Local Government
	• Undertake a trial of centerline wire rope safety barriers.	DTEI/MAC
	• Continue to install overtaking lanes on rural roads where necessary.	DTEI
	• Expand the use of audio tactile line marking and retro-reflective raised pavement markers across the State.	DTEI
	• Ensure programs to underground powerlines are oriented towards safety, and not just amenity, purposes.	DTEI/Local Government

# Safer Speeds

## Lower travel speeds for the benefit and protection of all road users

Travel speeds affect the severity of injuries suffered in a crash, as well as the risk of involvement in a crash. Even small reductions in average speeds would result in substantial reductions in deaths and injuries. Measures to reduce travel speed need to include a combination of education, enforcement and engineering and setting lower speed limits.

Road users need to understand how their decisions about travel speeds affect themselves and others. Education campaigns will focus on the consequences of speeding, and be linked with speed enforcement campaigns wherever possible. Targeted enforcement will be continued and enhanced. Speed limits need to be better aligned to the safety and function of the road.

### What is known:

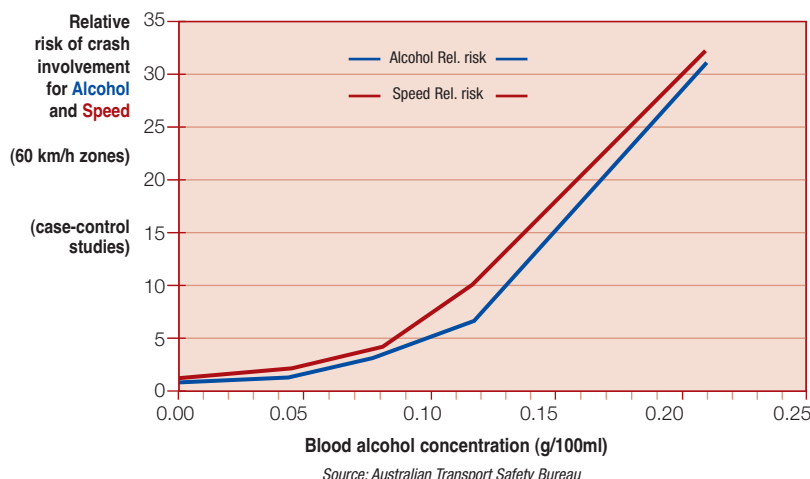
- In rural areas, travelling just 10 km/h above the average speed<sup>1</sup> and in urban areas travelling just 5 km/h above the 60 km/h speed limit<sup>2</sup> doubles the risk of a casualty crash.
- A detailed study of fatal pedestrian crashes shows 32% of pedestrians who died as a result of a crash probably would have survived if the vehicle that hit them had been travelling 5 km/h less beforehand; 10% would not have been hit at all because the driver would have been able to stop in time<sup>3</sup>.



On 1 March 2003 the default urban speed limit in South Australia was reduced from 60 km/h to 50 km/h. Since the reduction there has been a 23% reduction in casualty crashes and a 4 km/h drop in average travel speed<sup>4</sup>. In addition to this, on roads where the speed limit was reduced from 110 km/h to 100 km/h on 1100 km of rural arterial roads (73 zones on 48 roads) there has been an initial reduction in casualty crashes of 20% since 2003<sup>5</sup>.

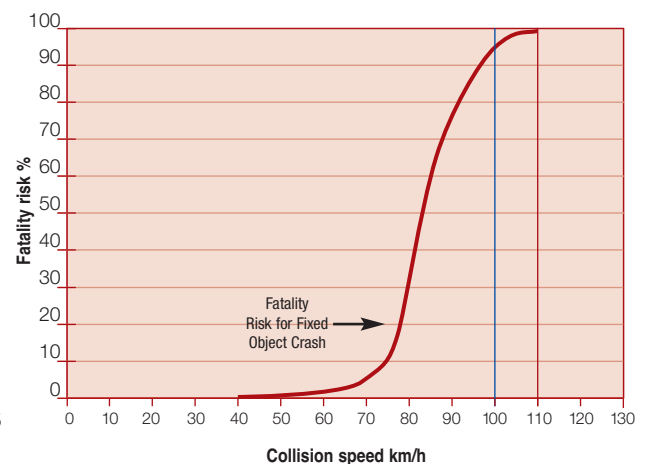
### Excessive speed is just as dangerous as drink driving

Speeds just 5km/h above 60 km/h in urban areas double the risk of a casualty crash. This is about the same as the increase in risk associated with a blood alcohol concentration of 0.05.



