



Pedestrians Involved in Road Crashes in South Australia

August 2012

Almost everyone is a pedestrian at times and, as such, is a vulnerable road user. Risks to safety are heightened because pedestrians are not surrounded by the protection of a vehicle and in the event of a crash, are more susceptible to the possibility of death or serious injury.

Figure 1 - Pedestrian fatalities per year, South Australia, 2002-2011

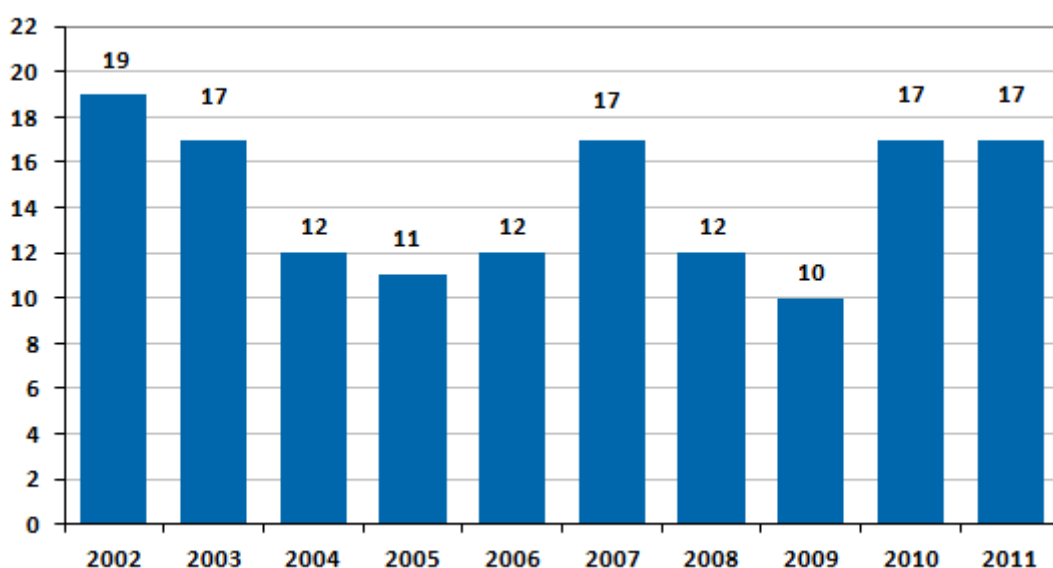


Figure 1 shows the number of pedestrian fatalities per year for the period 2002-2011. Between 2003-2006 there was a general decrease in the number of pedestrian fatalities per year increasing over the past two years but still lower than the 19 deaths that occurred in 2002.

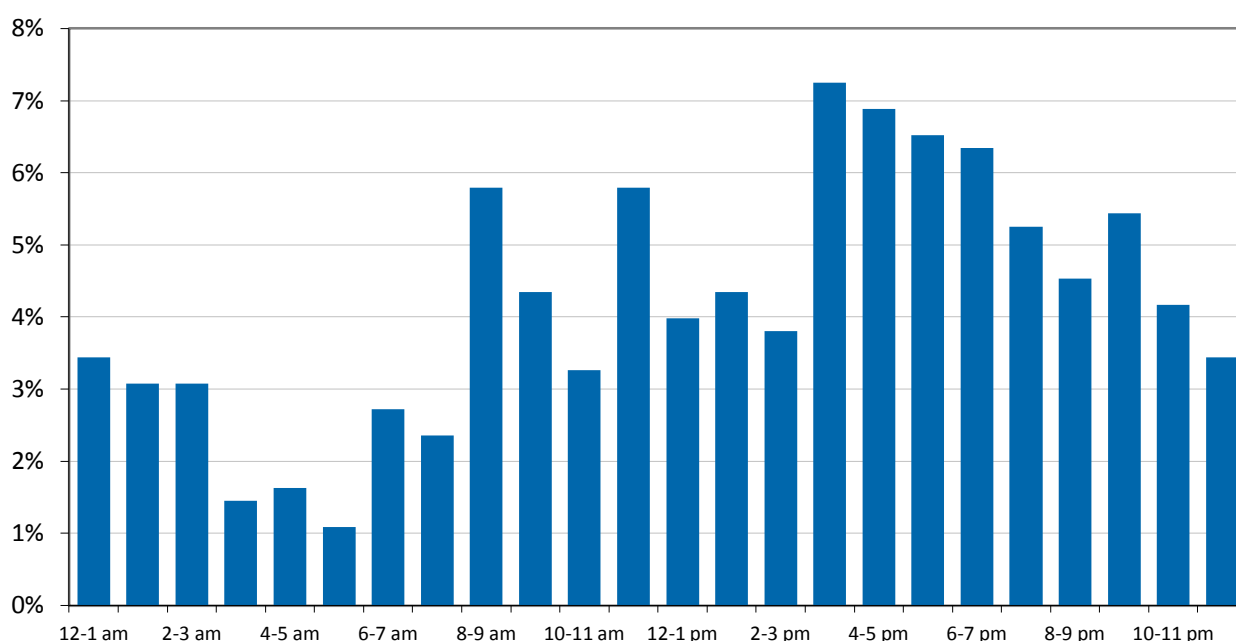
Over the last five years 2007-2011, 1 in every 8 road deaths in South Australia was a pedestrian. In addition to fatalities, there are on average 99 pedestrians seriously injured and 291 who received minor injuries on South Australian roads each year.



