

Alcohol and drugs

Road crashes in South Australia, 2019-2023

Overview

Between 2019 and 2023, 20% of driver and motorcycle riders who lost their lives in road crashes recorded an illegal blood alcohol concentration (BAC). This represents a significant decrease from the period 2007 and 2011, where 30% of all driver and rider fatalities had an illegal BAC. However, the last 10-year trend shows a very slight increase.

The number of 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. Between 2019 and 2023, 21% of drivers/riders killed in road crashes each year tested positive for drugs. This is only slightly below the previous 10-year period where 23% of drivers/riders killed tested positive to drugs.

Overall, 34% of drivers and motorcycle riders who lost their life tested positive to either drugs or alcohol or a combination of both during 2019 to 2023. This means over a third of vehicle operators who lose their life 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. This fact sheet includes only those who were tested and whose results are known. Hence, the terminology 'at least' may be used to describe the proportion of crashes that involve drink and drug driving.

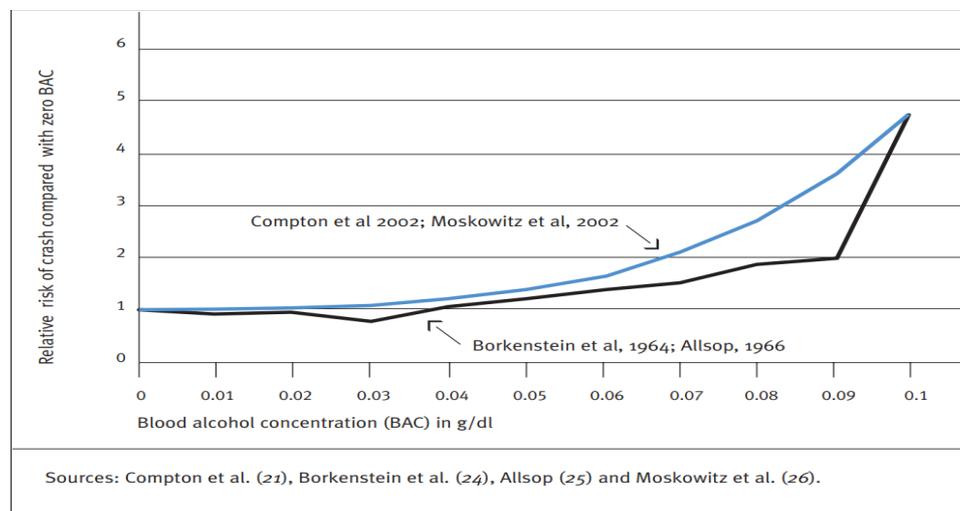
Risk of drugs and alcohol related driving

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. This includes:

- impaired coordination
- muscle weakness
- impaired reaction time
- poor vision
- an inability to judge distance
- speed
- distortions of time, place and space.

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 1¹.

Figure 1: Relationship between driver's BAC and relative risk of involvement in a casualty crash¹



Drink and drug driving trends

Between 2019 and 2023, an average of 13 driver and motorcycle riders (21%) who lost their lives in road crashes recorded an illegal BAC. This represents a significant decrease when compared to stats recorded

¹ <https://iris.who.int/handle/10665/107554>

during 2007 and 2011, where an average of 19 drivers/riders, representing 30% of all driver and rider fatalities had an illegal BAC. However, the last 10-year trend shows only a very slight decline.

The number of 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. Between 2019 and 2023 an average of 14 (21%) of drivers/riders who lost their life in road crashes tested positive for drugs. This is only slightly below the previous 10-year period average where 14 (23%) drivers/riders who lost their life tested positive to drugs.

Tables 1 and 2 shows the number of lives lost and serious injuries of drivers and riders with a BAC of 0.05mg/l or above and the percentage of illegal BAC tests. Between 2019 and 2023 at least 13 (20%) of the drivers and riders who lost their life and 51 (12%) who were seriously injured tested positive for illegal BAC on average.

Out of these drink drivers, 63% of the lives lost and 41% of the serious injuries were three or more times over the legal limit (0.15mg/l BAC or above) between 2019 and 2023.

