

# Current landscape of substance use and associated impacts

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November 2024

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The NSW Ministry for Health acknowledges the traditional custodians of the lands across NSW. We acknowledge that we live and work on Aboriginal lands. We pay our respects to Elders past and present and to all Aboriginal people.

Further copies of this document can be downloaded from the Drug Summit website [www.health.nsw.gov.au/aod/summit](http://www.health.nsw.gov.au/aod/summit)

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## Acknowledgements

We would like to recognise and acknowledge the powerful voices of those with lived and living experience of alcohol and other drug use.

The information presented in this report is accurate at the time of publishing.

# Contents

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<b>FOREWORD</b>	<b>2</b>
<b>NATIONAL OVERVIEW</b>	<b>3</b>
<b>KEY FINDINGS IN NSW</b>	<b>4</b>
<b>KEY COMPARISONS</b>	<b>5</b>
Patterns of use	6
Ambulance attendances	6
Hospitalisations	8
Psychiatric hospitalisations and suicides involving alcohol and other drugs	8
Deaths	9
<b>PRIORITY DRUGS</b>	<b>11</b>
Alcohol	11
Cannabis	21
Stimulants	27
Opioids	33
Non-medical use of pharmaceuticals	39
Other drugs of concern	41
<i>New psychoactive substances</i>	41
<i>Gamma hydroxybutyrate (GHB) and related substances</i>	42
<i>Volatile solvents (inhalants), including nitrous oxide</i>	42
<i>Hallucinogens (psychedelics)</i>	42
<i>Performance and image enhancing drugs</i>	43
<b>DATA SOURCES</b>	<b>44</b>

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# Foreword

Alcohol and other drug use is a major cause of preventable disease, illness and death in Australia.

This snapshot report has been prepared for the NSW Drug Summit 2024 by the NSW Ministry of Health. It describes the current state of alcohol and other drug use in NSW, including prevalence, harms and other health and social costs. It aims to summarise these impacts, to support attendees in their deliberations and discussions and to inform systems and policies.

This snapshot consolidates recent population level information on the use of alcohol, and other priority and emerging drugs, and related impacts, harms and treatment. The priority drugs covered in detail are alcohol, cannabis, stimulants and opioids, followed by a group of drugs of emerging concern. Where data for NSW is not available, national data is presented. Trends or patterns are noted where they are relevant.

This snapshot presents the most contemporary and relevant data available from key sources. The data sources referred to throughout are detailed at the end of this snapshot and additional data on the topics in the snapshot is available on request.

# National overview

The total estimated social and economic cost of alcohol, opioids, cannabis and methamphetamine use in Australia was \$104.7 billion in FY 2022-23. Alcohol use was the largest contributor to these social and economic costs (\$75 billion), followed by opioid (\$18.4 billion), methamphetamine (\$6.1 billion) and cannabis use (\$5.2 billion)<sup>1</sup>. Tobacco is beyond the scope of this report but continues to contribute the highest economic and social cost of all substances used in the community (\$159.7.3 billion).

In the latest available data from 2018, 4.5% of the total disease burden (all conditions) in Australia was due to alcohol use, and 3% due to illicit drug use<sup>2,3</sup>. Alcohol use is the fifth leading risk factor contributing to disease burden<sup>4</sup>.

Alcohol and illicit drug use contribute to disease burden from:

**Alcohol** alcohol use disorders, a range of mental health disorders, cancers, liver disease, and injuries (primarily road traffic injuries, suicide attempts and self-inflicted injuries)

**Illicit drugs** injuries, mental and substance use disorders, complications from injecting drugs including liver disease, infections of the soft tissues and heart valves and transmission of blood borne viruses such as hepatitis.

The total disease burden attributable to alcohol use in 2018 was not equally distributed and was:

- Greater among males than females in most age groups
- Greatest at age 25 to 44 years for males, and age 65 to 85 for females
- 1.9 times greater in the most disadvantaged socioeconomic quintile, when compared with the least disadvantaged group.

The total disease burden attributable to illicit drug use in 2018 was again unequally distributed and was:

- Greater among males than females in all age groups
- Highest among people aged between 25 to 44 years
- 2.1 times greater in the most disadvantaged socioeconomic group, when compared with the least disadvantaged group.

Around 1 in 5 (22%) people aged 16 to 85 years report having a mental disorder in the previous 12 months. Among them, 1 in 8 (12%) reported also having an alcohol use disorder, while 1 in 24 (4%) reported also having a drug use disorder. Nearly half (49%) of those with a substance use disorder reported also having an anxiety or affective disorder<sup>5</sup>.

<sup>1</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).





<sup>2</sup> Australian Institute of Health and Welfare (2021). *Australian Burden of Disease Study 2018: Interactive data on risk factor burden*. Accessed 08 August 2024, [here](#).

<sup>3</sup> Of the drug types, opioid use was the leading illicit drug use risk, contributing to 0.9% of the total burden in Australia in 2018, followed by amphetamine use (0.7%) and unsafe injecting practices (0.5%).

<sup>4</sup> Following tobacco use, overweight, dietary risk factors and high blood pressure.

<sup>5</sup> Australian Bureau of Statistics (2023) *National Study of Mental Health and Wellbeing 2020-22*. Accessed 27 September 2024, [here](#). Three groups of mental disorders were assessed – anxiety, affective and substance use disorders – based on definitions and criteria of the World Health Organization International Classification of Diseases, Tenth Revision (ICD-10).

# Key findings in NSW

	Alcohol	Cannabinoids <sup>1</sup>	Stimulants			Opioids
			Cocaine	MDMA/ecstasy	Methamphetamine	
 <p><b>Recent use<sup>2</sup></b> 2022/23</p>	1,810,000 (above guideline)	545,000 (non-medical use)	233,000	153,000	33,000	100,000
 <p><b>Ambulance attendances</b> 2022</p>	30,238	5,335	1,195	526	2,690	3,199
 <p><b>Hospitalisations<sup>3</sup></b> 2022/23</p>	52,407	12,280	2,083	606	8,353	7,724
 <p><b>Deaths<sup>4</sup></b> 2022</p>	1330	247	58		213 <sup>5</sup>	286

<sup>1</sup> Harms from cannabinoids (ambulance attendances, hospitalisations and deaths) includes non-medical and medical use.

<sup>2</sup> Estimate of NSW population use in the previous 12 months.

<sup>3</sup> Data on alcohol and drug-related hospitalisations includes both principal AND additional diagnoses. The principal diagnosis is the condition chiefly responsible for admission of the patient to the hospital. Additional diagnoses are conditions or complaints either coexisting with the principal diagnosis or arising during the hospitalisation, and meeting defined criteria (such as requiring increased clinical care, diagnostic interventions, or affecting therapeutic treatment). Additional diagnoses are not chiefly responsible for admission of the patient, but may have contributed.

<sup>4</sup> The count of deaths included for 2022 is preliminary and subject to change. The ABS undertake a revision process for coroner-certified deaths over a 3-year period. The count of deaths represents total deaths (induced and related) involving each substance type.

<sup>5</sup> This is the number of deaths (induced or total) for amphetamine-type stimulants which includes methamphetamine, MDMA, caffeine and other amphetamines. Coded deaths data does not allow further dis-aggregation, however MDMA/ecstasy is known to be a small proportion based on coronial toxicology data.

## Key Findings Summary

- In 2023 in NSW, around 3 in 10 (27%) adults exceeded the Australia Alcohol Guidelines by drinking more than 10 standard drinks per week or more than 4 standard drinks on any one day.
- Of substances other than alcohol and tobacco, cannabis was the most commonly used for non-medical purposes with use reported by around 8% of people aged 16 years and over in the previous 12 months, followed by cocaine (3.5%) and MDMA/ecstasy (2.3%) in combined years 2022-2023.
- There were over 78,000 total alcohol and other drug-related hospitalisations among NSW residents in FY 2022-23. Of these, over 52,000 were related to alcohol, and almost 35,000 to other drugs.
- Of the hospitalisations related to other drugs, over 12,200 were related to cannabinoids, over 8,300 were related to methamphetamine, and over 7,700 were related to opioids in FY 2022-23.
- The age-adjusted rate of total alcohol deaths (alcohol-induced and alcohol-related) among NSW residents decreased from a peak in 2019 of 17.7 deaths per 100,000 population to 14.5 deaths per 100,000 population in 2022.
- The age-adjusted rate of total other drug deaths (drug-induced and drug-related) among NSW residents decreased from 15.7 deaths per 100,000 population in 2019 to 10.0 deaths per 100,000 population in 2022.
- In 2022, alcohol caused or contributed to over 1,300 deaths (total alcohol-induced and alcohol-related deaths), which was a decrease from over 1,500 deaths in NSW in 2019.
- In 2022, all other drug use combined caused or contributed to over 800 deaths (total drug-induced and drug-related deaths), which was a decrease from over 1,200 total other drug use deaths in 2017.

## Patterns of use

Alcohol is the most commonly used drug in NSW, and 27% of adults exceed the Australian Alcohol Guideline for adults<sup>6</sup>. Around 25% of the population report that they do not usually drink alcohol.

Of substances other than alcohol, cannabis is the most commonly used for non-medical purposes, followed by cocaine and MDMA/ecstasy.

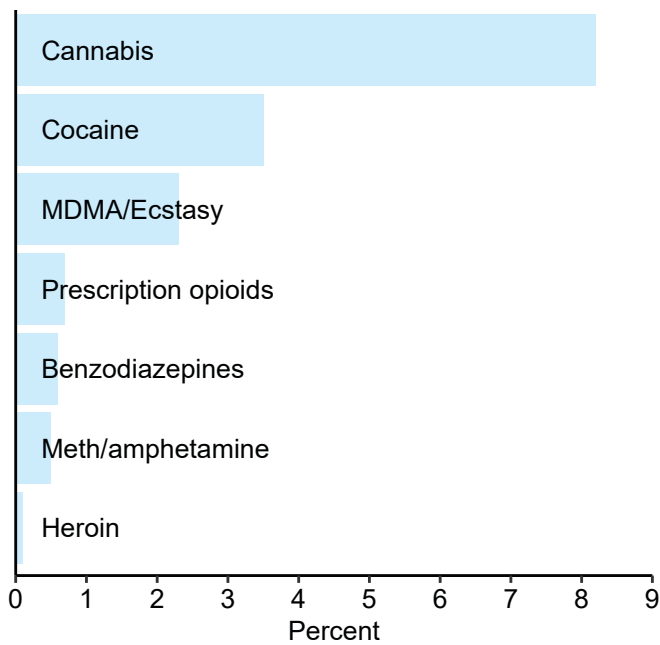


Figure 1. Recent non-medical use of substances (in the previous 12 months), by selected drug class, NSW, combined years 2022-2023. Source: [HealthStats NSW](#).

## Ambulance attendances

Figure 2 shows the rate of ambulance attendances in NSW in 2022 involving selected drugs. Alcohol intoxication accounts for 60% of all ambulance attendances involving alcohol and other drugs. Cannabis and methamphetamine account for the greatest proportion of attendances involving illicit drugs.

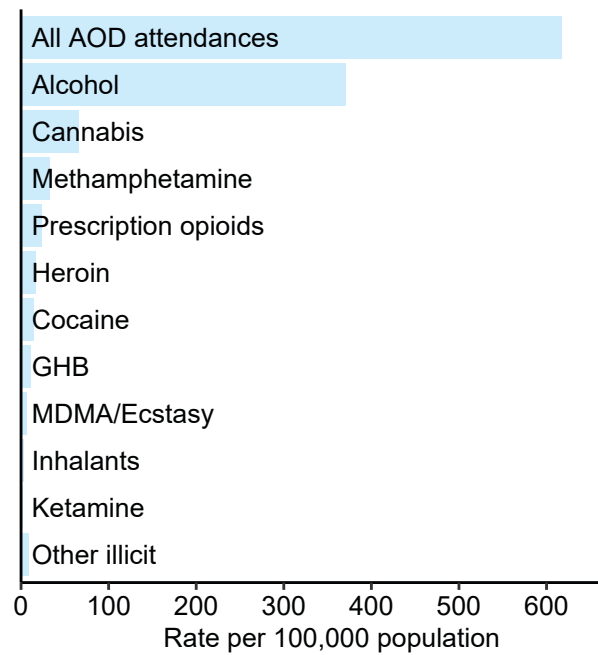


Figure 2. Rate of alcohol and other drug-related ambulance attendances per 100,000 population, NSW, 2022. Note that categories are not mutually exclusive. Source: NASS<sup>7</sup>

<sup>6</sup> Australian Alcohol Guideline 1: Reducing the risk of alcohol-related harm for adults. To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day. National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

<sup>7</sup> Note that alcohol or other drug consumption is to be considered as a contributor to the ambulance attendance, not necessarily the primary reason for the attendance. Further, note that attendances are classified as recorded in the data, and are not subject to confirmation (e.g., toxicological analysis). The system cannot capture alcohol or other drug-related harm where an ambulance does not attend. A case is classified as involving a prescription opioid where any of the following drugs were involved in the attendance: dextropropoxyphene; fentanyl; hydromorphone; morphine; oxycodone; oxycodone-naloxone; pethidine; tramadol; other/unspecified opioid analgesic; codeine and codeine combinations; methadone; buprenorphine; buprenorphine-naloxone; other/unspecified drugs used in opioid substitution treatment. Source: NASS.



Alcohol- or other drug-related ambulance attendances account for 5.8% of all ambulance attendances in NSW, although this percentage varies significantly by geography. Figure 3 shows the rate of alcohol and other drug-related ambulance attendances per 1000 ambulance attendances by local health district (LHD), between April and December 2022. Geolocation information prior to this period is not complete, and this is the latest available data. The lowest rates are observed in Far West LHD (14 per 1,000 attendances), and the highest in South Eastern Sydney and Sydney LHDs (87 and 83 per 1,000 attendances, respectively).

Figure 3 (inset) shows the rate of alcohol and other drug-related ambulance attendances per 1,000 attendances by local government area (LGA). LGAs are used for this map since they provide greater geographical information about where alcohol- or other drug-related harms occur. In the City of Sydney LGA, which includes the central business district, nearly 1 in 5 ambulance attendances (186 per 1,000 attendances) are AOD-related.

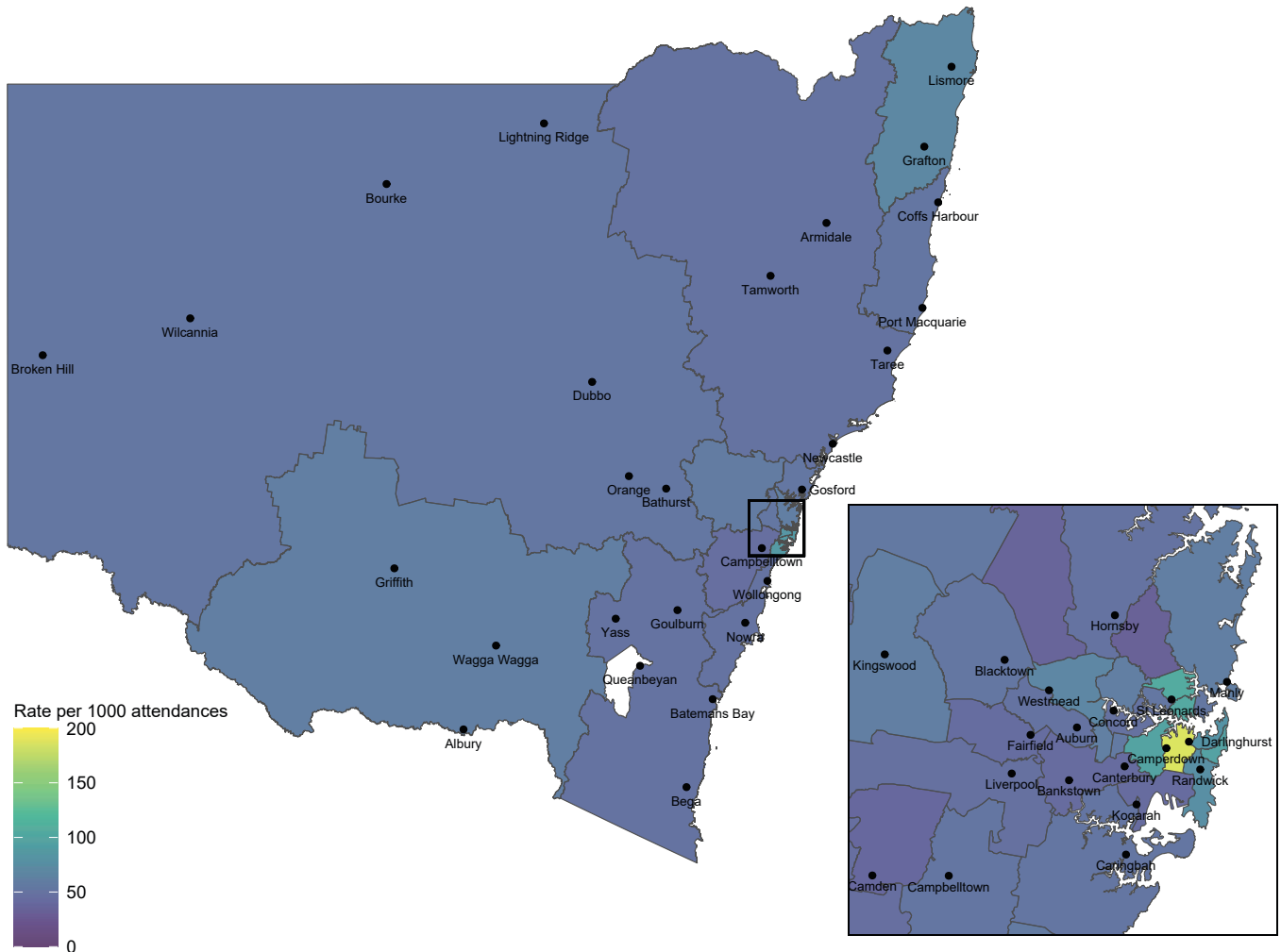


Figure 3. Rate of alcohol- or other drug-related attendances per 1000 ambulance attendances, NSW by LHD of attendance, and (inset) Sydney by LGA of attendance, April-December 2022. Source: NASS.