Time of Day

Pedestrian serious crashes occur during all times of the day, however there are peak times when the number of serious casualties is particularly high. Figure 2 shows that 69% of crashes that resulted in a serious or fatal injury of a pedestrian were during the hours of 6am - 6pm, a peak occurring between 3 – 6pm.

Figure 2 - Percentage of crashes in which a pedestrian was killed or seriously injured by time of day, South Australia, 2007-2011



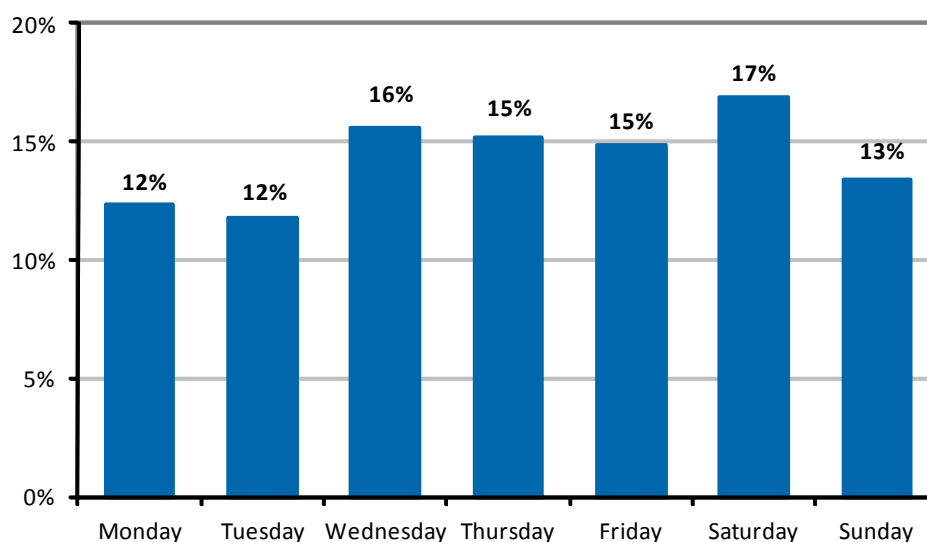
The risk of a crash involving a pedestrian resulting in a serious or fatal injury increases substantially during the hours of darkness. On average, between 2007 – 2011, 31% of all crashes involving a pedestrian being struck occurred between the hours of darkness (6pm – 6am) of these 40% resulted in a serious or fatal injury. A comparison to the daylight hours can be seen in Table 1 where only 24% of crashes involving a pedestrian resulted in a serious or fatal injury.

Table 1 - Percentage of crashes in which a pedestrian was hit by time of day and severity, South Australia, 2007-2011

	Minor injury crash	Serious or fatal injury crash	Total
6am - 6pm	76%	24%	100%
6pm - 6am	60%	40%	100%

Figure 3 shows the frequency of fatal and serious injury pedestrian crashes by weekday and indicates the frequencies increase slightly on Saturdays, however the spread across weekdays is somewhat even.

Figure 3 – Percentage of crashes resulting in a fatal or serious injury of a pedestrian by weekday, South Australia, 2007-2011



Rural versus Metropolitan

During the years 2007-2011, 81% of all crashes that involved a fatality or serious injury of a pedestrian in South Australia occurred in metropolitan areas, this is not surprising given the higher volume of pedestrians and traffic present. Of all fatal and serious injuries that occurred in metropolitan areas, 15% of these involved pedestrians, compared to 4% in rural South Australia.

