

# Alcohol and Drugs

## In Road Crashes in South Australia

### Overview

Over the past 5 years 2017–2021, an average of 12 driver and motorcycle riders who lost their lives in road crashes recorded an illegal blood alcohol concentration (BAC) which equates to 19% of all drivers/riders killed. This represents a significant decrease from the period 2007-2011, when an average of 19 drivers/riders (30%) of driver and rider fatalities had an illegal BAC. However, the last 10 year trend shows only a very slight decline.

Driver and motorcycle riders who have lost their lives in road crashes and tested positive to drugs has remained somewhat steady over the same time period. In the latest 5-year period (2017-2021) an average of 13 (20%) of drivers/riders killed in road crashes tested positive for drugs, this is only slightly below the previous 10 year period of an average of 14 (22%) of drivers/riders killed testing positive to drugs.

Overall, 32% of drivers and motorcycles riders killed tested positive to either drugs or alcohol or a combination or both for the 5 year period 2017-2020. This means almost a third of vehicle operators killed each year are driving with an illegal BAC and/or drugs in their system.

In South Australia, it is illegal for full licence holders to drive with a BAC limit of 0.05mg/l or more. Some licences however are subject to a zero BAC. The presence of THC (cannabis), Methyl-amphetamine (speed/ice/crystal meth) or MDMA (ecstasy) detected in a driver also constitutes as an offence.

Note: Not all drivers involved in crashes resulting in a life lost or serious injury are tested for blood alcohol content and presence of drugs, and therefore this fact sheet includes only those who were tested and whose results are known. Therefore, some crashes where alcohol or drug involvement was unknown, may have been alcohol or drug-related. Hence, the terminology 'at least' may be used to describe the proportion of crashes that involve drink and drug driving.

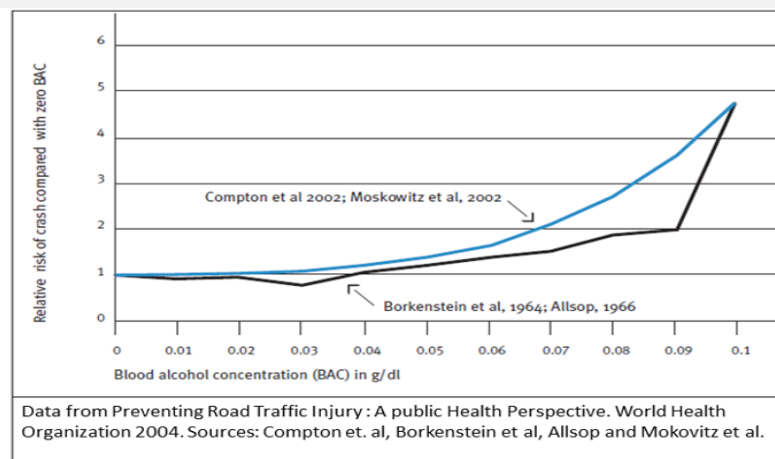
## Risk of drug driving

Driving with THC, Methyl-amphetamine or MDMA present in saliva or blood has been shown to have the potential to increase the risk of road crashes. Many drivers remain unaware of the effects that these types of drugs can have on their driving ability – including impaired coordination, muscle weakness, impaired reaction time, poor vision, an inability to judge distance and speed and distortions of time, place and space.

## Risk of drink driving

Alcohol impairs skill and decision making and increases confidence and aggression. It can also lead to an increase in other risk-taking behaviour. Studies have shown that every increase of 0.05 above zero in BAC level doubles the risk of being involved in a casualty crash. The higher the blood alcohol level, the more rapidly that risk increases as shown in Figure 1.

**Figure 1: Relationship between driver's BAC and relative risk of involvement in a casualty crash<sup>1</sup>**



## Drink or Drug driving trends

Over the past 5 years 2017–2021, an average of 12 driver and motorcycle riders who lost their lives in road crashes recorded an illegal blood alcohol concentration (BAC) which equates to 19% of all drivers/riders killed. This represents a significant decrease from the period 2007-2011, when an average of 19 drivers/riders (30%) of driver and rider fatalities had an illegal BAC. However, the last 10 year trend shows only a very slight decline.

