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Trends in DRUG-RELATED HOSPITALISATIONS in Australia, 2002-2022

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Please note that as with all statistical reports there is the potential for minor revisions to data in this report. Please refer to the online version at Drug Trends.

Please contact the Drug Trends team with any queries regarding this publication: drugtrends@unsw.edu.au.

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Acknowledgements

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Data source

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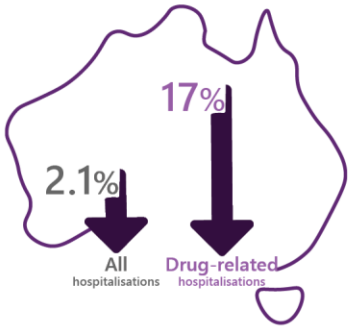
We acknowledge the traditional custodians of the land on which the work for this report was undertaken. We pay our respects to Elders past, present, and emerging.

Related Links

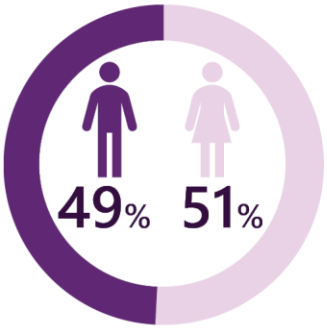
- Hospitalisations data visualisations: https://drugtrends.shinyapps.io/hospital_separations
- Hospitalisations methods document: https://www.unsw.edu.au/research/ndarc/resources/trends-drug-related-hospitalisations-australia-2002-2022
- For other Drug Trends publications on drug-related hospitalisations and drug-induced deaths in Australia, go to: National Illicit Drug Indicators Project (NIDIP)
- For more information on NDARC research, go to: National Drug & Alcohol Research Centre | Medicine & Health - UNSW Sydney
- For more information about the AIHW and NHMD, go to: https://www.aihw.gov.au/
- For more information on ICD coding go to: ICD-10-AM/ACHI/ACS Eleventh Edition | Resources | IHACPA
- For more research from the Drug Trends program go to: Drug trends | National Drug & Alcohol Research Centre - UNSW Sydney

Drug-Related Hospitalisations, Australia, 2021-22

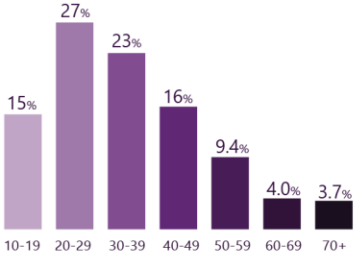
There were 52,413 drug-related hospitalisations (excluding alcohol and tobacco) in Australia in 2021-22.



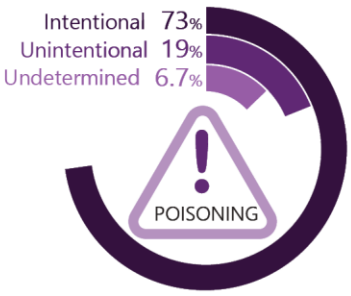
The rate of drug-related hospitalisations dropped by 17% from 2020-21, exceeding the overall 2.1% decrease in all hospitalisations in Australia.



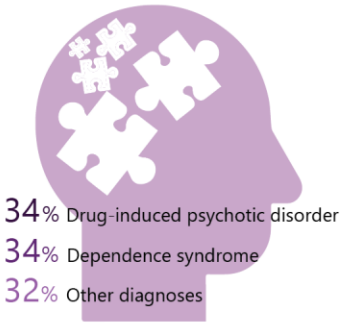
There was a near equal split in the number of hospitalisations involving males and females.



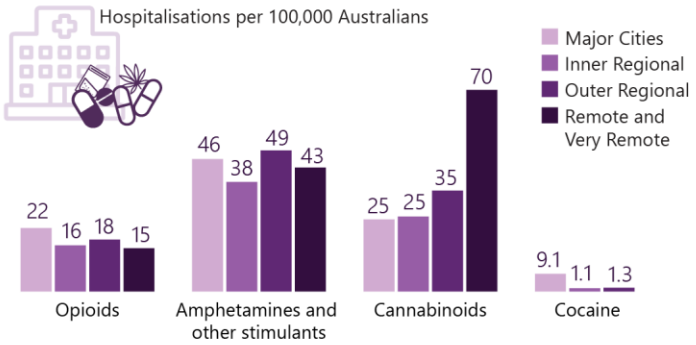
The highest percentage of drug-related hospitalisations occurred amongst Australians aged 20-29 and 30-39 years.



Intentional poisoning was the most common external cause of hospitalisations due to drug poisoning.



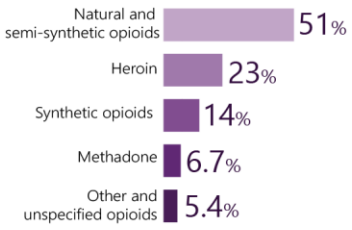
Drug-induced psychotic disorder and dependence syndrome were the leading diagnoses of mental and behavioural disorders due to substance use.



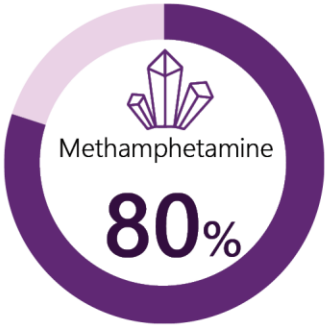
The highest rates of opioid- and cocaine-related hospitalisations were in major city areas. Amphetamine-type stimulant-related hospitalisations were highest in outer regional areas, and cannabinoid-related hospitalisations in remote and very remote areas.

22% Amphetamine-type stimulants
15% Antiepileptic, sedative-hypnotic and antiparkinsonism drugs
14% Non-opioid analgesics
13% Cannabinoids
11% Opioids

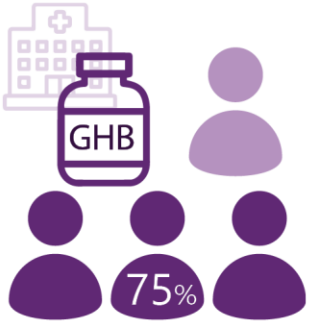
The five drug classes most commonly identified as the principal diagnosis in drug-related hospitalisations.



Natural and semi-synthetic opioids were the principal diagnosis in over half of opioid poisoning hospitalisations.



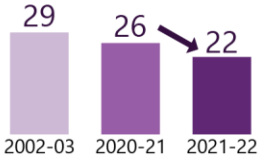
Methamphetamine-related hospitalisation comprised 80% of all hospitalisations related to amphetamine-type stimulants.



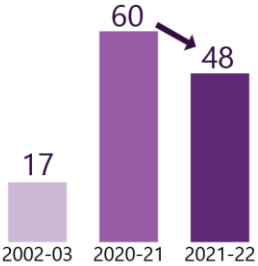
Three in four GHB-related hospitalisations occured amond individuals aged 20-39 years.

Change in Rate of Hospitalisations (per 100,000 Australians)

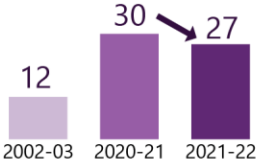
Total drug-related hospitalisations



Opioids



Amphetamine-type stimulants



Cannabinoids

Cocaine

While the total drug-related hospitalisations typically rose from 2009-10 to 2015-16, hospitalisations related to some drug types continued to rise until 2020-21. The overall rate of drug-related hospitalisations declined from 2020-21 to 2021-22, which was evident across nearly all drug types.

Executive Summary

There were 52,413 drug-related hospitalisations (excluding alcohol and tobacco) among Australians in 2021-22, equivalent to 0.45% of all hospitalisations in Australia and an average of 143 hospitalisations per day.

From 2002-03, Australia witnessed an upward trend in the rate of drug-related hospitalisations, peaking in 2015-16 at 272 hospitalisations per 100,000 people. Thereafter, the rate generally declined. Indeed, the rate in 2021-22 (211 hospitalisations per 100,000 people) represents a 17% decline relative to the rate in 2020-21 (255 hospitalisations per 100,000 people). This decline outpaced the overall 2.1% decrease in the total number of hospitalisations across the country for the same period.