Table 2 shows the Local Government Areas where the highest number of fatal and serious injury pedestrian crashes occurred. These crashes represent 63% of all pedestrian crashes.

Table 2 – Top 10 Local Government Areas where a crash resulting in a fatal or serious injury to a pedestrian occurred, South Australia, 2007-2011

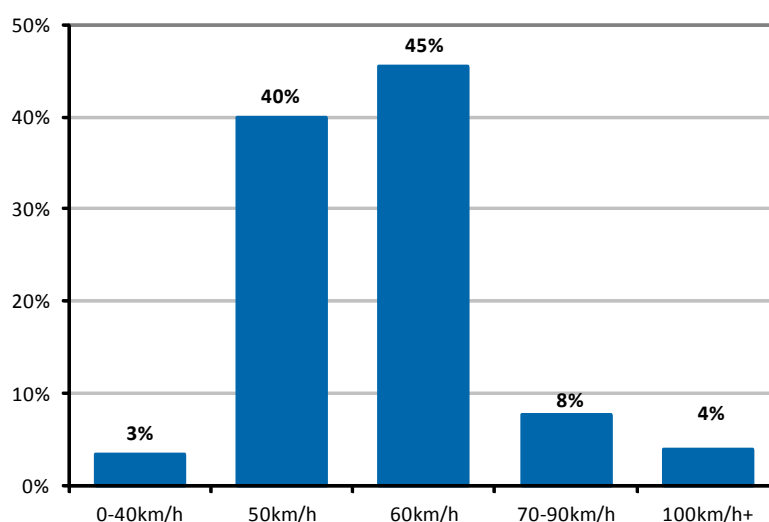
Local Government Area	Number of fatal or serious injury pedestrian crashes
Adelaide	76
Port Adelaide Enfield	48
Charles Sturt	45
Playford	33
Salisbury	30
West Torrens	25
Onkaparinga	25
Norwood Payneham St Peters	24
Unley	22
Holdfast Bay	21

Speed Limit of Road

There is evidence that small reductions in urban travel speeds can markedly reduce the number of fatal pedestrian crashes. When Victoria started intensive speed camera enforcement in conjunction with publicity campaigns, there was a 42% reduction in pedestrian deaths.

On March 1 2003 the default urban speed limit in South Australia was reduced from 60km/h to 50km/h. Initial studies found that on roads where the speed limit was reduced from 60km/h to 50km/h the average travelling speed fell by 2.3km/h and the number of people injured in crashes fell by 24%. The number of hit- pedestrian casualty crashes decreased by nearly 8% on these roads¹.

Figure 4 – Percentage of crashes resulting in a fatal or serious injury of a pedestrian by speed limit of road, South Australia, 2007-2011



¹ From the report 'Evaluation of the South Australian default 50km/h speed limit' CN Kloeden, JE Woolley, AJ McLean CASR report serious CASR005, October 2004

Pedestrian Crossings and Traffic Signals

Pedestrian serious casualties are much higher when no pedestrian crossing or signalised intersection is present, such casualties are primarily the result of pedestrians attempting to cross the road where there are no facilities to aid them in crossing. Attempting to cross the road where there is no assisting traffic facilities can be further impaired by the presence of alcohol and drugs and also by a person's age. Younger and older people can have difficulty making speed and gap judgements.

On average 28% of pedestrian fatality and serious injury crashes occur at intersections and 72% at mid-block sections of road (i.e. where there are no intersecting roads). Of those that occurred at intersections, 63% of these occurred where there was no traffic signal.

Table 3 – Crashes at intersections resulting in a fatality or serious injury of a pedestrian, by control South Australia, 2007 – 2011

Intersection Control	Serious Casualty Crashes	Percent
Traffic signals	58	37%
Stop sign	8	5%
Give way sign	17	11%
No control	67	43%
Roundabout	5	3%
Total	155	100%

