



The ageing of the Australian driving population will mean that in the years to come there will be a greater proportion of older drivers on our roads.

Older drivers are known for being more cautious and for exhibiting less illegal, dangerous driving behaviour. However, they are also suspected of being involved in crashes as a result of functional impairments

that disrupt safe driving. CASR recently reviewed a sample of 298 metropolitan area crashes that were investigated in depth and at the scene, and which included crashes involving 62 drivers and two riders (one motorcyclist, one pedal cyclist) aged over 65. 30 of these 64 crashes occurred at intersections.

In 8 of the intersection crashes, the older drivers were travelling straight ahead at a sign-controlled four-way intersection, and in seven of these the driver failed to obey the Give Way or Stop Sign. Older drivers were also commonly turning at a signalised four way intersection or at an unsigned T-junction. Issues identified include cognitive deficits (particularly a problem at non-signalised intersections), the inability to detect vehicles behind others at intersections, difficulty judging the speed of oncoming vehicles when waiting to turn right, and the difficulty of performing filter right turns.

When midblock crashes were analysed, it was noted that there were six crashes in which an older driver was turning right into or out of a private or commercial driveway. These crashes were similar in nature to the intersection crashes, featuring filter right turns, cognitive deficits and difficulties in the perception of other vehicles.

The findings point to the importance of medical fitness to drive evaluations successfully identifying cognitive impairment. They also support the restriction of filter right turns (for example, more dedicated right turn phases at signalised intersections).

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## At the scene

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## Intelligent speed assist – is it worth it?



Speeding, or travelling above the posted speed limit, results in approximately 450 fatalities per year in Australia.

A technology that has the potential to reduce this problem is intelligent speed assist (ISA). ISA devices can assist the driver to keep to the speed limit by issuing visual or auditory warnings. They can support the driver to keep to the speed limit by 'hardening' the accelerator pedal or cutting fuel supply to the engine or other methods. They can also limit drivers to driving at the speed limit by not allowing this control to be overridden.

Trials of ISA have shown it produces reductions in travel speed, although just how much of a difference it makes depends on the extent of the speeding problem in the trial area and the type of ISA used in the trial. The more restrictive ISA devices produced greater speed reductions. Some of these trials also show that ISA distorts the traditional normal distribution of vehicle speeds by encouraging, or forcing, drivers at speeds above the speed limit to slow to the speed limit.

CASR recently conducted research into the cost effectiveness of ISA in Australia. Several scenarios were considered including installing ISA on all vehicles, new vehicles, fleet vehicles, heavy vehicles, or in young drivers' vehicles. A market driven approach was also considered, as was ISA functionality on navaid devices.

"Installing ISA on new vehicles proved to be the most cost effective option," said Sam Doecke, "but consideration should also be given to installing ISA on young drivers' cars as, unlike other safety technology such as electronic stability control, ISA is able to be retrofitted. Young drivers are over-represented in all crashes and crashes involving speeding are no different."

"We also found that ISA that limits people to the speed limit is the most cost-effective option and the most effective at reducing injury crashes," although he acknowledged that this might be hard to sell to motorists. "Devices that are popular, such as navaid devices that incorporate ISA functionality may be cost effective, but we know very little at this stage about how effective they are at reducing speeding compared to dedicated devices, and how much they are actually used."

A paper on this study will be presented at the upcoming Road Safety Research, Policing and Education Conference in Canberra. The study was commissioned by the Department of Transport and Main Roads (QLD) and Co-sponsored by the Office of Road Safety - Department of Premier and Cabinet (WA), Transport Certification Australia and VicRoads.

For more information please contact Sam Doecke, [sam@casr.adelaide.edu.au](mailto:sam@casr.adelaide.edu.au)

## Seminar examines young driver issues

In April, Lisa Wundersitz presented a seminar about current issues for young drivers. Lisa examined three of the biggest issues that contribute to the over involvement of young drivers in crashes: young male drivers and risk taking, the impact of new technology and the initial increase in crashes when a driver first has their provisional licence.

Over 70 road safety professionals and members of the community attended the seminar.

