Road Safety Advocacy

Road Safety Risks:

Simple ways road builders can improve driver awareness

Research has shown that low-cost road safety treatments can help drivers to make better judgements about risks on our roads and drive more appropriately to the conditions.

The AA believes we should be making more use of low-cost road safety treatments in New Zealand.

Innovative research on road risks

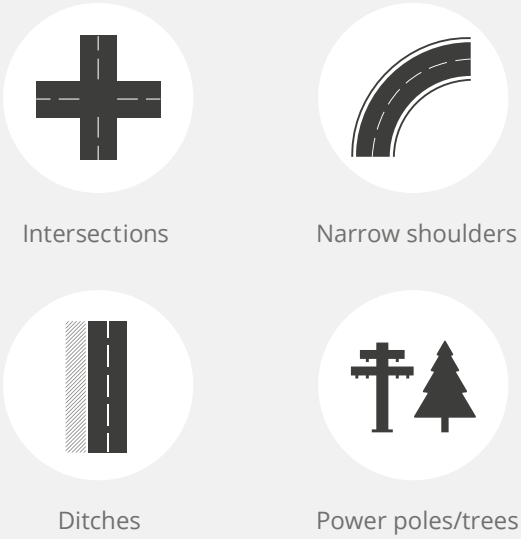
Without an accurate perception of road risks, drivers can't make the best judgement calls about safe speeds. This puts them, their passengers and others on the road at greater risk.

Research funded through the AA Research Foundation investigated how drivers' perceptions of risks match actual risks, and what impact different safety treatments have on the speeds drivers choose to travel.

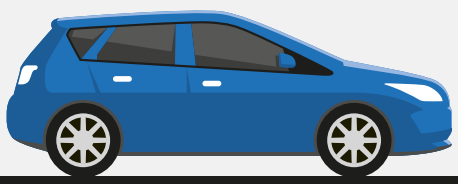
The research was undertaken by the University of Waikato School of Psychology in 2013 and 2015 and used an innovative combination of real life driving, state-of-the-art eye-tracking devices and a high-tech driving simulator.

Key findings: drivers underestimate the safety risk of intersections, narrow shoulders, and roadside hazards like ditches, power poles and trees.

Safety risks that drivers underestimate:
results snapshot



The AA wants... more safety treatments focussed on risks drivers are known to underestimate – ie. at intersections, from narrow shoulders, and from roadside hazards like ditches, powerpoles and trees.



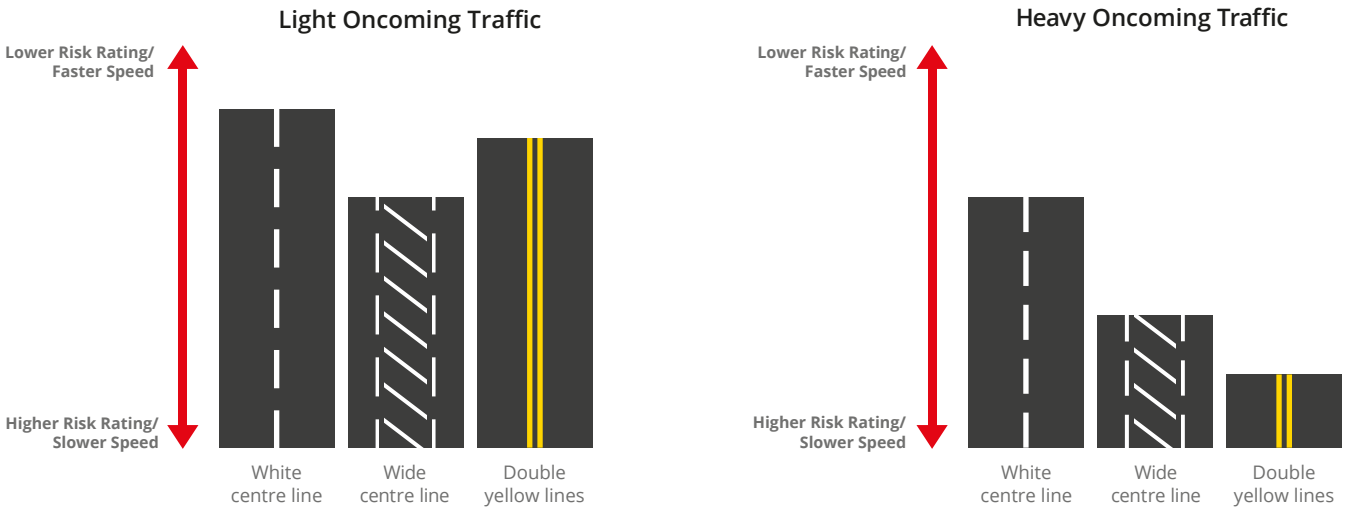
When the road environment better informs drivers, they make safer decisions.

Impact of different safety treatments: *results snapshot*

Researchers analysed participants' speed when faced with a number of different road conditions and safety treatments. They found some safety treatments have more impact on drivers' assessment of risk, and consequently their speed, than others. Drivers also take traffic volume into account when assessing risk.

How drivers rated risk, and consequently adjusted their speed, for some of the safety treatments tested

The relationships shown on this graph are approximate. Detailed information is available in the full research reports.



Wire rope median barriers keep traffic flowing

An interesting finding was that where wire rope median barriers are present, drivers appear confident to maintain their speed regardless of traffic volume.

Low-cost safety treatments that proved most effective and resulted in reduced speed:

- Narrow roads
- Double yellow centre lines
- Wide centre lines

Key findings: double yellow lines and wide painted centre lines can be particularly effective at sending a strong signal to drivers about a road's safety risk.

The AA wants... road builders to review roads for opportunities to use more low-cost safety treatments. Caution is needed to ensure these treatments are used appropriately, but nevertheless we believe there is plenty of opportunity to use more of these treatments to increase road safety.

What can be done now?

- The NZ Transport Agency has already used this research to guide low-cost safety treatments on the Kaikoura Earthquake Alternate Route. We want more people in the industry to become familiar with the research and start putting the findings into practice.
- During 2017, local authorities are undertaking a mid-term review of their 2015-2021 Regional Land Transport Plans. The AA wants them to programme significant investment in proven low-cost road safety treatments over the next three years.
- Wire rope median barriers are very effective at reducing harm and the research shows that drivers feel very safe around them. The AA wants authorities to consider more use of these not only because they improve safety, but also because they keep traffic flowing more efficiently on arterial roads important for local economies.

The information in this document is based on Driver Risk Awareness research funded through the AA Research Foundation

For more information contact:
National Manager Policy & Research, Simon Douglas
T. +64 4 931 9985 **E.** sdouglas@aa.co.nz

Full reports
www.aa.co.nz/about/aa-research-foundation/programmes/

September 2017