



## Drink driving trauma trends Report

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# 1 Trends for fatal and serious injury crashes involving illegal alcohol since 2008

The following overview of drink driving involvement in NSW road trauma is limited to the most recent available data. For fatal crashes this covers the calendar years 2008 to 2016p, where the 2016 data are preliminary and subject to change. Due to the time lag in processing blood samples the alcohol data for 2016 are slightly underenumerated at this time. For serious injury crashes this covers the calendar years 2008 to 2015 – data for the calendar year 2016 data were incomplete at the time of this report and therefore not included. Only the matched serious injury data were used in the analysis as complete alcohol data for non-matched serious injuries (along with other crash characteristics) were not available.

An alcohol related crash is a crash involving at least one motor vehicle controller with an illegal alcohol level at the time of the crash.

From 2008 to 2016 there were a total of 517 fatal crashes involving alcohol, resulting in 577 fatalities with illegal alcohol accounting for at least 17 per cent of all fatalities over this period.

From 2008 to 2015 there were a total of 4,253 serious injuries from alcohol related crashes, representing at least 8 per cent of all serious injuries over this period.



#### 1.1 Alcohol related fatalities and serious injuries since 2008

With the exception of the 2016 fatality result, alcohol related fatalities and serious injuries have decreased since 2009. Compared with the 2008 to 2010 baseline average alcohol related fatalities in 2016 were down by 30 per cent (the 2015 result was 45 per cent below the 2008 to 2010 baseline average). Similarly, alcohol related serious injuries in 2015 were 22 per cent below the 2008 to 2010 baseline average. Consequently, the percentage of serious road trauma which involves alcohol has been trending downwards since 2008.



#### 1.2 Alcohol related fatalities and serious injuries since 2008

The overwhelming majority of drink drivers involved in fatal crashes for 2008 to 2016 are males (91 per cent) with males aged under 50 years accounting for 79 per cent of all drink drivers involved in fatal crashes.

Similarly a significant majority of drink drivers involved in serious injury crashes for 2008 to 2015 are males (78 per cent) with males aged under 50 years accounting for 68 per cent of all drink drivers involved in serious injury crashes.

The following chart showing the demographic distribution of drink drivers involved in fatal crashes show improvements for most demographic groups, particularly for males aged under 26 years. However, there has been little improvement amongst males aged 26 to 39 years.

### 1.3 Drivers and riders with illegal alcohol involved in fatal crashes, 2008 to 2010 v 2014 to 2016, gender x age group



For drink drivers involved in serious injury crashes the largest improvements have been amongst males aged under 40 years and females under 26 years.

#### 1.4 Drivers and riders with illegal alcohol involved in serious injury crashes, 2008 to 2010 v 2015 to 2016, gender x age group



The majority of fatal crashes involving alcohol occur in the country areas of NSW (that is, outside the Sydney Newcastle and Wollongong Greater Conurbation). From 2009 to 2015 there was a strong decreasing trend in the country areas, but 2016 showed an increase. In contrast, the downward trend for alcohol related fatal crashes in the

Sydney Newcastle and Wollongong Greater Conurbation has been more modest but more consistent.



#### 1.5 Alcohol related fatal crashes since 2008, urbanisation

Alcohol related serious injuries are fairly evenly split between the Sydney Newcastle and Wollongong Greater Conurbation and the rest of the State. Both regions of the State have enjoyed similar levels of reductions over the period 2008 to 2015.



The largest percentage of alcohol related fatal crashes and serious injury crashes continues to occur on unclassified (local) roads. Unclassified roads had the majority of the increase in alcohol related fatal crashes in 2016, but an overall decrease in alcohol related serious injury crashes between 2008 and 2015.

#### 1.6 Alcohol related fatal crashes since 2008, Road Classification



#### 1.7 Alcohol related serious injury crashes since 2008, Road Classification



The decrease in drink drivers involved in car / car derivative fatal crashes has persisted since 2009, whilst light truck drivers show an increase in fatal crash involvements in 2016. Compared with their levels of involvement in serious injury crashes, the involvement of light truck drink drivers and motorcycle drink riders in fatal crashes appear to be over-represented. Illegal alcohol levels are seldom found for heavy vehicle drivers involved in fatal and serious injury crashes.

### 1.8 Drivers and riders with illegal alcohol involved in fatal crashes since 2008, Type of Vehicle



#### 1.9 Drivers and riders with illegal alcohol involved in serious injury crashes since 2008, Type of Vehicle



Prior to 2014 the largest group of drink drivers involved in fatal crashes were in the high range band (at least 0.15 g/100mL blood alcohol concentration). Following the downward trend for this high range band since 2009 it is now similar to the mid range band (0.08 to 0.149 g/100mL). The high range and mid range bands account for similar levels of drink driving involvement in serious injury crashes, but their trends since 2010 have been relatively flat.

### 1.10 Drivers and riders with illegal alcohol involved in fatal crashes since 2008, Alcohol Band



### 1.11 Drivers and riders with illegal alcohol involved in serious injury crashes since 2008, Alcohol Band



Comparing the prevalence of behavioural factors for drink drivers involved in fatal crashes with that of non-drink drivers involved in fatal crashes strongly suggests that drink driving is associated with elevated levels for other selected behavioural factors.

For example, more than two-thirds of all drink driving involvements in fatal crashes (68 per cent) involved excessive or inappropriate speed whilst only 25 per cent of all driver / rider fatal crash involvements with a legal alcohol result involved excessive or inappropriate speed. Fatigue, safety device usage and unauthorised driving are also

strongly over-represented amongst drug driving fatal crash involvements. There was also an elevated level of crashing in the same local government area of residence for drink drivers involved in fatal crashes.

### 1.12 Percentage of drivers and riders involved in fatal crashes, 2012 to 2016, illegal alcohol v legal alcohol, selected factors



Similar findings were found for drink drivers involved in serious injury crashes when compared with those drivers / riders with a legal alcohol result involved in serious injury crashes.

#### 1.13 Percentage of drivers and riders involved in serious injury crashes, 2012 to 2016, illegal alcohol v legal alcohol, selected factors



Note that these results do not take into account the differing demographic profile of motor vehicle controllers involved in fatal crashes with an illegal alcohol level. Standardising the results by age and gender only slightly reduces the strength of the over-representation of these risk taking behaviours for drivers and riders involved in drink driving fatal and serious injury crashes.

# 2012, day of week Percentage of Alcohol Related Fatal and Serious Injury Crashes, Since 2012, Day of Week

#### 1.14 Percentage of alcohol related fatal and serious injury crashes since 2012, day of week



The incidence of alcohol related fatal and serious injury crashes increases through the end of the working week and then increasing further on the weekend. Almost half of all alcohol related fatal and serious injury crashes occurred on the weekend.

## 1.15 Percentage of alcohol related fatal and serious injury crashes since 2012, hour of day



The incidence of alcohol related fatal and serious injury crashes is highest during the evening and early morning hours of the day.