### There is little margin for error on high speed roads

The risk of fatal injury in a fixed object crash escalates rapidly beyond 80 km/h impact speed. By setting lower speed limits on rural roads, significant reductions in casualty crashes can be achieved.





# Safer Speeds

## Actions through to 2010:

STRATEGY	ACTIONS	RESPONSIBILITY
1. Build community understanding of speed risk	<ul style="list-style-type: none"> <li>• Focus public education campaigns on the impact of speed on road trauma, by working with communities to increase their understanding of the issue.</li> <li>• Improve awareness in regional areas of 100 km/h default speed limit.</li> <li>• Conduct urban and rural speed surveys to monitor safety progress.</li> </ul>	<p>MAC/Local Government</p> <p>DTEI/Local Government</p> <p>DTEI</p>
2. Strengthen speed enforcement	<ul style="list-style-type: none"> <li>• Expand the safety camera network (red light/speed) at intersections with high crash rates.</li> <li>• Implement new speed enforcement technologies across the State e.g. fixed speed cameras.</li> <li>• Target speeding motorists in rural areas through enhanced automatic enforcement e.g. point-to-point cameras and through specific policing operations such as the Rural Highway Saturation Management Program.</li> </ul>	<p>DTEI</p> <p>SAPOL/DTEI</p> <p>SAPOL/DTEI</p>
3. Lower speed limits	<ul style="list-style-type: none"> <li>• Extend lower limits in hilly terrains e.g. Fleurieu, Barossa and Adelaide Hills.</li> <li>• Continue to review speed limits on all rural roads and better align limits to the standard of the road.</li> <li>• Continue to investigate and implement as appropriate lower speed limits in response to requests from local communities and Councils.</li> </ul>	<p>DTEI/Local Government</p> <p>DTEI/Local Government</p> <p>DTEI/Local Government</p>

# Safer Road Users

## Improved behaviour of all road users

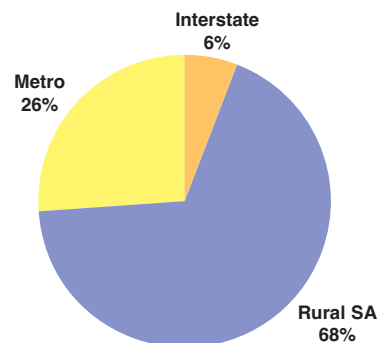
Education has been and will continue to be a critical element in the State's approach to reducing fatalities and serious injuries. Education takes many forms ranging from school-based programs and information on obtaining a driver's licence through to mass communication campaigns. All road users need to be informed of their responsibilities. If they fail to meet those responsibilities, enforcement is required. Indeed, education can be most effective when directly linked with enforcement activity.

Strategies and programs will continue to foster more responsible behaviour by users, and increase the likelihood of detection by police. Efforts will be directed to those behavioural issues that present the greatest risk, and the greatest opportunity to reduce road trauma. Repeat offenders will face greater consequences, in line with the risks they impose on other users. Communication and education strategies will be based on targeted road safety research with an emphasis on empowering individuals to achieve positive road safety outcomes.

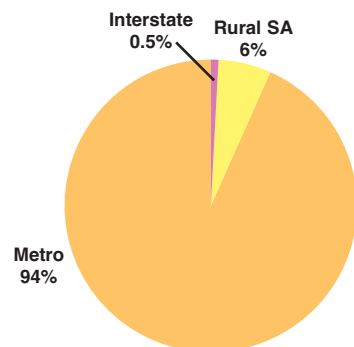
### What is known:

- On average 34% of all drivers and riders killed and 21% of those seriously injured had blood alcohol concentrations equal to or greater than the legal limit of 0.05.
- 23% of driver and rider fatalities who were tested for drugs post mortem tested positive to cannabis or methamphetamines or a combination.
- 35% of vehicle occupant fatalities and 12% of serious injuries were not wearing a seatbelt at the time of the crash.
- Some estimates suggest fatigue is a factor in up to 30% of fatal crashes and 15% of serious injury crashes<sup>8</sup>, and contributes to approximately 25% of insurance losses in the heavy vehicle industry<sup>9</sup>.
- On average, 29% of drivers and riders who have been deemed responsible for fatal crashes have previously had their licence disqualified on at least one occasion.
- It is mostly males being killed (75%) and seriously injured (63%) in crashes.
- 68% of drivers/riders killed or seriously injured in rural SA live in regional areas.
- Young people aged 17 to 25 years are also over-represented in statistics. They make up 12% of the population but account for 28% of all road fatalities and 31% of all serious injuries.
- Aboriginal people make up an even smaller proportion of the State's population but also account for a relatively high number of fatalities<sup>10</sup>.
- While driver fatalities and serious injuries have generally decreased over the past 10 years, motorcycle rider fatalities and serious injuries have remained at the same level as they were a decade ago averaging 170 fatalities and serious injuries per year.

