TOWARDS ZERO

SPEED AND RED LIGHT CAMERA FUNDED PROJECT

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GOVERNMENT OF WESTERN AUSTRALIA

2013 SUMMARY

PRELIMINARY FATAL AND CRITICAL INJURIES ON WESTERN AUSTRALIAN ROADS

Photo: © The West Australian

Further reducing road carnage is our 2014 challenge

20 less deaths on our roads over the past 12 months can only be seen as a positive, that's 20 Western Australian families that have avoided the most heartbreaking of circumstances. Whilst the reduction is pleasing the fact that 162 people still perished on our roads is an unacceptable burden on our community.

Since 2008 the rate of road trauma in Western Australia has dropped by 30%, from 9.4 fatalities per 100,000 population in 2008 to 6.4 fatalities per 100,000 population last year. This significant reduction represents the results delivered by the implementation of the Government's Towards Zero road safety strategy. Legislative changes, increased compliance, road upgrades and ongoing improvements to vehicle standards have all contributed to the reduction. Most notably, the Liberal-National Government's decision to divert 100% of speed and red light camera revenue to the Road Trauma Trust Account has provided the capacity to spend significantly more on enforcement, regional road improvements and mobilisation efforts to improve road safety outcomes.

In 2013, Western Australia lost the unenviable position of having the worst road safety record of any state in the country, however now is not the time for Western Australians to be complacent. This year the Government will continue to implement measures to reduce road trauma in Western Australia.

This document provides policy makers, researchers, the media and the community with a preliminary statistical snapshot of road trauma in 2013. I hope this ongoing publication will promote an informed debate on road safety and encourage a renewed commitment to making our roads safer to help reduce the human suffering that results from road trauma.

Liza Harvey

Hon. Liza Harvey MLA

Minister for Police; Tourism; Road Safety; Women's Interests

Photo courtesy of WA Police.

Preliminary Fatal and Critical Injury Summary 2013

Unless otherwise identified, the numbers reported in this publication are prepared by the Office of Road Safety (ORS) based on preliminary fatality and critical injury data provided by the WA Police. This data is accurate as at 24 January, 2014. Numbers may change in the future due to police investigation, coronial inquiry or upgrade of injuries. WA Police definitions may be used throughout the publication. Please note that these may differ from those regularly reported by the ORS.