The seminar was held as part of the CASR Seminar Series. For more information about the series please see our website: [www.casr.adelaide.edu.au/events](http://www.casr.adelaide.edu.au/events)

For more information please contact Lisa Wundersitz, [lisa@casr.adelaide.edu.au](mailto:lisa@casr.adelaide.edu.au)

## New publications

Best practice in road safety mass media campaigns: A literature review (CASR074)

Vehicle speeds in South Australia 2008 (CASR066)

Annual performance indicators of enforced driver behaviours in South Australia, 2008 (CASR073)



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## 2010 CASR seminar series

The CASR seminar series will address major topics in the fight to reduce road trauma and highlight the latest research in the area.

1 September, **Vehicle Crashworthiness**, Associate Professor Robert Anderson

For a full list of 2010 seminars please see our website.

The seminars are held in The Art Gallery Auditorium from 4.00 - 5.30pm.

To confirm your attendance please contact Leonie Witter on (08) 8303 4114 or email [leonie@casr.adelaide.edu.au](mailto:leonie@casr.adelaide.edu.au).

# Message from CASR

So far 2010 has been a busy and interesting year at CASR. One of the areas of increasing importance in our work has been vehicle technology and our lead article in this newsletter concerns one such project. Technologies are changing rapidly and we need to understand how these technologies are used and viewed by the community to be in the best position to take advantage of the opportunities they present.



Earlier this year we were fortunate to be involved with the visit of Professor Fred Wegman to Adelaide as the South Australian Thinker in Residence. A number of CASR staff spent time with Fred while he was here and we hope we will have a continuing relationship with him now he has returned home. A major focus of his visit was the development of the South Australian Road Safety Strategy and CASR is also working closely with the South Australian Department for Transport, Energy and Infrastructure to support this work.

We hope you enjoy this newsletter and look forward to seeing many of you in Canberra for the upcoming Road Safety Research, Policing & Education Conference.

Mary Lydon, Director, [mary@casr.adelaide.edu.au](mailto:mary@casr.adelaide.edu.au)

## Youth expo teaches students about road safety

In March, Lisa Wundersitz and Daniel Searson from CASR attended the Youth Expo held at Cornerstone College in Mount Barker. Lisa and Daniel helped staff an exhibit organised by the Adelaide Hills Community Road Safety Group.

Students visiting the exhibit were encouraged to fill out a questionnaire regarding various road safety issues. The questionnaire included a survey on perceptions about road safety, as well as some factual questions based on information supplied by CASR on crash risk and stopping distances.

Around five hundred high school students from schools in the Adelaide Hills visited the Expo.

## Road safety thinker brings his ideas to Adelaide



In May, Adelaide Thinker in Residence Professor Fred Wegman began his residency with a three-week visit to South Australia.

Professor Wegman, Managing Director of the Institute for Road Safety Research (SVOV) in the Netherlands, is one of the world's most respected road safety experts.

During his visit to Adelaide, Professor Wegman spent time meeting with transport and road

safety groups and gave a well attended public lecture. He also visited CASR and spoke to staff, as well as guests from the Transport Systems Centre at the University of South Australia and the Research Centre for Injury Studies from Flinders University.

During his residency Professor Wegman will be contributing to the South Australian Road Safety Strategy 2011-2020. He will be returning to Adelaide in November.

Pictured: Professor Wegman (second from right) with Professor Jack McLean, Associate Professor Robert Anderson, and Professor Mary Lydon, all from CASR.

## Developing a road safety strategy for 2011-2020

In April, the Road Safety Advisory Council held the first of two road safety stakeholder workshops.

The aim of the workshop was to generate ideas that would be considered in the development of the 2011-2020 Road Safety Strategy. The workshop involved representatives from over 80 relevant organisations, and was opened with presentations by Sir Eric Neil, Mary Lydon (CASR) and Phil Allan (DTEI).

A second workshop was held in May, where attendees heard presentations by Professor Fred Wegman, Professor Ian Johnson and Associate Professor Robert Anderson. This workshop also included an open discussion about road safety interventions.

The next stage of strategy development will be a series of regional community meetings that will be held in August and September.

## In the spotlight – Mary Lydon



Mary became the CASR Director in March 2008 taking over from Professor Jack McLean who had been in the role for more than 35 years.

She says it was challenging to try and replace someone so well respected nationally and internationally and who had achieved so much at CASR.

Mary is a Civil Engineer and started her career with the Australian Road Research Board (ARRB) in 1975. Her initial research was in the areas of human factors and ergonomics but her major interest soon became the potential impact of road design and traffic management in reducing trauma and this has remained her first concern throughout her career.

