Older Road Users Emerging Trends

24 November 2016

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About Austroads

The peak organisation of Australasian road transport and traffic agencies

- Roads and Maritime Services New South Wales
- Roads Corporation Victoria
- Department of Transport and Main Roads Queensland
- Main Roads Western Australia
- Department of Planning, Transport and Infrastructure South Australia
- Department of State Growth Tasmania
- Department of Transport Northern Territory
- Transport Canberra and City Services Directorate, Australian Capital Territory
- Commonwealth Department of Infrastructure and Regional Development
- Australian Local Government Association
- New Zealand Transport Agency

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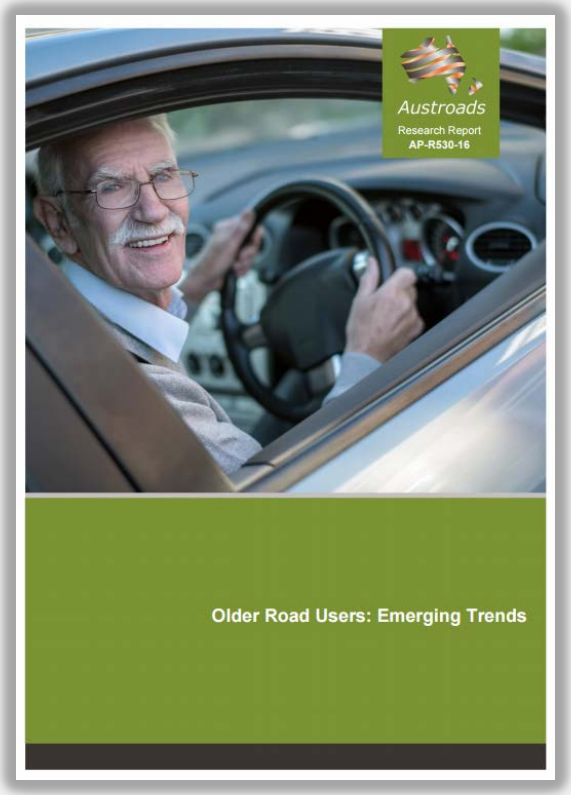

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Today’s moderator

Eliz Esteban
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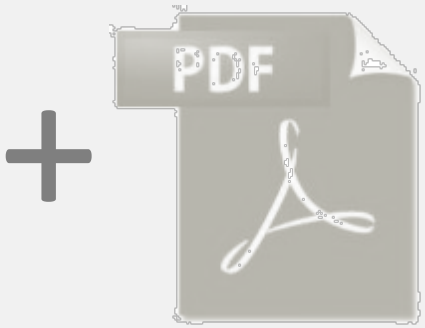
Housekeeping

Webinar = 35 mins

Question time = 15 mins



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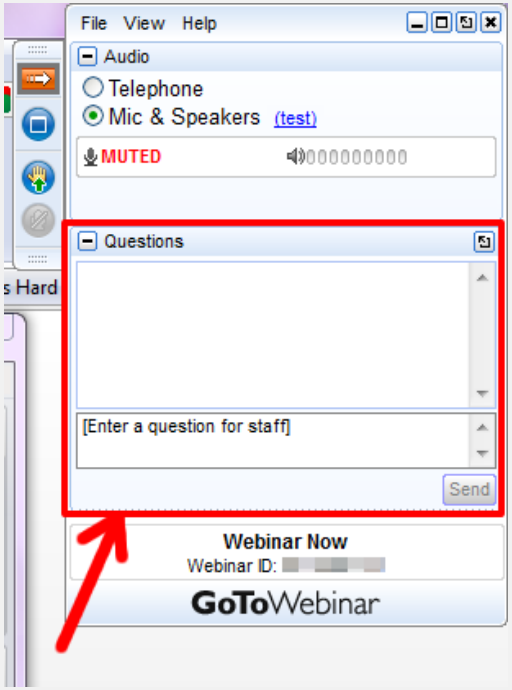

Please type your questions here

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Today’s presenter

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Older road user emerging trends

- Matthew Baldock
- James Thompson
- Jeffrey Dutschke
- Craig Kloeden
- Tori Lindsay
- Jeremy Woolley

- Centre for Automotive Safety Research (CASR), University of Adelaide

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Purpose

- Identify trends in older road user crashes
- Identify countermeasures for older road user crashes and injuries

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Methods

- 75+
- Literature review
- 10 years of crash data
- CASR in-depth crash cases
- 3 years of detailed hospital injury cases
- Consultations with jurisdictional representatives
- Reviewed international road safety strategies

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Literature review – population and crashes

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Literature review – population and crashes

- Ageing population, more older drivers, driving more and for longer
- Higher per distance crash rate – low mileage bias, cohort effects, physical frailty
- Some drivers functional impairments
- Higher risk of injury and fatality, and even higher for rural older adults
- Could be more crashes in future?