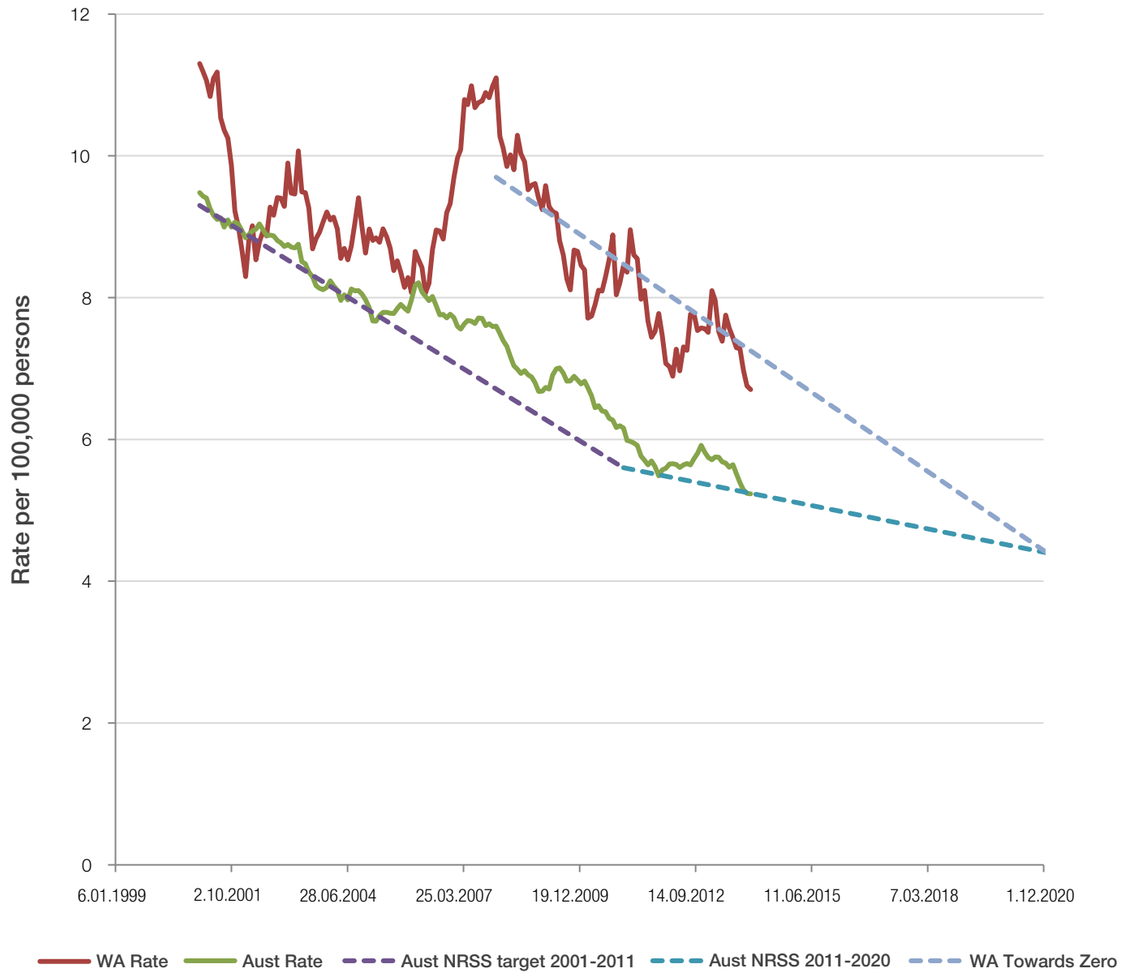
This publication reported on fatalities and critical injuries sustained in reportable road crashes occurring on roads open to the public and arising from normal use of the road. This will exclude injuries from crashes where there was a medical condition or premeditated intent to cause harm. Fatalities are defined as those persons killed immediately or within 30 days of the crash from injuries sustained in the crash. Critical injuries are defined as those who sustain injuries in a road crash that 'are of such a nature as to endanger life, or to cause, or be likely to cause, permanent injury to health'. [1]

WA and national trends

As shown in Figure 1, WA's fatality rate has reduced significantly since 2001 and currently sits below the expected trend required to meet the ambitions of the Towards Zero Road Safety Strategy. However, there are still more fatalities per 100,000 persons than the national fatality rate.

WA has a growing road network, currently comprised of over 18,500 km of State roads, 130,000 km of local roads and 35,000 km of roads in national parks and forests.[2] These roads are widely dispersed, covering an area of over 2.5 million km2.

Figure 1 Rolling 12 month fatality rates per 100,000 persons for WA compared to Australia [3]



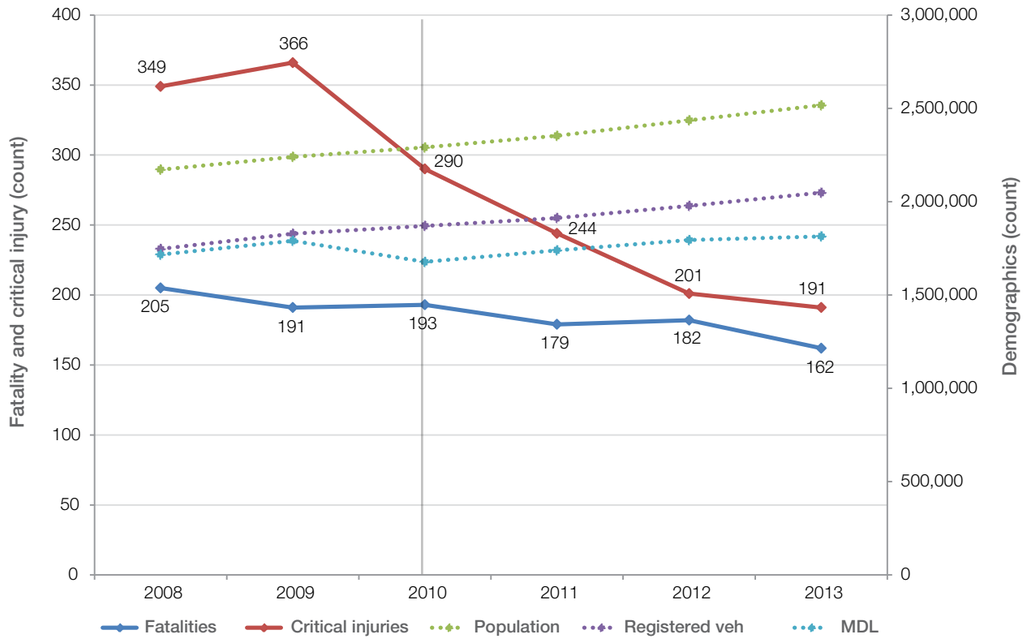
[1] *RAC & WA Police (2012). Fatal & serious injury summary 2011, p7.*
[2] *Regional Road Length Statistics, Road Information Services, Main Roads WA, August 2013.*