Sex

In 2021-22, drug-related hospitalisations in Australia were nearly evenly distributed between males (49%) and females (51%). The total number of hospitalisations was 25,629 for males and 26,694 for females, equivalent to 206 drug-related hospitalisations per 100,000 male Australians and 206 per 100,000 female Australians. Historical trends showed fluctuations in sex-specific rates, with a recent decline in rates among both males (19%) and females (16%) compared to 2020-21.

Age

In 2021-22, drug-related hospitalisations in Australia were most common among the 20-29 and 30-39 age groups, accounting for 27% (14,068 hospitalisations) and 23% (12,277 hospitalisations), respectively. These age groups also exhibited the highest rates of hospitalisations, with 406 and 322 hospitalisations per 100,000 people.

From 2020-21 to 2021-22, the rate of drug-related hospitalisations declined across all age groups.

Remoteness Area of Usual Residence

In 2021-22, the majority of drug-related hospitalisations were among people residing in major city areas (72%, 37,802 hospitalisations), while the age-standardised rate was highest in remote and very remote areas (241 hospitalisations per 100,000 people). From 2020-21 to 2021-22, the rate of drug-related hospitalisations declined across all remoteness areas.

Principal Diagnosis

Drug-related hospitalisations are typically coded as related to 'mental and behavioural disorders due to psychoactive substance use' or 'poisoning'. In 2021-22, 51% of all drug-related hospitalisations had a principal diagnosis of mental and behavioural disorder due to substance use, while 48% had a principal diagnosis of drug poisoning.

There are specific diagnoses within these two categories. In 2021-22, drug-induced psychotic disorder and dependence syndrome were the leading diagnoses among hospitalisations related to mental and behavioural disorders due to psychoactive substance use (34% each).

In 2021-22, 73% of hospitalisations due to drug poisoning were intentional. While the rate of intentional poisoning hospitalisations has varied over time, the rate of unintentional poisoning hospitalisations has remained relatively stable.

The majority of intentional drug poisoning hospitalisations occurred among females, and those aged 10-19 and 20-29, with a particular increase over time in the former age group. By contrast, unintentional drug poisoning hospitalisations were more evenly distributed by sex and age group, although rates have increased among older age groups (i.e., 50+) over time.

Drug Type

In 2021-22, the largest proportion of drug-related hospitalisations was attributable to amphetamine-type stimulants (22%, 47.6 hospitalisations per 100,000 people), followed by antiepileptic, sedative-hypnotic and antiparkinsonism drugs (e.g., benzodiazepines; 15%), non-opioid analgesics (e.g., paracetamol, 14%), cannabinoids (13%) and opioids (11%).

Opioid-related hospitalisations

A decrease in the rate of opioid-related hospitalisations has been observed since a peak in 2015-16, including a further decrease from 2020-21 (26 hospitalisations per

100,000 people) to 2021-22 (22 hospitalisations per 100,000 people).

In 2021-22, natural and semi-synthetic opioids (e.g., oxycodone, morphine) accounted for over half (51%) of all hospitalisations due to opioid poisoning. It has consistently been the most common opioid type identified as involved in opioid poisoning hospitalisations over the years of monitoring.

Despite the overall decrease in opioid-related hospitalisations between 2020-21 and 2021-22, the rate of heroin-related hospitalisations significantly increased by 15%, from 2.2 to 2.6 hospitalisations per 100,000 people. This recent increase is preceded by a decline in the rate from 2018-19 (4.1 per 100,000 people) to 2020-21.

Amphetamine-type stimulant-related hospitalisations

Between 2002-03 and 2019-20, the rate of hospitalisations related to amphetamine-type stimulants in Australia followed an intriguing trajectory. Initially, it stood at 17 hospitalisations per 100,000 people in 2002-23, increasing to a peak of 70 hospitalisations per 100,000 people in 2019-20. Subsequently, the rate has declined, with 48 hospitalisations per 100,000 people recorded in 2021-22. This decline was observed across males and females and all age groups.

In 2021-22, methamphetamine-related hospitalisation comprised 80% of all hospitalisations related to amphetamine-type stimulants, making it the most prevalent drug type identified. Demographic profile of these hospitalisations and how they have shifted over time reflect those observed for the broader category of amphetamine-type stimulants.

Cannabinoid-related hospitalisations

Between 2002-03 and 2020-21, cannabinoid-related hospitalisations increased more than doubled, escalating from 12 to a peak of 30 hospitalisations per 100,000 people. Despite experiencing a 9.4% decline in the rate from 2020-21 to 2021-22 (27 hospitalisations per 100,000 people), the rate remained more than double that observed in 2002-03.

In 2021-22, cannabinoid-related hospitalisations were more common among males (61%) than females, and the most frequently identified age group was 40-49 (40%).

Cocaine-related hospitalisations

After a continuing upward trend between 2010-11 to 2020-21, the rate of cocaine-related hospitalisations declined in 2021-22 from 7.1 to 5.0 hospitalisations per 100,000 people.

In 2021-22, males accounted for 71% of cocaine-related hospitalisations and the most frequently identified age group was 30-39 (42%).

Both the 20-29 and 30-39 age groups experienced an increase in rates from 2002-03, with a particular spike in the rate of the 20-29 age groups in 2020-21 (20 hospitalisations per 100,000 people). However, there was a sharp 45% decline in the rate for this age group in 2021-22. In contrast, the rate for the 30-39 age group remained stable between 2020-21 and 2021-22.

Other drug-related hospitalisations

There was a decline in the rate of hospitalisations with a principal diagnosis related to antiepileptic, sedative-hypnotic and antiparkinsonism drugs, from 51 hospitalisations per 100,000 people in 2002-03 to 31 hospitalisations per 100,000 people in 2021-22. In 2021-22, nearly half of the hospitalisations related to antiepileptic, sedative-hypnotic and antiparkinsonism drugs involved benzodiazepines (46%, 3,725 hospitalisations, 14 hospitalisations per 100,000 people).

GHB-related hospitalisations

In 2021-22, GHB-related hospitalisation comprised 14% of hospitalisations related to antiepileptic, sedative-hypnotic and antiparkinsonian drugs, accounting for 1,154 hospitalisations, with a rate of 4.7 hospitalisations per 100,000 people. These hospitalisations were equally common among males and females, and three out of four GHB-related hospitalisations occurred in individuals aged 20-39.

The rate of non-opioid analgesic-related hospitalisations fluctuated between 2003-03 and 2021-22, peaking at 39 hospitalisations per 100,000 people in 2016-17. The rate

recently declined from 34 in 2020-21 to 29 hospitalisations per 100,000 people in 2021-22. In 2021-22, 85% of hospitalisations related to non-opioid analgesics involved 4-aminophenol derivatives such as paracetamol (6,071, 25 hospitalisations per 100,000 people).

Antidepressant-related hospitalisations decreased from 22 hospitalisations per 100,000 people in 2002-03 to 15 hospitalisations per 100,000 people in 2021-22. In the same period, antipsychotic and neuroleptic-related hospitalisations increased from 12 to 15 hospitalisations per 100,000 people, with a peak recorded in 2016-17 at 19 hospitalisations per 100,000 people.

Throughout the monitoring period, the rate of hospitalisations with principal diagnosis related to volatile solvents has been low, dropping from 4.7 in 2002-03 to 2.5 hospitalisations per 100,000 people in 2021-22.

Jurisdiction

From 2019-20 to 2020-21, the age-standardised rate of drug-related hospitalisations decreased in all jurisdictions except for the Northern Territory.

Important differences in age-standardised rate of drug-related hospitalisations by sex, age group, remoteness and drug type for each jurisdiction are also reported and available in our publicly accessible online interactive visualisation.

Background and Methods

Data Source

This bulletin reports on drug-related hospitalisations (see **Panel A** for definition) in Australia from 2002-03 to 2021-22, with a particular focus on opioid-, amphetamine-type stimulant-, cannabinoid-, cocaine- and other drug-related hospitalisations as per the aims of the Drug Trends program. Data were extracted from the National Hospital Morbidity Database held by the Australian Institute of Health and Welfare (AIHW). Full details of the methods are available for download and should be read alongside this bulletin.

