

Posted Speed Limits: Where the Maximum is not Recommended. The Need for Discussion and Review of Speed Limit Settings

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Abstract

Excessive speed accounts for approximately one third of road casualty crashes (Corben, Liu, Oxley & Young, 2012). Speeding, by even a small margin, significantly increases the chance of being involved in a fatal collision (Kloeden, Ponte & McLean, 2001). Small reductions in speed, however, reduce this risk (Doecke, Kloeden & McLean, 2011). Safer roads designed to minimize collision impacts to within human tolerance levels also have an important role within a safe system. However, many roads with high posted speed limits traverse environments that are unforgiving of road user error. Where timely engineering and treatment options may not be possible, speed reduction has a critical role to play in mitigating road trauma in these areas.

Background

Victoria Police Road Policing Command strives to reduce levels of trauma on Victoria's roads. Victoria's Road Safety Strategy & Action Plan 2016//2020 (Victorian Government, 2016) is supported by the Victoria Police Road Safety Strategy 2013 – 2018 (Victoria Police, 2013) and Victoria Police Safer Country Roads Plan 2014 – 2018 (Victoria Police, 2014). The long term vision of police and road safety partners is to achieve zero deaths and serious injuries on our roads. Our target by 2020 is less than 200 road fatalities.

Country road users are three times more likely to be killed and 40 per cent more likely to be seriously injured than drivers in metropolitan Melbourne (Victoria Police, 2014). Accordingly, priorities that include implementing a range of enforcement and prevention activities on both metropolitan and country roads with the assistance of the community and our road safety partners have been developed. Victoria achieved a record low 243 lives lost in 2013 (Transport Accident Commission, 2014). While a number of strategies implemented by Government, our Road Safety Partners and Victoria Police contributed to this record low, speed and road design and conditions were, and continue to be, significant factors in Victorian road trauma. A reduction to speed limits must therefore be considered particularly where timely engineering and road treatment solutions cannot be applied.

Enhancing community safety on our roads

In 2016, there were 291 fatalities on Victorian roads. Frustratingly, 150 of these fatalities occurred on country roads. More than half of these were single vehicle crashes and 72 percent of the crashes occurred in 100 km/h speed zones (Victoria Police, 2017). Under a Safe System approach, Victoria continues to invest significantly in engineering and road treatment options that are designed to accommodate error and minimize impact forces on human tolerance levels.

Notwithstanding, many sections of Victoria's vast road system remain without engineering, design and treatments within the context of a Safe System. An absence of safety features such as roadside and central median barriers and other traffic separation and treatment options, too often expose road users to unforgiving roadside architecture. Multiplying this risk is the fact that many of these roads have high posted speed limits up to 100 km/h. Cognisant of the fact that such roads feature far too often in fatal crashes, the case for reviewing speed limit settings in lieu of applying engineering treatments is compelling.

A case for speed reduction

It is well established that higher speeds in crashes result in more severe impacts, higher crash energy levels and ultimately poor road safety outcomes. Outcomes can be improved by lowering speed limits, as well as investing in road infrastructure (Risby, 2015, p .39). Research tells us however, that some road users may place a high level of importance on mobility and may therefore be inclined or choose to drive at excessive speeds exceed speed limits by small margins (Transport Accident Commission, 2015). Drivers may also drive too fast unintentionally by underestimating their speed (Biervliet, Zandvliet, Schalkwijk, & Gier, 2010) overestimate what is considered to be an appropriate or safe speed, underestimate the danger of travelling at speeds that are unsuitable for the prevailing conditions and perceive that driving at speed is not a dangerous activity (Corben et al., 2012). It is essential that road users understand the risk and engage in dialogue regarding speed settings.

Conclusions

Road trauma reductions are achievable through safer speeds. Where timely road engineering and treatment options are not possible it is essential that we initiate informed discussion to revise speed limit settings and reductions on some of our rural roads.

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