[3] *Source: Road Deaths Australia - Monthly Bulletins Series, BITRE ; ABS Australian Demographic Statistics series (3101.0), Population Projections, Australia (3222.0).*

Trends in WA fatalities and critical injuries

In 2013, there were 162 fatalities and 191 critical injuries in reported road crashes in Western Australia. When compared to the preceding five-year average of 190 fatalities and 290 critical injuries, there were 28 fewer fatalities and 99 fewer critical injuries. This reduction has occurred at the same time as ongoing increases in WA's population, vehicle kilometres travelled, registered vehicles and licensed motor vehicle drivers.

Figure 2 Fatalities, critical injuries and demographics by year, WA, 2008-2013 ▼



In mid-2010, the process for confirming a critical injury was improved. This change may affect the comparability of critical injuries before and after this time.

WA 2013 **Fatalities: 162 Critical injuries: 190**

5 Year Avg. 2008-2012 **Fatalities: 190 Critical injuries: 290**

The fatality rate per 100,000 persons has reduced over the past six years from 9.4 in 2008 to 6.4 in 2013. The critical injury rate per 100,000 persons has also reduced from 16.1 in 2008 to 7.6 in 2013.

Table 1 Fatality and critical injury rates, 2008-2013, WA ▼

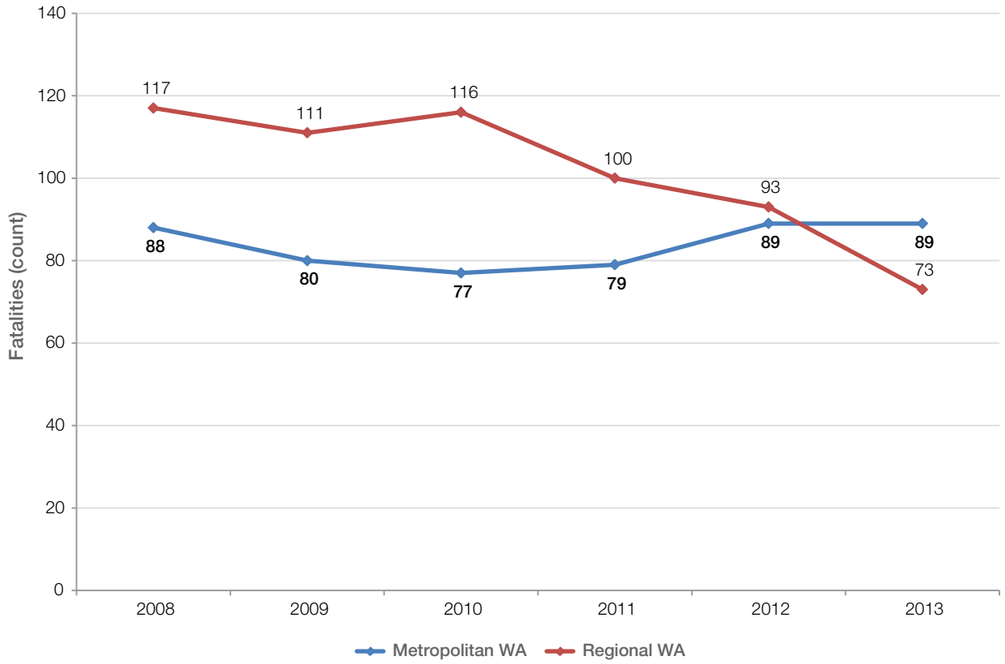
Year	Fatalities	Rate per 100,000 persons	Rate per 100 million VKT	Rate per 10,000 registered vehicles	Rate per 10,000 Motor Vehicle Driver's Licences
Fatalities					
2008	205	9.4	0.8	1.2	1.2
2009	191	8.5	0.8	1	1.1
2010	193	8.4	0.8	1	1.2
2011	179	7.6	0.7	0.9	1
2012	182	7.5	0.7	0.9	1
2013	162	6.4	0.6	0.8	0.9
Critical injuries					
2008	349	16.1	1.4	2	2
2009	366	16.3	1.4	2	2
2010	290	12.7	1.2	1.6	1.7
2011	244	10.4	1	1.3	1.4
2012	201	8.3	0.8	1	1.1
2013	191	7.6	0.7	0.9	1.1

