

Effective Targeting of Motorcycle Safety Countermeasures in New Zealand-Monash University 2013

Monash University has completed a study of motorcycle safety in New Zealand commissioned by the Motorcycle Safety Advisory Council (MSAC). The aim was to assist MSAC to identify effective countermeasures to improve motorcycle safety. It is known that motorcyclists overall have sixteen times the risk of death or injury per vehicle kilometre of light 4 wheeled vehicle drivers.

The study showed that younger motorcyclists have the highest injury risk but their older counterparts, typically those over 40 have a higher risk of dying in a collision. This is related to older bikers tending to ride larger, more powerful machines in rural areas at higher speeds where crash impacts can be more violent. Their younger counterparts mainly ride in urban environments, where speeds and severities are typically lower.

For the larger bikes, the report found that the rates of single vehicle crashes, at-fault crashes, crashes in higher speed limit areas and crashes when cornering have increased over time. This probably reflects higher levels of touring by the older generation of motorcyclists.

The report then reviewed motorcycle safety countermeasures internationally. Anti-lock brakes (ABS), motorcycle traction/stability control, anti-theft devices, high risk location treatments, protective gear and law enforcement were found to have proven effectiveness. Education and training was considered to have equivocal evidence of effectiveness. The equivocal nature of the evidence was related to a paucity of quality studies.

Anti-lock brakes and motorcycle traction/stability control are anecdotally penetrating the new motorcycle market well, particularly in the larger bike segments which tend to travel on the open road where these safety enhancements are most likely to pay dividends. There seems little to go on as to whether these systems would be beneficial on all motorcycles or only the subset primarily ridden in high speed, potentially winding rural environments. In 2012 the European Commission legislated the mandatory fitment with ABS for all new motorcycles above 125cc, to apply from 1 January 2016.

The effectiveness of anti-theft protection as an anti-crash measure would depend on the amount of crashes happening on stolen motorcycles. According to motorcycle forums the vehicle insurance industry is encouraging use of this already by charging extra where it is not used or in some cases by just refusing to insure against theft.

The MSAC now intends to consider what actions, along with its partners it can take to improve safety in these important areas.