Table 1: Lives lost of driver/riders and the percent of those with illegal BAC, South Australia, 2019-2023²

Year	Driver and rider lives lost	Driver and rider lives lost BAC tested	Tested positive to illegal BAC	Percent tested positive to illegal BAC
2019	77	75	10	13%
2020	66	66	13	20%
2021	63	63	15	24%
2022	51	49	14	29%
2023	77	77	13	17%
Average	67	66	13	20%

² The numbers in Table 1 and Table 2 includes only those who were tested for Alcohol and Drugs.

Table 2: Serious injuries of driver/riders and the percent of those with illegal BAC, South Australia, 2019-2023²

Year	Driver and rider serious injuries	Driver and rider serious injuries BAC tested	Tested positive to illegal BAC	Percent tested positive to illegal BAC
2019	545	461	40	9%
2020	482	421	51	12%
2021	521	462	58	13%
2022	407	331	49	15%
2023	535	470	58	12%
Average	498	429	51	12%

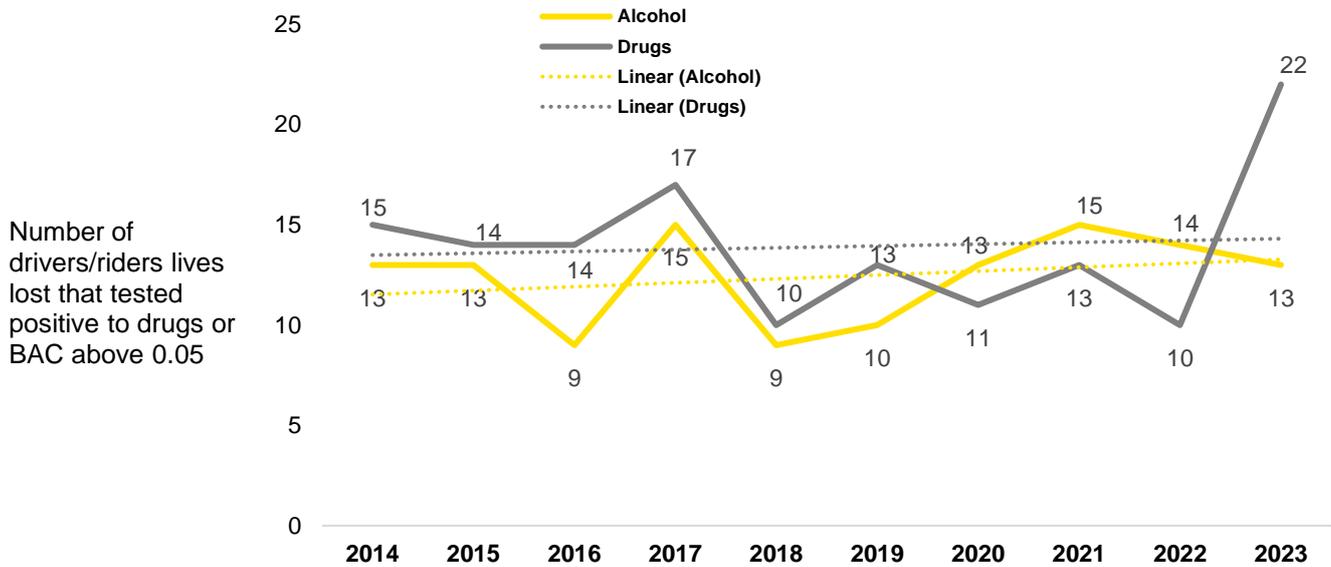
Table 3 shows the number of lives lost and the number and the percentage of drug tests of drivers and riders tested over the past five years. Between 2019 and 2023 an average of 14 (21%) drivers/riders who lost their life in road crashes tested positive for drugs (Table 3).