[4] *Sources: Population counts (ABS Cat no. 3101.0, release 17/12/2013); VKT (BITRE < http://www.bitre.gov.au/publications/2012/is_044.aspx >); Registered vehicle counts (ABS cat no. 9309.0, release 23/07/2013); MDL counts (Department of Transport, 2013)*

Trends in WA fatalities and critical injuries

Although there have been decreases in the fatality and critical injury counts in WA, these reductions were not experienced equally across Metropolitan and Regional WA. As Figure 3 and Figure 4 show, Regional WA has seen a greater reduction in both fatality and critical injuries than Metropolitan WA.

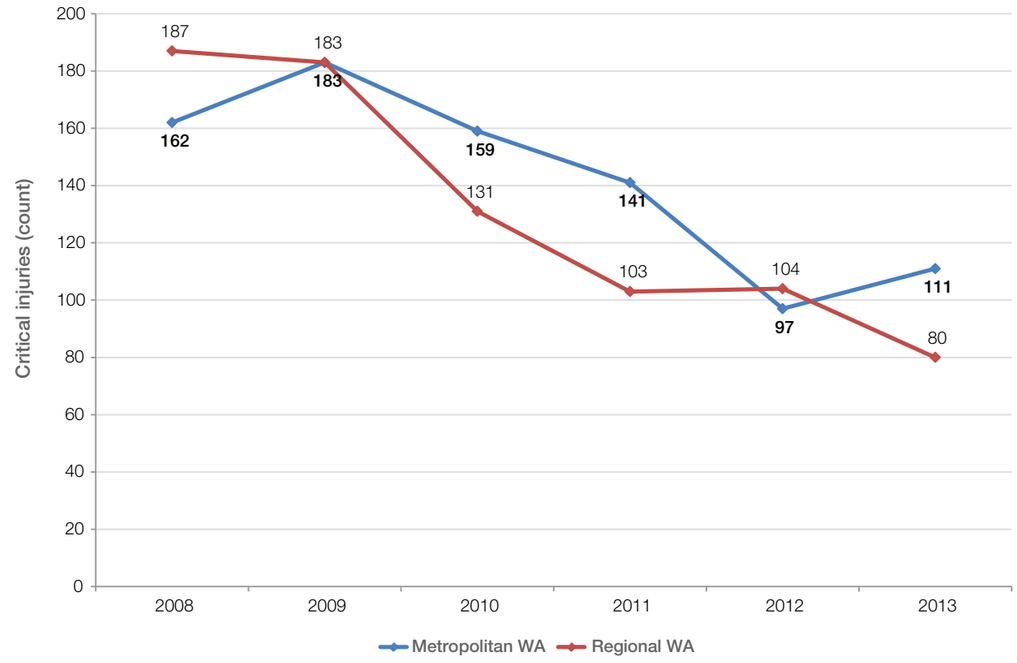
Figure 3 Fatalities by region and year, 2008-2013 ▼



WA 2013 **15 per cent decrease in fatalities compared to the preceding five-year average**

There were 162 fatalities in 2013, which is a 15 per cent decrease when compared to the preceding five-year average of 190. There were also 191 critical injuries, which is a 34 per cent decrease when compared to the preceding five-year average of 290.