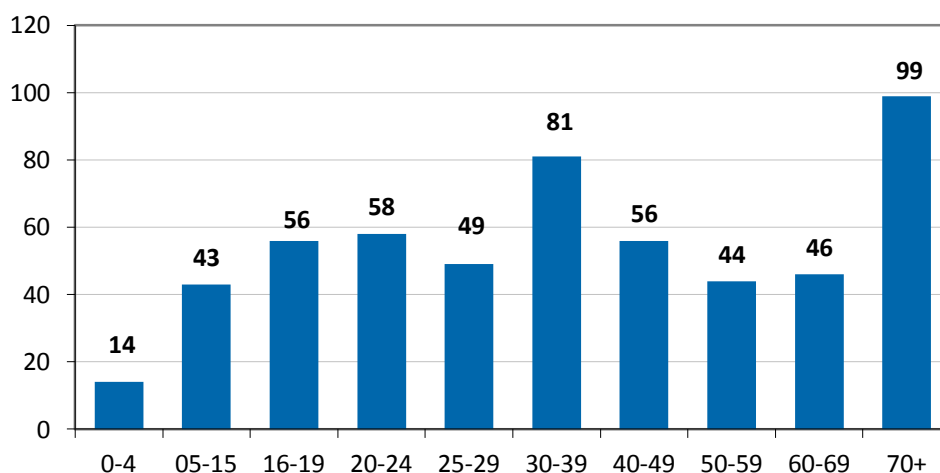
Pedestrians Affected by Alcohol and/or Other Drugs

The presence of alcohol or drugs in a pedestrian's system can impair their ability to safely negotiate roads and traffic. Between 2007 and 2011, of the pedestrian fatalities who were tested 42% were found to have a blood alcohol content of more than 0.05. 28% were over 0.20, indicating that a high level of alcohol in a pedestrian's system greatly increases the risk of being involved in a fatal crash. On average 8% also tested positive to cannabis, MDMA, methamphetamine or a combination of these drugs.

Age of Pedestrians

Figure 5 shows the number of pedestrians killed or seriously injured by age group. The 70 and over population has a significantly higher risk of being seriously injured as a result of a pedestrian crash. The 16-19 and 20-24 age groups also have high figures when considering that these age brackets contain a smaller percent of the population.

Figure 5 – Serious pedestrian casualties by age group, South Australia, 2007-2011



Figures 6 and 7 show the number of pedestrian fatalities and serious injuries per 100,000 of population in each respective age group.

Elderly pedestrians and those aged 16-24 have an elevated risk of injury from a collision, in particular with road vehicles. Due to the perceptual, cognitive and physical deterioration associated with ageing, if an older person is hit by a car, the outcome is likely to be more severe resulting in a fatality or serious injury. The higher involvement of older people in pedestrian fatalities is indicative of the relative frailty of older people. Many elderly people also have a greater reliance on walking and are therefore more likely to be exposed to traffic as pedestrians than younger age groups².

Child pedestrians are smaller, harder for drivers to see and less predictable than other pedestrians. Children are more likely to have serious than minor injuries when hit because their whole body is more likely to be hit by the vehicle frontage, compared with adult pedestrians where the legs only are more likely to be hit and the body thrown up onto the bonnet. While the statistics do not show child pedestrian casualties to be a major contributor, the emotive nature of the issue cannot be discounted.

² Page 203 'Road Safety in Australia. A publication commemorating World Health Day 2004' Australian Transport Safety Bureau.

Figure 6 – Pedestrian serious injuries per 100,000³ population by age, South Australia, 2007-2011