Table 3: Drivers and riders lives lost and the percent of those testing positive to THC, Methylamphetamine or MDMA, South Australia, 2019-2023²

Year	Driver and rider lives lost	Driver and rider lives lost tested	Tested positive to drugs	Percent tested positive to drugs
2019	77	75	13	17%
2020	66	66	11	17%
2021	63	63	13	21%
2022	51	49	10	20%
2023	77	77	22	29%
Average	67	66	14	21%

Figure 2 shows the comparison of number driver/riders who lost their life with illegal BAC and those who tested positive to drugs over time during the last 10 years. In 2023, 22 drivers/riders that lost their lives in road crashes tested positive for drugs, which is higher than the 13 drivers/riders who lost their life with illegal BAC. The number of driver/riders that tested positive for illegal BAC and drugs provided in Figure 2 are not mutually exclusive.

Figure 2: Number of lives lost of driver/riders with illegal BAC and those testing positive to drugs, South Australia, 2014-2023



Of the drivers and riders who lost their life between 2019 and 2023, 34% had either tested positive to drugs, or had an illegal alcohol level or had a combination of both. In other words, around one in three drivers or riders that lost their lives in road crashes in South Australia over the past five years tested positive to drugs and/or alcohol.

Alcohol and drug enforcement

In their Annual Report, South Australia Police (SAPOL) reported that a total of 568,591 roadside alcohol tests and 54,288 drug tests were conducted during the 2022 and 2023 financial year, resulting in 4,594 alcohol detections and 5,532 drug detections in South Australia³.

Sex⁴

Between 2019 and 2023, 88% of drivers and riders that lost their life and tested positive for drugs were male. In comparison, males represented only 82% of all lives lost for the same period. Similarly in the case of serious injuries, males with an illegal BAC accounted for 82% of the drivers and riders who were seriously injured, which was higher than all male drivers/riders (73%).

The percentage of drivers and riders that lost their life and tested positive for drugs was 93% among males, which was higher than all drivers and riders lives lost tested positive for drugs (82%).

³ www.police.sa.gov.au/about-us/annual-reporting

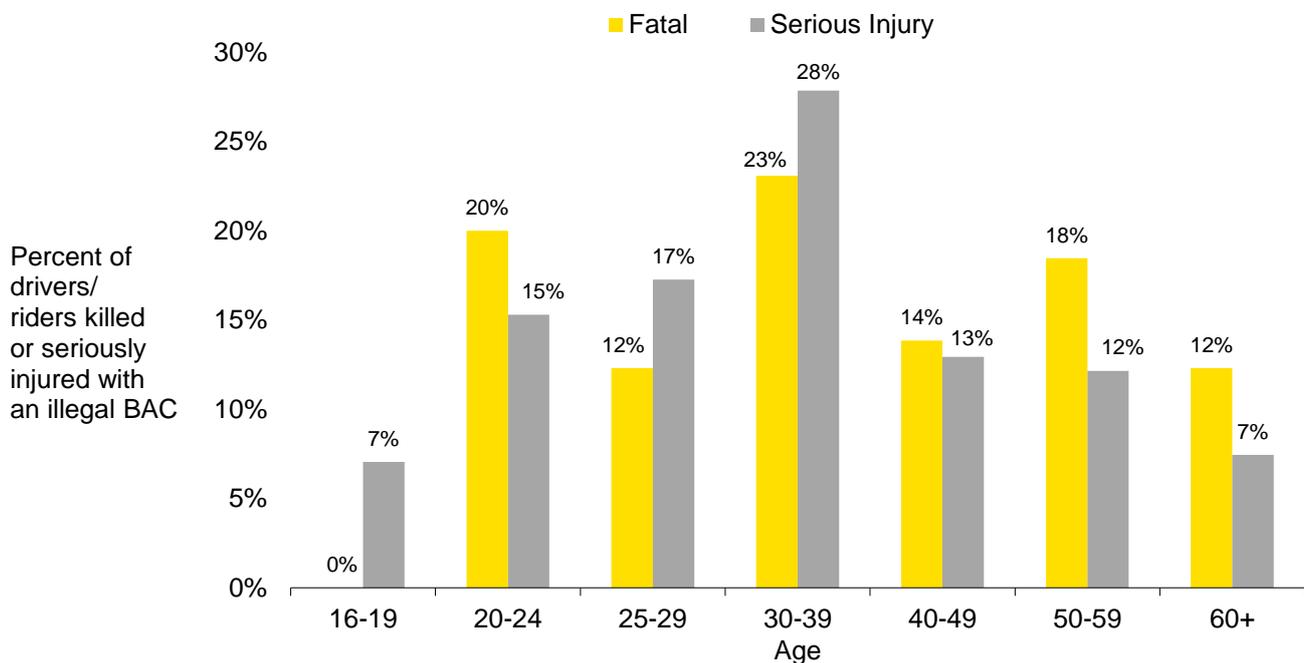
⁴ Sex as captured by SAPOL officer or as recorded in the Department's registration and licensing system (TRUMPS). Gender data is not currently collected.