Figure 4 Critical injuries by region and year, 2008-2013 ▼

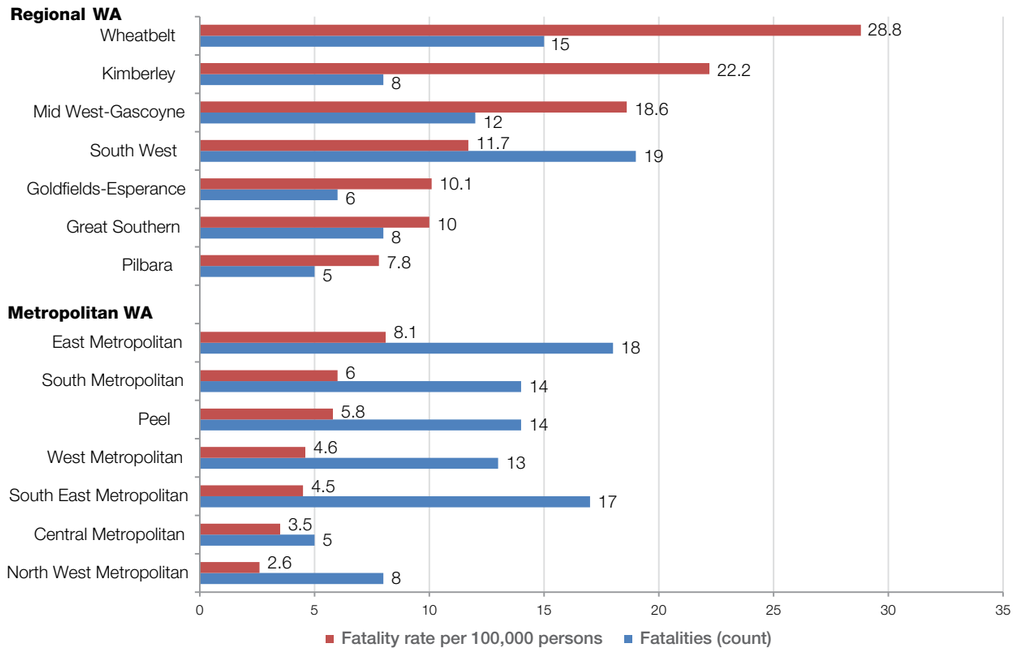


Trends in WA fatalities and critical injuries

Police district

The districts reported here are based on WA Police boundaries for operational districts and do not equate to those regions normally reported by the ORS. As shown in Figure 5, police districts in Regional WA have higher fatality rates per 100,000 persons than those in the Metropolitan area. In 2013, the Wheatbelt police district had the highest fatality rate per 100,000 persons (28.8), while the North West Metropolitan district had the lowest rate at 2.6 fatalities per 100,000 persons.

Figure 5 Indicative fatality rates per 100,000 persons and fatality counts by WA Police district, 2013 [5]



[5] *Rate denominators were prepared for the WA Police by the Australian Bureau of Statistics and are population counts for 2011 by WA Police district.*

Gender

Despite males consistently representing half of the WA population over the past six years, 80 per cent (130) of the 162 fatalities in 2013 were male and 20 per cent (32) were female. This gender distribution of fatalities is slightly higher than the preceding five-year average, where 71 per cent (135) were male and 29 per cent (55) were female.
Of the 191 critical injuries in 2013, 81 per cent (154) were male and 19 per cent (37) were female. This is, however, slightly different to the average gender distribution of critical injuries in the preceding five years, where 34 per cent (99) were female and 66 per cent (191) were male.