Driver and motorcycle riders who have lost their lives in road crashes and tested positive to drugs has remained somewhat steady over the same time period. In the latest 5-year period (2017-2021) an average of 13 (20%) of drivers/riders killed in road crashes tested positive for drugs, this is only slightly below the previous 10 year period of an average of 14 (22%) of drivers/riders killed testing positive to drugs.

Overall, 33% of drivers and motorcycles riders killed tested positive to either drugs or alcohol or a combination or both for the 5 year period 2017-2021. This means almost a third of vehicle operators killed each year are driving with an illegal BAC and/or drugs in their system.

For the 5 year period (2017-2021), on average, at least 12 of the drivers and riders killed and 43 seriously injured had an illegal BAC.

Table 1 shows the number of lives lost and serious injuries of drivers and riders with a BAC of 0.05% or above.

**Table 1: Lives lost and serious injuries of driver/riders with illegal BAC, South Australia, 2017-2021**

Year	Lives lost	Serious Injury
2017	15	34
2018	9	34
2019	10	40
2020	13	51
2021	15	58
Avg	12	43

Out of these drink drivers, 63% of the lives lost and 42% of the serious injuries were *three or more times* over the legal limit (0.15% BAC or above).

**Table 2: Drivers and riders killed and the percent of those testing positive to THC, Meth or MDMA, South Australia, 2017-2021**

Year	Driver and rider lives lost	Driver and rider lives lost tested	Tested positive to drugs	Percent tested positive
2017	70	69	17	25%
2018	51	48	10	21%
2019	77	75	13	17%
2020	66	66	11	17%
2021	63	63	13	21%
Avg	65	64	13	20%

Of the drivers and riders killed in 2017-20, 32% had either tested positive to drugs, or had an illegal alcohol level or had a combination of both. In other words, around 1 in 3 drivers killed in road crashes in South Australia over the past 5 years tested positive to drugs and/or alcohol.

**Gender**

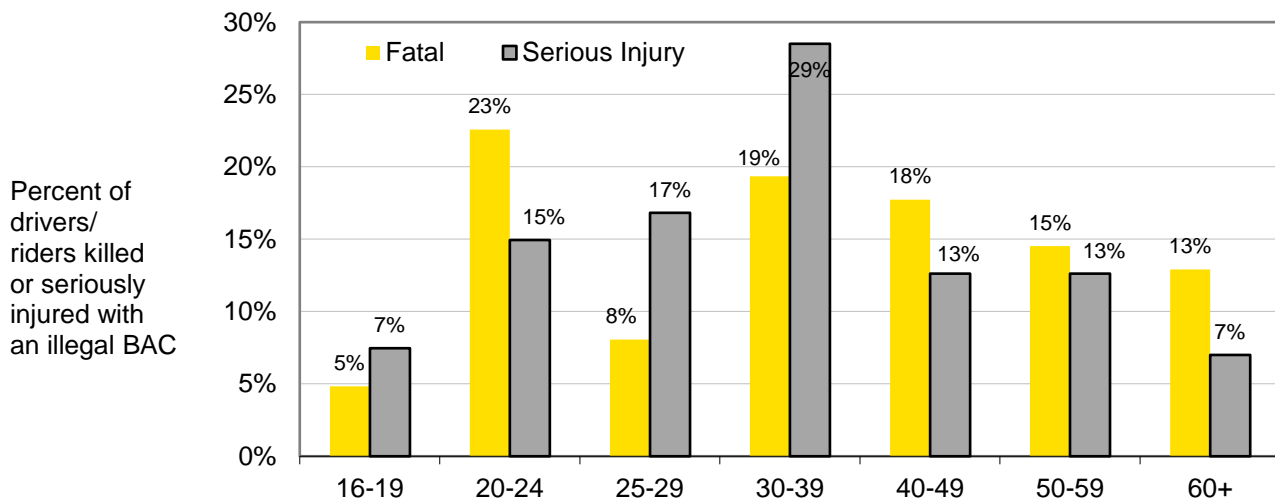
For the 5 year period 2017-2021, males accounted for 84% of all the driver and rider lives lost. This representation is slightly higher in the case of driver/riders with an illegal BAC, here 91% of those killed area male. Similarly in the case of serious injuries, in general males accounted for 72% of the driver and rider serious injuries, yet of those with an illegal BAC 81% were male.

**Age**

The 20-29 year old age group (20-24 and 25-29 years combined in Figure 3) represents the largest percentage of the population of drivers and riders with an illegal BAC killed (31%) or serious injuries (32%).