Age

The 20 to 29 year old age group (20-24 and 25-29 years combined in Figure 3) represents the largest proportion of the driver and rider population with an illegal BAC that lost their life (32%) or were seriously injured (33%).

The 20 to 29 year old age group also represents the largest percentage of the population of drivers and riders who lost their life and tested positive for drugs (32%), followed by the 30 to 39 and 40 to 49 year old age group representing 29% and 17% respectively (Figure 3).

Figure 3: Percentage of drivers/riders with a BAC above 0.05 killed or seriously injured by age group, South Australia, 2019-2023



Crash types

Between 2019 and 2023, hit fixed object crashes accounted for 58% 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 hit fixed object crashes that resulted in a life lost or serious injury during 2019 and 2023. Rollover (25%) was the next most prevalent crash type for drink driver serious casualty crashes, higher than the 17% of rollover serious casualty crashes generally.

Hit fixed object crashes (47%) and rollover crashes (20%) were also the most prevalent crashes 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. During 2019 and 2023, 69% of drivers that lost their life and had a BAC of 0.05 or above were not wearing their seatbelt. All of the riders who lost their life were wearing a helmet. In comparison, for non-drink/drug drivers 18% of lives lost were not wearing a seatbelt, and 3% of riders were not wearing a helmet.

For drivers who lost their life and tested positive for drugs during 2019 and 2023, 41% of these were not wearing their seatbelt at the time of the crash and 7% of riders were not wearing a helmet.

Area

Of the drivers and riders who lost their life or were or seriously injured with an illegal BAC, 53% of crashes occurred in regional South Australia. This compares to 35% of all crashes resulting in a life lost or serious injury occurring in the regional areas.

The majority (80%) of drink driver/rider who lost their life or were or seriously injured in crashes in regional areas also lived in regional areas. Of the drivers and riders who lost their life in crashes in regional areas that tested positive for drugs, 65% of them lived in regional South Australia.

Month and day of the week

Between 2019 and 2023, August had the lowest occurrence of drink drive deaths and serious injury crashes (5%) while March (11%), September (10%) and November (10%) had the highest proportions over the past five years. The majority (61%) of drink driving serious casualty crashes take place on weekends (Friday through to Sunday). By comparison, 43% of crashes resulting in a life lost or serious injury in general occurred on a Friday through to Sunday.

Between 2019 and 2023, February had the lowest number of drug driving lives lost with only 3% for the year occurring in February compared to May having the highest when 11% of crashes resulting in a life lost occurred for drugs driving. The most common day for drug driving crashes resulting in a life lost was Friday (18%) followed by Saturday (18%).

Time of the day

The majority of drink driving serious casualty crashes occur between the hours of 6pm and 6am (75%), compared to 33% of overall crashes resulting in a life lost or serious injury generally.

The majority (52%) of drug driving crashes where a driver/rider lost their life was also between the hours of 6pm and 6am.

Pedestrians⁵ affected by alcohol

The consumption of alcohol by a pedestrian can also impair their ability to safely negotiate roads and traffic. Of the pedestrian deaths that were tested between 2019 and 2023, 31% were found to have a BAC of 0.05 or above.

⁵ Pedestrians include, gopher and wheelchair users.

Definitions of police reported casualty types:

Casualty crash – A 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 that require 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.

Alcohol and drug testing and detections data was sourced from SAPOL's Annual Report [SAPOL - Annual Report 2023-24](#).

Note – Percentage totals may not add to 100% due to rounding.

Enquiries

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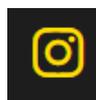
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