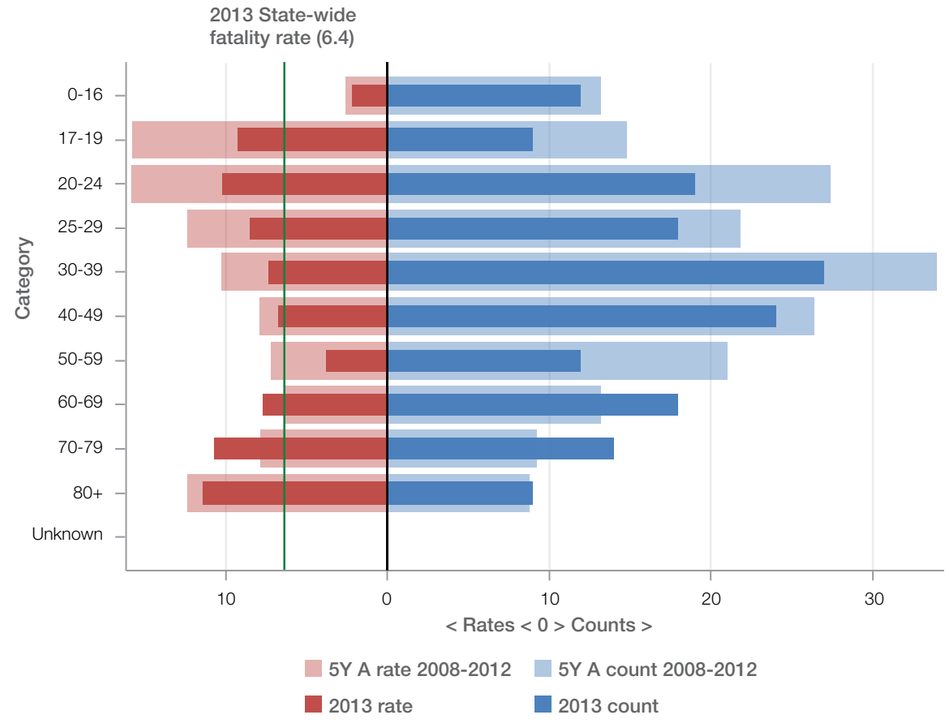
Age

In 2013, the highest number of fatalities (27, 17%) was in the 30 – 39 year age group and the highest number of critical injuries (35, 18%) was in the 20 24 year age group. Many of the age groups showed a reduction in fatality counts and all of the groups showed a reduction in critical injury counts when compared to the preceding five-year average. However, the number of 60-69 year old fatalities did increase to 18 in 2013 from a preceding five-year average of 13. The number of 70-79 year old fatalities also increased to 14 in 2013 from a preceding five-year average of nine.

Figure 6 compares the 2013 age-specific fatality counts and rates to the preceding five-year average. Taking into account age-specific populations, the 80 years and over age group had the highest fatality rate per 100,000 persons (11.4) in 2013. All age groups showed a reduction in their age-specific fatality rates, except for the 60-69 and 70-79 year age groups.

In 2013, the 17 – 19 and 20 – 24 year age groups had the highest critical injury rates per 100,000 persons (26.7 and 18.8 respectively).
However, these rates have reduced when compared to the preceding five-year average.

Figure 6 Comparison of 2013 fatality counts and rates to the preceding five-year averages



Trends in WA fatalities and critical injuries

Road user type

Although the proportion of fatalities travelling as motor vehicle occupants has decreased from 72 per cent (147) in 2008 to 59 per cent (96) in 2013, the proportion of fatalities who are pedestrians have increased from nine per cent (18) in 2008 to 19 per cent (31) in 2013. Motorcyclist fatalities have reduced to 15 per cent (25) in 2013, from 18% (36) in 2008.

Table 2 Fatalities by road user type and year, WA ▼

Road user type	2008		2009		2010		2011		2012		2013	
	n	%	n	%	n	%	n	%	n	%	n	%
Motor vehicle occupant	147	72	135	71	138	72	122	68	122	67	96	59
Motorcyclist	36	18	31	16	35	18	28	16	34	19	25	15
Pedestrian	18	9	25	13	15	8	26	15	23	13	31	19
Cyclist	3	1	0	0	4	2	3	2	3	2	6	4
Other	1	0	0	0	1	1	0	0	0	0	4	2
Total	**205**	**100**	**191**	**100**	**193**	**100**	**179**	**100**	**182**	**100**	**162**	**100**

Licence type

In 2013, the majority (83%, 149) of motor vehicle drivers/riders who were involved in fatal crashes were driving with an appropriate licence. However, 12 per cent (21) had either no licence or an expired, inappropriate, suspended, or cancelled licence. This proportion remains steady when compared to the preceding five-year average (12%, 33). It must be noted that this information does not infer liability: drivers and riders involved may not have been at fault in the crash.

