

ALCOHOL AND INJURY

ALCOHOL AND INJURY OVERVIEW

In 2018, alcohol was reported as the greatest risk factor for injury in Australia, contributing to 15% of the overall injuries burden.¹ Injury is the physical or mental harm to a person resulting from intentional or unintentional contact with an object, substance or another person.

Leading injury areas associated with alcohol consumption include transport, violence, and suicide and self-harm.¹ Figure 1 represents the burden of alcohol use on injury in Australia in 2018, shown in disability-adjusted life years (DALY).¹ DALY is a measure (in years) of healthy life years lost due to premature death, disability or ill-health.

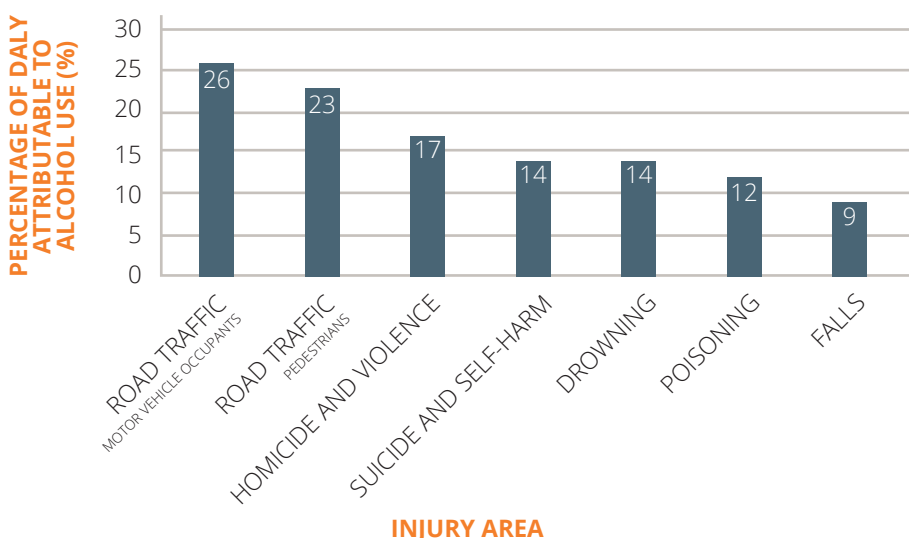


FIGURE 1. Burden of alcohol use on injury, Australia 2018.¹

Injury incidence and severity has reported to increase with the amount of alcohol used and be influenced by the pattern of drinking over time.⁴⁻⁶ Even at moderate doses, alcohol use can impact risk-taking behaviour and psychomotor performance, including cognition, vision, coordination, judgement and reaction time⁷⁻⁹, which can influence the risk of injury to the alcohol user and those around them.¹⁰

ALCOHOL AND INJURY COSTS IN WA

Alcohol-related injury represents a significant burden to the Western Australian (WA) community. In 2012, the total lifetime cost of alcohol-related injury in WA cost an estimated \$1.9 billion due to health care costs, long term care needs, loss in paid productivity and quality of life lost.² Additionally, injury deaths and hospitalisations which could be attributed to alcohol involvement (\$211,694 mean cost per event) had higher mean costs than those without alcohol involvement (\$138,455 mean cost per event) in 2012.²

FAST FACTS

IN AUSTRALIA...

ALCOHOL IS THE HIGHEST RISK FACTOR FOR INJURY contributing to 15% of all injury burden in 2018.¹

IN WESTERN AUSTRALIA...

In 2012, alcohol was attributed to:²

17.5% of injury fatalities.

11.8% of injury hospitalisations.

32% of emergency department injury presentations.

