0654 INJURIES TO PEDAL CYCLISTS ON NEW ZEALAND ROADS, 1988–2007

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Aim To assess exposure-based risks and profiles of road traffic injuries sustained by pedal cyclists that resulted in death or hospital inpatient treatment in New Zealand.

Methods Traffic cycling injuries were identified from the National Minimum Dataset and Mortality Collection. Total time spent cycling was used as the measure of exposure and computed from National Household Travel Surveys. Analyses were undertaken for the periods 1988–1991, 1996–1999 and 2003–2007. A modified Barell Matrix was used to characterise injury profiles by body region affected and nature of injury.

Results Cyclists had the second highest risk of traffic injuries compared to other major road user categories and the risk increased from 1996–1999 to 2003–2007. During 2003–2007, 31 injuries occurred per million hours spent cycling. Non-collision crashes (40%) and collisions with a car, pick-up truck or van (26%) accounted for two thirds of the injuries. Children and adolescents aged under 15 years were at the highest risk of non-collision crashes. Males had a higher risk of injury compared to females. The rate of traumatic brain injuries fell over the study period; however, injuries to other body parts increased steadily. Traumatic brain injuries were most common in collision cases whereas upper extremity fractures were most common in other crashes.

Conclusion The burden of fatal and hospitalised injuries among pedal cyclists is considerable and has been increasing over the last decade. This underscores the development of road safety and injury prevention programmes for cyclists alongside the cycling promotion strategies.