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Literature review – mobility and licensing

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Literature review – mobility and licensing

- Importance of mobility for health
- Driving cessation difficult
- Other transport modes higher risk
- Public transport access issues
- Trends – more travel, more car use

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Crash data

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Crash data

Age	0-59	60-74	75+	(all)
Number	1,149,075	113,646	43,950	1,306,671
Percentage	87.94	8.70	3.36	100.00

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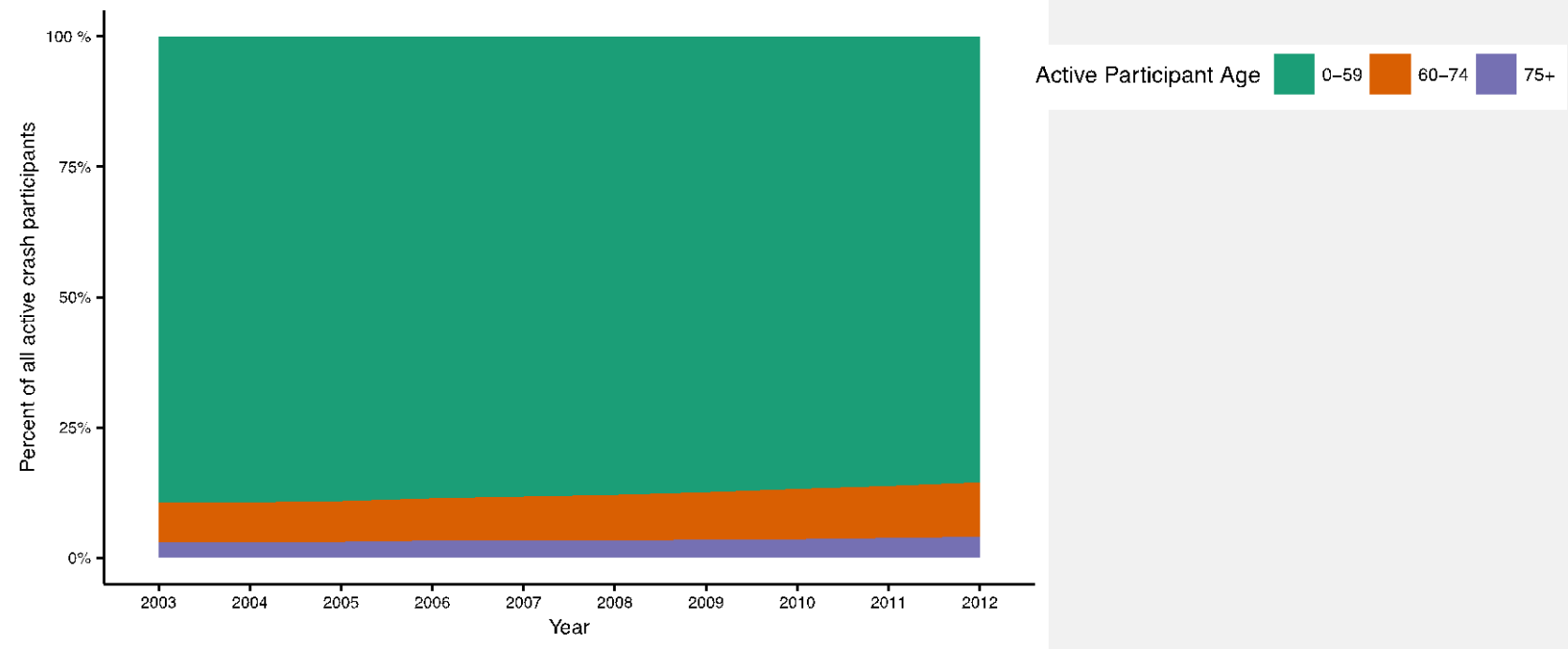
Proportion of crashes over time

Figure 2.1: Proportions of all active participants in crashes in Australia and New Zealand 2003-2012, by age