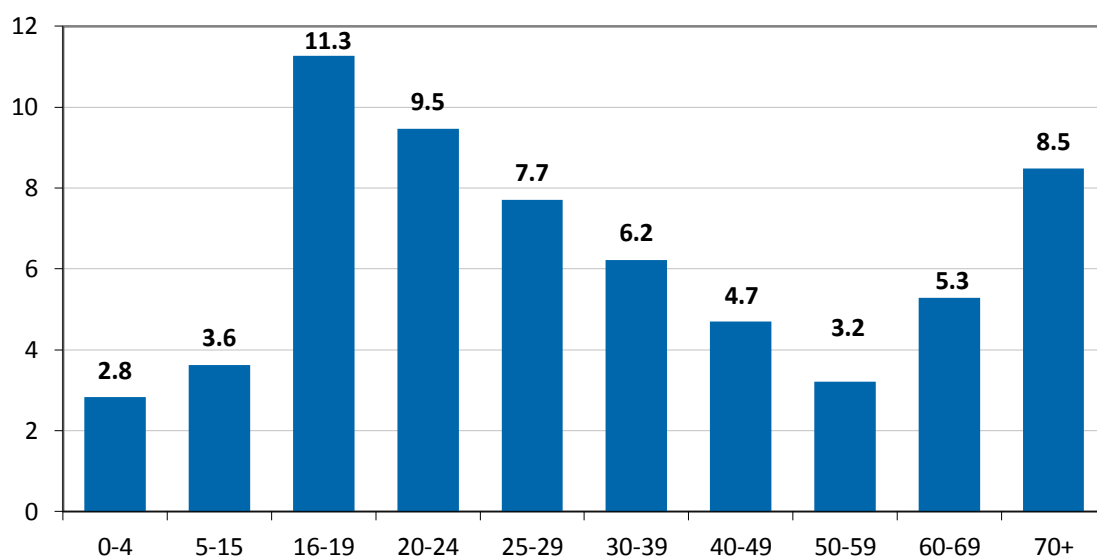
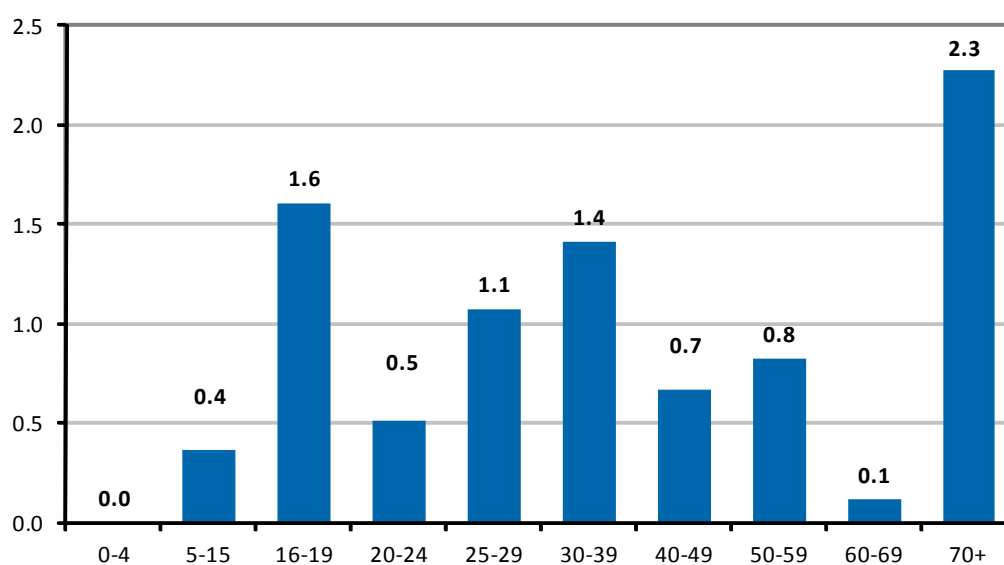


Figure 7 – Pedestrian fatalities per 100,000 population by age groups, South Australia, 2007-2011