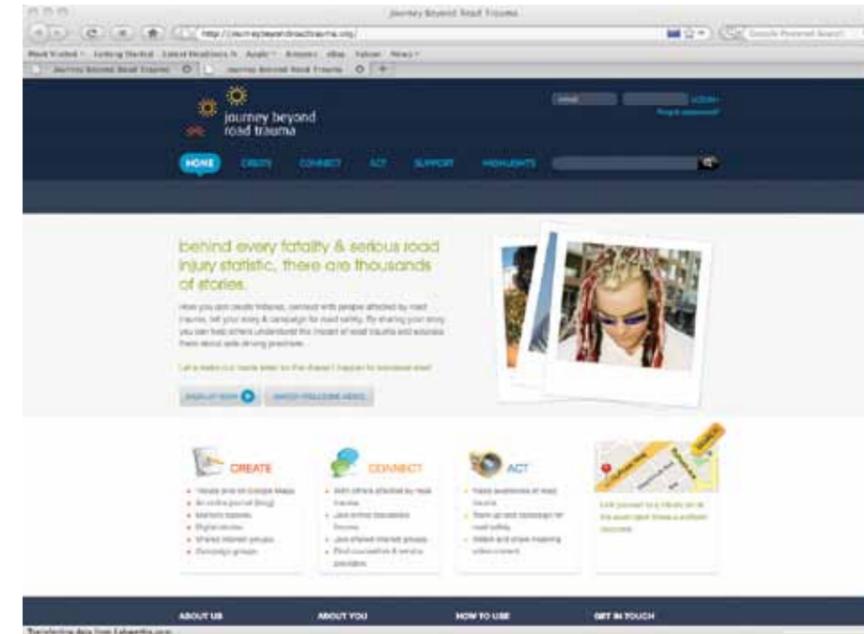
In the early 80s she started a PhD with the University of Queensland on the effects of geometric design on rural roads, which led to her advocacy for sealed shoulders and safer roadsides. Mary finds it disturbing that after so many years there is still not a general acceptance that drivers will make mistakes and that roads and roadsides have to be designed to forgive these errors.

In 1984 Mary joined the Victorian Traffic Authority (now VicRoads) working with the Victoria Police on enforcement and legislative policy. In this role she was closely involved in the early red light and speed camera programs and the development of random breath testing strategies. Mary spent 12 years with VicRoads in a variety of roles including managing the Gippsland single vehicle accident study but her favourite period was her time as Operations Manager of the Northern Region based in Bendigo.

In 1996 Mary returned to ARRB to open the ARRB Western Australian office. This was the first time ARRB had based an office away from its headquarters in Melbourne so it was an experiment for everyone. Mary remembers it was daunting to arrive in Perth, be given the keys to an empty office and then have to work out what to do next. "I remember writing my first report sitting on the floor waiting for the furniture to arrive," she recounts. Fortunately the experiment worked and the office prospered.

After four years in Perth Mary returned to Melbourne and eventually became General Manager of the ARRB Research Division. "This was a fascinating time," she says, "particularly being involved with the development of the Austroads technical research program and the new Austroads guides."

Mary says she feels privileged to be in the role of CASR Director and to be working with so many dedicated and brilliant people. Her aim, she says, "is for CASR to be a leading road safety research group, known for the high quality of our research, working closely with policy makers and practitioners so our work can be instrumental in reducing road trauma and developing the road safety professionals of the future."



## New website for victims of road trauma

The Journey Beyond Road Trauma website is an online social network for people affected by road trauma. The website, created by Sandra Cooke and Kerry Sunderland was officially launched during Easter this year.

The website aims to create a safe, supportive space for those affected by road trauma, where people can find support, join online communities, tell their story via a blog or a digital story and create a memory space in honor of a loved one. Website members can also use the site as a starting point for road safety campaigning.

The website currently receives sponsorship from organisations including the RAA, who sponsored the production of a series of short documentaries based on real experiences that demonstrate the impact of road trauma.

For more information please visit the Journey Beyond Road Trauma website – [www.journeybeyondroadtrauma.org](http://www.journeybeyondroadtrauma.org).



## Vehicle speeds in South Australia

Between 2007 and 2008 speeds on South Australian roads went down by 0.7 kph. However, about a third of vehicles on South Australian roads are exceeding the speed limit.