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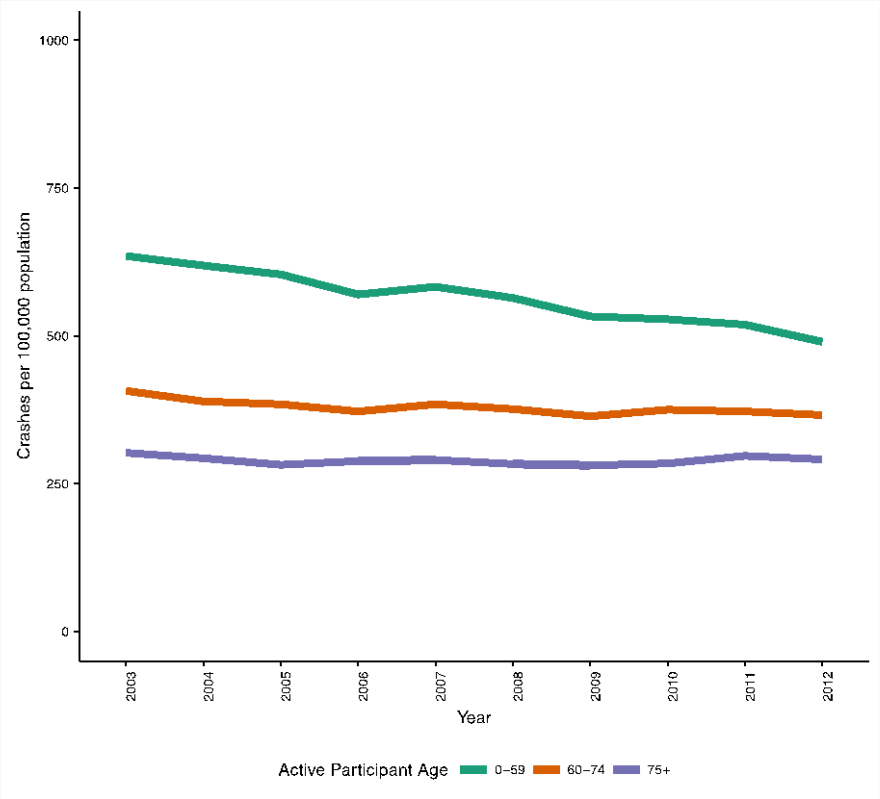
Crashes per head of population

Figure 2.4: Number of active participants involved in crashes per 100,000 population in Australia and New Zealand 2003-2012 by age group and year



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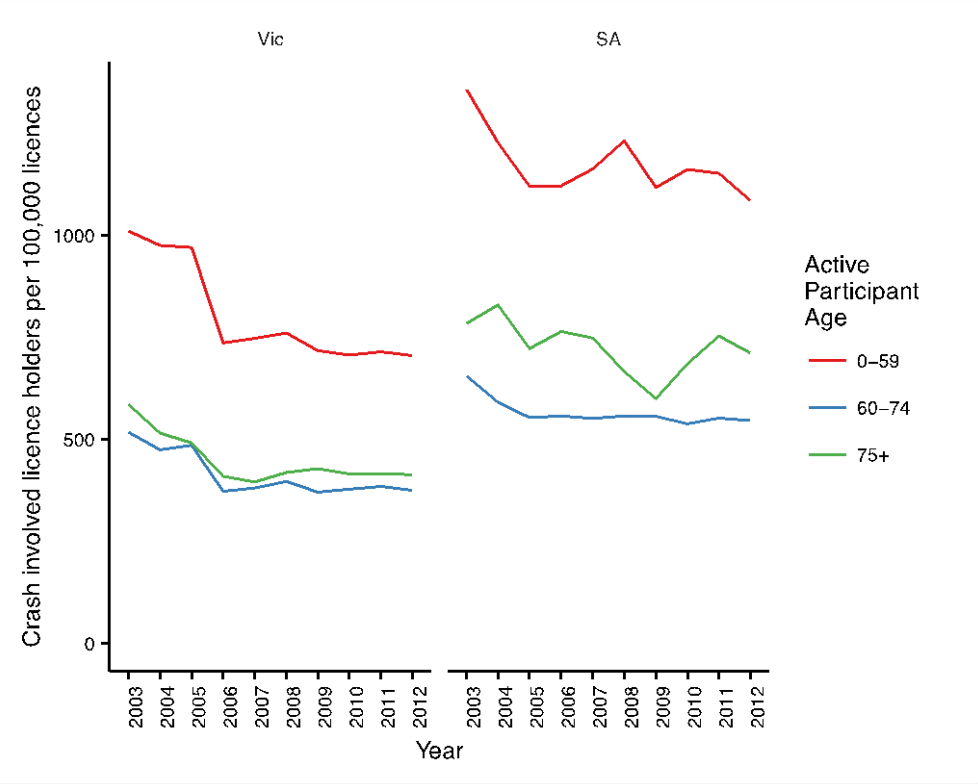
Crashes per licensed driver