Scope of Reporting

At the time of separation from hospital, a principal diagnosis and up to 99 additional diagnoses may be recorded using diagnosis codes from the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM). The main data presented here describe hospitalisations where the principal diagnosis was directly attributable to use of *illicit drugs* (e.g., heroin), *prescription medicines* (e.g., antidepressants) or *medicines available without a prescription* (e.g., paracetamol). For comparison, however, we present the total number of hospitalisations with drug codes in the first 20 diagnoses only as an overall number and by drug type. The data presented will therefore be an underestimate of the total number of hospitalisations related to drug use as: i) hospitalisations where the principal diagnosis was related to alcohol or tobacco are excluded, ii) hospitalisations where drugs are coded as an additional diagnosis are excluded, and iii) hospitalisations where drugs contributed to the presentation but were not identified in diagnosis coding are not captured.

We have not included hospitalisations where the principal diagnosis was related to tobacco or alcohol use as they fall outside the scope of our monitoring. We acknowledge the significant harm arising from these substances, and encourage readers to refer to the National Alcohol Indicators Project and AIHW reporting for information regarding alcohol- and tobacco-related hospitalisations. It is important to note that many drug-related hospitalisations involve more than one drug (including alcohol) but may have one substance coded as the 'principal diagnosis'. Further, sometimes it is not possible to determine one substance as the primary drug leading to hospitalisation; these cases are coded and presented as 'multiple drug use' and thus will not be represented in the count of hospitalisations for a single substance.

We present findings for Australians of all ages unless otherwise indicated. The jurisdiction of hospitalisation equals the jurisdiction of usual residence as cross border hospitalisations were not provided. Hospitalisations with a care type of 'newborn' (without qualified days), and records for 'hospital boarders' and 'posthumous organ procurement' were not provided. Hospitalisations in Western Australia with a contracted patient status of 'Inter-hospital contracted patient to private sector hospital' were also not provided to adjust for separations recorded on both sides of contractual care arrangements. For Tasmania, provision of data between 2008-09 and 2015-16 was limited to drug-related hospitalisations based on selected drug-related ICD-10-AM codes (see the methods for the list of ICD-10-AM codes). Estimates of drug-related hospitalisations for this period are likely to be underestimated. Data regarding remoteness area of usual residence were not available for Queensland before the year 2018-19. For this reason, we present data by remoteness area in Australia for the years 2018-19 through to 2021-22 only.

The figures presented in this report may appear smaller in comparison to those reported by the Australian Institute of Health and Welfare in their latest report Alcohol, tobacco & other drugs in Australia. This difference arises from exclusions applied to the data by the data custodians. Please refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Panel A. Terminology

- A **hospitalisation** (also called hospital separation) refers to a completed episode of admitted patient's care in a hospital ending with discharge, death, transfer or a portion of a hospital stay beginning or ending in a change to another type of care.
- The **principal diagnosis** is defined as the diagnosis determined after study and established at the completion of the episode of care to be chiefly responsible for occasioning the patient's episode of admitted patient care.
- An **external cause** is defined as the event, circumstance or condition associated with the occurrence of injury, poisoning or violence. Whenever a patient has a principal or additional diagnosis of an injury or poisoning, an external cause should be recorded.
- A **drug-related hospitalisation** refers to a hospitalisation where the principal diagnosis indicates a substance use disorder or direct harm due to selected substances.

Reporting of Results

We provide numbers, age-standardised rates per 100,000 people (computed using the direct method based on the Australian Standard Population at 30 June 2001), and crude rates per 100,000 people (calculated using the Australian Bureau of Statistics' estimated resident population figures as at 30 June each year) of hospitalisations. Values for small numbers of hospitalisations (less than or equal to 5) are suppressed. In accordance with recommendations to ensure stability of age-standardised rates from sparse data, age-standardised rates were not calculated if the total number of hospitalisations was less than or equal to 10. Estimates presented for specific age groups were computed only as crude rates per 100,000 people. Tests of statistically significant percent change have been conducted between estimates for 2021-22 compared to 2020-21 only. The percent change is considered statistically significant when 0 lies outside of the 95% confidence interval of the percent change. Results of these tests are presented in tables in a separate Appendix document.

Supporting Resources

An accompanying online interactive data visualisation allows disaggregation of data and download of figures. Estimates can be viewed disaggregated by drug, jurisdiction, remoteness, sex, age group and diagnosis, and as numbers, or crude or age-standardised rates per 100,000 population (with 95% confidence intervals).

Full details of the methods (including the codes used) are available for download.

1

Trends in Drug-Related Hospitalisations among Australians

2021-22

52,413 drug-related hospitalisations

211 drug-related hospitalisations per 100,000 Australians

144 drug-related hospitalisations per day

0.45% of all hospitalisations in Australia

Overall Trend

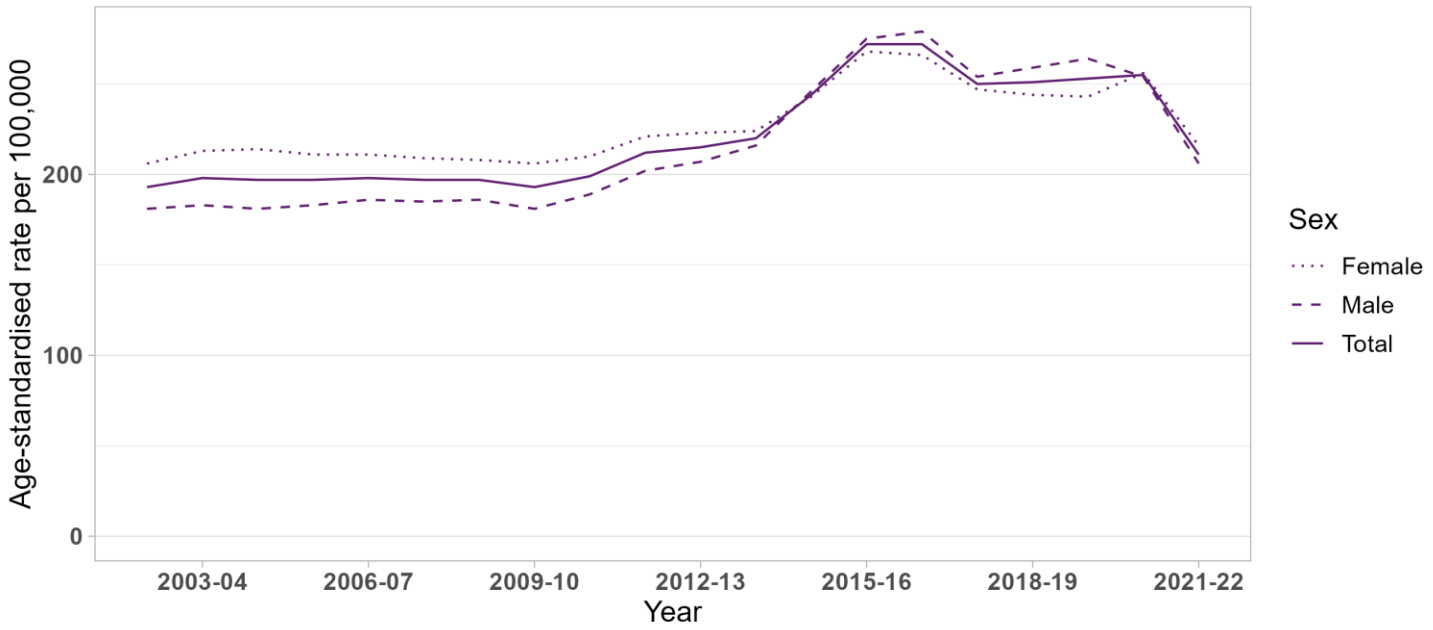
In 2021-22, there were 11.6 million hospitalisations in Australia's public and private hospitals. Among them, there were 109,500 hospitalisations with a drug-related diagnosis recorded in the first 20 diagnosis fields (i.e., principal or additional diagnosis), of which 52,413 had a drug-related principal diagnosis. This latter figure represents 0.45% of all hospitalisations and an average of 144 drug-related hospitalisations per day.

