

Child deaths: Low Speed Vehicle Run-Over fatalities of young children 2002 – 2011

An occasional series to highlight issues and prevention strategies arising from reviews of the deaths of children in NSW

The NSW Child Death Review Team

The purpose of the NSW Child Death Review Team is to prevent and reduce the deaths of children in NSW. The work of the Team includes identifying trends and undertaking research in relation to child deaths, and making recommendations to prevent or reduce the likelihood of child deaths. The NSW Ombudsman is the Team's Convenor.

Low speed run-over fatalities

Over the 10 years from 2002 to 2011, 24 children under five years of age died in NSW after being run-over by a vehicle travelling at less than 10km/hour. These incidents are known as 'low speed vehicle run-overs'. Typically, these incidents occurred at or near the family home, and involved a vehicle being driven by a family member or a person known to the child.

Information on non-fatal low speed vehicle run–overs is not regularly reported for NSW. However, in NSW in 2010/11, 15 children under five years of age were injured by a vehicle in a driveway, and were subsequently admitted to hospital.¹

The Team undertook a review of the circumstances of the deaths of the 24 children in order to improve understanding of why these incidents happened, and what might help to prevent similar tragedies in the future. This paper is adapted from information contained in the Team's Annual Report 2011. This report can be accessed at http://www.ombo.nsw.gov.au/whatwe-do/coordinating-responsibilities/child-death-review-team.

The children who died

The majority of the children (15) were aged between one and two years old; 14 were boys and 10 were girls.

Consistent with their age, the children were also small, and were therefore less likely to be easily seen by a driver. Most of the children were less than 100cm tall.

The driver and vehicle

Three-quarters of the drivers were male. In just over half of the incidents (13), the driver was the child's parent. In other cases, the drivers were family friends, relatives or other persons known to the child; and five including couriers and commercial vehicle operators, were unknown to the family.

Most of the vehicles involved in the low speed run-over incidents were classified as light vehicles, including sedans and four-wheel drive sport utility vehicles. Seven of the vehicles were heavy vehicles.

Type of vehicle		Number
Light vehicles	4WD SUV	7
	Sedan	5
	Station wagon	1
	Towing (short)	2
	Utility or tray top	2
	Total	17
Heavy vehicles	Tractor	3
	Truck	4
	Total	7

Vehicle direction could be ascertained for 23 incidents. The most common vehicle direction at the time of the incident was reversing, with 10 vehicles reversing out of a driveway, garage or car park, and another three reversing into a driveway, garage or car park. Three vehicles were moving forward. In seven cases, the driver was either undertaking a turn or otherwise moving or manoeuvring the position of the vehicle at the time of the incident.

Where the incidents occurred

The largest number of incidents occurred in regional areas (14), eight occurred in a major city and two in remote or very remote areas.

Over half of the incidents occurred at or around the family's residence. All others occurred in an area known to the family, such as a family property or a friend's house. In half of the incidents, drivers were leaving the home or other premises when the vehicle struck the child. Three drivers were arriving at home, and in nine cases, drivers were operating machinery or moving vehicles within the premises.

Most (16) incidents occurred in driveways, carports or garages. Eight occurred in yards, farming or other working areas, and parking areas or footpaths that crossed or were near driveways. These areas had varying levels of visibility, and drivers were not aware of the child because the child was behind another object, or the driver believed the child to be safe or unable to access the area.

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¹ Information from the Admitted Patients Data Collection, provided by the NSW Commission for Children and Young People.

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Of the run-overs that occurred on a driveway, records identified the length of drive for seven. These seven driveways were 12 metres or longer. Long driveways have been associated with increased risk of run-over events, possibly because of increased speed or decreased visibility.

In a third of cases (8), there was a short period of time where the driver was in the car prior to moving the vehicle. This pause gave the child time to move into the path of the vehicle and typically occurred when a driver was getting into the car and then pausing to engage in some activity inside the car, such as changing a CD, warming the car up or listening to messages on a mobile phone.

Supervision of the children

The length of time a child was out of direct supervision was often short and related mainly to parents' or carers' being preoccupied with general household activities.

Most of the people responsible for supervising the child did not know how the child came to be in the path of the vehicle. Carers generally thought that they had taken reasonable precautions as they had believed the child to be in a safe place, for example inside the house watching television. Relating back to the young age of the children involved in these instances, it was not uncommon for parents to report that they had assessed the child's safety based on a level of mobility and dexterity that the child may have been at the cusp of moving beyond: children who were thought unable to reach door knobs appeared to have done so or those who could not walk more than a few steps were reported to have moved across an entire garden.

Sometimes, direct supervision was not enough to prevent the incident. A third of the children were with, or close by, other family members at the time of the incident. The children wandered away from the close proximity of an adult, or may have slipped or tripped into the path of the vehicle.

Preventing low speed vehicle run-overs

The Team is concerned that the number of low speed vehicle run-overs has not declined over the last decade.

Prevention strategies should consider three key areas:

- changes to vehicle design so that reversing visibility is improved;
- modifications to housing design, including separation of driveways and garages from play areas; and
- raising public awareness of the dangers of low-speed run-overs and methods to prevent them.

We have recommended that the Centre for Road Safety should take a lead in increasing community awareness of low speed run-overs. Such work would need to be based on solid information about the scope of the problem, including the number of children that are injured by vehicles travelling at low speed, and the circumstances in which this happens. We have asked the Centre to coordinate improved data collection, and to work with key stakeholders to examine more closely what needs

to be done in NSW to prevent children being injured or killed in low speed run-overs.

The Team is pleased that the federal government is also giving attention to this issue, with a report released in August 2012 entitled Child pedestrian safety: driveway deaths and low speed vehicle run-overs, Australia 2001 – 10 (available at http://www.bitre.gov.au/publications/2012/files/is_043a.pdf)

What can parents and carers do to prevent low speed vehicle run overs?

Close supervision of children around potential hazards should always be the first line of prevention.

The Federal Government has produced an information brochure promoting driveway safety, Driveway safety: are your kids at risk? available at: http://www.infrastructure.gov.au/roads/safety/publications/2012/pdf/INFRA1498.pdf

The brochure describes a number of useful measures that parents and carers can take to protect children from moving vehicles around the home:

- Always supervise your children when a vehicle is to be moved forwards or backwards – hold their hand or hold them close to keep them safe.
- If you're the only adult at home and need to move a vehicle, even only a small distance, place children securely in the vehicle with you while you move it.
- A driveway is actually a small road discourage children from using it as a play area.
- Where possible, prevent children from entering the garage and driveway from the house – consider using self-closing doors, fencing and gates.
- Be aware of your vehicle's blind zones and learn the best way to use the mirrors and any other reversing aids in your vehicle.
- There can never be a substitute for close supervision of children, although reversing cameras and other vehicle technologies can help drivers avoid rearward collisions.