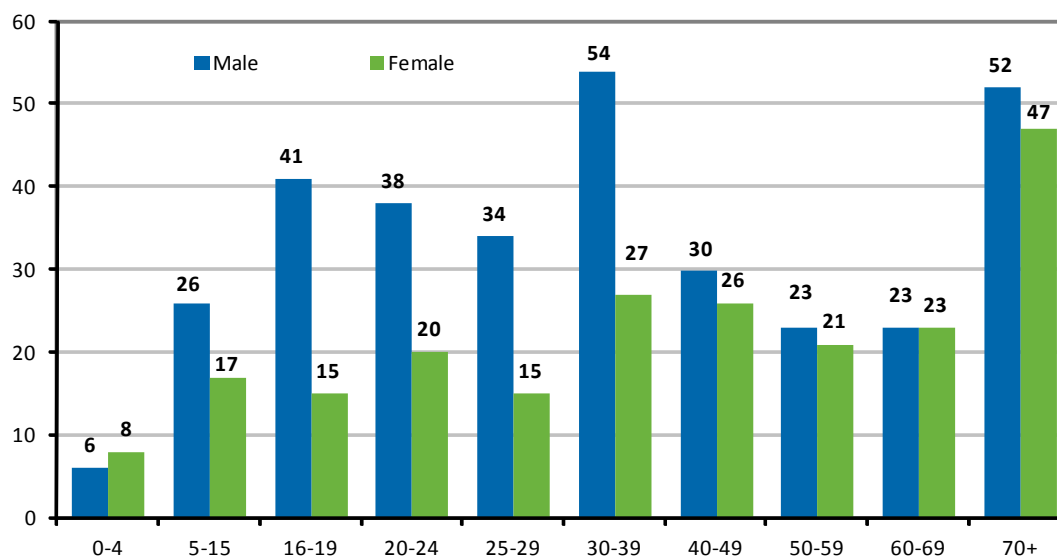


Gender of Pedestrians

Over the last five years a higher proportion of male pedestrians have been involved in serious casualty crashes than female. Of the total number of pedestrians killed and seriously injured between 2007 and 2011, 60% were male. This is indicative of the overall road toll, where males are over represented in more serious crashes.

³ Australian Bureau of Statistics, Population by Age and Sex, June 2010, Cat no. 3201.6

Figure 8 – Number of serious and fatal pedestrian injuries by age group and gender, South Australia, 2007-2011

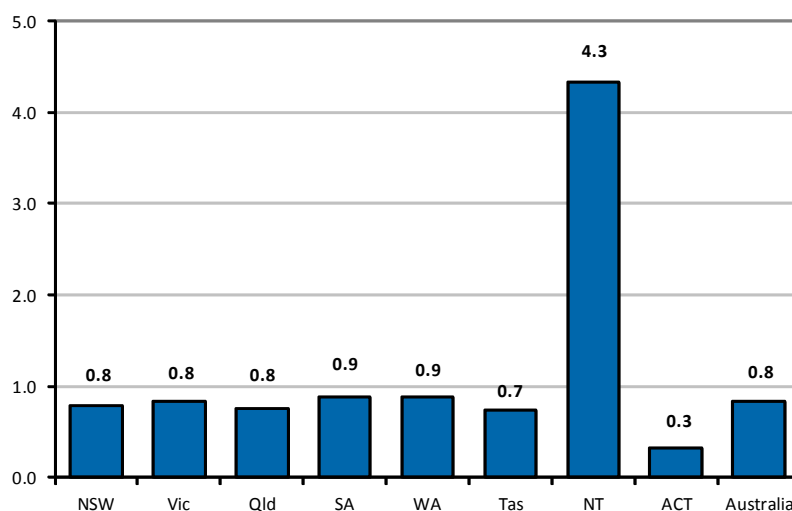


Males represent the majority of pedestrians seriously injured or killed, this however this difference is less pronounced in the older age groups and the very young.

National Comparison

Figure 9 shows the average fatality rate per 100,000 population in the last 5-year period for Australian States and Territories. South Australia is slightly above the national average. The fatality rate dropped from 0.9 in the 2002-2006 period to 0.7 in 2004-2008, but has risen slightly to 0.9 again for the 5 year period between 2007-2011.

Figure 9 – Pedestrian fatalities⁴ per 100,000⁵ for states and territories, 2007-2011



⁴ Bureau of Infrastructure, Transport and Regional Economics, Road Deaths Australia – 2011 Statistical Summary

⁵ Australian Bureau of Statistics, Australian Demographic Statistics, September 2011

Definitions of police reported casualty types:

Casualty Crash - A crash where at least one fatality, serious injury or minor injury occurs.

Casualty – A fatality, serious injury or minor injury.

Fatal Crash - A crash for which there is at least one fatality.

Fatality - A person who dies within 30 days of a crash as a result of injuries sustained in that crash.

Serious Casualty Crash – A crash where at least one fatality or serious injury occurs

Serious Casualty – A fatality or serious injury.

Serious Injury Crash - A non-fatal crash in which at least one person is seriously injured.

Serious Injury - A person who sustains injuries and is admitted to hospital as a result of a road crash and who does not die as a result of those injuries within 30 days of the crash.

Minor Injury Crash - A crash for at least one person sustains injury but no person is admitted to hospital or dies within 30 days of the crash.

Minor Injury – A person who sustains injuries requiring medical treatment, either by a doctor or in a hospital, as a result of a road crash and who does not die as a result of those injuries with 30 days of the crash.

Property Damage Only Crash – A crash resulting in property damage in excess of the prescribed amount in which no person is injured or dies within 30 days of the crash.

Data sources

The data presented in this reports was obtained from the Department of Planning, Transport and Infrastructure Road Crash Database. The information was compiled from police reported road casualty crashes only.

Figures relating to the current year are preliminary and are subject to revision.

Enquiries

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