## Hospitalisations

Alcohol related hospitalisations were consistently higher than other drug related hospitalisations over time<sup>8</sup>.

Alcohol and other drug related hospitalisations have shown a general upward trend since FY 2001-02, although there has been a decline since FY 2020-21 (see Figure 4). The peak rate in FY 2020-21 occurred during the early part of the COVID-19 pandemic, which had impacts on alcohol consumption among certain groups<sup>9</sup>.

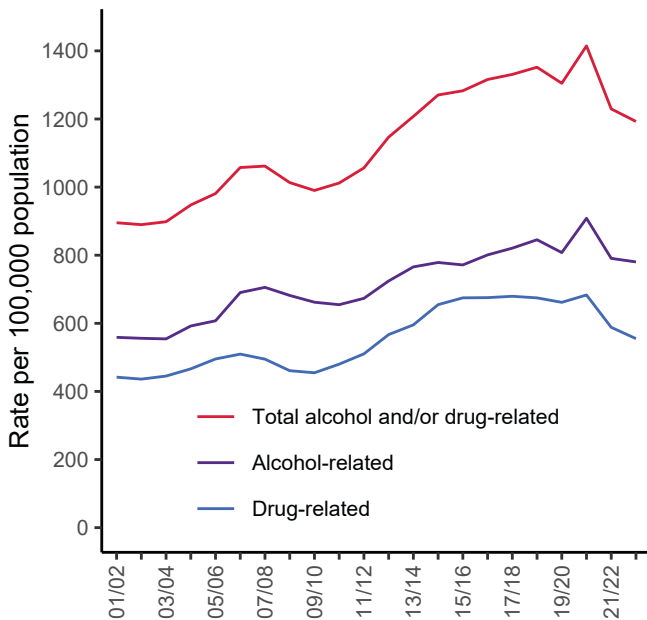


Figure 4. Alcohol and other drug-related hospitalisations by diagnosis category and financial year, NSW, FY 2001-02 to FY 2022-23. Source: [HealthStats NSW](#)

Drug related hospitalisations in NSW have changed significantly over the past two decades<sup>10</sup> (Figure 5). In particular, there has been an increase in methamphetamine-related hospitalisations.

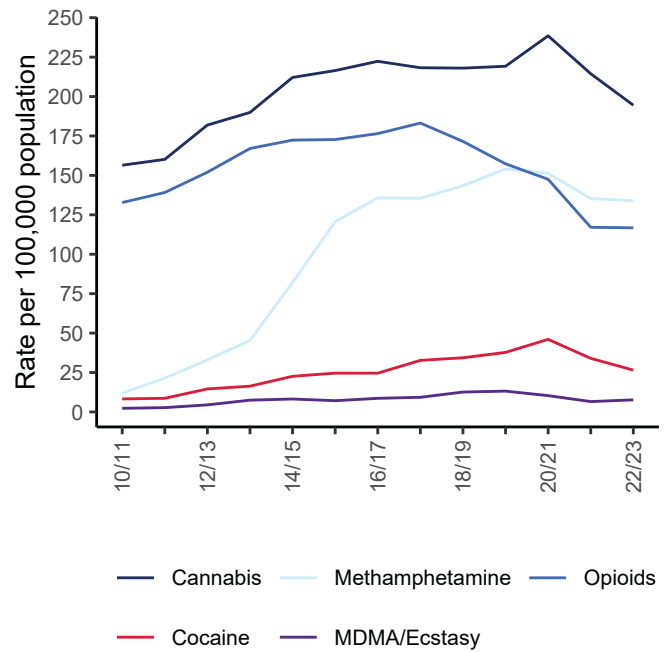


Figure 5. Drug-related hospitalisations by drug type and financial year, NSW, FY 2010-11 to FY 2022-23. Source: NSW Health analysis of CAPED

## Psychiatric hospitalisations and suicides involving alcohol and other drugs

There are approximately 40,000 admissions to acute mental health units across NSW per year (excluding forensic and child and adolescent facilities)<sup>11</sup>. Around 38% of these admissions have either a primary substance use disorder or a secondary contributing substance use disorder diagnosis.

For people admitted with a primary substance use disorder, drug-induced psychotic illness accounts for most admissions (around 57.8%), followed by alcohol use disorders (22.1%) and stimulant use disorders (10.2%).

<sup>8</sup>Data on alcohol- and drug-related hospitalisations includes both principal AND additional diagnoses. The principal diagnosis is the condition chiefly responsible for admission of the patient to the hospital. Additional diagnoses are conditions or complaints either coexisting with the principal diagnosis or arising during the hospitalisation, and meeting defined criteria (such as requiring increased clinical care, diagnostic interventions, or affecting therapeutic treatment). Additional diagnoses are not chiefly responsible for admission of the patient, but may have contributed."

<sup>9</sup>Australian Institute of Health and Welfare (2024). *Alcohol, tobacco & other drugs in Australia: Impacts of COVID-19 on alcohol and other drug use*. Accessed 30 August 2024, [here](#).

<sup>10</sup>NDARC report only hospital separations where drugs were determined to be the principal diagnosis field. HealthStats report hospital separations using principal and additional diagnoses fields. As a result, data reported by HealthStats will be higher due to the additional diagnosis fields.

<sup>11</sup>Source: internal analysis of CAPED data, InforMH, NSW Ministry of Health

Alcohol use remains a significant risk factor in attempted and completed suicide<sup>12</sup>. A review of coronial cases in Australia between 2010 to 2015 found that just over a quarter of all suicide deaths were associated with a blood alcohol concentration above or equal to 0.05g/100mL<sup>13</sup>.

## Deaths

In 2022, there were 567 alcohol-induced deaths registered in NSW. This is the highest rate in 20 years at 6.1 deaths per 100,000 population (HealthStats NSW). There were 1,330 total alcohol deaths (including both alcohol-related and alcohol-induced deaths), with a rate of 14.5 deaths per 100,000 population.

There were 386 drug-induced deaths (illicit and licit drugs, excluding alcohol and tobacco)<sup>14</sup> registered in NSW in 2022, with a rate of 4.7 per 100,000 population (HealthStats NSW). There were 665 total drug deaths (including both drug-related and drug-induced deaths), with a rate of 10.0 deaths per 100,000 population).

Figure 6 shows the rate of alcohol-induced and drug-induced deaths, and total alcohol and total drug (induced and related) deaths in NSW between 2013 and 2022.

Figure 7 displays the age-standardised rates per 100,000 population for drug-induced deaths involving opioids, amphetamine-type stimulants, benzodiazepines, cannabinoids, and cocaine in NSW between 2013 and 2022. The data shows a general decline in opioid-induced deaths. Drug-induced deaths involving amphetamine-type stimulants increased between 2013 and 2016, and have been stable since then, with the exception of a spike in 2020.

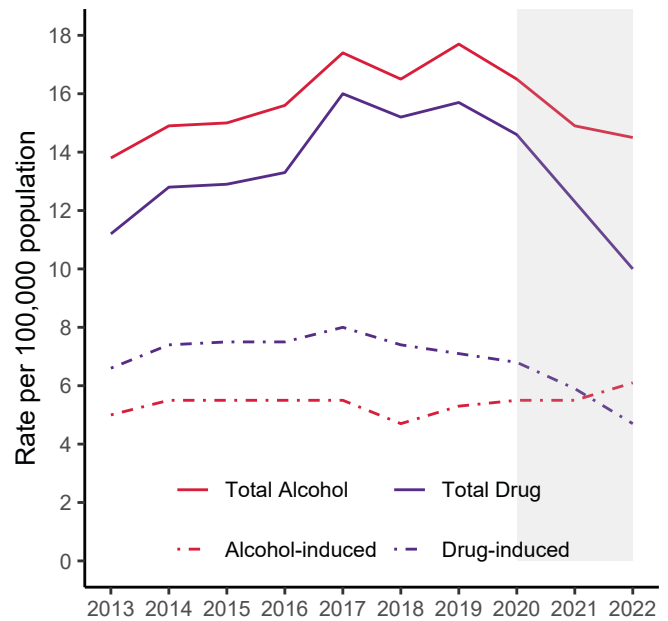


Figure 6. Age standardised death rate for alcohol-induced and drug-induced deaths, and total alcohol and total drug deaths (including both related and induced), NSW, 2013 to 2022. The shaded area indicates that data for the two most recent years are subject to revision and will likely increase Source: HealthStats NSW.

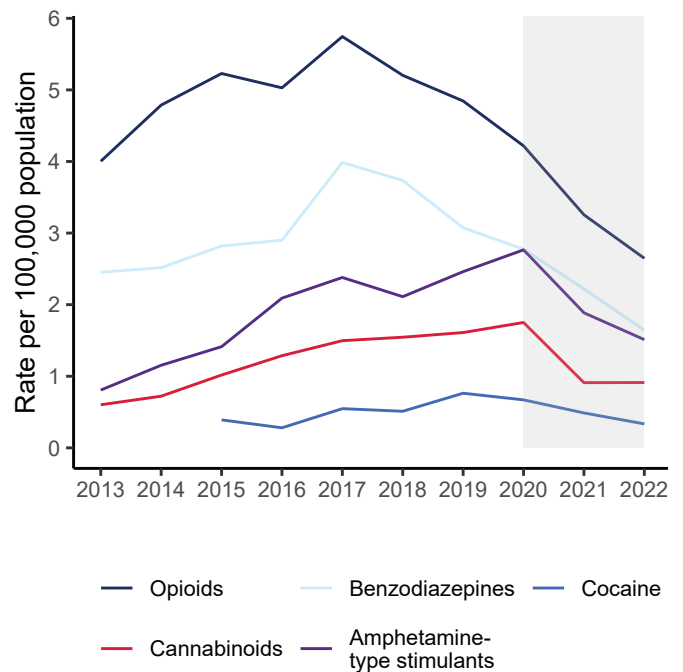


Figure 7. Age-standardised death rate for drug-induced deaths involving selected drugs/drug classes, NSW, 2013 to 2022. The shaded area indicates that data for the two most recent years are subject to revision and will likely increase. Age-standardised rates for cocaine deaths in 2013 and 2014 were available but not presented as they do not meet HealthStats NSW reporting criteria for reliability of estimates. Source: HealthStats NSW analysis of ABS COD.

<sup>12</sup> Borges et al. (2017) A meta-analysis of acute use of alcohol and the risk of suicide attempt. *Psychological Medicine* 47(5): 949–957. Accessed [here](#).

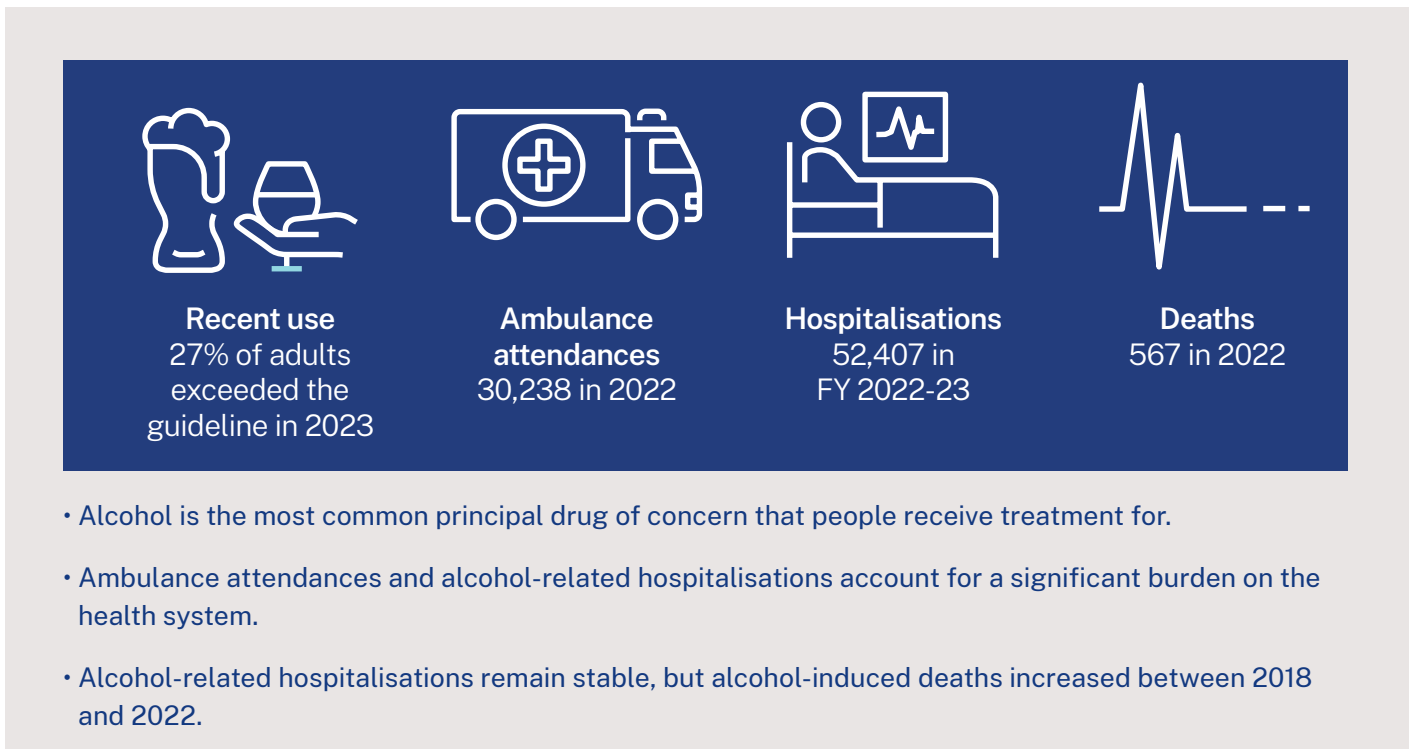
<sup>13</sup> Chong et al. (2020) Acute alcohol use in Australian coronial suicide cases, 2010–2015. *Drug and alcohol dependence* 212: 108066. Accessed [here](#).

<sup>14</sup> Drug-induced deaths are defined as overdose deaths directly attributed to drug use, where drug use has been recorded as the underlying cause of death. Drug-related deaths refer to deaths where drug use is considered to have contributed to the death and is listed as an additional reason but not as the underlying cause. Some other groups (including the Australian Bureau of Statistics) report drug-induced (or overdose) deaths but not drug-related deaths. Total drug deaths include all drug-induced and drug-related deaths. It measures the fatal burden related to drug use. Deaths involving illicit drugs (for example, heroin, amphetamines and cocaine) and licit drugs (for example, benzodiazepines and anti-depressants) are included.

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# Priority drugs

## Alcohol



Data for each point of information is from the most up to date time point available. Use of alcohol above guideline is from 2023, ambulance attendances involving alcohol intoxication are from 2022, alcohol-related hospitalisations are from FY 2022-23, alcohol-induced deaths are from 2022.

Alcohol use is common in Australia. It is a legal, regulated product, that is widely available and often a part of social and cultural life. However, alcohol can also have health, financial, family and community impacts. It is linked to accident and injury, increased motor vehicle accidents, interpersonal violence, and sexual assault.

The total social and economic costs of alcohol to Australia were estimated to be \$75 Billion in FY 2022-23<sup>15</sup>. The major sources of these costs are premature mortality, morbidity (illness and injury), impacts on the workplace (absenteeism, accidents, lost productivity), crime (perpetrator or victim), and road traffic crashes.

Price, availability and promotion significantly affect consumption<sup>16</sup>. In FY 2019-20, Australians spent \$26 billion on alcohol<sup>17</sup>. The cheapest form is high volume cask wine, which can be as cheap as 30 cents per standard drink<sup>18</sup>.

Drinking alcohol can create a feeling of relaxation and warmth, accompanied by disinhibition and lack of emotional restraint along with poor coordination and impaired judgement.

<sup>15</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 4 September 2024, [here](#).

<sup>16</sup> Jiang et al. (2016) Price elasticity of on- and off-premises demand for alcoholic drinks: A Tobit analysis. *Drug and Alcohol Dependence* 163: 222-228. Accessed [here](#)

<sup>17</sup> Deloitte Access Economics (2021) *Alcohol Beverages Industry: Economic contribution and future opportunity. March 2021*. Accessed 20 August 2024, [here](#).

<sup>18</sup> Man et al. (2024) Establishing a monitoring system for off-premise alcohol retailer beverage pricing in New South Wales: A pilot study. *Drug Trends Bulletins*. Accessed 20 August 2024, [here](#).

Common short-term effects of intoxication include slurred speech, blackouts (temporary memory loss), nausea, vomiting, and headaches<sup>19</sup>. Alcohol poisoning (overdose) can occur with depression of breathing and risk of death.

Serious short-term effects include mental health impacts (emotional lability and suicidality) as well as violence (both towards self and others), and heart rhythm problems.