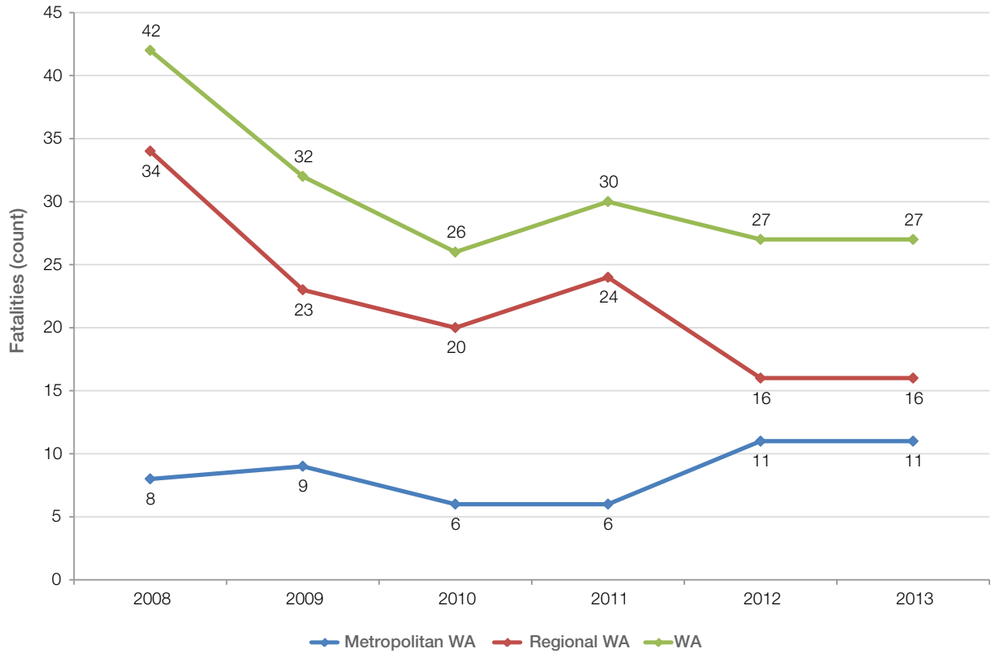
Restraint and helmet usage

There were 96 known motor vehicle occupant (MVO) fatalities in 2013, 28 per cent (27) of these were recorded as not wearing an appropriate restraint at the time of the crash. In Regional WA, 29 per cent (16) of the 55 MVO fatalities in 2013 were recorded as not wearing a restraint, compared to 35 per cent (34) in 2008. In Metropolitan WA, 27 per cent (11) of the 41 MVO fatalities were recorded as not wearing a restraint compared to 16 per cent (8) in 2008. Three of the 25 motorcyclist fatalities and two of the six bicycle fatalities were recorded as not wearing a helmet at the time of the crash.

Photo courtesy of WA Police.

WA 2013 **43% of fatalities resulted from crashes with no recorded driver behavioural factors**

Figure 7 Motor vehicle occupant fatalities recorded as not wearing an appropriate restraint by region and year, WA, 2008-2013 ▼



Common contributing factors

Alcohol-related crashes include those where at least one driver/rider of a motor vehicle was suspected to have been drinking and/or alcohol (alone or in combination) was identified as a primary crash factor by the attending police officer.

Speed-related crashes include those where speed was recorded as a contributing factor and/or identified as a primary crash factor (alone or in combination) by the attending police officer. Speed may be listed as contributing to a crash when at least one of the vehicles was travelling in excess of the speed limit or at a speed inappropriate for prevailing conditions.

Fatigue as a factor includes those crashes where fatigue was flagged as a contributing factor and/or fatigue was identified as a primary crash factor by the attending police officer.

Inattention is a factor in crashes where attention was identified as a primary crash factor by the attending police officer.

Photo courtesy of WA Police.