IN 2012, THE TOTAL COST OF ALCOHOL-RELATED INJURIES WAS \$1.9 BILLION.²

Alcohol contributed to **22.8% of injury hospitalisations for Aboriginal people** between 2000-2008, compared to 10.5% among non-Aboriginal people.³

Males accounted for 57% of all alcohol-related injury hospitalisations between 2000 and 2008.³

ALCOHOL-RELATED INJURIES IN WA

In 2019, at least once a month 1 in 4 Western Australians aged 14 years and over drank alcohol in quantities that placed them at risk of injury.¹¹ Alcohol is a leading risk factor for injury in Western Australia, contributing to 32% of emergency department injury presentations, 17.5% of injury fatalities and 11.8% of injury hospitalisations.² In 2012, this equated to 245 injury fatalities, 5,911 injury hospitalisations and 56,057 emergency department presentations.²

In WA between 2000-2008, 32.6% of alcohol-related hospitalisations involved a fall and a further 31.5% involved violence.³ Over the same time period, suicide accounted for almost half (49%) of alcohol-related fatalities and a further 30% of alcohol-related fatalities involved land transport.³ Table 1 shows the injury-related hospitalisations (2000-2008) and fatalities (2000-2007) in WA due to alcohol.

ALMOST 1 IN 4 WESTERN AUSTRALIANS AGED 14 YEARS AND OVER HAD BEEN A VICTIM OF AN ALCOHOL-RELATED INCIDENT IN 2019 (23.6%).¹¹



Partner:



Department of Health



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ALCOHOL'S CONTRIBUTION TO INJURY HOSPITALISATIONS IN WA, 2000-2008

ALCOHOL'S CONTRIBUTION TO INJURY FATALITIES IN WA, 2000-2007

INTENTIONAL INJURIES		
VIOLENCE	45.3%	44.4%
SUICIDE	30.7%	31.5%
UNINTENTIONAL INJURIES		
TRANSPORT (LAND)	11.2%	23.2%
DROWNING	6.3%	13.4%
POISONING	1.7%	6.9%
FALLS	12.5%	13.7%
FIRES, BURNS AND SCALDS	3.3%	31.8%

TABLE 1. The percentage of injury-related hospitalisations and fatalities in WA due to alcohol for each injury area.³

ALCOHOL AND SPECIFIC INJURY AREAS IN WA TRANSPORT

In 2020, the driver was suspected to be under the influence of alcohol or alcohol was the primary cause of the crash in 42 road traffic fatalities in Western Australia (27% of all road traffic fatalities).¹² Alcohol use impairs the alcohol user's driving performance due to the direct effect of alcohol on the driver's response time, visual function, tracking ability and alertness.^{6,13}

VIOLENCE

WA Police attend more than 33 alcohol-related assault incidents each day.¹⁴ Despite alcohol not causing violence, evidence commonly supports that alcohol may exacerbate existing violence.^{4,15-16} The physiological effects of alcohol on the alcohol users cognition has proven to reduce the users capacity to resolve conflicts verbally, increase risk-taking behaviour, reduce fear of the possible consequences of poor behaviour and effect interpretation of events; all of which can increase the likelihood of physical violence.^{10,17}

SUICIDE AND SELF-HARM

In 2019, 20.9% of Australians who died due to intentional self-harm had alcohol, other drugs or other substances in their blood.¹⁸ The association between alcohol use and the increased likelihood of intentional self-harm¹⁹ has been attributed to alcohol increasing psychological distress^{20,21}, increasing aggressiveness^{4,5,21} and the alcohol users' impaired cognition limiting their ability to utilise coping strategies.^{4,5}

WHAT POPULATIONS ARE AT HEIGHTENED RISK OF ALCOHOL-RELATED INJURIES?