Adjusting for population size and age distribution, we estimate 211 drug-related hospitalisations per 100,000 people in 2021-22 (**Figure 1**). These figures exclude episodes of care where alcohol or tobacco were the principal reason for hospitalisation, although a summary of rates of alcohol-related hospitalisations is presented in Panel C for reference.

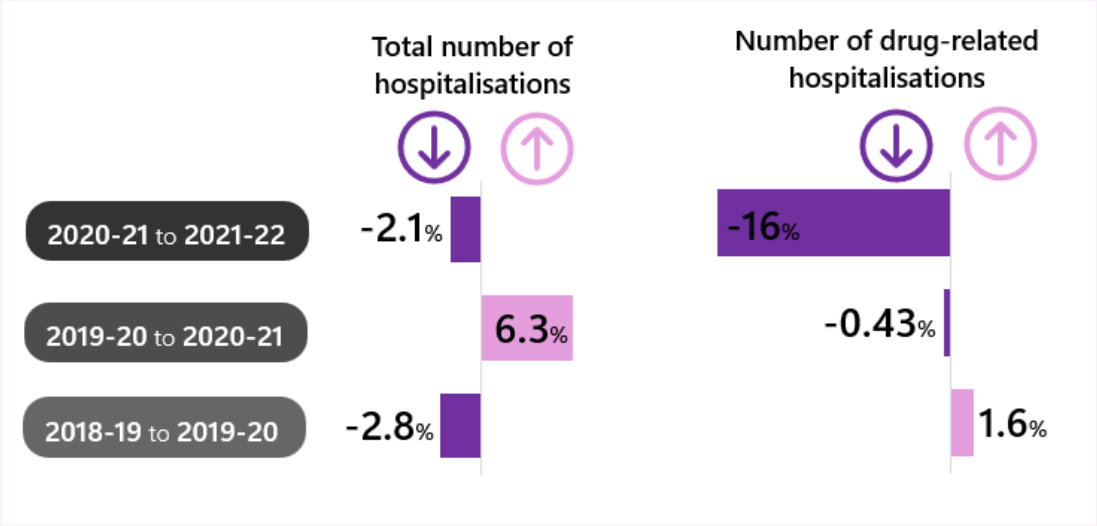
Trend since 2002-03

- From 2002-03 to 2015-16, there was an overall increase in drug-related hospitalisations, reaching a peak of 272 hospitalisations per 100,000 people in 2015-16, before subsequently stabilising and then declining in 2021-22.
- In 2021-22, the rate of drug-related hospitalisations declined by 17% compared to 2020-21 (211 versus 255 hospitalisations per 100,000 people) (Table A1 in Appendix). This decline is considerably larger than the 2.1% decrease observed in the number of *total* hospitalisations in Australia.

Figure 1. Age-standardised rate per 100,000 people of drug-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



Panel B. Impact of COVID-19 on Hospital Activity in Australia



The emergence of the COVID-19 pandemic in Australia in early 2020 impacted the operations and use of emergency departments and admitted patient hospital services. As reported by the Australian Institute of Health and Welfare, the total number of hospitalisations in Australia increased by 6.3% between 2019–20 and 2020–21, contrasting with a 2.8% decrease between 2018–19 and 2019–20 prior to the pandemic. This increase was likely due in part to hospitalisations related to a COVID-19 diagnosis. Subsequently, there was a decrease of 2.1% in total number of hospitalisations from 2020-21 to 2021-22.

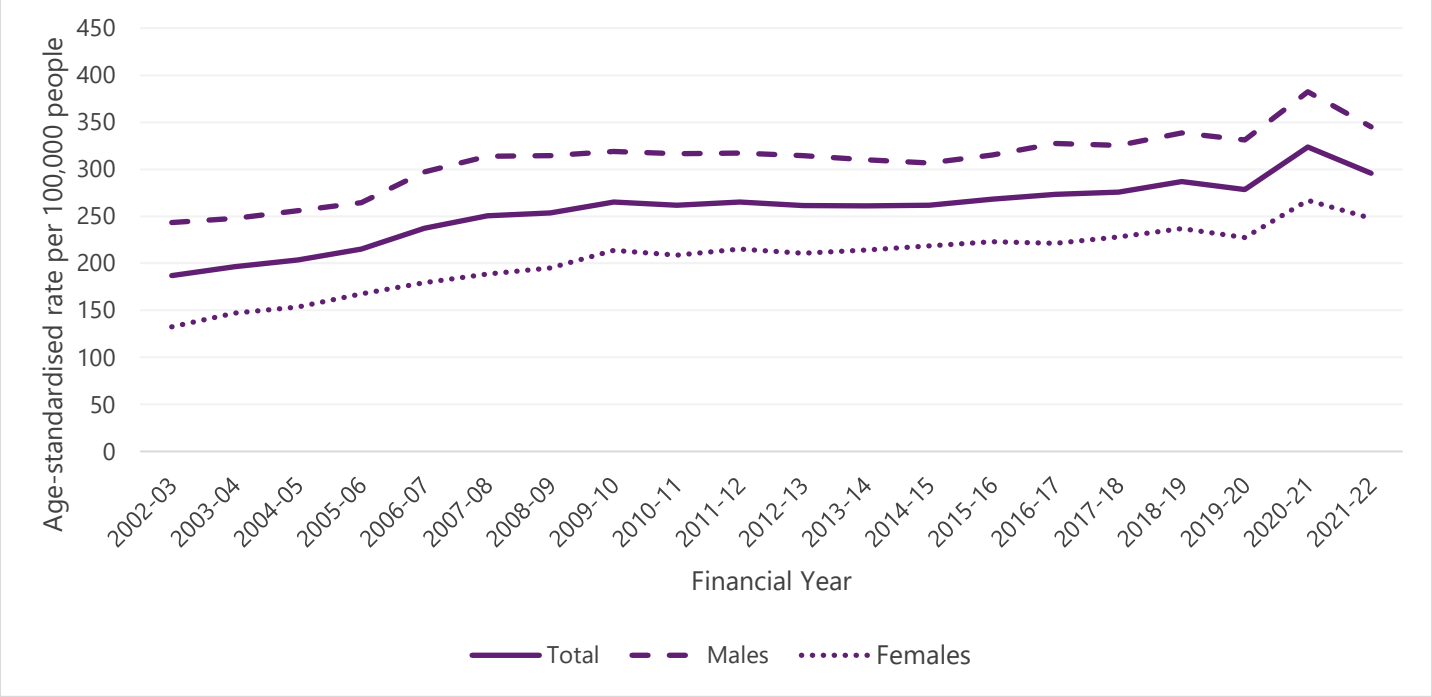
In contrast to the total number of hospitalisations in Australia, the number of drug-related hospitalisations has decreased since the pandemic onset. Specifically, the rate decreased by 0.43% between 2019-20 and 2020-21, and then by 16% between 2020-21 and 2021-22 (relative to a 1.6% increase between 2018-19 and 2019-20 prior to the pandemic).

Panel C. Alcohol-Related Hospitalisations

Hospitalisations where the principal diagnosis was related to alcohol are excluded from the analysis presented in this report. However, alcohol is a major contributor to the overall burden of disease in Australia. According to the latest available data, alcohol-induced deaths in Australia reached a 10-year peak in 2021, accounting for 1,578 deaths, equivalent to 5.5 deaths per 100,000 people.

In 2021-22, there were **188,327** hospitalisations with an alcohol-related diagnosis recorded (i.e., principal or additional diagnosis). Of these, **77,765** hospitalisations had an alcohol-related principal diagnosis, representing 0.67% of all hospitalisations, and an average of 213 drug-related hospitalisations per day.

Age-standardised rate per 100,000 people of drug-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



Adjusting for population size and age distribution, we estimate 296 alcohol-related hospitalisations per 100,000 people in 2021-22.

Alcohol-related hospitalisations were more prevalent among males, comprising 58% in 2021-22 (44,808 hospitalisations).