Long term health effects include liver damage, pancreatitis, increased risk of some cancers (especially liver, bowel, and breast cancer), memory loss and increased likelihood of dementia, and irregular heart rhythms and heart failure. Globally, 4.1% of all new cancers are attributable to alcohol use<sup>20</sup>.

Fetal alcohol spectrum disorder (FASD) is condition caused by exposure of the developing fetus to alcohol during pregnancy. FASD is associated with a range of intellectual and physical developmental delays and is often detected in childhood, though severe cases may be diagnosed at birth.

Regular drinking above recommended limits can lead to dependence and withdrawal, which can be complicated by confusion and seizures. Dependence often results in physical, social and emotional problems.

## Patterns of use

- In 2023, 27% of the NSW population aged 18 years and over exceeded the Australian alcohol guideline for adults<sup>22</sup> ([HealthStats NSW](#)):
  - 10% reported drinking more than 10 standard drinks per week
  - 25% reported drinking more than 4 standard drinks on any one day in the last 4 weeks
  - These proportions have remained relatively stable since 2021.
- Exceeding the adult alcohol guideline was more common among ([HealthStats NSW](#)):
  - males
  - people with English-speaking or Australian backgrounds
  - people living in regional LHDs (see Figure 8)
  - people aged 16 to 24 years and those aged 45 to 54 years
  - people living in the least disadvantaged areas.
- In 2023, 25% of the NSW population aged 18 years and over reported that they do not usually drink alcohol ([HealthStats NSW](#)).

The *Australian Alcohol Guideline*<sup>21</sup> states:

1. To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day. The less you drink, the lower your risk of harm from alcohol.
2. To reduce the risk of injury and other harms to health, children and people under 18 years of age should not drink alcohol.
3. To prevent harm from alcohol to their unborn child, women who are pregnant or planning a pregnancy should not drink alcohol. For women who are breastfeeding, not drinking alcohol is safest for their baby.



<sup>19</sup> Griswold et al. (2018) Alcohol use and burden for 195 countries and territories, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet* 392(10152): 1015–1035. Accessed, [here](#).

<sup>20</sup> Runggay et al. (2021) Global burden of cancer in 2020 attributable to alcohol consumption: a population-based study. *Lancet Oncology* 22(8): 1071-1080. Accessed, [here](#).

<sup>21</sup> National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

<sup>22</sup> Australian Alcohol Guideline 1: Reducing the risk of alcohol-related harm for adults. To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day. National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

Figure 8 shows the percentage of people aged 18 years and over who exceed the Australian Alcohol Guidelines by local health district (LHD). The percentage exceeding risk guidelines was highest in Western NSW and Northern NSW LHDs, and lowest in Western Sydney and South Western Sydney LHDs.

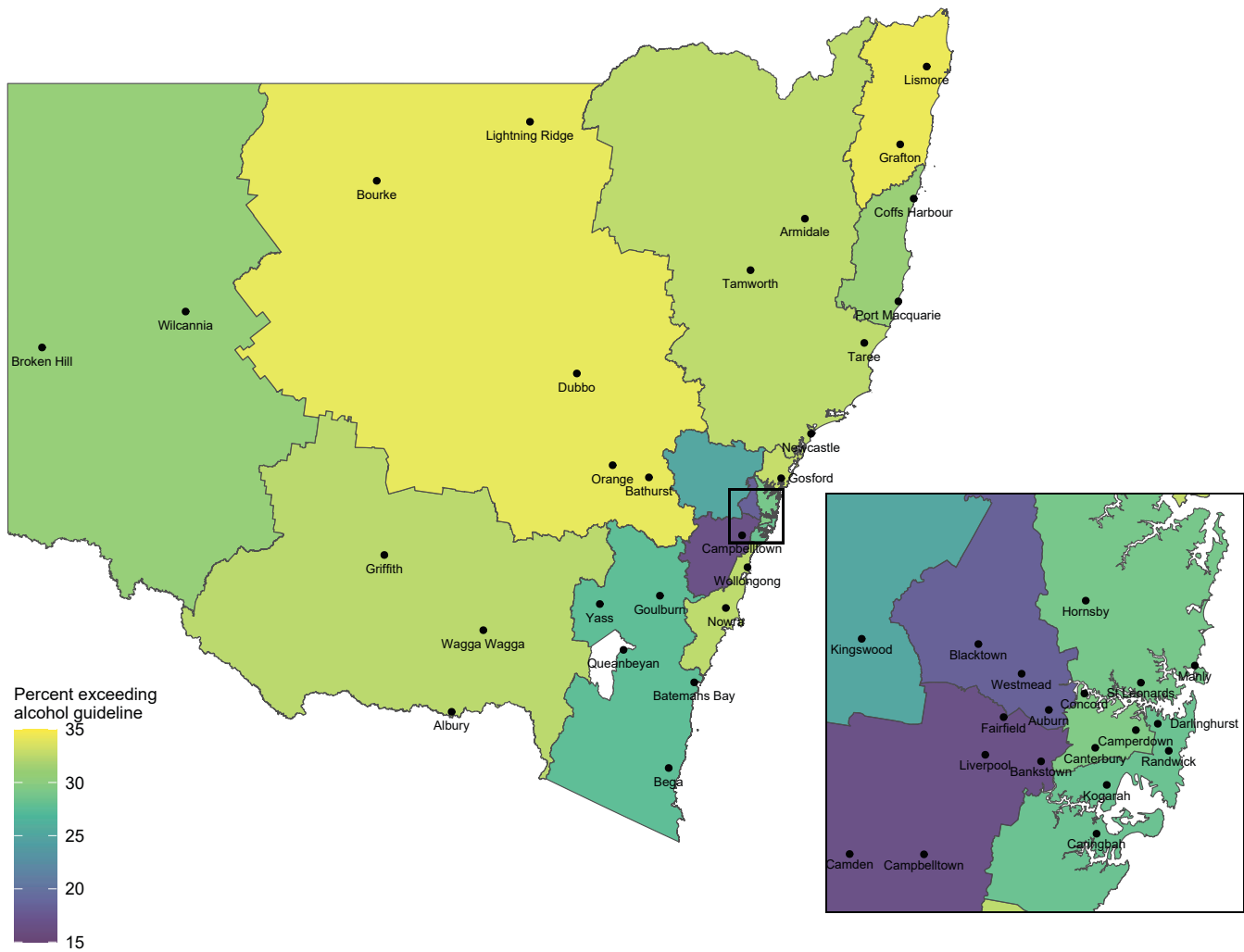


Figure 8. Percentage of people aged 18 years and over who exceeded the Australian alcohol guideline, by local health district (LHD) of residence, NSW and (inset) Sydney, 2023. Source: [HealthStats NSW](https://www.healthstats.nsw.gov.au/).

## Health impacts

### Ambulance attendances

- There were 30,238 NSW Ambulance attendances for alcohol intoxication in 2022 (370 per 100,000 population) (NASS).
- For females, ambulance attendances involving alcohol intoxication were highest among those aged 20 to 24 years (527 per 100,000 population) and 15 to 19 years (507 per 100,000 population), and for males, were highest among those aged 55 to 59 years (787 per 100,000 population) and 50 to 54 years (763 per 100,000 population) (NASS).

Figure 9 shows the rate of ambulance attendances involving alcohol intoxication in NSW by LHD, and in Sydney by LGA. The highest rate is observed in City of Sydney LGA, which includes the central business district.

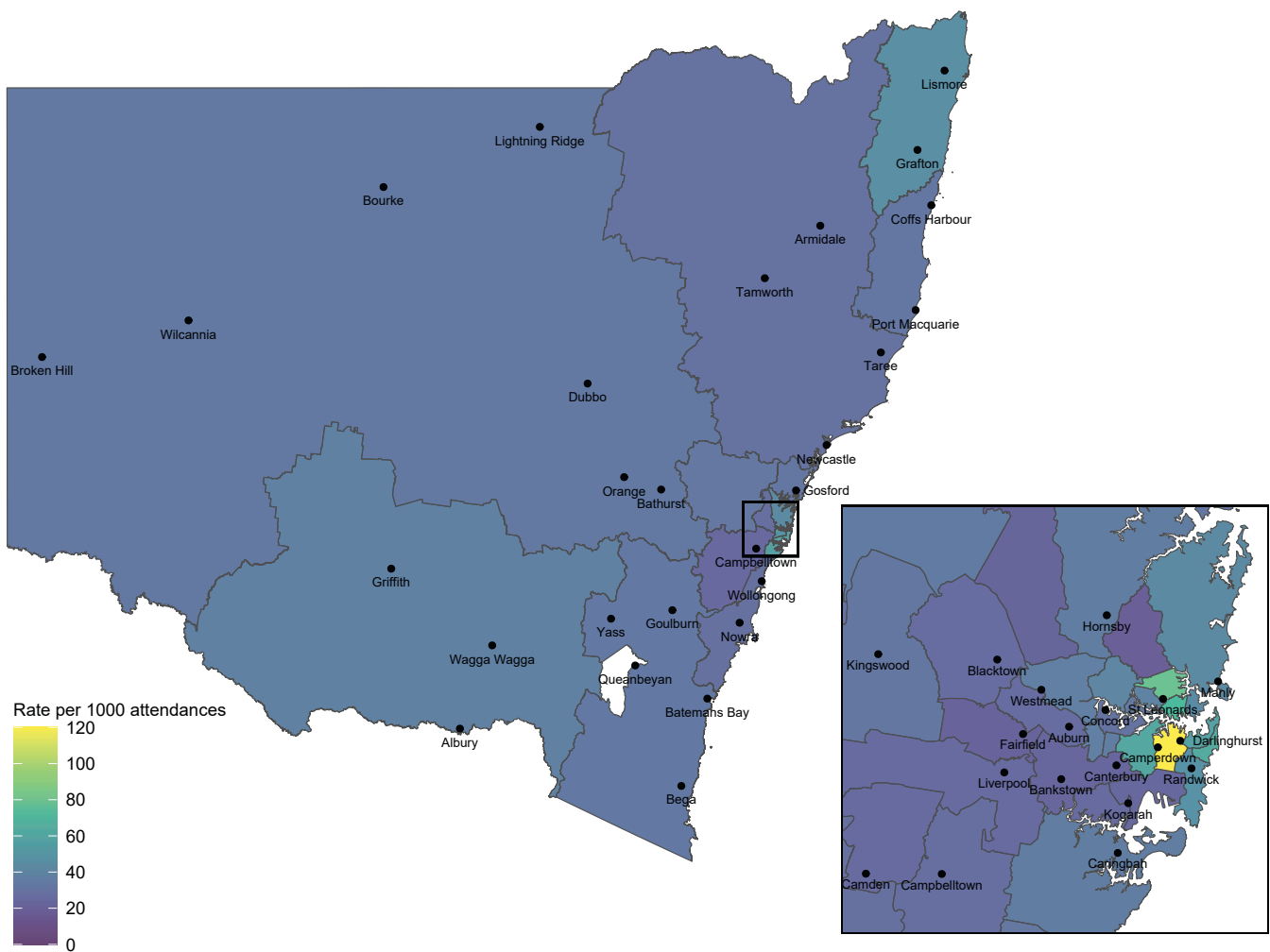


Figure 9. Rate of alcohol intoxication attendances per 1000 ambulance attendances, NSW by LHD of attendance and (inset) Sydney by LGA of attendance, April-December 2022. Source: NASS.



## Emergency department presentations

The data below substantially undercounts emergency department alcohol presentations and should only be used for trend analysis<sup>23</sup>.

- Among people in NSW aged 15 to 17 years, presentations to emergency departments with alcohol problems increased between FY 2014-15 and FY 2018-19 (age-adjusted rate of 254 and 313 per 100,000 population, respectively), and then decreased to FY 2022-23 (182 per 100,000 population) ([HealthStats NSW](#)):
- Among people in NSW aged 18 to 24 years, presentations to emergency departments with alcohol problems:
  - decreased between FY 2014-15 and FY 2022-23 (age-adjusted rate of 401 and 350 per 100,000 population, respectively)
  - decreased from the FY 2018-19 peak of 408 per 100,000 population ([HealthStats NSW](#)).
- In younger age groups (15 to 17 and 18 to 24 years), presentations to emergency departments with alcohol problems were more common among females. In contrast, presentations to emergency departments with alcohol problems among those aged 25 to 64 years and over 65 years were more common among males ([HealthStats NSW](#)).

## Hospitalisations

- In FY 2022-23, alcohol accounted for two-thirds of total alcohol- or other drug-related hospitalisations in NSW (67% or 52,407 hospitalisations)<sup>24</sup>. This represents a rate of 780 per 100,000 population ([HealthStats NSW](#)).
- The rate of alcohol-related hospitalisations increased over the last two decades to a peak in FY 2020-21, with a rate of 908 per 100,000 population, and then decreased over the two years to FY 2022-23 (to 780 per 100,000 population in FY 2022-23). ([HealthStats NSW](#)).
- Alcohol-related hospitalisation rates were higher among ([HealthStats NSW](#)):
  - people aged 45 to 54 years
  - males
  - Aboriginal people
  - people living in the least socioeconomically disadvantaged areas (1st quintile)
  - people living in regional LHDs
- In FY 2021-22, 49% of alcohol attributable<sup>25</sup> hospitalisations were related to alcohol use disorders, followed by cancer (13.9%) ([HealthStats NSW](#)).

<sup>23</sup> The emergency department data presented for this indicator (alcohol problems) are a substantial undercount of actual alcohol-related emergency department presentations (estimated to identify about 24% of all alcohol-related emergency department presentations; Indig et al. (2008) Why are alcohol-related emergency department presentations under-detected? An exploratory study using nursing triage text. *Drug and Alcohol Review* 27(6): 584-590. Accessed [here](#)). This indicator should be used to examine trends in presentations for alcohol problems over time, rather than as a measure of burden for alcohol-related harm.

<sup>24</sup> Data on alcohol-related hospitalisations includes both principal AND additional diagnoses.

<sup>25</sup> Alcohol attributable hospitalisation is a measure of the amount by which hospitalisations would be reduced if exposure to alcohol had followed a theoretical minimum risk exposure distribution. For further detail, see HealthStats NSW technical details [here](#).

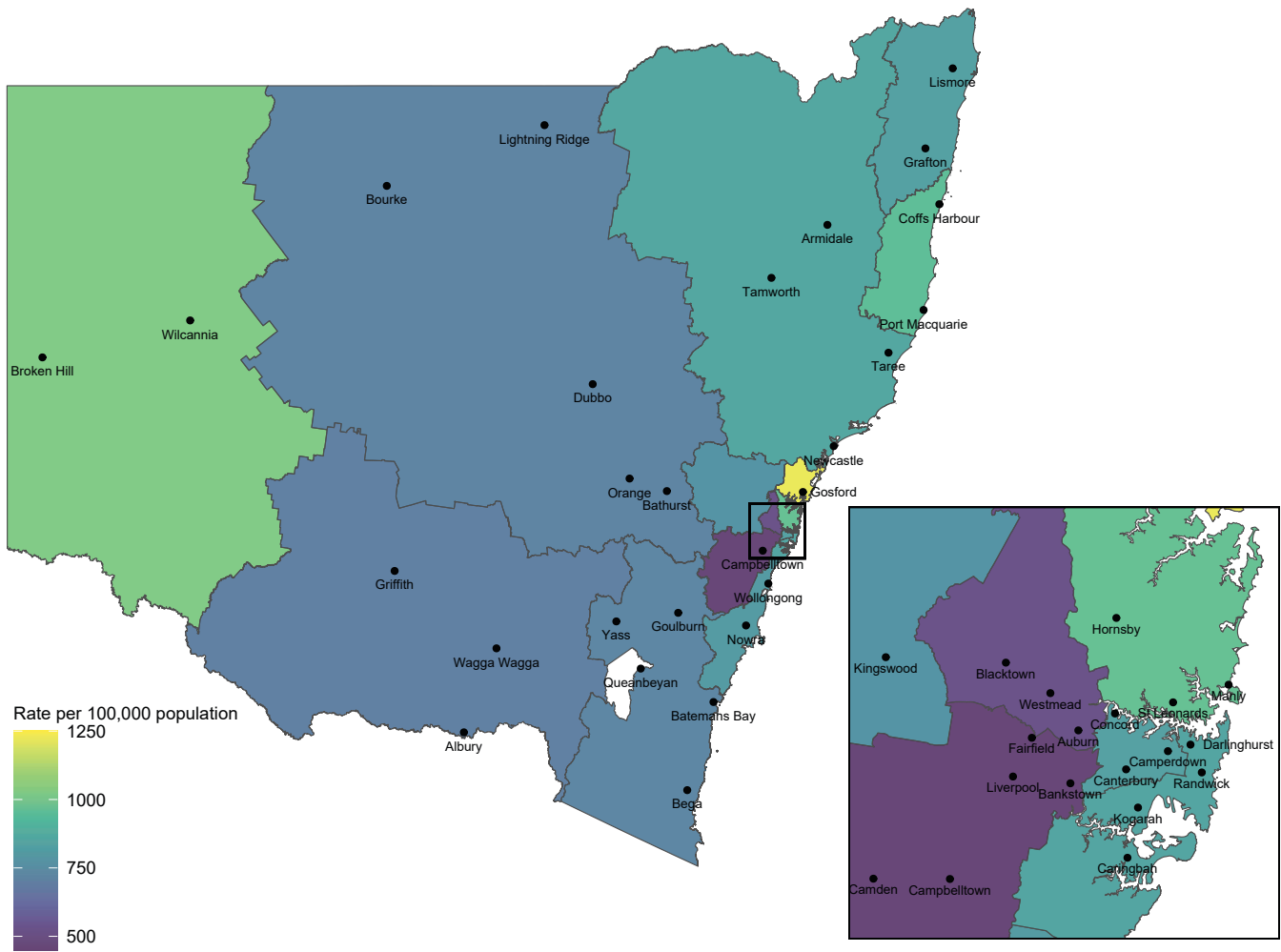


Figure 10. Age-adjusted rate of alcohol-related hospitalisations per 100,000 population by local health district (LHD) of residence, NSW and (inset) Sydney, FY 2022-23. Source: [HealthStats NSW](#).