Trends in WA fatalities and critical injuries

Figure 8 Number of fatalities by nature of the crash and region, 5YA and 2013

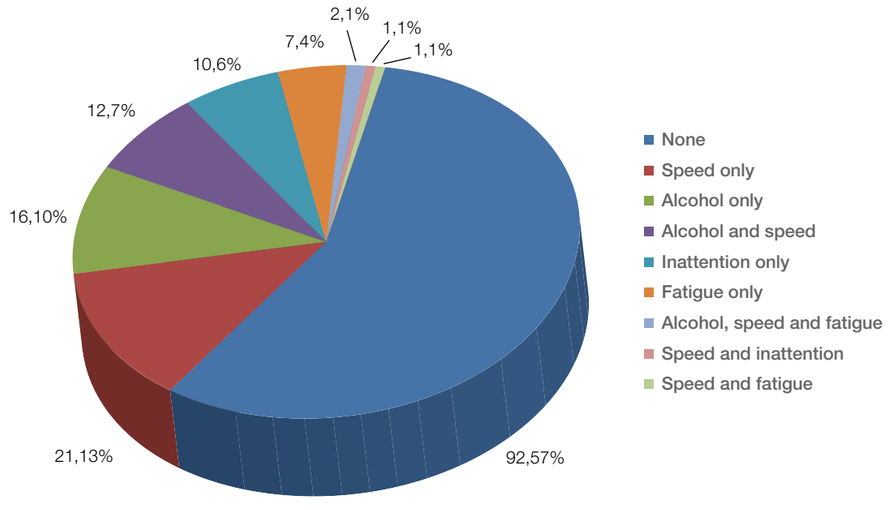


Figure 8 shows the proportion of fatalities in 2013 arising from crashes involving these four common contributing factors, either alone or in combination. While the majority (57%, 92) were killed in crashes that did not have alcohol, speed, fatigue, or inattention recorded as a contributing factor, 30 per cent (49) were in crashes where speed, alcohol, or a combination of both was recorded as contributing. The findings for critical injuries are different: the most common contributing factor was inattention alone, with 15 per cent (28) of all critical injuries resulting from crashes where inattention was thought to be a contributing factor.

In 2013, there were 30 fatalities in any crashes involving alcohol, which is a 48 per cent decrease compared to those in the preceding five-year average (58.2). In 2013, there were 37 fatalities in any speed-related crashes, which is a 42 per cent decrease compared to those in the preceding five-year average (63.2).

In 2013, there were ten fatalities arising out of fatigue-related crashes which is a 54 per cent decrease compared to the those in the preceding five-year average (21.6). There were 11 fatalities arising out of inattention-related crashes in 2013 which is 37 per cent lower than the preceding five-year average of 17.6.[6]

In 2013, there were 33 critical injuries in any crashes involving alcohol, which is a 59 per cent decrease compared to those in the preceding five-year average (80.8). In 2013, there were 37 critical injuries in any speed-related crashes, which is a 55 per cent decrease compared to those in the preceding five-year average (83). In 2013, there were ten critical injuries arising out of fatigue-related crashes which is a 65 per cent decrease compared to preceding five-year average (28.4). There were 28 critical injuries arising out of inattention-related crashes in 2013 which is seven per cent lower than the preceding five-year average of 30.2.[6]

[6]*Note that categories are not mutually exclusive in this paragraph so counts cannot be summed as they may overlap.*

Crash nature

The highest number of fatalities (28%, 46) in WA results from hit object crashes, followed by fatalities in non-collision crashes (22%, 35) and hit pedestrian crashes (20%, 32). Figure 9 shows that although fatalities from hit object crashes occur more often in Regional WA, there has been a decrease when compared to the preceding five-year average.
In 2013, the highest number of fatalities in Metropolitan WA was as a result of hit pedestrian crashes. The figure shows that this number has increased when compared to the preceding five-year average.

Speed zone

Approximately one-third (32%, 52) of the 162 fatalities and one-quarter (23%, 44) of the 191 critical injuries in WA in 2013 resulted from crashes that occurred in 110 km/h speed zones. This speed zone has consistently had the highest proportion of fatalities and critical injuries in each of the last six years. However, the proportion of fatalities in the 110 km/h speed zone has reduced from a peak of 46 per cent (79) in 2010, whereas the proportion of critical injuries has reduced from a peak of 34 per cent (83) in 2011.

Of the 89 fatalities in Metropolitan WA, one-quarter (26%, 23) resulted from crashes that occurred in 60 km/h speed zones. This represented the highest proportion of fatalities in the Metropolitan area, closely followed by 70 km/h speed zones (21%, 19). In contrast, nearly two-thirds (64%, 47) of the 73 fatalities in Regional WA in 2013 resulted from crashes that occurred in 110 km/h speed zones, followed by 11 per cent (8) in 50 km/h speed zones.

Of the 111 critical injuries in Metropolitan WA, one-quarter (25%, 28) resulted from crashes that occurred in 70 km/h speed zones. As with fatalities, the highest proportion (49%, 39) of the 80 critical injuries in Regional WA resulted from crashes that occurred in 110 km/h speed zones.

Figure 9 Number of fatalities by nature of the crash and region, 5YA and 2013