Half of all alcohol-related hospitalisations in 2021-22 occurred among individuals aged 40-59 years:

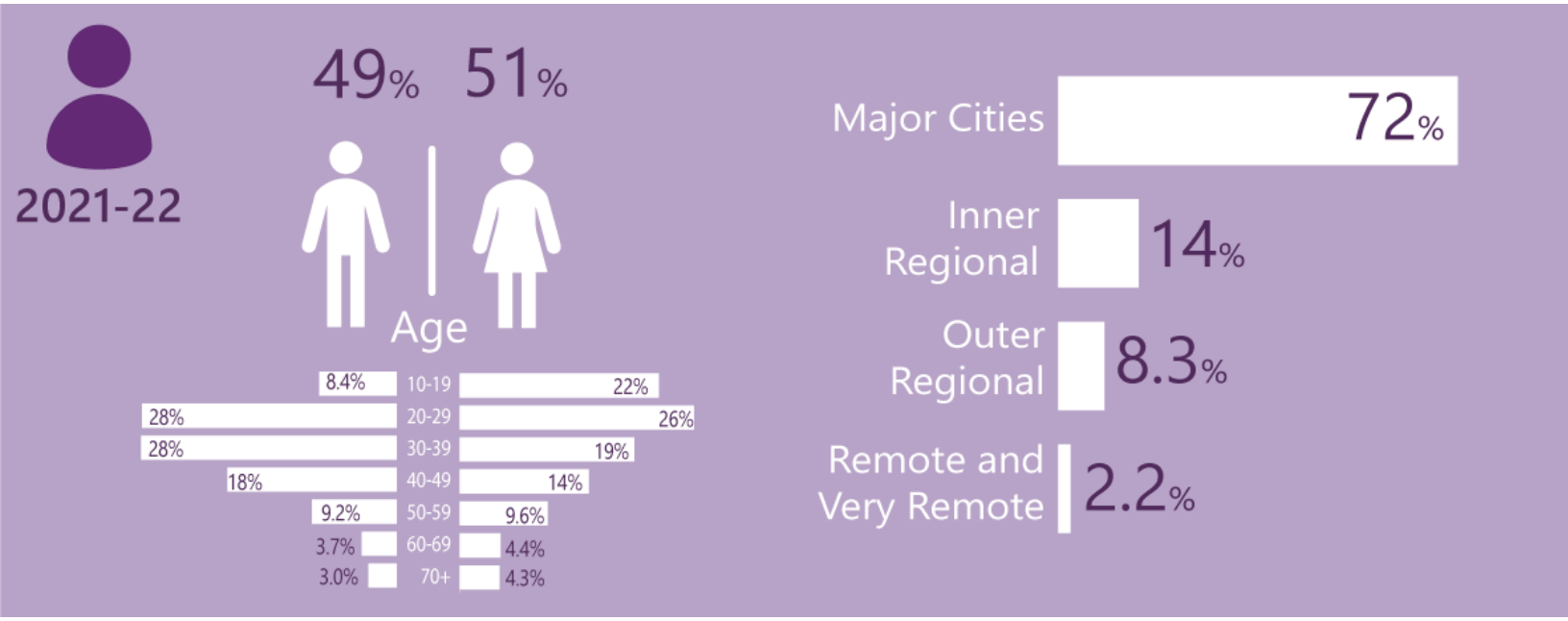
- 10-19 years – 1.9%, 1440 hospitalisations
- 20-29 years – 8.5%, 6,587 hospitalisations
- 30-39 years – 18%, 14,168 hospitalisations
- 40-49 years – 26%, 20,216 hospitalisations
- 50-59 years – 25%, 19,689 hospitalisations
- 60-69 years – 15%, 11,311 hospitalisations
- 70 years and over – 5.6%, 4,318 hospitalisations

Principal diagnosis of mental and behavioural disorders due to use of alcohol was the leading cause of alcohol-related hospitalisations, accounting for 81% in 2021-22. Among these, 53% were related to dependence syndrome and 21% to acute intoxication. Additionally, alcohol-induced diseases constituted 18% of alcohol-related hospitalisations, while incidents of alcohol poisoning were less than 1%.

Note: Figures presented here are smaller than those reported by the Australian Institute of Health and Welfare in their latest report Alcohol, tobacco & other drugs in Australia. This difference arises from exclusions applied to the data by the data custodians. Please refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

2

Sociodemographic Characteristics of Drug-Related Hospitalisations



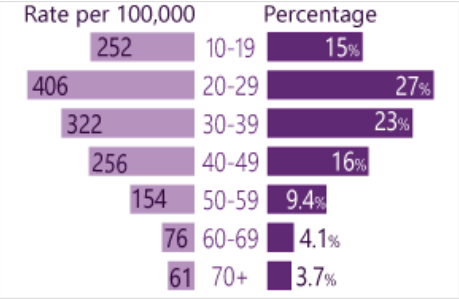
Sex

In 2021-22, drug-related hospitalisations were equally distributed among males and females (49% and 51%, respectively), with 25,629 hospitalisations among males and 26,694 among females. These numbers are equivalent to 206 drug-related hospitalisations per 100,000 male Australians and 216 drug-related hospitalisations per 100,000 female Australians (**Figure 1**).

Trend since 2002-03

- From 2002-03 to 2013-14 the age-standardised rate of drug-related hospitalisation was generally higher among females than males. From 2014-15 until 2019-20, the reverse was observed, followed by a convergence in rate in 2020-21. This convergence was driven by a decrease in the rate of drug-related hospitalisations among males and an increase in the rate among females.
- In 2021-22, the age-standardised rate of drug-related hospitalisations declined compared to 2020-21 for both males and females, by 19% and 16%, respectively (Table A1, Appendix).

Age

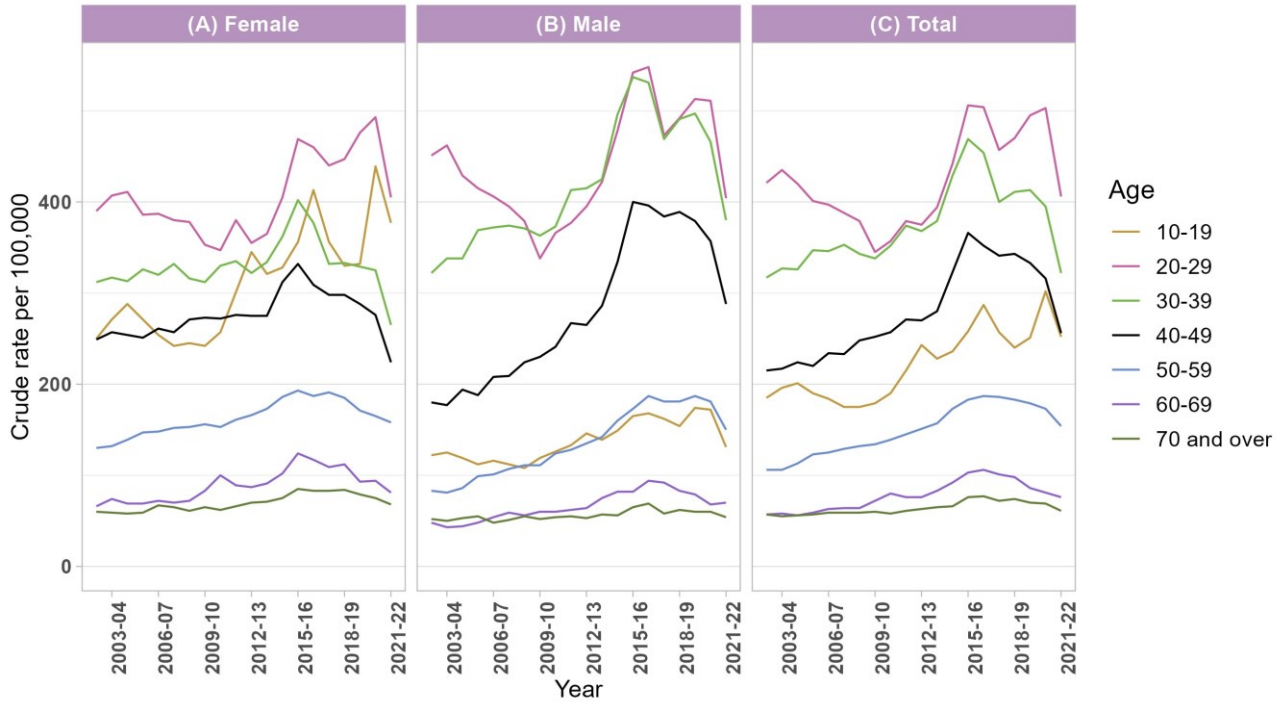


In 2021-22, the most common age groups represented among drug-related hospitalisations were 20-29 and 30-39, accounting for 27% (14,068 hospitalisations) and 23% (12,277 hospitalisations) of drug-related hospitalisations, respectively. The highest rates were also observed in these age groups, followed by the 40-49 and 10-19 age groups. It is important to note that about 80% of drug-related hospitalisations within the age group 10-19 years are concentrated between the ages of 15 and 19 years. The least commonly represented age group (3.7% with 1,920 hospitalisations) and the lowest rate (61 hospitalisations per 100,000 people) was observed in the 70 and over age group. A small proportion of drug-related hospitalisations (<1.5%) did not have an identified age or fell in the 0-9 age group.