Figure 10 shows the age-adjusted rate of alcohol-related hospitalisations per 100,000 population by local health district (LHD) of residence. The rate of alcohol-related hospitalisations was highest in the Central Coast LHD, and lowest in Western Sydney and South Western Sydney LHDs.

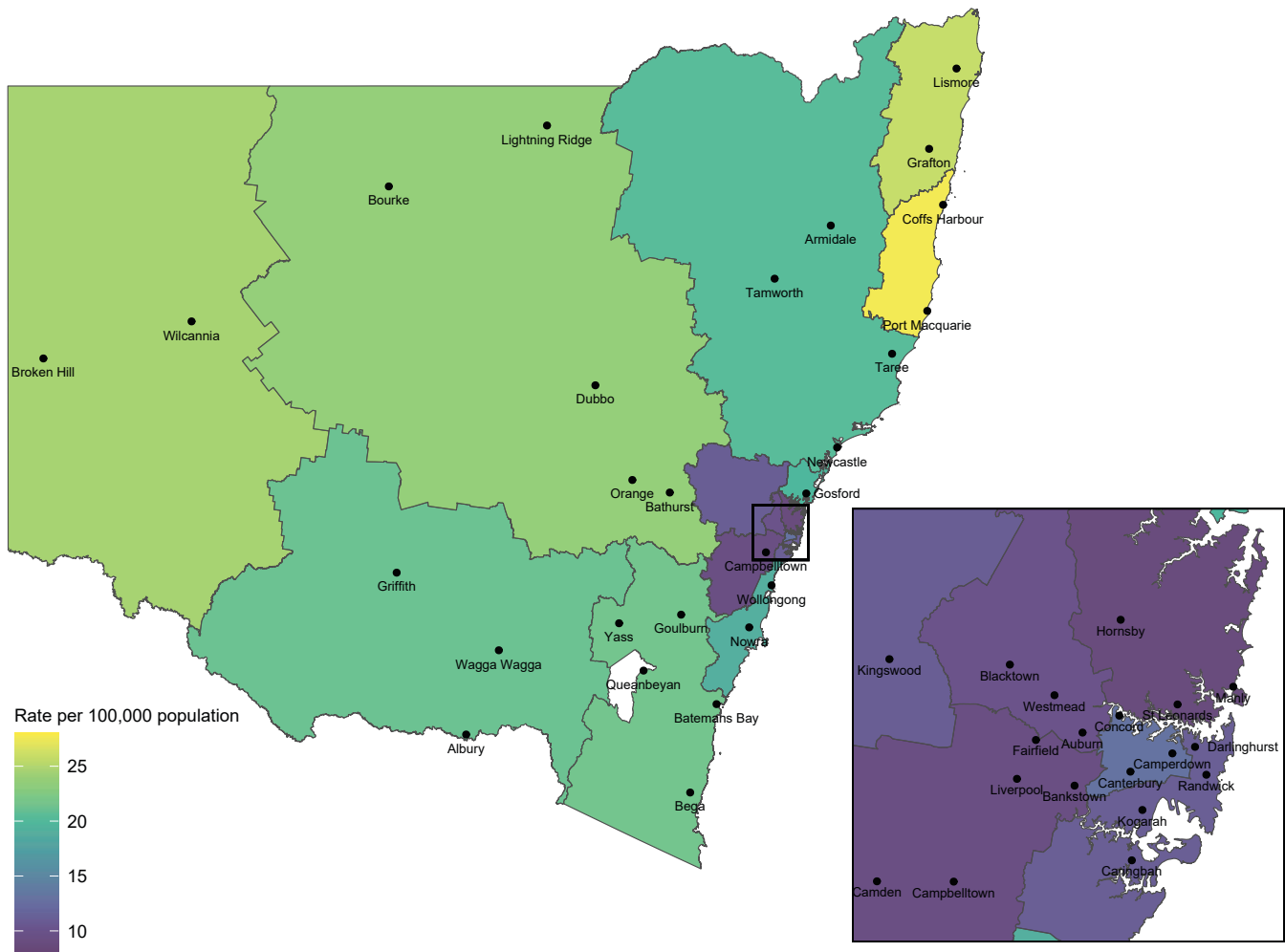


Figure 11. Rate of total alcohol deaths (including alcohol induced and alcohol related deaths) per 100,000 population by local health district (LHD) of residence, NSW and (inset) Sydney, combined years 2021-2022. Source: [HealthStats NSW](#).

## Deaths

- In 2022, there were 567 alcohol-induced deaths<sup>26</sup> registered in NSW ([HealthStats NSW](#)). The rate of alcohol-induced deaths in NSW has increased over the last 5 years, from 4.7 deaths per 100,000 population in 2018 to 6.1 deaths per 100,000 population in 2022.
- Nationally, the most common associated cause of alcohol-induced death in 2022 was liver disease, followed by mental and behaviour disorders due to psychoactive substance use (ABS COD).

Figure 11 shows the age-adjusted per 100,000 population in the combined years 2021-2022 by local health district (LHD) of residence. The age-adjusted rate of alcohol-related deaths was highest in Mid North Coast LHD, and lowest in metropolitan Sydney LHDs.

## Treatment services

- Alcohol was the most common principal drug of concern for which people received alcohol or other drug treatment from publicly funded services in NSW in FY 2022-23 (19,268 episodes, 44% of all alcohol or other drug treatment episodes) (AODTS NMDS).

<sup>26</sup> Alcohol-induced deaths are defined as those that can be directly attributable to alcohol use (i.e., where an alcohol-related condition is recorded as the underlying cause of death), as determined by toxicology and pathology reports.

## Social impacts

- In FY 2023-24 there were 12,921 drink driving offences in NSW<sup>27</sup>. In NSW in 2022 there were 35 fatal vehicle crashes involving a blood alcohol concentration over the legal limit, 246 resulting in serious injury and 354 moderate injury crashes<sup>28</sup>.
- A quarter of all assaults are alcohol-related, with 6PM to 12AM being the most common time of day<sup>29</sup>. There were 7,597 alcohol-related non-domestic violence assaults recorded by NSW Police in 2023 (93 per 100,000 population). The rate of alcohol-related non-domestic violence assaults has decreased since 2019 (115 per 100,000 population) (BOCSAR).
- More than a quarter (26.5%) of domestic violent-related assaults recorded by NSW Police in 2023 were alcohol related<sup>29</sup>. This amounts to 9,561 alcohol-related domestic violence assaults in 2023 (117 per 100,000 population). The rate of alcohol-related domestic violence assaults has remained stable since 2019 (115 per 100,000 population) (BOCSAR).
- Of those arrested for any unlawful behaviour, 27% reported alcohol in the 24 hours prior, and 30% reported that alcohol use contributed to their arrest<sup>30</sup>.
- Alcohol costs Australian workplaces an estimated \$3.5 billion annually<sup>31</sup>. This includes absenteeism, accidents and other lost productivity.

## Priority populations

### Teenagers and young adults

- In 2023, 34% of young people in NSW aged 18 to 24 years consumed alcohol at levels that exceeded the national alcohol guidelines for healthy adults<sup>31</sup>. 10% reported consuming more than 10 standard drinks in the past week, and 34% reported consuming more than 4 standard drinks in a single day, in the past 4 weeks ([Health Stats NSW](#)).
- In NSW in 2022-2023, 9% of adolescents aged 14 to 17 years consumed alcohol at levels which exceeded the national alcohol guidelines for healthy adults<sup>33</sup>. This is a substantial decrease from 21% in 2007 (NDSHS). National alcohol guidelines recommend those under 18 years of age do not drink alcohol at all<sup>34</sup>. Alcohol is the primary drug of concern in this age group.
- Among students surveyed as part of the Australian secondary school students alcohol and drug (ASSAD) survey in 2022-23:
  - 65% had ever had an alcoholic beverage
  - 44% consumed alcohol in the past year
  - 22% consumed alcohol in the past 4 weeks
  - 11% consumed alcohol within the past week
  - consumption has been decreasing over the past two decades.
- Nationally among secondary school students who identified as current drinkers in 2022-23 (ASSAD):
  - 47% obtained their last alcoholic drink from their parent/s
  - 23% accessed it from a friend
  - 9% got someone else to buy it.

<sup>27</sup> NSW Bureau of Crime Statistics and Research (2024). Driving offences. Accessed 14 October 2024, [here](#)

<sup>28</sup> Transport for NSW (2022) *Road Traffic Casualty Crashes in New South Wales*: NSW Government. Accessed 14 October 2024, [here](#)

<sup>29</sup> NSW Bureau of Crime Statistics and Research (2024) *Alcohol Related Violence*. Accessed 13 September 2024, [here](#).

<sup>30</sup> Voce & Sullivan (2022) *Drug use monitoring in Australia: Drug use among police detainees, 2021*. Statistical Report no. 40. Canberra: Australian Institute of Criminology. Accessed 18 September 2024, [here](#).

<sup>31</sup> VicHealth (2012). *Reducing alcohol-related harm in the workplace. An evidence review: summary report*. Victorian Health Promotion Foundation, Melbourne, Australia. Accessed 18 September 2024, [here](#).

<sup>32</sup> Australian Alcohol Guideline 1: Reducing the risk of alcohol-related harm for adults. To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day. National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

<sup>33</sup> Australian Alcohol Guideline 1: Reducing the risk of alcohol-related harm for adults. To reduce the risk of harm from alcohol-related disease or injury, healthy men and women should drink no more than 10 standard drinks a week and no more than 4 standard drinks on any one day. National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

<sup>34</sup> Australian Alcohol Guideline 2: Children and people under 18 years of age. To reduce the risk of injury and other harms to health, children and people under 18 years of age should not drink alcohol. National Health and Medical Research Council (2020) *Australian guidelines to reduce health risks from drinking alcohol*. Commonwealth of Australia, Canberra. Accessed 18 September 2024, [here](#).

## Aboriginal people

- Rates of abstinence from alcohol were higher among Aboriginal people (30%) when compared with non-Aboriginal people (25%) in 2023 ([HealthStats NSW](#)).
- 31% of the Aboriginal population in NSW aged 18 years and over exceeded the Australian Alcohol Guideline for adults, higher than the non-Aboriginal population (27%) ([HealthStats NSW](#)).
- Alcohol-related rates of hospitalisation were 3 times higher among Aboriginal people when compared with non-Aboriginal people ([HealthStats NSW](#)).

## Regional populations

- In 2023, a greater proportion of people who live in regional LHDs of NSW reported they exceeded the Australian Alcohol Guideline for adults, than those living in metropolitan LHDs ([HealthStats NSW](#)).

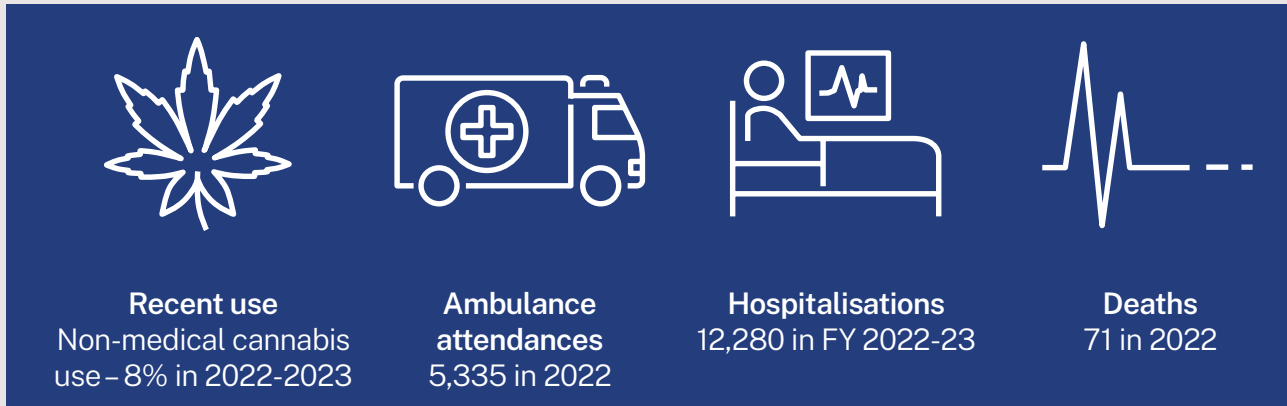
## Prison populations

- Daily alcohol consumption is higher among people entering prison, when compared with the general population. Among people entering prison in NSW in 2020 who reported drinking alcohol in the 4 weeks prior to entering custody, 26% reported consuming alcohol daily, and a further 11% reported consuming alcohol on most days<sup>35</sup>.

<sup>34</sup> Justice and Forensic Mental Health Network (2022). *People in NSW Public Prisons: 2020 Health Status and Service Utilisation Report*. Accessed 18 September 2024, [here](#).

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# Cannabis



- After alcohol, cannabis was the most common substance used for non-medical purposes in NSW.
- Non-medical use of cannabis was most prevalent among people aged 16 to 24 years
- The highest rates of ambulance attendances involving cannabis occurred in males aged 20 to 24 years.
- Cannabis was the second most common drug identified on toxicology for transport accidents where a drug (excluding alcohol) contributed to death.
- Use of cannabis was higher among Aboriginal people compared with non-Aboriginal people.
- Use of cannabis was common among people entering prison.

Data for each point of information is from the most up to date time point available. Recent use of non-medical cannabis is from combined years 2022-2023, ambulance attendances involving cannabis are from 2022, cannabis-related hospitalisations are from FY 2022-23, drug-induced deaths involving cannabinoids are from 2022.

Cannabis is the most commonly used illicit drug, and the third most used drug overall, behind alcohol and tobacco<sup>36</sup> (NDSHS). The total social and economic cost from cannabis was estimated to be \$5.2 billion nationally in FY 2022-23<sup>37</sup>.

The cannabis plant has more than 70 unique chemicals that are collectively referred to as cannabinoids. The main psychoactive component of the cannabis plant is delta-9-tetrahydrocannabinol (THC), which causes intoxication or a “high”. Cannabidiol (CBD) is another component and is non-intoxicating.

Cannabis is most commonly smoked in a rolled cigarette (joint) or water pipe (bong), often in combination with tobacco, but it may also be added to food and eaten.

Cannabis is a central nervous system depressant, but also alters sensory perceptions and may produce hallucinogenic effects when large quantities are used.

The main short-term effects of cannabis include feeling unusually well or content, feeling drowsy and hungry, heightened sensory perception, and impaired judgement. It can impair people’s ability to drive or operate heavy machinery and people may ‘black out’. People who use cannabis long-term are at risk of developing ‘cannabis hyperemesis syndrome’, which is severe vomiting that does not respond to anti-nausea medication.

<sup>36</sup> Excludes medically prescribed cannabis

<sup>37</sup> The George Institute (2023) *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 4 September 2024, [here](#).

Long term effects associated with cannabis include an increased risk of developing lung disease (including lung cancer and other respiratory system diseases for inhaled cannabis), memory problems, decreased motivation; and psychiatric symptoms such as anxiety, depression and psychosis.

The use of cannabis for medicinal purposes was legislated by the Australian Government in 2016. There are still significant gaps in knowledge around the hundreds of chemicals in the cannabis plant. The Therapeutic Goods Administration (TGA) has registered two cannabis medicines for therapeutic use, but a significant number of unapproved products are available.

There is limited evidence for the effectiveness of medicinal cannabis for some conditions<sup>38</sup>. Conditions for which there is a registered and indicated use include some childhood seizure conditions (Lennox-Gastaut and Dravet syndromes<sup>39</sup>) and muscle spasticity (muscle stiffness<sup>40</sup>) in multiple sclerosis. Other conditions for which people are prescribed medical cannabis include insomnia, anxiety, and chronic pain.

NSW Health, the TGA and the Australian Health Practitioners Regulatory Agency (AHPRA) have investigated potential excessive prescribing of cannabis medicines, including via a relatively small number of telehealth prescribers.

Synthetic cannabinoids are new psychoactive substances that were originally designed to mimic or produce similar effects to cannabis. They are generally more toxic and produce more variable effects compared with cannabis. NSW legislative changes in October 2013 banning specific products resulted in a decrease in exposures to synthetic cannabinoids<sup>41</sup>.

## Patterns of use

- Cannabis is the third most used drug in NSW, behind alcohol and tobacco, and the most commonly used illicit drug in 2022-2023 (NDSHS)<sup>42</sup>.
- Recent non-medical use of cannabis in NSW remained stable between 2018 (8.1%) and 2023 (8.4%) among people aged 16 years and over ([HealthStats NSW](#)).
- In 2023, recent non-medical use of cannabis in NSW was most prevalent among people aged 16 to 24 years (20%), followed by 25 to 34 years (14%) ([HealthStats NSW](#)).
- Nationally, while people aged 14 to 17 years were less likely than other age groups to have used cannabis in the previous 12 months, they were more likely to be categorised as high and moderate risk users than any other age group<sup>43</sup>. (NDSHS).
- Nationally, around 3% of people in Australia had used cannabis for medical purposes in the previous 12 months, in 2022-2023 (NDSHS).