Figure 2.6: Number of drivers in crashes in SA and Victoria per 100,000 licence holders in each age group, 2003-2012



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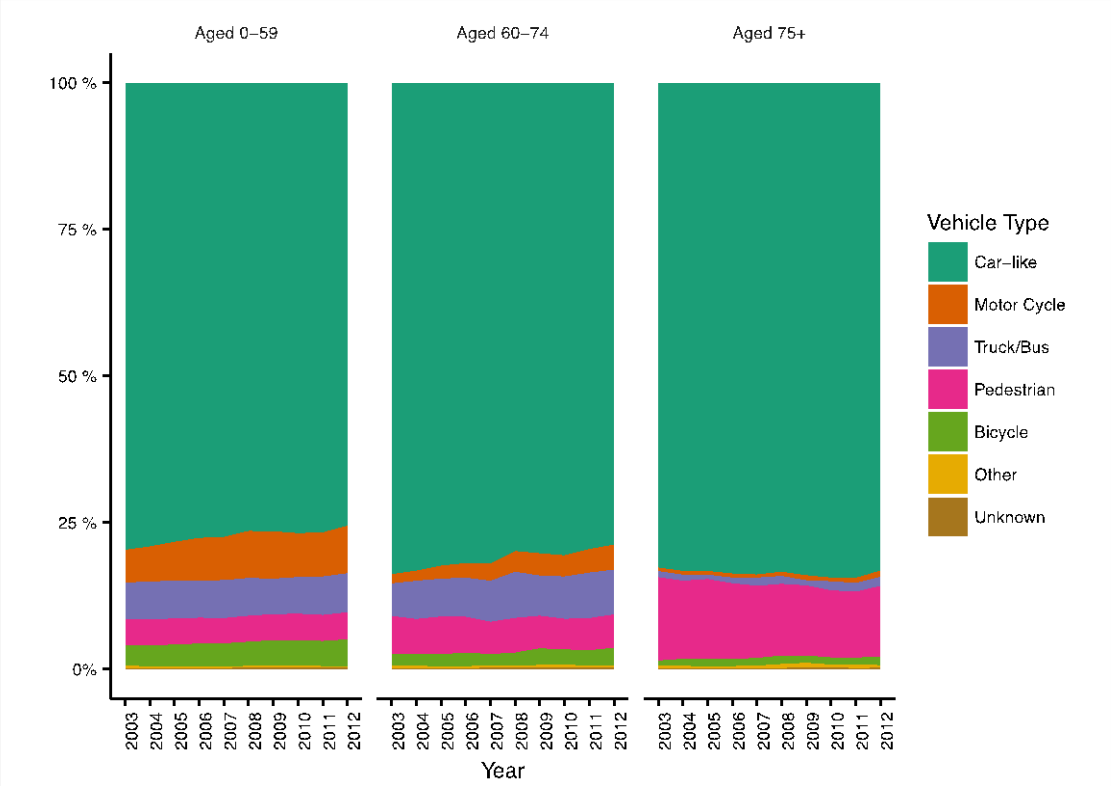
Crashes by unit type

Figure 2.7: Percentage of crash involved units by unit type in Australia and New Zealand 2003 to 2012, by age of active crash participant, by year