Trend since 2002-03

- From 2002-03 to 2021-22, the age distribution of drug-related hospitalisations changed. Specifically, the percentage of people aged 50-59 years, 60-69 years and ≥70 years increased (from 6.8%, 2.4% and 2.7% to 9.4%, 4.0% and 3.7%, respectively), while the percentage of people aged 20-29 years decreased (from 30% to 27%).
- In terms of population rates, the highest rate of hospitalisations has consistently been observed among the 20-29 age group, followed by the 30-39 age group (**Figure 2**).
- Relative to 2020-21, the 2021-22 estimates declined in all age groups (Table A2, Appendix) by:
  - 19% in the 20-29 age group,
  - 19% in the 40-49 age group,
  - 18% in the 30-39 age group,
  - 17% in the 10-19 age group,
  - 11% in the 50-59 age group,
  - 10% in the 70 and over age group, and
  - 6.4% in the 60-69 age group.

Figure 2. Crude rate per 100,000 people of drug-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 2002-03 to 2021-22.



Note: The rates for the 0-9 years age group are not presented due to the sensitivity of the data.

Sex and Age

In 2021-22, the highest percentage and population rate of drug-related hospitalisations among males was in the 30-39 and 20-29 age groups (28% each, 380 and 404 hospitalisations per 100,000 people, respectively). Among females, drug-related hospitalisations were most common among the 20-29 age group (26%, 405 hospitalisations per 100,000 people), followed by the 10-19 age group (22%, 377 hospitalisations per 100,000 people) (**Figure 2**).

Trend since 2002-03

- Between 2002-03 and 2021-22 the age demographic of drug-related hospitalisations among females and males has shifted:
    - Females:
        - drug-related hospitalisations have been consistently highest in the 20-29 age group,
        - there was a substantial increase among females aged 10-19: from 250 to 377 hospitalisations per 100,000 people (from 17% to 22% of drug-related hospitalisations among females),
        - drug-related hospitalisations in the 30-39 and 40-49 age groups peaked in 2015-16 at 402 and 332 hospitalisations per 100,000 people (22% and 17%, respectively). After that peak, rates declined reaching their lowest level in 2021-22 (265 and 224 hospitalisations per 100,000 people, 19% and 14% respectively).
    - Males:
        - drug-related hospitalisations have been consistently highest in either the 20-29 or 30-39 age group throughout the monitoring period,
        - compared to females, the 10-19 age group had relatively low representation among males (9.7% in 2002-03 and 8.4% in 2021-22, 122 to 131 hospitalisations per 100,000 people, respectively).
        - a notable increase has been observed in the rate of hospitalisations among males aged 40-49, peaking in 2015-16 at 400 hospitalisations per 100,000 people.
- In 2021-22, significant declines were observed in all age groups among males and females compared to 2020-21, except for the female 50-59 age group and the male 60-69 age group which remained stable (Table A3, Appendix).

Remoteness Area of Usual Residence

In 2021-22, the majority of drug-related hospitalisations occurred among people residing in major city areas however the age-standardised rate was highest in remote and very remote areas:

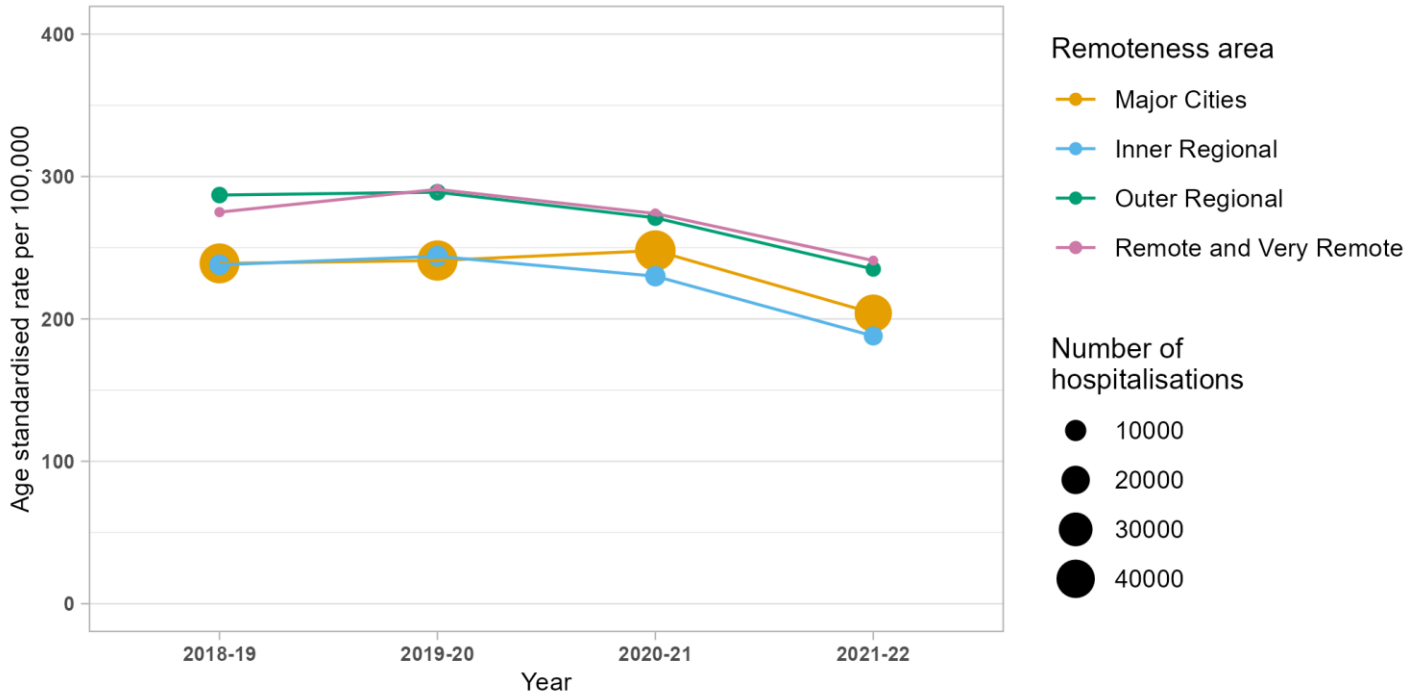
- 72% in major city (37,802 hospitalisations, 204 hospitalisations per 100,000 people),
- 14% in inner regional (7,583 hospitalisations, 188 hospitalisations per 100,000 people),
- 8.3% in outer regional (4,361 hospitalisations, 235 hospitalisations per 100,000 people), and
- 2.2% in remote and very remote (1,156 hospitalisations, 241 hospitalisations per 100,000 people) areas.

Trend since 2018-19

- The above profile by remoteness area has been consistent since 2018-19, with 71-73% of all hospitalisations occurring among people from major city areas and the population rate being the highest in the remote and very remote areas since 2019-20 (**Figure 3**).
- In 2021-22, there was a decrease in the population rates of drug-related hospitalisations in all remoteness areas, with the biggest change observed in major city and inner regional areas (Table A2, Appendix). Specifically, drug-related hospitalisations decreased by:
    - 18% in major cities,

- 18% in inner regional,
- 13% in outer regional,
- 12% in remote and very remote areas.

Figure 3. Rate per 100,000 people of drug-related hospitalisations among the Australian population, by remoteness, 2018-19 to 2021-22.