## Health impacts

The 2018 Australian Burden of Disease Study found that cannabis use contributed to 0.3% of the total burden of disease and injuries and 10% of the total burden due to illicit drugs (AIHW).

<sup>38</sup> NPS Medicine Wise (2022). *Medicinal cannabis: what you need to know; Information and resources for consumers and health professionals*. Accessed 18 September 2024, [here](#).

<sup>39</sup> Therapeutic Goods Administration. [Epidyolex](#)

<sup>40</sup> Therapeutic Goods Administration. [Sativex Oromucosal Spray, nabiximols 80 mg/mL pump actuated metered dose aerosol \(181978\)](#)

<sup>41</sup> Cairns et al. (2017) The impact of Australian legislative changes on synthetic cannabinoid exposures reported to the New South Wales Poisons Information Centre. *International Journal of Drug Policy* 43:74-82. Accessed [here](#).

<sup>42</sup> Excludes medically prescribed cannabis

<sup>43</sup> Risk was identified using criteria from the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST-Lite).



### Ambulance attendances

- In 2022 in NSW, there were 5,335 ambulance attendances involving cannabis (65 per 100,000 population) (NASS). Ambulance attendances involving cannabis were highest among:
  - males aged 20 to 24 years: 526 attendances (195 per 100,000 population)
  - males aged 15 to 19 years: 468 attendances (188 per 100,000 population)
  - females aged 15 to 19 years: 389 attendances (169 per 100,000 population)
  - males aged 25 to 29 years: 464 attendances (162 per 100,000 population).

Figure 12 shows the rate of cannabis related attendances by LHD (for NSW) and by LGA (for Sydney inset).

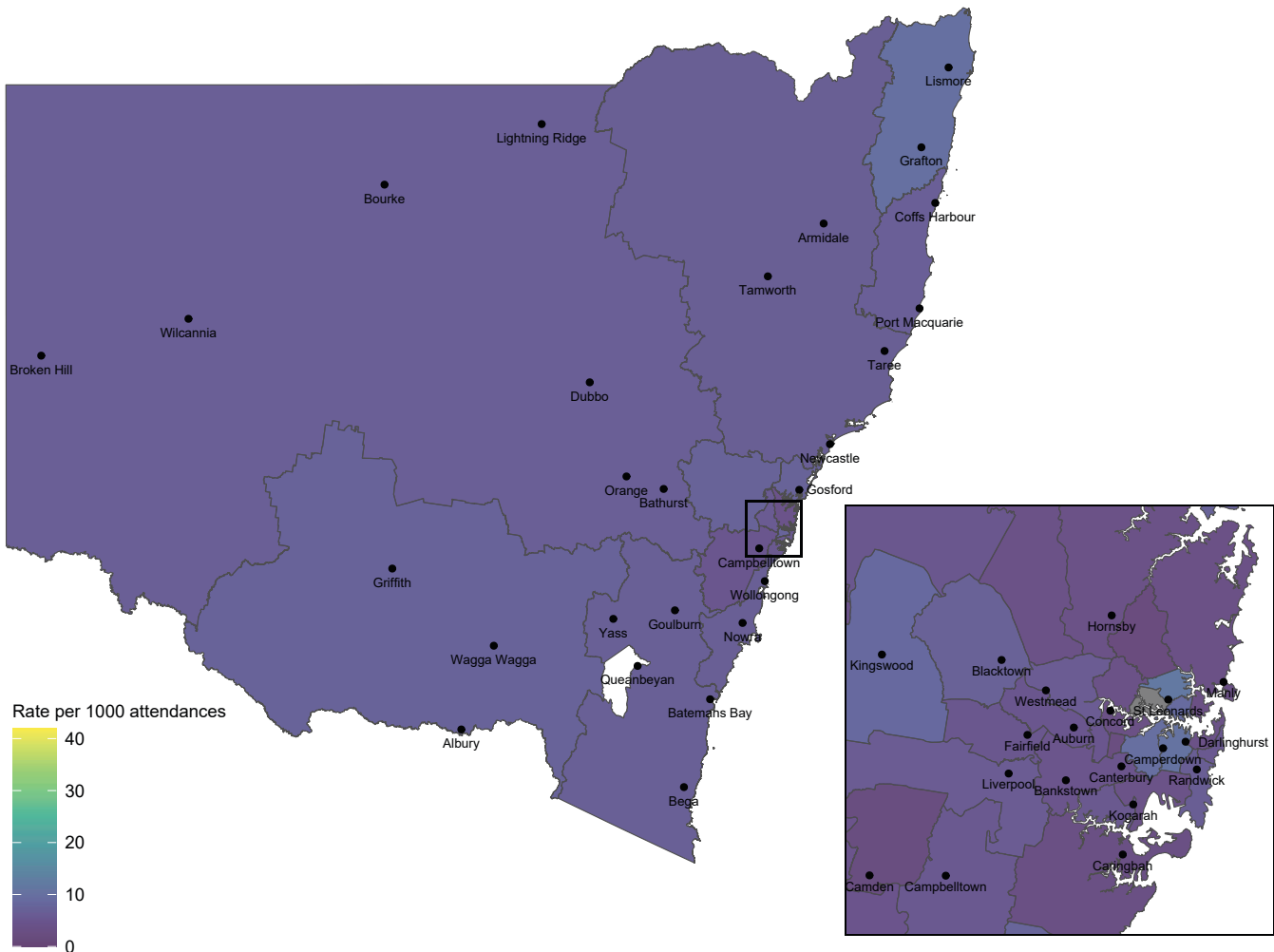


Figure 12. Rate of cannabis-related attendances per 1000 ambulance attendances, NSW by LHD of attendance and (inset) Sydney by LGA of attendance, April-December 2022. Source: NASS.

## Hospitalisations

- In FY 2022-23, there were 12,280 cannabinoid-related hospitalisations (201 per 100,000 population) in NSW, a decrease from a peak in FY 2020-21 when there were 14,381 hospital admissions (236 per 100,000)<sup>44</sup> (NSW Health analysis of CAPEd).
- Cannabinoid-related hospitalisation rates were higher among (NSW Health analysis of CAPEd):
  - people aged 15 to 44 years
  - males
  - people with more disadvantage

## Deaths

- In 2022, there were 71 drug-induced deaths where cannabinoids were involved (0.9 per 100,000 population) in NSW. This represents a decrease from a peak in 2020 (1.8 per 100,000 population) ([HealthStats NSW](#)).
- In 2016, cannabis was the second most common drug identified in toxicology samples associated with transport accidents where a drug (excluding alcohol) contributed to death<sup>45,46</sup>.

## Treatment services

- Cannabis was the third most common principal drug of concern for which people received alcohol and other drug treatment from publicly funded services in NSW in FY 2022-23 (15%) (AODTS NMDS).
- Nationally in FY 2022-23, where cannabis was the principal drug of concern (AIHW 2024):
  - around 3 in 5 (59%) of clients were male and 1 in 5 (21%) were Aboriginal or Torres Strait Islander people
  - two-thirds (65%) of clients were aged 10 to 29 years and this was consistent for both males and females
  - the most common source of referral was a health service (28%) and self/family (27%), followed by diversion from the criminal justice system (21%).

## Social impacts

- The total social and economic cost from cannabis was estimated to be \$5.2 billion nationally in FY 2022-23<sup>47</sup>. About half these costs are related to crime, including imprisonment, policing, victim impacts and court costs. Other major costs are healthcare, road traffic accidents, workplace productivity and accidents, and child protection<sup>48</sup>.
- The rate of people proceeded against to court for possession and/or use of cannabis decreased between 2019 and 2023 (8,636 people or 123 per 100,000 population in 2019; 7,681 people or 104 per 100,000 population in 2023). There was also a decrease in the number of incidents of cannabis possession recorded by NSW Police between 2019 and 2023 (17,726 incidents or 252 per 100,000 population in 2019; 14,644 incidents or 199 per 100,000 population in 2023) (BOCSAR). However, it is uncertain whether this reflects changes in policing practices or an actual decrease in cannabis possession.

## Priority populations

### Young people

- Cannabis is the second most commonly used drug among Australian secondary school students surveyed in 2022-23, behind alcohol (ASSAD).
- Nationally, lifetime use of cannabis declined substantially between 1996 and 2022-23 among 12 to 15 year olds (from 28% to 9%) and 16 to 17 year olds (from 52% to 24%) (ASSAD).
- Three quarters of Australian secondary school students surveyed who used cannabis in the past year reported they usually used it with other people; most often this was at a friend's home (39%) or their own home (19%), at a party (15%) or in a park (14%) (ASSAD).

<sup>44</sup> Data on cannabis-related hospitalisations includes both principal AND additional diagnoses.

<sup>45</sup> Australian Bureau of Statistics (2017) *Causes of Death, Australia 2016*. ABS cat. no. 3303.0. Canberra: ABS. Accessed 18 September 2024, [here](#).

<sup>46</sup> The short-term effects of cannabis can increase the risk of road traffic crashes, largely due to diminished driving performance in response to emergencies: Hall & Degenhardt (2009) *Adverse health effects of non-medical cannabis use*. *Lancet* 374(9698): 1383-1391. Accessed [here](#).

<sup>47</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).

<sup>48</sup> National Drug Research Institute (2020) *Quantifying the social costs of cannabis use to Australia in 2015/16*. Accessed 30 August 2024, [here](#).

## Aboriginal people

- Recent non-medical cannabis use was more prevalent among Aboriginal people, compared with non-Aboriginal people ([HealthStats NSW](#)).

## Regional populations

- The population rate of total drug-use deaths where cannabinoids were identified as an underlying or contributing cause was higher in regional LHDs of NSW (6.1 per 100,000 population in combined years 2021-2022), when compared with metropolitan LHDs (2.0 per 100,000 population in combined years 2021-2022). ([HealthStats NSW](#))

## Prison populations

- Cannabis use is more common among people entering prison. Among people entering prison in NSW in 2020, 54% of males and 42% of females reported use of cannabis in the 4 weeks prior to entering custody. Cannabis was the second most common drug type used by both males and females<sup>49</sup>.

## Emerging issues

- The NSW Poisons Information Centre has observed a significant increase in cannabis poisonings over the past decade to FY 2023-24. Young people were most at risk. Exposures to concentrates (e.g. oils) and edible forms have been increasing. Since 2019, edible forms have increased ten-fold, with a shift towards gummy/lolly forms<sup>50</sup>.

## Medicinal cannabis

- In 2022–2023, 3% of people aged 14 years and over in Australia reported using cannabis for medical purposes in the previous 12 months (NDSHS). Of these, 1 in 3 (1% nationally) had used cannabis exclusively for medical purposes, an increase from 0.8% in 2019.
- Among people aged 14 years and over who had used cannabis for medical purposes in the previous 12 months (NDSHS):
  - 22% were always prescribed by a doctor (an increase from 1.8% in 2019). This may reflect better accessibility to medical cannabis prescriptions<sup>51</sup>.
  - 48% reported being treated for chronic pain.
  - of those who used cannabis only for medical purposes and were prescribed by a doctor, 68% used medical cannabis products<sup>52</sup> (for example, pharmaceutical CBD/THC oil).
- Compared with people who did not use cannabis for medical purposes, people who had recently used cannabis for medical purposes only were (NDSHS):
  - typically older (39% aged 50 years and over) than people who used cannabis non-medically (18%)
  - less likely to live in major city areas (63%) than people who used cannabis non-medically (75%).

<sup>49</sup> Justice and Forensic Mental Health Network (2022). *People in NSW Public Prisons: 2020 Health Status and Service Utilisation Report*. Accessed 18 September 2024, [here](#).





<sup>50</sup> Cairns et al. (in review) The changing face of cannabis poisonings in Australia over the past decade: the impact of legalisation and broadening access to edibles. *Medical Journal of Australia*.

<sup>51</sup> Medical cannabis prescribing went through substantial changes in 2021. These changes were designed to improve accessibility, by making it easier for prescribers to be authorised to prescribe medical cannabis, and making it easier for patients to change to different medical cannabis products. Changes between 2019 and 2022–2023 should be interpreted with this in mind.

<sup>52</sup> The National Drug Strategy Household Survey 2022-23 does not make distinction between medicinal cannabis products on the Australian Register of Therapeutic Goods and those accessed through schemes administered by the Therapeutic Goods Administration.

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# Stimulants

	 Recent use 2022-2023	 Ambulance attendances 2022	 Hospitalisations FY 2022-23	 Deaths 2022
Cocaine	3.5%	1,195	2,081	26
MDMA/Ecstasy	2.3%	526	598	118 (amphetamine type stimulants)
Methamphetamine	0.5%	2,690	8,353	

- Stimulant use varies by type. Cocaine is the second most commonly used illicit drug, after cannabis, followed by MDMA/ecstasy. Methamphetamine or other amphetamines are used by a smaller proportion of people.
- After alcohol, amphetamines are the second most common principal drug of concern for people who received treatment for alcohol or other drug concerns in NSW. Methamphetamine use is the principal reason for most of these treatment episodes.
- There are substantially more hospitalisations and ambulance attendances involving methamphetamine than other stimulants. Methamphetamine hospitalisations have decreased since FY 2019-20.
- Harms from methamphetamine are comparatively higher among Aboriginal people and people living outside of major cities in NSW.
- Young males have higher rates of stimulant related ambulance attendances.
- Use of methamphetamine is comparatively high among people entering prison.

Data for each point of information is from the most up to date time point available. Recent use of cocaine, MDMA/ecstasy, methamphetamine is from combined years 2022-2023; ambulance attendances involving cocaine, MDMA/ecstasy, methamphetamine intoxication are from 2022; cocaine-, MDMA/ecstasy- and methamphetamine-related hospitalisations are from FY 2022-23; drug-induced deaths involving cocaine or amphetamine-type stimulants are from 2022

Stimulants are a group of drugs that produce stimulatory effects by increasing nerve transmission in the brain and body. The group includes amphetamines, cocaine, 3,4-methylenedioxymethamphetamine (MDMA/ecstasy), novel synthetic stimulants and pharmaceutical stimulants.

Methamphetamine is a stronger derivative of amphetamine and comes mainly in the form of crystal methamphetamine ('ice') which is high purity and usually smoked or injected.

Cocaine is derived from the coca plant and usually insufflated ('snorted').

MDMA/ecstasy is an amphetamine derivative. It is often a tablet, capsule, powder or crystal, and can be ingested or insufflated.

Pharmaceutical stimulants include methylphenidate and dexamphetamine, which are taken orally and can be used non medically or illicitly.

Stimulants increase energy and alertness. They can also cause people to feel more anxious, panicked or aggressive, and more likely to engage in risk-taking behaviour. Each stimulant produces different effects on body systems. Cocaine use, for example, is associated with effects on the vessels and electrical activity of the heart, and can cause heart attack and cardiac arrest. Methamphetamine has potent effects on the brain, and can cause paranoia and hallucinations. MDMA/ecstasy also acts on the brain, and can cause seizures, dysregulation of body temperature and excessive thirst.

The total social and economic costs of methamphetamine to Australia were estimated to be \$6.1 billion in FY 2022-23<sup>53</sup>. The bulk of this costs are due to crime, including policing, courts, prisons and impact on victims. Other stimulants were not included in this study.

## Patterns of use

### Methamphetamine and amphetamine

- Recent methamphetamine or amphetamine use in the general community remains uncommon in NSW, at 0.5% in the combined years 2022-2023 ([HealthStats NSW](#)).
- Methamphetamine use in people entering NSW correctional facilities is considerably more common than use in the rest of the NSW population, with 30% of entrants reporting methamphetamine use in the preceding four weeks, in 2020<sup>54,55</sup>.
- Among people who have recently used methamphetamine across Australia, 37% reported using it monthly or more often (NDSHS).

### Cocaine

- Cocaine was the second most common recently used illicit drug in NSW in the combined years 2022-2023, at 3.5% of the NSW population ([HealthStats NSW](#)).

- Cocaine use in NSW is higher among men (6%) than women (4%). However, use by women has been increasing (from 2% in 2016 to 4% in 2022-23) (NDSHS).

### MDMA/Ecstasy

- MDMA/Ecstasy was the third most common recently used illicit drug in NSW in the combined years 2022-2023, at 2.3% ([HealthStats NSW](#)).
- MDMA/Ecstasy use in NSW is higher among men than women (NDSHS).

## Health impacts

### Ambulance attendances

- In 2022, there were 4,008 ambulance attendances involving any amphetamine (49 per 100,000 population), including 2,690 attendances involving methamphetamine (33 per 100,000 population). Rates for methamphetamine attendances were highest in males aged 30 to 34 years (286 attendances, 97 per 100,000 population) (NASS).
- In 2022, there were 1,195 ambulance attendances involving cocaine in NSW (15 per 100,000 population). Rates for cocaine attendances were highest in males aged 20 to 24 years (NASS).
- In 2022, there were 526 ambulance attendances involving MDMA/ecstasy in NSW (6 per 100,000 population). The rates were highest in males aged 20 to 24 years (102 attendances, 38 per 100,000 population) (NASS).

Figure 13 shows the rate of methamphetamine related ambulance attendances by LHD (NSW) and LGA (Sydney inset). The highest rate was observed in City of Sydney LGA.

<sup>53</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).

<sup>54</sup> For a range of reasons, the clinical information provided by people on entry to or during custody may not always be accurate. For example, drug or alcohol use may be exaggerated, underestimated, or denied. This is the most recently published data.

