



Driveway accidents in New Zealand

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The mortality rate from trauma to children in New Zealand may be relatively low compared with many developing nations, but when more appropriately compared with that of other OECD countries, New Zealand ranks the worst.¹

Our ongoing record with driveway accidents represents a “blackspot” in New Zealand’s attempts to create a safe environment for its children. It is to our shame that we have the highest reported rate of driveway accidents in the world.

It is now almost 7 years since this journal² published a report of 77 separate driveway accidents causing 6 deaths in a 4-year period in Auckland. Even then, the accompanying editorial³ lamented that New Zealand lagged behind some of its closest neighbours in developing effective accident prevention programmes for children, and as a result of this, predicted that it might be a long time before measures would be introduced to reduce the toll.

Sadly, the article by Hsaio and colleagues⁴ in this issue of the *NZMJ* confirms that prediction to be correct: it would appear that nothing much has changed apart from another 93 children injured and a further 9 fatalities up until December 2005 in the Auckland region alone.

Admittedly, this is a complex problem, but Hsaio and colleagues⁴ have confirmed it is one for which a number of solutions are already evident. Initiatives that could be introduced that might be expected to reduce driveways fatalities in children are summarised in the following table.

Factor	Comment	Initiative required
Behaviour	Risks not appreciated by parents and public Preschool children have free access to driveways for play	Targeted education programme Greater publicity of incidents Better data on demographics Prevent children from playing in driveways
Driveway design	Many driveways traverse child play areas Paths adjacent to front doors	Review design of state housing Have garage at front of property Separate children’s play areas from driveways (e.g. fences) Avoid driveways immediately adjacent to front door of house
Car design	Inability to see small children behind car when reversing	Short distance proximity sensors Reversing mirrors Rear cameras

Behavioural modification and increased community awareness of the risk may be assisted through better public education programmes. They might include parent education classes (commencing at the time of antenatal classes, as it is these people who will soon have young children), increased media publicity about these types of accident and their contributing factors, and improved driver education.

There seems little doubt that the design of certain suburbs is a major contributing factor, particularly where it is common for housing to have a long driveway that passes close to the house entrance and is used for play. Thus physical barriers between homes and driveways, or locating garages and carports closer to roadways and away from front doors, have merit. This might necessitate cooperation between developers of new housing and those responsible for reviewing council regulations.

In achieving this goal, legislators need to be cognisant that those at greatest risk tend to be from the lowest socioeconomic groups. These people are the least likely to be able to afford the structural changes to their houses and driveways required to separate children from them. Nor are they likely to own vehicles with proximity sensors and rear cameras that improve visibility during reversing.

We might encourage our Ministry of Health, as we did in 2002, to follow the example of the Victorians in Australia and develop a nationwide injury surveillance system. We need to have information on the extent to which this is a nationwide problem. Indeed, more data would make it easier to identify more precisely the risks, and better target intervention to areas where they will be most effective, particularly in an environment of scarce health dollars.

The importance of good data collection and being able to monitor the effects of any interventions should not be underestimated. Sometimes initiatives that are introduced with the best of intentions have done little to improve the safety of children, and occasionally have inadvertently increased their risk. For example, the requirement that domestic hot water should be above 60°C to reduce the risk of *Legionella* (which it probably does not, as domestic hot water is virtually never the source of infection) has increased the risk of scalds in children, as this journal has previously warned.⁵

In addition, there needs to be closer collaboration between accident prevention researches (and groups such as the Injury Prevention Research Centre of the University of Auckland and the Injury Prevention Research Unit of the University of Otago) with industry and legislators.

Surely we must now be at the point where we need to introduce genuine and serious steps to reduce this appalling carnage on our driveways.

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