Note: Remoteness area of usual residence (hereafter 'remoteness') could not be identified in 2.9% of hospitalisations in 2021-22 (n=1,511).

Remoteness Area and Sex

In 2020-21, drug-related hospitalisations were equally common among male and female residents of major city areas (50% each, 205 and 203 hospitalisations per 100,000 people). In inner regional, outer regional and remote and very remote areas, the proportions of females were higher than males (57%, 55% and 52%, respectively), and so were the rates (**Figure 4**).

Trend since 2018-19

- The rates of drug-related hospitalisations followed a similar pattern for males and females in inner and outer regional areas.
- In major city and remote and very remote areas, the rates for males were higher than those for females in 2018-19. Rates equalised in 2020-21, remaining equal in major cities in 2021-22. In remote and very remote areas, however, the female rate surpassed the male rate in 2021-22.
- Indeed, in 2021-22, a significant decrease in rates compared to 2020-21 was observed in all remoteness areas for both males and females, with the exception of the rate among females in remote and very remote areas which remained stable (Table A4, Appendix).

Figure 4. Rate per 100,000 people of drug-related hospitalisations among the Australian population, by remoteness, sex and age group, 2018-19 to 2021-22.

Remoteness and Age

In 2021-22, the highest percentage and rate of hospitalisations was observed among the 20-29 age group in all remoteness areas. The rates for this age group were highest in remote and very remote (502 hospitalisations per 100,000 people) and outer regional (431 hospitalisations per 100,000 people) areas, followed by major city areas (391 hospitalisations per 100,000 people) and inner regional areas (379 hospitalisations per 100,000 people) (**Figure 4**). Remote and very remote was the only area where the 10-19 age group had the second highest population rate (405 hospitalisations per 100,000 people).

Trend since 2018-19

- The rate of drug-related hospitalisations has been consistently highest in the 20-29 age groups in all remoteness areas and lowest in the 50-59, 60-69 and 70 and over age groups.
- Compared to 2020-21, significant decreases in rates were observed in:
    - all age groups except for 60-69 in major cities,
    - the 10-19, 20-29, 30-39 and 40-49 age groups in inner and outer regional areas, and
    - the 40-49 age group in remote and very remote areas.

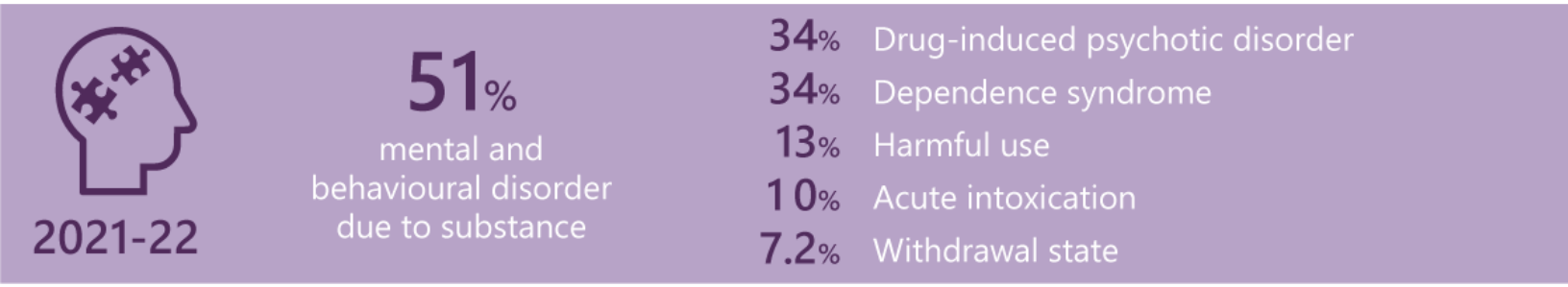
3

Drug-Related Hospitalisations by Diagnosis

Drug-related hospitalisations included in this report are coded according to ICD-10-AM as related to 'mental and behavioural disorders due to psychoactive substance use' or 'poisoning' (see methods for details on the ICD-10-AM codes included). The former category has a number of specific diagnoses within the overarching diagnosis type, including dependence syndrome, withdrawal state, drug-induced psychotic disorder, acute intoxication, and harmful use. Hospitalisations coded as 'poisoning' can relate to acute effects from a range of scenarios (e.g., wrong drug administered or taken in error, suicide and homicide), and have an external cause of injury assigned which indicates the intent of the injury (i.e., unintentional poisoning ('overdose'), intentional poisoning, or undetermined intent).

In 2021-22, diagnoses of **mental and behavioural disorder due to substance use** were identified as the principal diagnosis in **51%** of all drug-related hospitalisations, while **drug poisoning** accounted for **48%**. Between 2002-03 and 2009-10, the rate of drug poisoning-related hospitalisations was twice the rate of hospitalisations related to mental and behavioural disorder due to substance use. Between 2009-10 and 2017-18, this difference decreased and then reversed from 2018-19 onwards. It is important to exercise caution when comparing diagnoses over time, as the classifications and coding standards for those data can change.

Principal Diagnosis of Mental and Behavioural Disorder Due to Substance Use

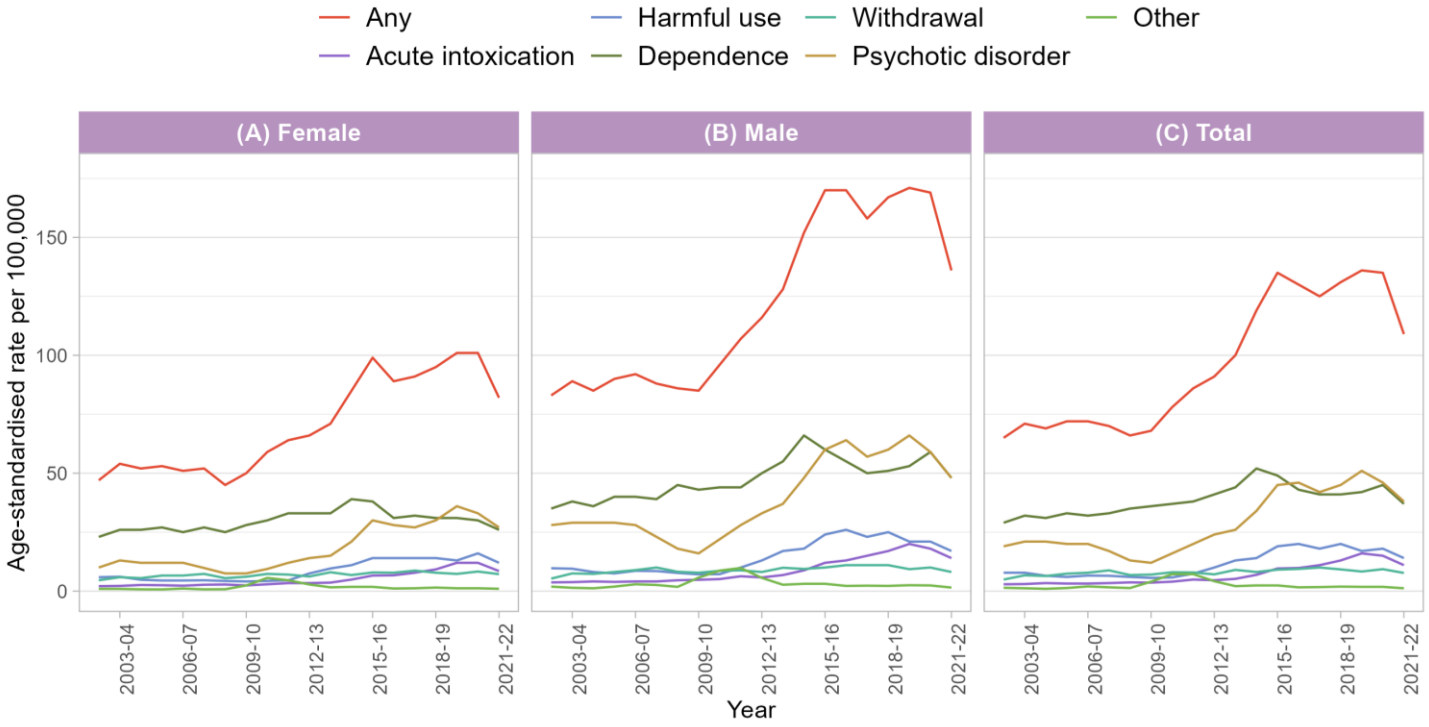


Among hospitalisations with a principal diagnosis from the group of ICD-10-AM codes indicating mental and behavioural disorder due to substance use, drug-induced psychotic disorder and dependence syndrome were the leading diagnoses over the course of monitoring. In 2021-22, they both comprised 34% of hospitalisations with a principal diagnosis of mental and behavioural disorder due to substance use. Hospitalisations with a principal diagnosis of harmful use (13%), acute intoxication (10%), withdrawal state (7.2%) and other use disorders (1.1%) accounted for the remaining 31% of hospitalisations coded to 'mental and behavioural disorder due to substance use'.