<sup>55</sup> Justice and Forensic Mental Health Network (2022). *People in NSW Public Prisons: 2020 Health Status and Service Utilisation Report*. Accessed 18 September 2024, [here](#).

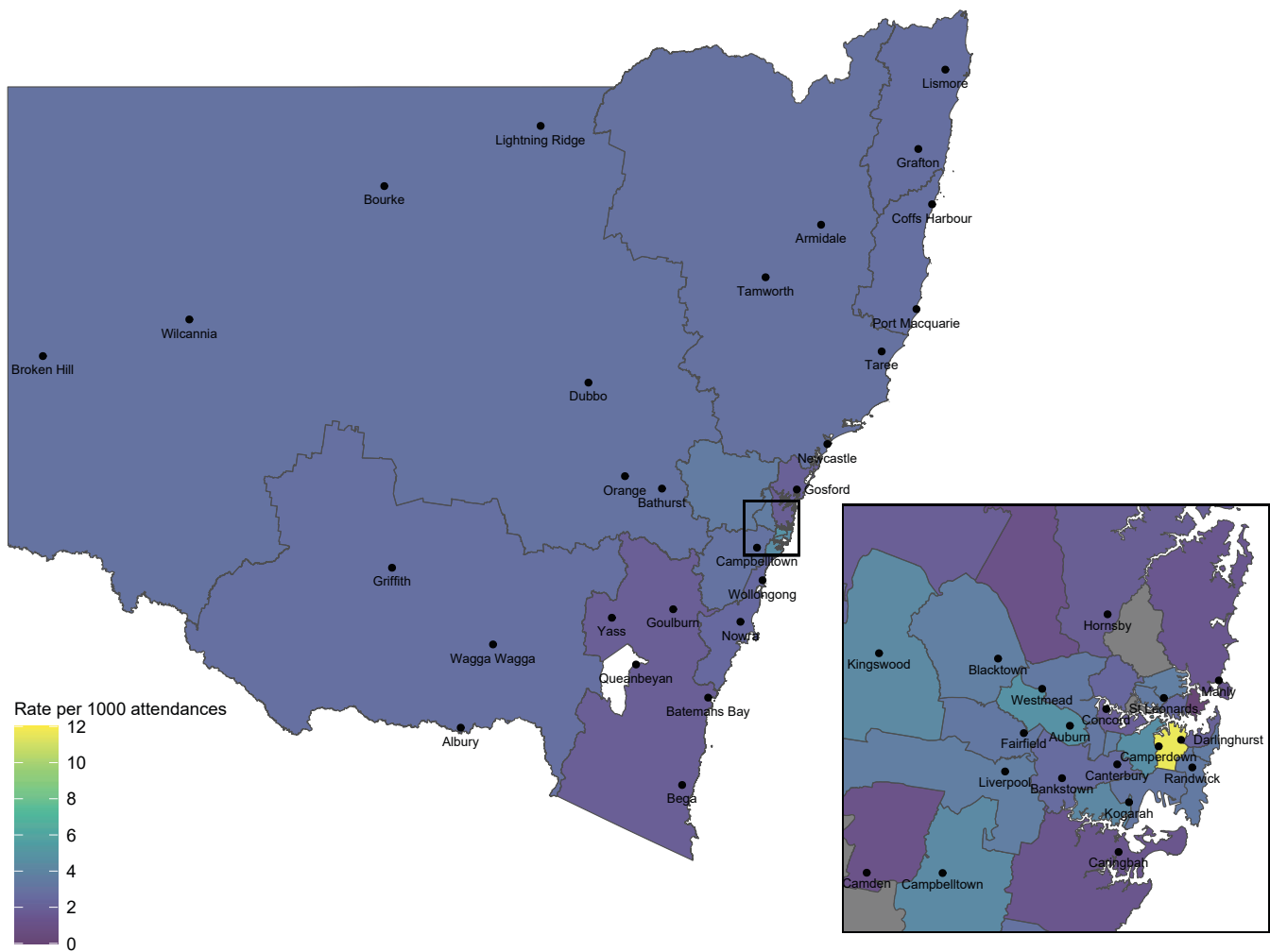


Figure 13. Rate of methamphetamine-related attendances per 1,000 ambulance attendances, NSW by LHD of attendance, and (inset) Sydney by LGA of attendance, April-December 2022. Data for some areas are not included individually due to low numbers (shaded grey). Source: NASS.

## Hospitalisations

### Methamphetamine

- In FY 2022-23, there were 8,353 methamphetamine-related hospitalisations<sup>56</sup> (140 per 100,000 population) in NSW, a decrease from a peak in FY 2019-20 when there were 9,261 hospital admissions (156 per 100,000) ([HealthStats NSW](#)).
- Methamphetamine-related hospitalisation rates were higher among ([HealthStats NSW](#)):
  - people aged 25 to 44 years.
  - males
  - people with more disadvantage
  - people living in regional LHDs
  - Aboriginal people

<sup>56</sup> Data on drug-related hospitalisations includes both principal AND additional diagnoses.

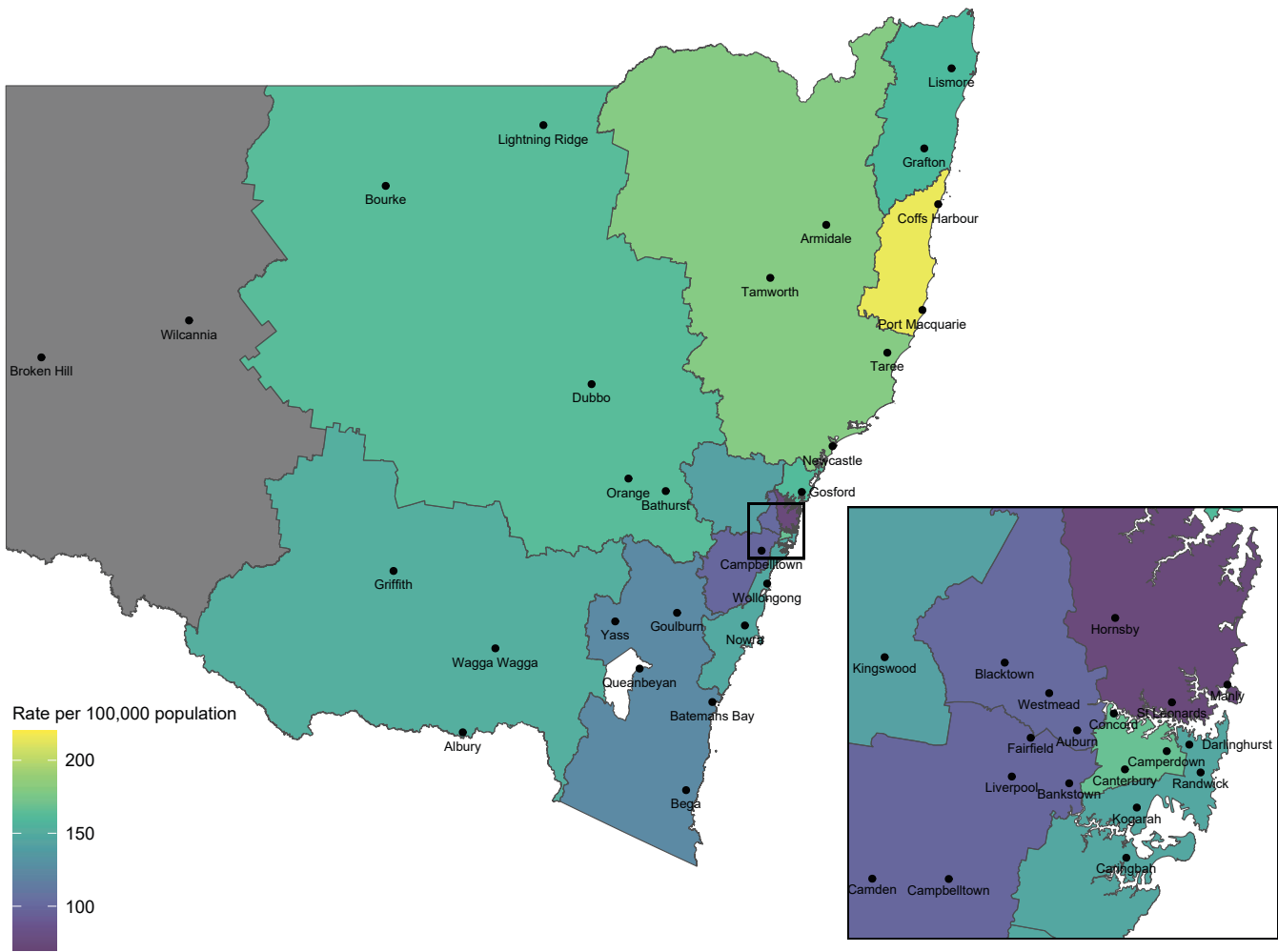


Figure 14. Age-adjusted rate of methamphetamine-related hospitalisations per 100,000 population by local health district (LHD) of residence, NSW and (inset) Sydney, FY 2022-23. Data for some areas are not included individually due to low numbers (shaded grey). Source: [HealthStats NSW](#).

Figure 14 shows age-adjusted rate of methamphetamine-related hospitalisations per 100,000 population by local health district (LHD) of residence. The rate of methamphetamine-related hospitalisation was highest in the Mid North Coast LHD, and lowest in Northern Sydney LHD.

- MDMA/ecstasy-related hospitalisation rates were higher among (NSW Health analysis of CAPED):
  - people aged 15 to 44 years
  - males
  - people living in metropolitan LHDs

**MDMA/ecstasy**

- In FY 2022-23, there were 598 MDMA/ecstasy-related hospitalisations (8 per 100,000 population in NSW, a decrease from a peak in FY 2019-20 when there were 992 hospital admissions (13 per 100,000) (NSW Health analysis of CAPED).

**Cocaine**

- In FY 2022-23, there were 2,081 cocaine-related hospitalisations<sup>57</sup> (27 per 100,000 population) in NSW, a decrease from a peak in FY 2020-21 when there were 3,454 hospital admissions (46 per 100,000) (NSW Health analysis of CAPED).

<sup>57</sup> Data on drug-related hospitalisations includes both principal AND additional diagnoses.



- Cocaine-related hospitalisation rates were higher among (NSW Health analysis of CAPED):
  - people aged 25 to 44 years
  - males
  - people living in less disadvantaged areas
  - people living in metropolitan LHDs.

## Deaths

### Amphetamine-type stimulants<sup>58</sup>

- In 2022, there were 118 drug-induced deaths involving amphetamine-type stimulants (1.5 per 100,000 population) registered in NSW. This represents a decrease from a peak in 2020 (2.8 per 100,000 population) (HealthStats NSW).

### Cocaine

- In 2022, there were 26 drug-induced deaths involving cocaine (0.3 per 100,000 population) registered in NSW. This represents a small decrease since 2019 (0.8 deaths per 100,000) (HealthStats NSW).

## Treatment services

- Amphetamines were the second most common principal drug of concern for which people received alcohol or other drug treatment from publicly funded services in NSW in FY 2022-23 (23%), after alcohol. Of these, methamphetamine accounted for 93% (AODTS NMDS).
- The number of amphetamine-related treatment episodes recorded by publicly funded drug and alcohol treatment services in NSW increased overall from FY 2013-14 to FY 2022-23, with a peak in FY2018-19 (AODTS MDS).

- In FY 2022-23 in NSW, among closed treatment episodes<sup>59</sup> where the principal drug of concern was amphetamines, 33% were for counselling and 10% were for withdrawal management (detoxification) (AODTS MDS).

## Social impacts

- The total social and economic costs of methamphetamine to Australia were estimated to be \$6.1 billion in FY 2022-23<sup>60</sup>. This is about 6% of the total costs of alcohol and other drugs. 65% of these costs are due to crime, including policing, courts, prisons and impact on victims<sup>61</sup>. Other costs include premature mortality, workplace accidents and productivity, health care and treatment, child maltreatment, and road crashes. Other stimulants were not included in this study.
- The rate of people proceeded against to court for possession and/or use of amphetamines has decreased between 2019 and 2023 (6,341 people or 90 per 100,000 population in 2019; 4,996 people or 68 per 100,000 population in 2023). The rate of incidents of amphetamine possession recorded by NSW Police also decreased between 2019 and 2023 (8,084 incidents or 115 per 100,000 population in 2019; 6,495 incidents or 88 per 100,000 population in 2023) (BOCSAR). Data on use would support that this decrease is due to actual decreases in amphetamine possession, but it could also be due to changes in police practices.
- The rate of people proceeded against to court for possession and/or use of cocaine has remained stable (1,894 people or 27 per 100,000 population in 2019; 1,638 people or 22 per 100,000 population in 2023). Similarly, the rate of incidents of cocaine possession recorded by NSW Police has remained stable between 2019 and 2023 (2,502 incidents or 36 per 100,000 population in 2019; 2,256 incidents or 31 per 100,000 population in 2023) (BOCSAR).

<sup>58</sup> Includes amphetamine, methamphetamine, and MDMA/ecstasy.

<sup>59</sup> A period of contact between a client and a treatment provider or team of providers. An episode is closed when treatment is completed, there has been no further contact between the client and the treatment provider for 3 months or when treatment is ceased (see reason for cessation).

<sup>60</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).

<sup>61</sup> Whetton et al. (2016) *The social costs of methamphetamine in Australia 2013/14*. National Drug Research Institute, Curtin University, Perth, Western Australia. Accessed 18 September 2024, [here](#).

## Priority populations

### Aboriginal people

- The rate of methamphetamine-related hospitalisations was considerably higher among Aboriginal people (986 per 100,000 population) compared with non-Aboriginal people (111 per 100,000 population) for FY 2022-23 ([HealthStats NSW](#)).

### Regional populations

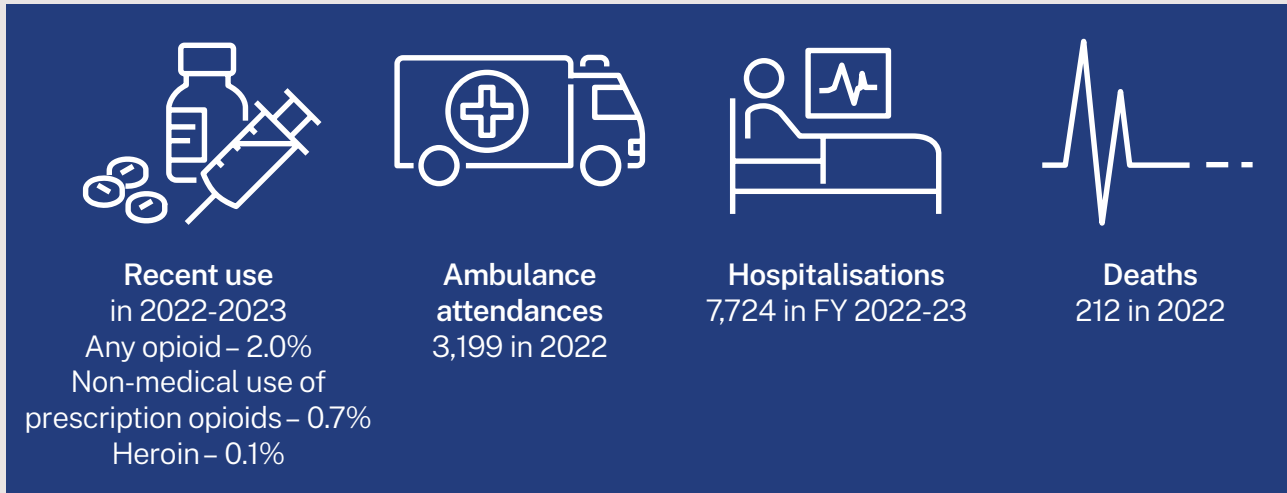
- The rate of methamphetamine-related hospitalisations was higher in regional LHDs of NSW (164 per 100,000 population in FY 2022-23), compared to metropolitan LHDs (114 per 100,000 population in FY 2022-23) ([HealthStats NSW](#)).
- The population rate of total drug-use deaths where stimulants were identified as an underlying or contributing cause was higher in regional areas of NSW (4.7 per 100,000 population in combined years 2021-2022), when compared with metropolitan areas (2.7 per 100,000 population in combined years 2021-2022) ([HealthStats NSW](#)).

## Prison populations

- Stimulant use is more common among people entering prison. Among people entering prison in NSW in 2020, 59% of males and 67% of females reported use of a stimulant in the 4 weeks prior to entering custody. Stimulants, especially methamphetamine, were the most commonly used class of drug in this population<sup>62</sup>.

<sup>62</sup> Justice and Forensic Mental Health Network (2022) *People in NSW Public Prisons: 2020 Health Status and Service Utilisation Report*. Accessed 18 September 2024, [here](#).

## Opioids



- Use of illicit and non-prescribed opioids is uncommon in the general community.
- Drug-induced deaths involving opioids and opioid-related hospitalisations have decreased since 2017. However, heroin-related hospitalisations have remained stable.
- Use of heroin and other non-prescribed opioids is more common among people entering prison.
- Harms from opioids are comparatively higher among Aboriginal people, and people living outside of metropolitan NSW.
- Novel synthetic opioids (e.g., nitazenes) have emerged as a public health concern globally.