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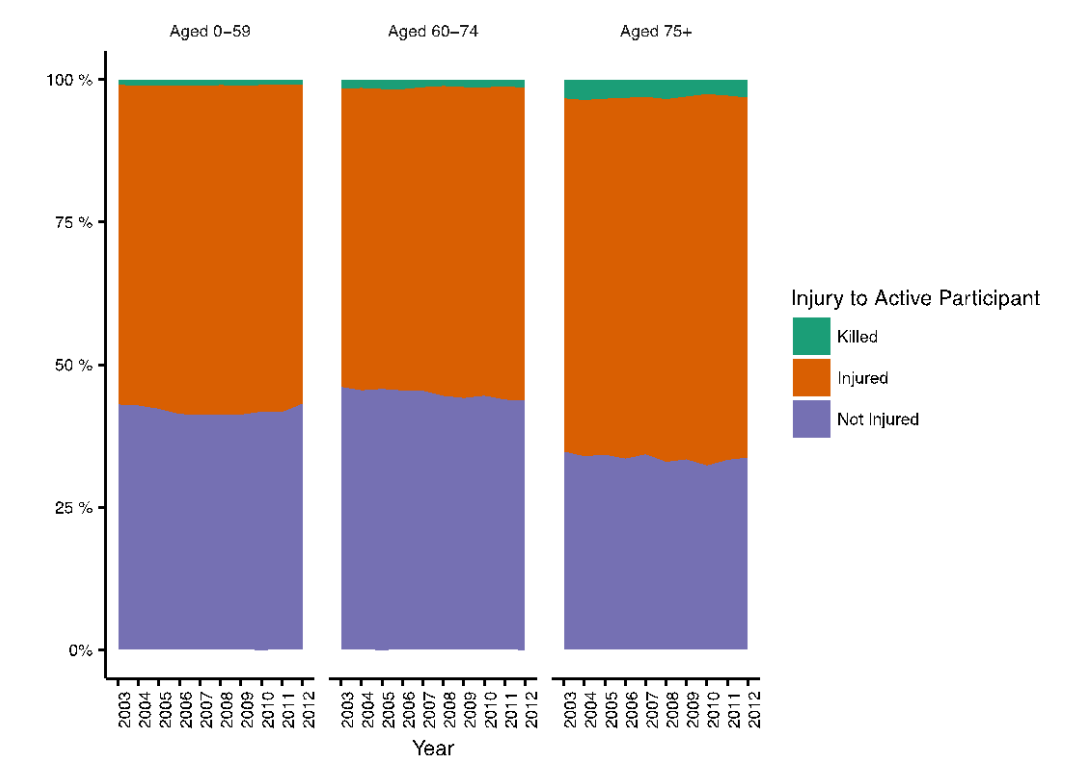
Injury level

Figure 2.8: Injury levels of active crash participants in injury and fatal crashes in Australia and New Zealand 2003-2012, by age and year



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Proportion injured road users who died

Unit Type	0-59	60-74	75+
Car-like	1.36	1.94	3.58
Truck/Bus	2.85	3.95	5.40
Motor Cycle	2.90	4.03	7.32
Pedestrian	3.22	5.52	9.08
Bicycle	0.74	2.72	5.42
Other	3.22	4.74	5.85
Unknown	0.99	0.78	4.00
Overall	**1.70**	**2.55**	**4.72**

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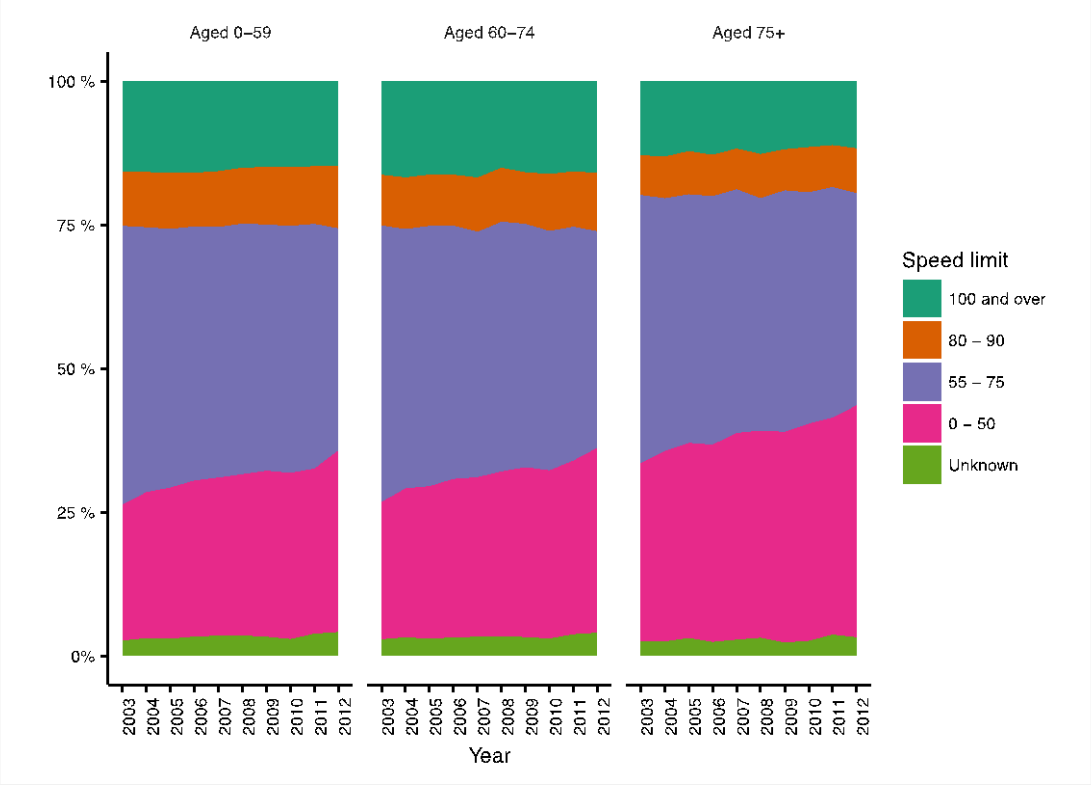
Speed limit