YOUNG ADULTS

Younger people are overrepresented in harm resulting from alcohol-related injury, which may be attributable to their developing bodies being more vulnerable to the effects of alcohol, a developing brain and some younger people drinking large quantities of alcohol within a single occasion on a regular occurrence.²²

ABORIGINAL PEOPLE

Aboriginal and Torres Strait Islander people experience disproportionate harms from alcohol-related injuries.²³ Harmful alcohol use among Aboriginal and Torres Strait Islander peoples and the resulting alcohol-related injuries has been attributed to cultural disconnection, trauma, social exclusion, community stressors and mental illness.^{11,24}

REFERENCES

1. AIHW. Australian Burden of Disease Study 2018: Interactive data on risk factor burden. Australian Institute of Health and Welfare <https://www.aihw.gov.au/reports/burden-of-disease/abds-2018-interactive-data-risk-factors/contents/about> (2021).
2. Hendrie, D., Miller, T., Randall, S., Brameld, K. & Moorin, R. Incidence and costs of injury in WA 2012. (2016).
3. Ballestas, T., Xiao, J., McEvoy, S. & Somerford, P. The Epidemiology of Injury In Western Australia, 2000 - 2008. https://ww2.health.wa.gov.au/-/media/Files/Corporate/general-documents/Population-health/PDF/injury_report_2008-08.pdf (2011).
4. Babor, T. F. et al. Alcohol: No Ordinary Commodity. (Oxford University Press, 2010). doi:10.1093/acprof:oso/9780199551149.001.0001.
5. Alcohol: science, policy and public health. (Oxford University Press, 2013).
6. Gao, C., Ogeil, R., Lloyd, B., & Foundation for Alcohol Research and Education. Alcohol's Burden of Disease in Australia. (Foundation for Alcohol Research & Education, 2014).
7. Taylor, B. et al. The more you drink, the harder you fall: A systematic review and meta-analysis of how acute alcohol consumption and injury or collision risk increase together. *Drug and Alcohol Dependence* 110, 108–116 (2010).
8. Macdonald, S. et al. Chapter 19: Alcohol consumption and injury. in *Alcohol* (Oxford University Press, 2013).
9. Chikritzhs, T. & Livingston, M. Alcohol and the Risk of Injury. *Nutrients* 13, 2777 (2021).
10. National Health and Medical Research Council. Australian Guidelines to Reduce Health Risks from Drinking Alcohol. (2020).
11. Australian Institute of Health and Welfare. National Drug Strategy Household Survey 2019. (2020) doi:10.25816/E42P-A447.
12. Road Safety Commission. WA Road Fatalities 2020. (2021).
13. Laslett, A.-M., Alcohol Education and Rehabilitation Foundation, & Turning Point Alcohol and Drug Centre (Vic.). The range and magnitude of alcohol's harm to others: beyond the drinker : alcohol's hidden costs. (AER Foundation, 2010).
14. WA Police. Crime Statistics. Western Australia Police Force <https://www.police.wa.gov.au/Crime/CrimeStatistics#/> (2021).
15. Rossow, I. & Bye, E. K. The Problem of Alcohol-Related Violence: An Epidemiological and Public Health Perspective. in *Alcohol-Related Violence* (ed. McMurrin, M.) 1–18 (John Wiley & Sons, Ltd, 2012). doi:10.1002/9781118411094.ch1.
16. Government of Western Australia Department of Communities. Path to Safety: Western Australia's strategy to reduce family and domestic violence 2020 - 2030. (2020).
17. Morgan, A. & McAtamney, A. Key issues in alcohol-related violence. <http://www.aic.gov.au/publications/current%20series/rip/1-10/04.html> (2009).
18. Australian Bureau of Statistics. 3303.3 Causes of Death, Australia, 2019. (2020).
19. Borges, G. et al. A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychological Medicine* 47, 949–957 (2017).
20. Pompili, M. et al. Suicidal Behavior and Alcohol Abuse. *International Journal of Environmental Research and Public Health* 7, 1392–1431 (2010).
21. Bagge, C. L. et al. Alcohol as an Acute Risk Factor for Recent Suicide Attempts: A Case-Crossover Analysis. *J. Stud. Alcohol Drugs* 74, 552–558 (2013).
22. Department of Health. National Alcohol Strategy 2019–2028. 44 (2019).
23. Gray, D. et al. Review of the harmful use of alcohol among Aboriginal and Torres Strait Islander people. (2018).
24. Mental Health Commission. Western Australian Alcohol and Drug Interagency Strategy 2018-2022. (2018).