Data for each point of information is from the most up to date time point available. Recent use of any opioid, non-medical use of prescription opioids, heroin is from combined years 2022-2023; ambulance attendances involving an opioid are from 2022; opioid-related hospitalisations are from FY 2022-23; Drug-induced deaths involving opioids

Opioids can be plant derived or synthetic. Opiates are drugs derived from the opium poppy plant. There are also many semi or fully synthetic opioids made in laboratory settings, that have similar effects to plant derived opioids. Opioids are a mainstay for the treatment of acute severe pain and are used on prescription for a variety of conditions. They may be given orally, or by other methods. Non-medical use of opioids may be from a prescribed supply (but used other than prescribed) or an illicit supply (e.g. heroin). Heroin may be insufflated or injected.

Short-term effects of opioid use include euphoria, nausea, vomiting, drowsiness, and slowed breathing. Longer-term regular use results in tolerance and dependence, and the experience of withdrawal symptoms when similar doses of opioid are not used each day. Opioid use carries a high risk of overdose.

Opioid related deaths occur at a much younger age than deaths due to alcohol or tobacco. Injecting is responsible for many of the non-fatal complications of heroin use, including bone, soft tissue and blood stream infections, and the transmission of blood borne viruses.

The total social and economic costs of opioids to Australia were estimated to be \$6.1 billion in FY 2022-23<sup>63</sup>. Most of these costs (81%) are due to premature mortality.

<sup>63</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).

## Patterns of use

- In NSW in 2022-2023, recent opioid use was reported by 2% of people aged over 14 years (approximately 100,000 people). There has been a decrease in reported use since 2016 (4% in 2016) (NDSHS).
- In NSW in the combined years 2022–2023, 0.7% of people aged 16 years and over reported recent use of prescription opioids for non-medical purposes and 0.1% reported recent use of heroin ([HealthStats NSW](#)).

## Health impacts

### Ambulance attendances

- In 2022, there were 3,199 NSW Ambulance attendances involving an opioid (39 per 100,000 population). This included 1,384 attendances involving heroin (17 per 100,000 population).

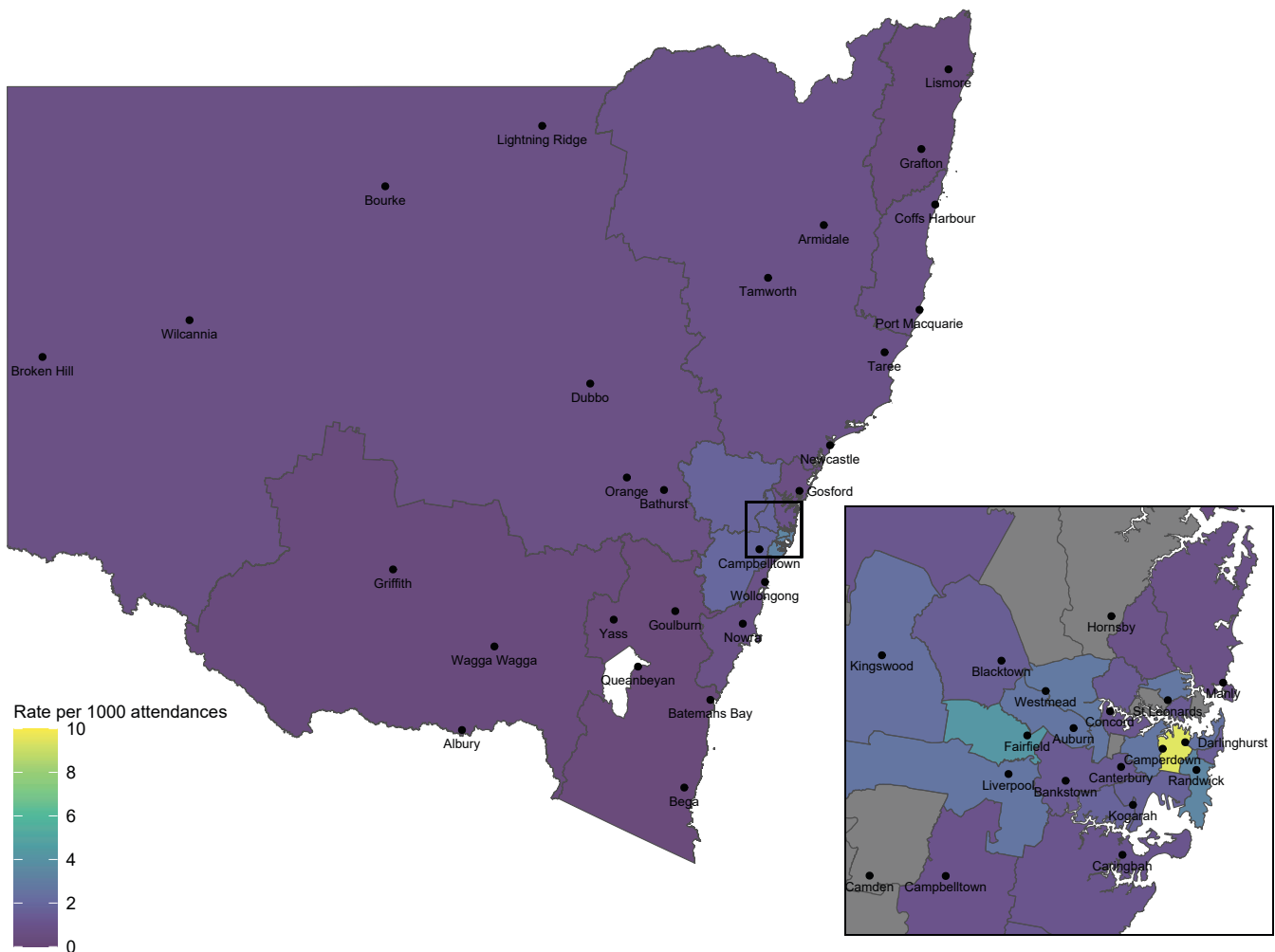


Figure 15. Rate of heroin-related attendances per 1000 ambulance attendances, NSW by LHD of attendance, and (inset) Sydney by LGA of attendance, April-December 2022. Data for some areas are not included individually due to low numbers (shaded grey). Source: NASS.

- There were 1,883 attendances involving any prescription opioid<sup>64</sup> (23 per 100,000 population), including
  - 629 involving oxycodone (8 per 100,000 population)
  - 411 involving codeine (5 per 100,000 population)
  - 151 involving other opioid analgesics (5 per 100,000 population)
  - 383 involving methadone (5 per 100,000 population)
  - 117 involving buprenorphine (1 per 100,000 population)
  - 77 involving buprenorphine-naloxone (1 per 100,000 population)

Figure 15 shows the rate of heroin related ambulance attendances by LHD (NSW) and LGA (Sydney inset) of attendance. The highest rate was observed in City of Sydney LGA.

## Hospitalisations

- In FY 2022-23, there were 7,724 opioid-related hospitalisations<sup>65</sup> (121 per 100,000 population) in NSW, a decrease from a peak in FY 2017-18 when there were 11,329 opioid-related hospitalisations (187 per 100,000) ([HealthStats NSW](#)).
- Although the overall rate of opioid-related hospitalisations has decreased, the rate of heroin-related hospitalisations has remained relatively stable since FY 2017-18 (excluding FY 2020-21). ([NDARC Drug Trends](#))
- The rate of opioid-related hospitalisations is higher among ([CAPED](#)):
  - people aged 35-44 years
  - males
  - people with more disadvantage
  - Aboriginal people.

<sup>64</sup> A case is classified as involving any prescription opioid where any of the following drugs were involved in the attendance: dextropropoxyphene; fentanyl; hydromorphone; morphine; oxycodone; oxycodone-naloxone; pethidine; tramadol; other/unspecified opioid analgesic; codeine and codeine combinations, methadone; buprenorphine; buprenorphine-naloxone; other/unspecified drugs used in opioid substitution treatment. Source: NASS.

<sup>65</sup> Data on opioid-related hospitalisations includes both principal AND additional diagnoses.

Figure 16 shows the age-adjusted rate of opioid-related hospitalisations per 100,000 population in FY 2022-23 by local health district (LHD) of residence. The rate of opioid-related hospitalisations was highest in the Sydney, Central Coast, and Hunter New England LHDs.

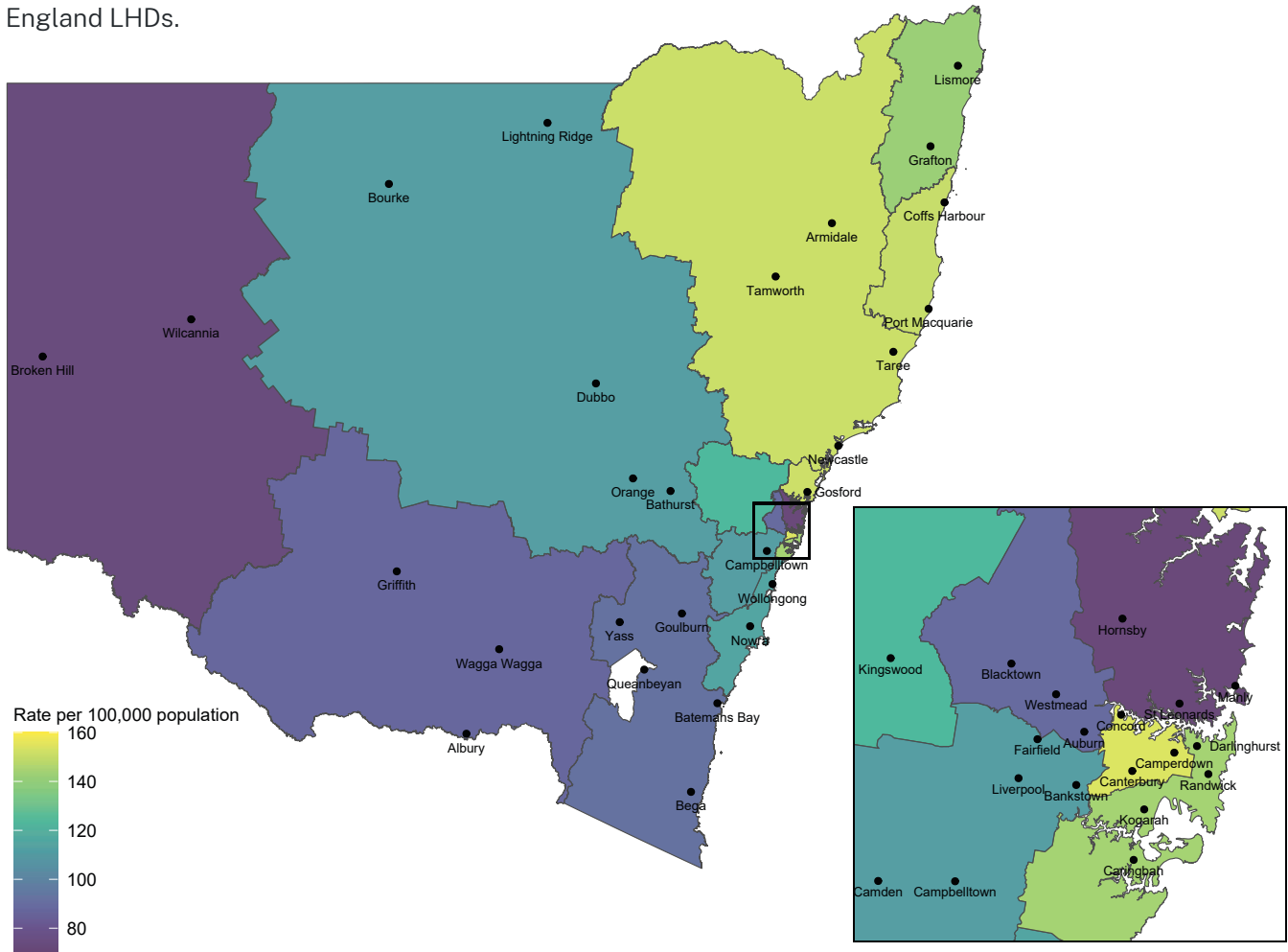


Figure 16. Age-adjusted rate of opioid-related hospitalisations per 100,000 population by LHD of residence, NSW and (inset) Sydney, FY 2022-23. Source: [HealthStats NSW](#).

### Deaths

- In 2022, there were 212 drug-induced deaths involving opioids (2.6 per 100,000 population) registered in NSW. This represents a decrease from a peak in 2017 (5.8 per 100,000 population) (HealthStats NSW).
- Despite the decrease in drug-induced deaths involving opioids overall, the rate of drug-induced deaths involving heroin in NSW has doubled since 2014 (47 deaths, 0.7 per 100,000 population in 2014; 107 deaths, 1.4 per 100,000 population in 2022) ([NDARC NIDIP](#)).

- Nationally, benzodiazepines remain the most common non-opioid drug type involved in opioid-overdose deaths (55% in 2022) (NDARC NIDIP).

### Treatment services

- For people who received treatment for their own drug use in publicly funded services in NSW in FY 2022-23, heroin was the principal drug of concern for 7% of treatment episodes. Other analgesics and opioids together made up 1% of treatment episodes. (AODTS NMDS).

## Social impacts

- The total social and economic costs of opioids to Australia were estimated to be \$18.4 billion in FY 2022-23<sup>66</sup>. This is about 18% of the total cost of alcohol and other drugs.
- About 81% of these costs are due to premature mortality. The remainder includes other healthcare costs (inc. treatment), criminal justice costs, workplace injuries and absenteeism and traffic accidents.
- The rate of people proceeded against to court for possession and/or use of narcotics<sup>67</sup> remained stable between 2019 and 2023 (875 people or 12 per 100,000 population in 2019; 804 people or 11 per 100,000 population in 2023). The rate of incidents of narcotic possession recorded by NSW Police have also remained stable between 2019 and 2023 (1,234 incidents or 18 per 100,000 population in 2019; 1,158 incidents or 16 per 100,000 population in 2023) ([BOCSAR](#))

## Priority populations

### Aboriginal people

- The population rate of opioid-related hospitalisations was considerably higher among Aboriginal people (726 per 100,000 population in FY 2022-23) compared with non-Aboriginal people (101 per 100,000 population in FY 2022-23) ([HealthStats NSW](#))

### Regional populations

- The population rate of opioid-related hospitalisations was higher among people living in regional LHDs (130 per 100,000 population in 2022-23), compared with metropolitan LHDs of NSW (111 per 100,000 population in FY 2022-23). ([HealthStats NSW](#))
- The population rate of total drug-use deaths where opioids were identified as an underlying or contributing cause was higher in regional areas of NSW (5.0 per 100,000 population in combined years 2021-2022), when compared with metropolitan areas (3.1 per 100,000 population in combined years 2021-2022). ([HealthStats NSW](#))

### Prison populations

- Use of heroin and other non-prescribed opioids is common among people entering prison, with 9.2% reporting use of heroin and 2.8% reporting use of other non-prescribed opioids in the 4 weeks prior to entering custody in 2020<sup>68</sup>.

<sup>66</sup> The George Institute (2023). *Updated social and economic costs of alcohol, tobacco and drug use in Australia 2022/23*. Accessed 18 September, [here](#).

<sup>67</sup> Narcotic is defined as a depressant drug derived from opium or compounds similar to opium including heroin, morphine and methadone (Department of Health and Ageing, National Drugs Campaign, 2012); definition sourced from BOCSAR

<sup>68</sup> Justice and Forensic Mental Health Network (2022). *People in NSW Public Prisons: 2020 Health Status and Service Utilisation Report*. Accessed 18 September 2024, [here](#).

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## Non-medical use of pharmaceuticals

Non-medical use of pharmaceuticals relates to taking a medication in a manner or dose other than prescribed; taking someone else's prescription, even if for a legitimate medical complaint such as pain; or taking a medication to feel euphoria (i.e., to get high). The three classes of medications most commonly misused are opioids, other central nervous system depressants including benzodiazepines, and prescription stimulants including amphetamines.

Nationally in 2022-2023, 500,000 people in Australia (2.2% of the population) had used opioids for non-medical purposes in the previous 12 months. This continues the downward trend since 2016, when 3.6% of the population had done so (NDSHS). Among NSW adults aged 16 years and over in the combined years 2022-2023, 1.1% had used anti-depressants, 0.7% had used prescription opioids, and 0.6% had used benzodiazepines for non-medical purposes in the past 12 months (HealthStats NSW).

Codeine (1.2%) and oxycodone (0.5%) are the most commonly used opioids for non medical purposes nationally, although use of both has decreased since 2019 (NDSHS). Codeine misuse and harms have been decreasing since rescheduling in 2018<sup>69</sup>.

Focusing on NSW Ambulance attendances involving prescription opioids in 2022, there were 629 NSW Ambulance attendances involving oxycodone (8 per 100,000 population), and 411 for codeine (5 per 100,000 population) (NASS).

Nationally, while prevalence of non medical use of gabapentinoids (gabapentin and pregabalin) was low in 2022-2023 (0.2% of the population), early signs of an increase in use was seen. Among those who had used pain-relievers for non medical purposes,

9.3% had used one of these drugs, more than double the proportion in 2019 (4.3%) (NDSHS). Increasing evidence of misuse and harms from pregabalin in NSW has been described<sup>70</sup>, prompting listing as a monitored medicine for SafeScript NSW.

Quetiapine and olanzapine are the most used antipsychotic medications and most associated with poisonings and deaths. This increase has been observed over the past decade with strong evidence of non-medical use of quetiapine, which is used for its euphoric, anxiety-relieving and hypnotic ('sleep inducing') effects<sup>71</sup>.

Benzodiazepines are highly addictive substances and people can develop tolerance and experience withdrawal symptoms even with short periods of use (days to weeks). People who take benzodiazepines are at increased risk of injury from falls and accidents, and increased risk of having seizures upon withdrawal.