Figure 2.12: Speed limit at location where active participants had their crashes in Australia and New Zealand 2003 to 2012, grouped by age of active participants and year of crash



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Crash type

- DCA/RUM codes
- 75+: more crashes as a *pedestrian*
- 75+: more *vehicles adjacent* and *manoeuvring*, lower proportion of *vehicles same direction*
- Trend over time for 75+: declining *pedestrian* crashes, increases *off path - straight*

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Crash type per licensed driver - Vic

Type		0-59	60-74	75+
Vehicles adjacent	Proportion of crashes for age group	17.23	22.95	27.86
	Crash rate per 1000 licence holders	1.23	0.83	1.02
Manoeuvring	Proportion of crashes for age group	3.75	4.92	6.87
	Crash rate per 1000 licence holders	0.27	0.18	0.25

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Self-regulation?

- Fewer crashes:
  - rain
  - wet roads
  - peak hour
  - night time

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In-depth crash investigation

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In-depth crash investigation

- Multiple vehicle crashes: complex junctions
- Single vehicle crashes: medical conditions

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Linked hospital data

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Linked hospital data

- Vulnerable as pedestrians
- Decision making at junctions
- Single vehicle crashes – medical conditions
- Thoracic injuries
- Family important for licensing decisions

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Consultations

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Consultations

- Perceptions of older road user trends (exposure, crashes) – considered to be an issue?
- Countermeasures planned for older road user risk factors
- Does the relevant road safety strategy refer specifically to older road users?

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Consultations – safer people

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Consultations – safer people

- Educational programs
- Subsidies or promotion of public transport

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Consultations – safer vehicles

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Consultations – safer vehicles

- Promotion of safer vehicles
- Mobility scooters
- Vehicle technology

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Consultations – safer roads

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Consultations – safer roads

- Pedestrian infrastructure
- Guide to design of roads for older drivers

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Consultations – exposure

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Consultations – exposure

- Routine surveys
- New ticketing systems

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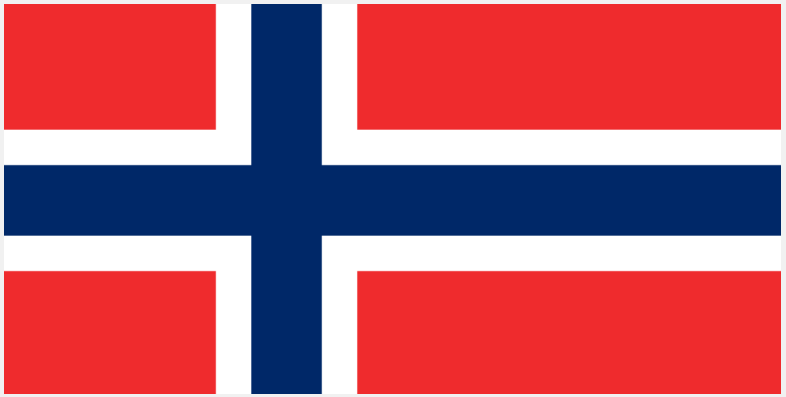
Road safety strategies



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Road safety strategies

- Educational programs, medical fitness to drive
- Netherlands - Town planning
- Pedestrian safety, vehicle safety and technology
- UK&US - Vehicle safety testing




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Recommendations - data

1. That older road user crash trends continue to be monitored by the jurisdictions in coming years.

2. That the key outcome measures in terms of traffic safety for road users by age group are the overall number of crashes, crashes per head of population for cyclists and pedestrians, and crashes per licensed driver for drivers and riders of motorcycles. Crashes per distance travelled should not be used as a key outcome measure for drivers and riders of motorcycles.

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Recommendations - exposure

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Recommendations - exposure

3. That jurisdictions consider standardised travel surveys as part of their suite of regular data collection to capture key measures, such as total time travelled, to assist with understanding exposure for road users in different age groups. If so, it may be cost-effective to undertake a scan of survey methods used in other jurisdictions to choose the most suitable option.

4. That research be undertaken into geographical variations in the distribution of the older population, and how this affects travel and crash patterns.