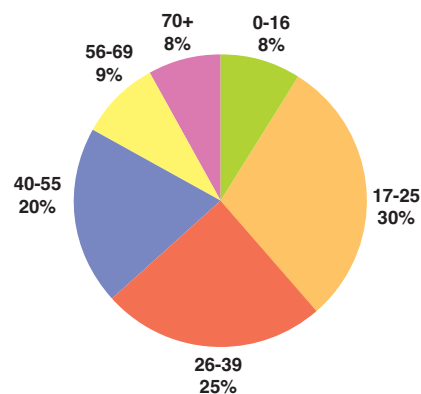
**Residence of driver or rider fatality or serious injury involved in a rural crash**



**Residence of driver or rider fatality or serious injury involved in a metro crash**



**Age of fatal and serious casualties**





# Safer Road Users

## Actions through to 2010:

STRATEGY	ACTIONS	RESPONSIBILITY
1. Stronger legislation	<ul style="list-style-type: none"> <li>• Continue targeting repeat offenders, high risk offenders and hoons.</li> <li>• Introduce a mandatory alcohol interlock scheme for repeat and high level BAC offenders.</li> <li>• Introduce changes to child restraint laws.</li> <li>• Review the Graduated Licensing Scheme for novice drivers and introduce further enhancements.</li> </ul>	<p>DTEI</p> <p>DTEI</p> <p>DTEI</p> <p>DTEI</p>
2. Improved communication and education	<ul style="list-style-type: none"> <li>• Maintain increased investment in the road safety advertising program whilst continuing to link enforcement with education and target key road safety issues.</li> <li>• Strengthen and provide increased support for Community Road Safety Groups.</li> <li>• Develop a school road safety education policy with resources and appropriate support network for teachers to drive future activity.</li> <li>• Support the implementation of the South East Road Safety Strategy and work with other regional Local Government Associations to develop regional road safety strategies.</li> <li>• Continue to provide and further develop targeted education programs for older road users and programs for L and P drivers who lose their licence.</li> <li>• Continue to support Aboriginal organisations and communities in raising the profile of road safety as a key issue of concern to Aboriginal people.</li> </ul>	<p>MAC</p> <p>DTEI</p> <p>DTEI</p> <p>DTEI/Local Government</p> <p>DTEI</p> <p>DTEI/SAPOL/ DPC (DAAR)/ DECS/Aboriginal Communities</p>
3. Tougher policing	<ul style="list-style-type: none"> <li>• Expand random roadside drug testing of drivers and riders.</li> <li>• Increase the focus on drink driving enforcement including mobile breath testing and improved targeting of drink driving hot spots.</li> <li>• Maintain high visibility static random breath testing.</li> <li>• Target repeat and recidivist traffic offenders including unlicensed drivers.</li> <li>• Expand the enforcement of key road safety offences associated with serious casualty crashes, including non-restraint use, inattentive and dangerous driving, and handheld mobile phone use, and in regard to vulnerable road users such as pedestrians and cyclists.</li> <li>• Implement the national heavy vehicle driver safety reforms relating to fatigue and speed.</li> </ul>	<p>SAPOL</p> <p>SAPOL</p> <p>SAPOL</p> <p>SAPOL</p> <p>SAPOL</p> <p>SAPOL/DTEI</p>

# Safer Vehicles

## Safety technology and occupant protection

Safer vehicles reduce the likelihood of a crash and reduce the likelihood of death or serious injury in the event of a crash. Innovations such as Electronic Stability Control (ESC) can significantly prevent crashes and curtain side air bags are proving valuable in reducing crash consequences.