Counterfeit pharmaceuticals are imitation goods packaged to look like genuine regulated products, and are increasing in detections globally. Benzodiazepines are currently the most common class associated with counterfeit pharmaceutical poisonings reported to PRISE<sup>72</sup> in NSW. There have been multiple warnings about counterfeit pharmaceuticals issued by NSW Health and other jurisdictions, including counterfeit benzodiazepines and counterfeit opioids.

<sup>69</sup> NSW Ministry of Health (2022) *Opioid use and related harms in NSW: Surveillance Report 2021*. Accessed 18 September 2024, [here](#).

<sup>70</sup> Cairns et al. (2019) Rising pregabalin use and misuse in Australia: trends in utilization and intentional poisonings. *Addiction* 114(6):1026-1034. Accessed [here](#).

<sup>71</sup> Brett et al. (2023) Patterns of suboptimal antipsychotic use and misuse in Australia: What can routinely collected data tell us? *British Journal of Clinical Pharmacology* 89:3411-3420. Accessed [here](#).

<sup>72</sup> Prescription, Recreational and Illicit Substance Evaluation program. It provides access to extensive toxicology testing to NSW Health acute care services for cases of severe and unusual substance-related toxicity or clusters of overdoses, with rapid turnaround time. For further detail, see [here](#).

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# Other drugs of concern

## New psychoactive substances

New psychoactive substances are a group of substances that have been synthetically developed to mimic the actions and psychoactive effects of other existing drugs. They include stimulants, cannabinoids, opioids, benzodiazepines and hallucinogens. New psychoactive substances are recognised as a global policy issue and public health threat. Globalisation of the chemical industry has driven access to low cost manufacturing and supply of an increasing number of drugs that evade international control. Individual countries may implement legal responses to control new psychoactive substances and Australia is one of these countries<sup>73</sup>.

Nitazenes are a group of novel synthetic opioids. They can be stronger and may be longer acting than many other opioids. They vary in strength and are dangerous, sometimes being up to 500 times more potent than heroin. Due to the potency of nitazenes they can cause toxicity, including overdose, at low doses.

Novel benzodiazepines have similar short-term effects to prescribed benzodiazepines, such as drowsiness, confusion, impaired co-ordination and increased risk-taking behaviour. Novel benzodiazepines can be stronger and more unpredictable leading to severe breathing problems and sedation requiring hospitalisation.

- Increasing detections of new psychoactive substances have been seen in Australia over the past decade.
- After 1,4-BD (a GHB precursor), novel benzodiazepines are the new psychoactive substances most commonly available (FASS) and associated with harms<sup>74</sup>.

- Novel synthetic opioids, particularly nitazenes have emerged as a public health concern both in Australia and overseas<sup>75</sup>.
- NSW Health has issued multiple public drug warnings<sup>76</sup> and safety advisories<sup>77</sup> to clinicians regarding risk of overdose and dependence from nitazenes in tablets, vape liquids and powders.

Ketamine is a dissociative drug used for medical purposes. It is also used recreationally due to its dissociative and pain and anxiety relieving effects. Long-term, regular use may lead to dependence and may lead to a chronic ketamine-induced cystitis (irritation of the bladder leading to painful and frequent urination). Australia and other countries have seen increasing seizures of illicit ketamine, and there is evidence emerging of large-scale international clandestine ketamine laboratories<sup>78</sup>. Ketamine analogues are being increasingly detected in Australia and other countries, and their effects are yet to be fully characterised<sup>79,80</sup>.

- In recent years, recreational use of ketamine has increased. National data from the 2022–2023 NDSHS showed that:
  - 1.4% of people aged 14 years and over had used ketamine in the last 12 months, up from 0.9% in 2019 and 0.4% in 2016.
  - 4.3% of people aged 14 years and over had used ketamine in their lifetime, up from 3.1% in 2019.
  - ketamine use was highest among people aged 20 to 29 years (4.2%).
- In 2022, there were 183 ambulance attendances involving ketamine (2 per 100,000 population) (NASS). The highest rate for ketamine attendances was for males aged 20 to 24 years (49 attendances, 18 per 100,000 population).

<sup>73</sup> UNODC Early Warning Advisory on New Psychoactive Substances. *What are NPS*. Accessed 19 September, [here](#).

<sup>74</sup> NSW Health (2023) *Prescription, Recreational and Illicit Substance Evaluation (PRISE) Summary Program Activity Report, July 2018 – December 2021*. NSW Ministry of Health, St Leonards. Available [here](#)

<sup>75</sup> National Centre for Clinical Research on Emerging Drugs (2024) *Emerging drug briefing: Increasing reports of nitazene toxicity in Australia*. Accessed 19 September 2024, [here](#).

<sup>76</sup> For public drug warnings, see [here](#).

<sup>77</sup> For clinical safety alerts, see [here](#).

<sup>78</sup> UNODC Early Warning Advisory: Ketamine in East and Southeast Asia and Oceania on the rise (August 2024) Accessed 27 September [here](#)

<sup>79</sup> UNODC: Synthetic Drugs in East and Southeast Asia, latest developments and challenges (2023). Accessed 27 September [here](#)

<sup>80</sup> Algar JL, Lawes DJ, Carroll AJ, Caldicott D, McLeod MD. Identification of three unexpected new psychoactive substances at an Australian drug checking service. *Drug Test Anal.* 2024

## Gamma hydroxybutyrate (GHB) and related substances

Gamma hydroxybutyrate (GHB) is a depressant drug. Gamma butyrolactone (GBL) and 1,4-butanediol (1,4-BD) are chemicals that are closely related to GHB and rapidly convert to GHB once consumed. The effects of GHB include increased feelings of relaxation, confidence and increased sexual drive. Other effects include hallucination, diarrhoea, agitation and disorientation. Rare side effects include convulsions, heart attack, and coma. Regular use can lead to dependence, and severe GHB withdrawal can be life-threatening.

- GHB use remains low in NSW (0.3% in 2022-2023<sup>81</sup>), consistent with national trends (NDSHS).
- In 2022, there were 913 NSW ambulance attendances involving GHB (11 per 100,000 population) (NASS). Data from the first half of 2023 suggests a marked increase.
- The rate of GHB-related ED presentations in NSW increased more than four-fold between FY 2015-16 (24.9 per 100,000 presentations) and FY 2023-24 (103.0 per 100,000 presentations) (REDDS).

## Volatile solvents (inhalants), including nitrous oxide

Volatile substances (inhalants) are common household, industrial and medical products that produce vapours. Types of volatile substances include gases (e.g. nitrous oxide), nitrates/nitrites (e.g. amyl), aerosols (e.g. deodorant, hairspray or paint spray) and volatile solvents (e.g. paint remover, cleaning products).

Short term effects of volatile substances including feeling a 'rush' or 'high' and giggling and laughing. Other effects include drowsiness and headaches, impaired memory, and sometimes 'black outs', convulsions, or coma.

Long term health effects can include liver and kidney damage and problems with blood production, irregular heartbeat, and damage to the heart muscle. Chronic use of volatile substances can result in brain and nerve damage, resulting in paranoia and personality change, personality change, reduced attention and cognition, and paralysis.

- Inhalant use in NSW remains low but has been increasing over the last decade (0.9% 2013 to 1.6% 2022-2023, NDSHS).
- Nationally in 2022-2023, among people aged 14 years and over who had recently used inhalants, the most common inhalants were nitrous oxide (56%) and amyl nitrate/other nitrates (61%) (NDSHS).
- Among Australian secondary school students surveyed in 2022/23 (ASSAD), 20% reported use of an inhalant in their lifetime, and 7.4% reported use of an inhalant in the past month.
- After adjusting for differences in age, gay, lesbian, and bisexual people were 8.6 times as likely to have used inhalants in the previous 12 months compared with heterosexual people (NDSHS). This is likely due to the use of nitrates/nitrites during sexual activity by men who have sex with men<sup>82</sup>.
- In 2022, there were 195 NSW ambulance attendances involving inhalants (2 per 100,000 population), including 103 for nitrous oxide (1 per 100,000 population) (NASS).

## Hallucinogens (psychedelics)

Hallucinogens (also known as psychedelics) are a class of psychoactive substances that produce changes in perception, mood and cognition. Hallucinogens affect all the senses, altering a person's thinking and perception, sense of time and emotions.

- Hallucinogen use (classified in the NDSHS as LSD/acid/tabs, mushrooms/psilocybin, and other) has more than doubled since 2016 (0.9% in 2016 to 2.2% in 2022-2023) and is consistent with a significant national increase (1.6% in 2019 to 2.4% in 2022-2023) (NDSHS).

<sup>81</sup> Estimate has a relative standard error of 25% to 50% and should be used with caution.

<sup>82</sup> Vaccher et al. (2020) Prevalence, frequency, and motivations for alkyl nitrite use among gay, bisexual and other men who have sex with men in Australia. *International Journal of Drug Policy* 76:102659. Accessed [here](#).

- Nationally, the proportion of people who had used hallucinogens at least once in their lives has also continued to rise, from 6.7% (or 1.1 million people) in 2007 to 12.2% (or 2.6 million people) in 2022–2023 (NDSHS).
- Specifically, the use of mushrooms/psilocybin across Australia doubled from 0.9% in 2019 to 1.8% in 2022–2023. Similar increases were observed for LSD, increasing from 1.1% to 1.5% (NDSHS).
- Between 2019 and 2022–2023, evidence of the potential medical uses of hallucinogens emerged<sup>83</sup>. In Australia, prescriptions of psilocybin were introduced on 1 July 2023. The 2022–2023 National Drug Strategy Household Survey contained no questions around medical use of, or prescriptions for, hallucinogens. All hallucinogen use was included in illicit drug use statistics. Monitoring the use of hallucinogens (both medical and non-medical) will be required to determine whether it follows a similar trajectory to cannabis in Australia.
- Increases in calls to the NSW Poisons Information Centre for psychedelics are observed over 2014 to 2022, including reports of significant toxicity<sup>84</sup>. There were 43 deaths reported nationally from lysergic acid diethylamide (LSD) and psilocybin over 2000 to 2023<sup>85</sup>.

## Performance and image enhancing drugs

Performance and image enhancing drugs are a diverse group of substances predominantly used to enhance aerobic and sporting performance, or to achieve a desired body image. Some of these substances are available on prescription to treat a small range of medical conditions and are not available for performance or image enhancement.

- In NSW in 2022–2023, 0.3% of the population aged 14 years and over had used steroids for non-medical purposes in the past year, stable from 0.1% in 2019 (NDSHS). This is consistent with the national average at 0.2% in 2022–2023.
- Performance and image enhancing drugs (predominantly anabolic steroids, peptides and growth hormone) were reported by approximately one in four needle and syringe program (NSP) respondents in 2023 (23%), a significant increase from 13% in 2019<sup>86</sup>.

<sup>78</sup> Therapeutic Goods Administration. *Re-scheduling of psilocybin and MDMA in the Poisons Standard: questions and answers*. Accessed 19 September 2024, [here](#).

<sup>79</sup> Wilkes et al. (2024) The psychedelic call: analysis of Australian Poisons Information Centre calls associated with classic psychedelics, *Clinical Toxicology* 62(4): 242–247. Accessed [here](#).

<sup>80</sup> Darke et al. (2024) A retrospective study of the characteristics and toxicology of cases of lysergic acid diethylamide (LSD)- and psilocybin-related death in Australia. *Addiction* 119(9): 1564–1571. Accessed [here](#).

<sup>81</sup> O'Shaughnessy et al. (2023) *New South Wales Needle and Syringe Program Enhanced Data Collection Report 2019–2023*. Kirby Institute, UNSW Sydney. Accessed 4 September 2024, [here](#).

# Data sources

Detailed technical methods for HealthStats NSW statistics are available on the linked webpages and for other data sources, information can be sought on request via [MOH-NSWDS2024@health.nsw.gov.au](mailto:MOH-NSWDS2024@health.nsw.gov.au)

## Australian Bureau of Statistics

### Causes of Death ('ABS COD URF')

- Description: Records all deaths registered in Australia, including those of overseas residents. Includes demographic information and causes of death coded according to the International Classification of Diseases (ICD). NSW Health analysis of ABS COD URF is presented in this report, and available at HealthStats NSW.
- The count of deaths included for 2022 is preliminary and subject to change. The ABS undertake a revision process for coroner-certified deaths over a 3-year period.
- Update frequency: Yearly

## Australian Government Department of Health and Aged Care

### Australian Secondary School Students Alcohol and Drug ('ASSAD') Survey

- Description: Provides triennial estimates of tobacco (including e-cigarettes), alcohol, and other substance use among secondary school students aged 12 to 17 years. Captures prevalence, behaviours, and trends over time.
- Update frequency: 3-yearly

## Australian Institute of Health and Welfare

### National Drug Strategy Household Survey ('NDSHS')

- Description: Provides triennial estimates of tobacco, alcohol, and illicit drug use among Australians aged 14 years and older. Captures information on drug-related attitudes, perceptions, and support for government policies.
- Update frequency: 3-yearly

### Alcohol and Other Drug Treatment Services in Australia Annual Report, 2024 ('AIHW 2024')

- Description: Reports on closed episodes of treatment provided by publicly funded alcohol and other drug treatment agencies, including data on drugs of concern and types of treatment received.
- Update frequency: Yearly

### Alcohol and Other Drug Treatment Services National Minimum Data Set ('AODTS NMDS')

- Description: Collects data on closed episodes of treatment provided by publicly funded alcohol and other drug treatment agencies, including information on drugs of concern and types of treatment received.
- Update frequency: Yearly

## National Hospital Mortality Database ('NHMD')

- Description: Compiled from data supplied by state and territory health authorities, containing summary records for separations in public and private hospitals across Australia.
- Update frequency: Yearly

## Australian Burden of Disease Study 2018

- Description: Published in 2021, provides Australian-specific estimates of disease burden by age, sex, disease groups, and selected population groups. Allows for comparison of changes between 2003, 2011, 2015, and 2018.
- Update frequency: 3-yearly

## National Drug & Alcohol Research Centre (NDARC), University of NSW

### Drug Trends

- Description: An internationally renowned program coordinated by NDARC since 1996, providing state- and national-level data on drug-related hospitalisations.
- Update frequency: Yearly

## National Illicit Drug Indicators Project ('NIDIP')

- Description: Provides state- and national-level data on trends in drug-related harms, including deaths due to drug overdoses.
- Update frequency: Yearly

## NSW Bureau of Crime Statistics and Research

### NSW Bureau of Crime Statistics and Research ('BOCSAR')

- Description: Contains information on all criminal incidents recorded by NSW Police since January 1995, categorised by offence type. Reflects incidents that come to the attention of NSW Police Force, and can be influenced by policing priorities and activity.
- Update frequency: Quarterly

## NSW Health Pathology

### NSW Health Pathology Forensic & Analytical Science Service ('FASS')

- Description: Provides forensic medicine, forensic science, and analytical science services to the NSW Government, including analytical services for NSW Police Force, NSW Coronial Jurisdiction, NSW Road and Maritime Services, NSW Health, Local Government Bodies, and private industry.
- Update frequency: Ongoing

## NSW Justice Health and Forensic Mental Health Network

### People in NSW Public Prisons, 2020 Health Status and Service Utilisation Report

- Description: A comprehensive epidemiological study conducted by the Justice Health and Forensic Mental Health Network, using routinely collected datasets. Provides information on the health status and service utilisation of adults in NSW public prisons.

## Turning Point, Monash University; and NSW Ambulance

### National Ambulance Surveillance System ('NASS') for Alcohol and Other Drug Misuse and Overdose

- Description: Examines ambulance attendance records in participating states and territories to identify alcohol and other drug-related harms through clinical coding. Includes intentional and unintentional poisonings.
- Update frequency: Quarterly

## NSW Ministry of Health

### HealthStats NSW

- Description: An interactive platform managed by the NSW Ministry of Health, providing access to a wide range of alcohol- and drug-related statistics for NSW. Data can be filtered by demographic factors, geographical regions, and time periods.
- Update frequency: Ongoing
- Note: The 'Alcohol Problems' indicator from Health Stats NSW was not presented due to a substantial undercount of actual alcohol-related emergency department presentations, estimated to identify approximately 24% of all alcohol-related presentations<sup>87</sup>. This undercount occurs as many alcohol-related ED presentations are coded as either other problems (such as injury), or patients leave before diagnosis and treatment occur.

## NSW Population Health Survey ('NSWPHS')

- Description: Conducted by the NSW Ministry of Health, comprising the Adult Population Health Survey (since 1997) and the Child Population Health Survey (since 2001). Aims to provide detailed health information for NSW residents and support health service planning and evaluation.
- Update frequency: Yearly

## NSW Rapid Emergency Department Data for Surveillance ('REDDS')

- Description: Sourced directly from participating NSW public hospital ED information systems in near real-time. Includes detailed triage information, nursing assessment text, and diagnosis descriptions. More timely but less complete than Emergency Department Records for Epidemiology (EDRE).
- Update frequency: Ongoing

## NSW Combined Admitted Patient Epidemiology Data ('CAPED')

- Description: Includes all inpatient separations from public, private, psychiatric, and repatriation hospitals in NSW, as well as public multi-purpose services, private day procedure centres, and public nursing homes. Includes data on NSW residents admitted to public hospitals interstate.
- Update frequency: Yearly

<sup>87</sup> Indig et al. (2008) Why are alcohol-related emergency department presentations under-detected? An exploratory study using nursing triage text. *Drug and Alcohol Review* 27(6): 584-590. Accessed [here](#)