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Recommendations – safe vehicles

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Recommendations – safe vehicles

5. That there is recognition that the safety and mobility needs of older adults will be optimised if they remain licensed to drive for as long as they are able and feel confident to do so.
6. That all educational programs directed at older drivers emphasise the benefits of driving a newer, safer vehicle, aiming for 5 star ANCAP or UCSR safety ratings where possible. Options for retrofitting certain safety features should also be promoted.

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Recommendations – safe vehicles

7. That jurisdictions examine all other possible regulatory and policy-based means of encouraging older drivers to purchase and drive newer, safer vehicles, aiming for 5 star ANCAP or UCSR safety ratings where possible.
8. That jurisdictions consider supporting alterations to crash testing protocols that incorporate the needs of older adults.

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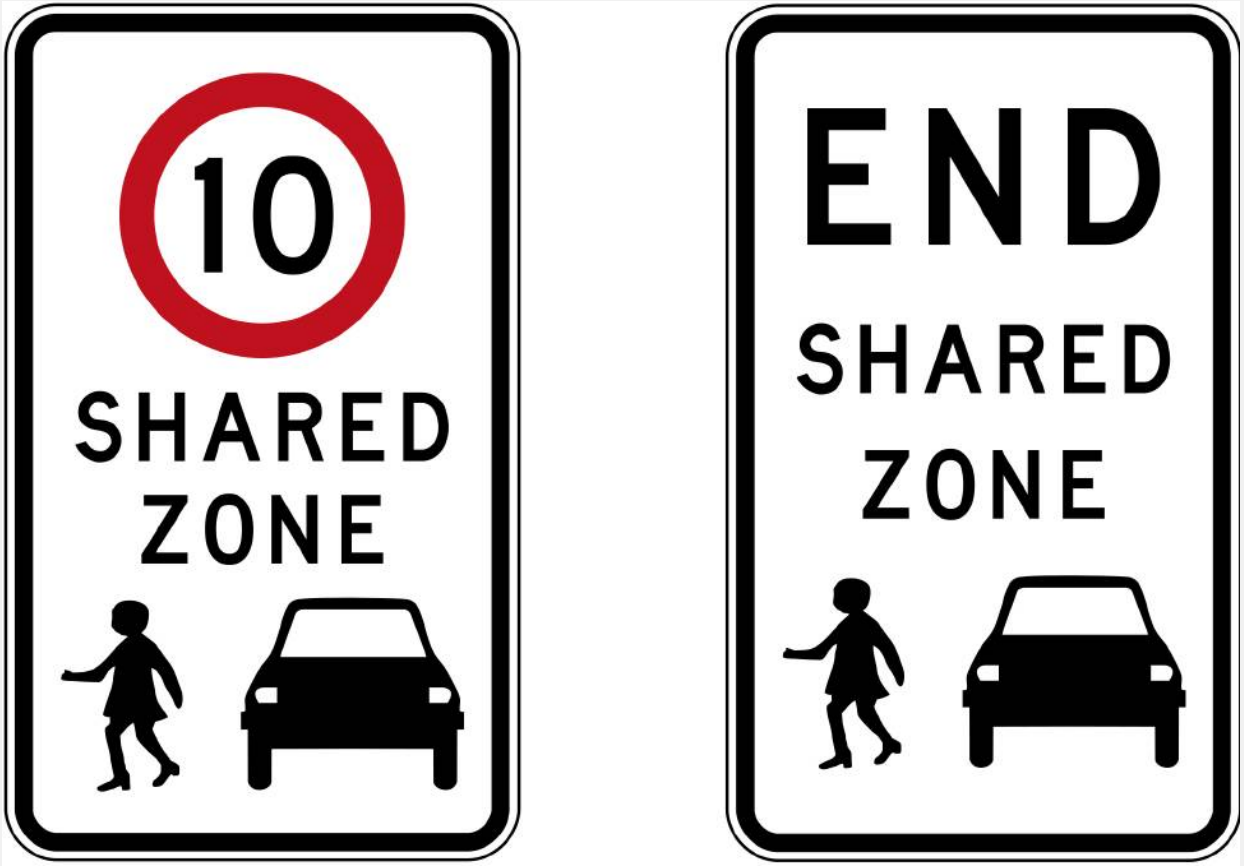
Recommendations - pedestrians



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Recommendations - pedestrians

9. That jurisdictions continue to install and retrofit infrastructure that protects pedestrians in areas where there is a high risk of pedestrian crashes, such as areas of high pedestrian activity, and especially areas frequented by older pedestrians.
10. That jurisdictions consider setting speed limits in areas of high pedestrian activity, especially areas frequented by older pedestrians, with reference to the high injury risk of older pedestrians.