The 20-29 year old age group also represents the largest percentage of the population of drivers and riders killed that tested positive for drugs (31%), followed by the 30-39 and 40-49 year old age group representing 25% and 17% respectively.

**Figure 3: Percentage of drivers/riders with a BAC above .05 killed or seriously injured by age group, South Australia, 2017-2021**



## Crash Types

Hit fixed object crashes accounted for 54% of crashes resulting in a life lost or serious injury where the driver or rider had an illegal BAC, indicating a lack of control of the vehicle under the influence of alcohol. This compares to 25% of all crashes resulting in a life lost or serious injury being hit fixed object crashes over the past 5 years. Rollover (24%) was the next most prevalent crash type for drink driver casualties, higher than the 16% of rollover serious casualty crashes generally.

Hit fixed object crashes (39%) and rollover crashes (18%) were also the most prevalent where the driver or rider had tested positive for drugs.

## Seatbelts and Helmets

Failing to wear a seatbelt or helmet further increases the risk of death or serious injury in the event of a crash. For the five-year period, 2017–2021, of the drivers killed that had a BAC of 0.05 or above, 61% were not wearing their seatbelt and 7% of rider lives lost were not wearing a helmet. For non-drink/drug drivers 19% of lives lost not wearing a seatbelt, and 3% of riders were not wearing a helmet.

For driver lives lost tested positive for drugs during the five-year period 2017-2021, 48% of these were not wearing their seatbelt at the time of the crash and 10% of riders who tested positive were not wearing a helmet.

## Area and Speed Limit

Of the drivers and riders killed or seriously injured with an illegal BAC, 54% of crashes occurred in rural South Australia. This compares to 36% of all crashes resulting in a life lost or serious injury occurring in the rural areas. Table 3 shows the breakdown of serious casualty crashes by speed limit and area.

**Table 3: Speed limit and area of drivers and riders killed or seriously injured with a BAC .05 or above, South Australia, 2017-2021**

Speed Limit	Greater Adelaide	Rural
50km/h and under	28%	19%
60km/h	30%	6%
70-90km/h	33%	11%
100km/h and over	9%	64%
<b>Total</b>	<b>100%</b>	<b>100%</b>

The majority (82%) of drink driver/rider casualties who crashed in rural areas lived in rural areas.

Of the drivers and riders killed that tested positive for drugs, 60% crashed in rural South Australia.

### **Month and Day of the Week**

January had the lowest occurrence of drink drive deaths and serious injuries (6%) while March had the highest proportion (11%) over the past 5 years. The majority (61%) of drink driving serious casualty crashes take place on weekends (Friday through to Sunday). By comparison 44% of crashes resulting in a life lost or serious injury in general occurred on a Friday through to Sunday.

February also had the lowest number of drug driving lives lost with only 3% for the year occurring in February compared to November when 14% of crashes resulting in a life lost occurred. The most common day for drug driving deaths is Saturday (22%) followed by Sunday (19%).

### **Time of the Day**

The majority of drink driving crashes occur between the hours of 6pm and 6am (71%), compared to 30% of crashes resulting in a life lost or serious injury generally.

The majority (52%) of drug driving crashes where a driver/rider is killed were also between the hours of 6pm and 6am.

### **Pedestrians Affected by Alcohol and/or Other Drugs**

The consumption of alcohol or drugs by a pedestrian can also impair their ability to safely negotiate roads and traffic. Of the pedestrian deaths that were tested between 2017 and 2021, 41% were found to have a BAC of more than 0.05.

Of the pedestrian road deaths who were tested for drugs, 16% tested positive to THC, MDMA, methamphetamine or a combination of these drugs.

**Definitions of police reported casualty types:**

**Casualty Crash** – crash where at least one life lost, serious injury or minor injury occurs.

**Casualty** – A life lost, serious injury or minor injury.

**Fatal Crash** – A crash for which there is at least one life lost.

**Life lost** – A person who dies within 30 days of a crash as a result of injuries sustained in that crash.

**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 for a minimum period of an overnight stay 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 in which at least one person sustains injury but no person is seriously injured 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 was not admitted to hospital and who does not die as a result of those injuries within 30 days of the crash.

**Data sources**

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

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**Enquiries**

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