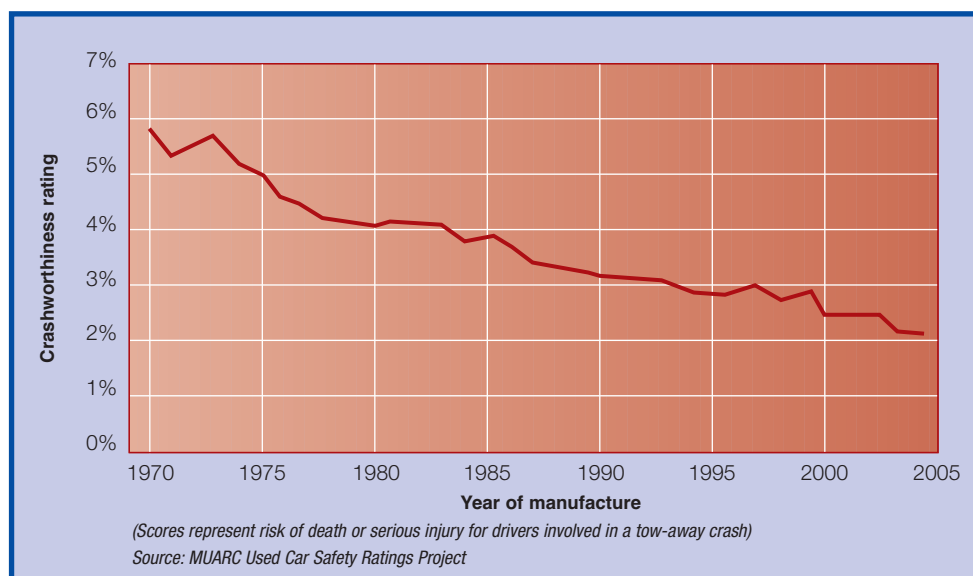
ESC helps drivers maintain control over their vehicle, particularly in emergency situations and on wet, icy or unsealed roads. It detects instability, oversteering or understeering and stabilises the vehicle by automatically applying brakes to individual wheels and reducing engine torque.

By enhancing vehicle safety, the level of road crash trauma and the horrific cost to the community of crashes can be lowered significantly. The earlier that new safety technologies are introduced to new vehicles, the quicker crashes and injury severity will be reduced. Safety, rather than speed and power, needs to become a major customer-driven element in the new car market. Improving the vehicle fleet and capitalising on emerging technological opportunities offer major benefits. Consequently, as much as possible should be done to encourage the purchase and supply of the safest vehicles.

### What is known:

- Recent research in Australia has estimated that if everyone bought the safest car in each class (small, medium or large) road trauma involving light passenger vehicles could be reduced by 26%<sup>7</sup>.
- If each vehicle incorporated the safest design elements for those vehicles, then trauma could be reduced by 40%<sup>7</sup>.
- Vehicles fitted with ESC can reduce rollover and left road crashes by up to 90%<sup>7</sup>.
- Seatbelt use is estimated to reduce the risk of death by a minimum of 40%, but with air bags, injuries for belted occupants can be further reduced an additional 10%<sup>7</sup>.

### Risk of death or serious injury by year of vehicle manufacture



This graph illustrates the extent to which the average occupant protection performance of recent model vehicles has improved, relative to vehicles that were manufactured in previous decades. In cars sold over the last few years, the risk of death or serious injury for drivers involved in a tow-away crash is less than half the figure for cars built in the early 1970s.





# Safer Vehicles

## Actions through to 2010:

STRATEGY	ACTIONS	RESPONSIBILITY
1. Improve standards of vehicles	<ul style="list-style-type: none"> <li>• Work at a national level to encourage manufacturers to incorporate more of the latest safety features and technologies in all new vehicles.</li> <li>• Continue random safety checks of vehicles.</li> </ul>	DTEI  SAPOL
2. Foster demand for safer vehicles	<ul style="list-style-type: none"> <li>• Develop a Government Fleet Vehicle Policy requiring all light passenger fleet vehicles purchased to be fitted with ESC, where practical and cost effective.</li> <li>• Investigate incentives to encourage fleet owners and operators to purchase vehicles with better crash ratings and the latest safety features and technologies.</li> <li>• Raise public awareness of importance of safety in vehicle purchasing decisions.</li> <li>• Contribute to new and used car safety ratings programs (ANCAP and UCSR) and work at a national level to promote the 'Stars on Cars' concept.</li> </ul>	DTEI/DTF  DTEI  MAC  DTEI

Crash data is sourced from the Traffic Accident and Recording System, Department for Transport, Energy and Infrastructure, based on police reported fatal and serious crashes. The crash data is based on the 5 year average 2003-2007 unless otherwise stated. The 2007 data is preliminary and is subject to change.

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