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Recommendations - pedestrians

11. That jurisdictions encourage the testing and evaluation of in-vehicle technologies designed to prevent collisions with pedestrians.
12. That, if evaluations demonstrate likely benefits, jurisdictions take steps to encourage the uptake of pedestrian collision prevention technologies in vehicles.

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Recommendations – mobility scooters

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Recommendations – mobility scooters

13. That jurisdictions monitor the outcomes of various policy developments concerning mobility scooters so that an evidence base can be used for future initiatives in regard to their use.
14. That jurisdictions make efforts to ensure that those purchasing mobility scooters receive necessary information about selection, manner of use, road rules and health assessment related to mobility scooter use.

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Recommendations - infrastructure

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Recommendations – infrastructure

15. That jurisdictions consider the implementation of a program of improving safety at intersections through reductions in intersection complexity, including the elimination of right turns requiring gap acceptance decisions.
16. That jurisdictions consider the implementation of a program of improving safety at intersections through reductions in speed limits and the use of traffic calming measures such as plateaus.

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Recommendations – infrastructure

17. That, in light of new road design practices that are emerging in relation to speed management and intersection design, the guides developed for Austroads concerned with the safe design of roads for older road users be updated.

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Recommendations – driving habits and licensing status

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Recommendations – driving habits and licensing status

18. That educational programs directed at older road user safety incorporate a discussion of self-regulation, emphasising the benefits of avoiding difficult driving situations, the capacity for those no longer in the workforce to do so, and that many other older adults do it (i.e. it is a normative behaviour).
19. That educational programs directed at older road user safety incorporate a discussion of assisting others to transition from driving, with an emphasis on the need for family and friends to assist with meeting mobility needs.

Recommendations – driving habits and licensing status

20. In light of the difficulty experienced by those ceasing driving who do not have family and friends to assist with the transition, jurisdictions should support the development of resources and alternative transport options to assist with the ongoing mobility for these older adults.
21. That educational programs directed at older road user safety incorporate a discussion of the need to plan well in advance for retirement from driving, so that a smooth transition can be made to alternative means of safely maintaining mobility.

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Recommendations – co-operation between government departments

22. That jurisdictions consider the implementation of processes by which different government departments can collaborate on policy development in regard to ageing and transport.

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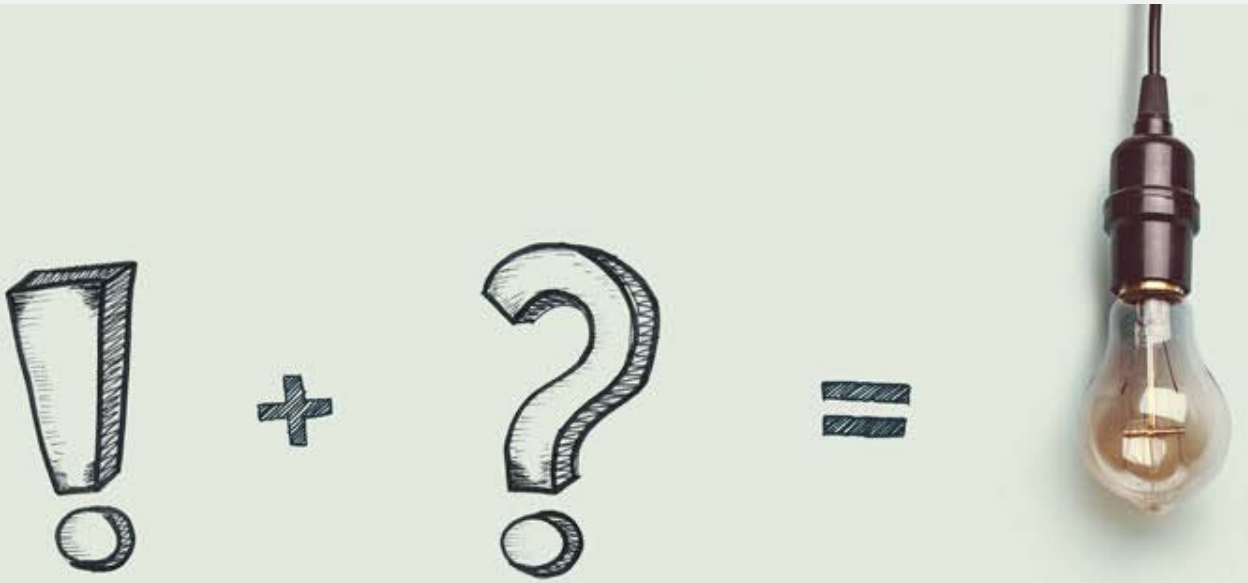
Questions?



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Thank you for participating

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