Trend since 2002-03

- From 2002-03 to 2020-21, the rate of hospitalisations with a principal diagnosis of drug-induced psychotic disorder more than doubled, from 19 to 46 hospitalisations per 100,000 people (**Figure 5**).
- An overall increase was also observed in the rates of hospitalisations with a principal diagnosis of:
    - **acute intoxication**, from 2.9 to 15 hospitalisations per 100,000 people,
    - **harmful use**, from 7.8 to 18 hospitalisations per 100,000 people, and
    - **dependence**, from 29 to 45 hospitalisations per 100,000 people.
- Compared to 2020-21, the 2021-22 rates significantly decreased across all diagnosis types of mental and behavioural disorder due to substance use (Table A6, Appendix).

Figure 5. Age-standardised rate per 100,000 people of drug-related hospitalisations among the Australian population, by principal diagnosis of mental and behavioural disorder due to substance use, 2002-03 to 2021-22.



Sex

In 2021-22, males were more frequently represented than females across all diagnosis types of mental and behavioural disorder due to substance use. The biggest difference in the distribution was observed for dependence and for psychotic disorder, where males accounted for over 60% of hospitalisations.

Trend since 2002-03

- Over the course of monitoring, males have had a higher rate than females of hospitalisations with a principal diagnosis of a mental and behavioural disorder due to substance use (**Figure 5**). This has been consistent across all diagnoses within this cluster of ICD-10-AM codes.
- In 2021-22, the only diagnosis type that did not exhibit a significant drop in hospitalisation rate compared to 2020-21 was the female rate of hospitalisations with other mental and behavioural disorder due to substance use (Table A6, Appendix).

Age

In 2021-22, the proportion of hospitalisations with a mental and behavioural disorder due to substance use as the principal diagnosis was highest among people aged 20-29 and 30-39, with the 20-29 age group leading in nearly all diagnosis types. A similar pattern was observed when adjusting for population size (**Table 1**).

Table 1. Percentage and age-standardised rate of hospitalisations with a mental and behavioural disorder due to substance use by diagnosis type and age group, Australia, 2021-22.

Age group	Any mental and behavioural disorder due to substance use		Acute intoxication		Dependence		Harmful use		Psychotic disorder		Withdrawal	
	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
10-19	6.2	52.9	9.3	8.0	3.3	9.6	8.3	9.1	7.4	21.6	6.0	3.7
20-29	31	243.0	31	24.0	30	79.3	30	30.1	34	90.6	28	15.9
30-39	32	224.3	30	21.6	35	85.9	24	22.3	32	78.7	26	13.4
40-49	19	155.2	20	16.7	18	51.3	23	24.0	18	50.8	18	10.8
50-59	8.1	68.9	6.5	5.5	9.3	26.8	11	11.6	6.2	17.9	11	6.6
60-69	2.4	23.4	1.7	1.7	2.7	8.8	4.0	5.1	1.4	4.7	4.4	3.1
70 and over	1.1	9.7	1.5	1.3	1.1	3.1	0.5	0.5	0.5	1.3	5.4	3.4

Note: The estimates for other mental and behavioural disorder due to substance use identified in the principal diagnosis are not presented due to small numbers. The estimates for the 0-9 years age group are not presented due to the sensitivity of the data. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Trend since 2002-03

- In 2002-03 the rate of hospitalisations with a principal diagnosis of any mental and behavioural disorder due to substance use was highest in the 20-29 age group and nearly two times higher than the 30-39 age group. Rates for these two age groups converged in 2009-10 (148 and 150 per 100,000 people, respectively), subsequently following a similar trend (typically increasing).
- Rates in the 40-49 and 50-59 age groups increased fourfold over the course of monitoring, from 57 and 18 hospitalisations per 100,000 people in 2002-03 to 191 and 82 per 100,000 people in 2020-21, respectively.
- The rate of hospitalisations in the 60-69 and 70 and over age groups remained low throughout monitoring.
- The 2021-22 rates of hospitalisations with a principal diagnosis of any mental and behavioural disorder due to substance use recorded a significant decrease compared to 2020-21 in all age groups except for the 60-69 age group (Table A7, Appendix). The biggest decrease (29%) was observed in the 10-19 age group from 53 to 75 hospitalisations per 100,000 people.

Remoteness Area of Usual Residence

In 2021-22, the majority of hospitalisations with a principal diagnosis of mental and behavioural disorder due to substance use were among major city residents, however the highest rate was recorded among those from remote and very remote areas (**Table 2**).

This varied, however, depending on the principal diagnosis. The rate of acute intoxication and dependence-related hospitalisations was highest in major city areas, while drug-induced psychotic disorder, withdrawal and harmful use-related hospitalisations were highest in remote and very remote areas.

Table 2. Percentage and age-standardised rate of hospitalisations with a mental and behavioural disorder due to substance use by remoteness, Australia, 2021-22.

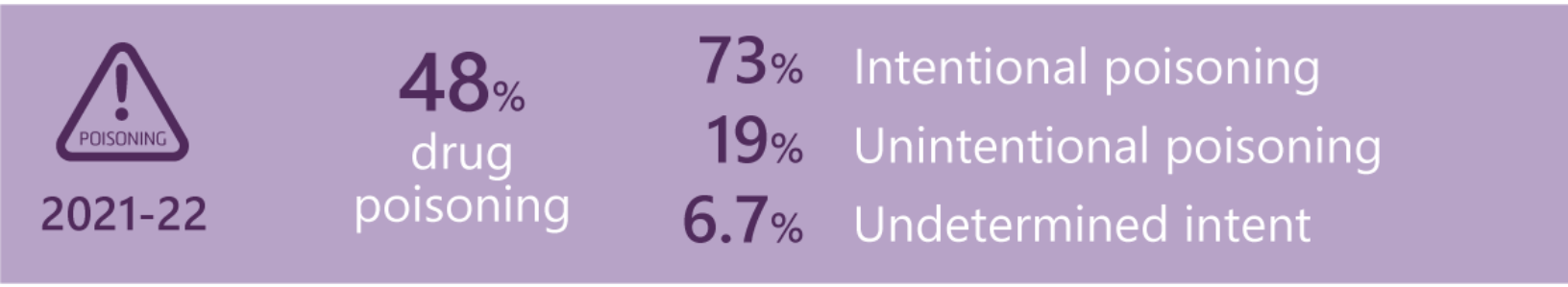
	Mental and behavioural disorder due to substance use		
	Percentage	Number of hospitalisations	Rate per 100,000 people
Major cities	76%	**20,412**	110
Inner regional	12%	3,108	81
Outer regional	6.5%	1,766	101
Remote and very remote	2.2%	602	**126**
Total	100%	26,968	109

Note: Remoteness area was not identified in 1,080 (4.0%) hospitalisations with a principal diagnosis of mental and behavioural disorder due to substance use in 2021-22. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions. Bolded values represent the highest percentages, numbers and rates.

Trends since 2018-19

- Since 2018-19, the rate of hospitalisations with a principal diagnosis of mental and behavioural disorder due to substance use has been consistently highest in remote and very remote areas.
- The 2021-22 rates of hospitalisation with a principal diagnosis of mental and behavioural disorder due to substance use decreased in all remoteness areas compared to 2020-21 estimates (Table A8, Appendix).

Principal Diagnosis of Drug Poisoning

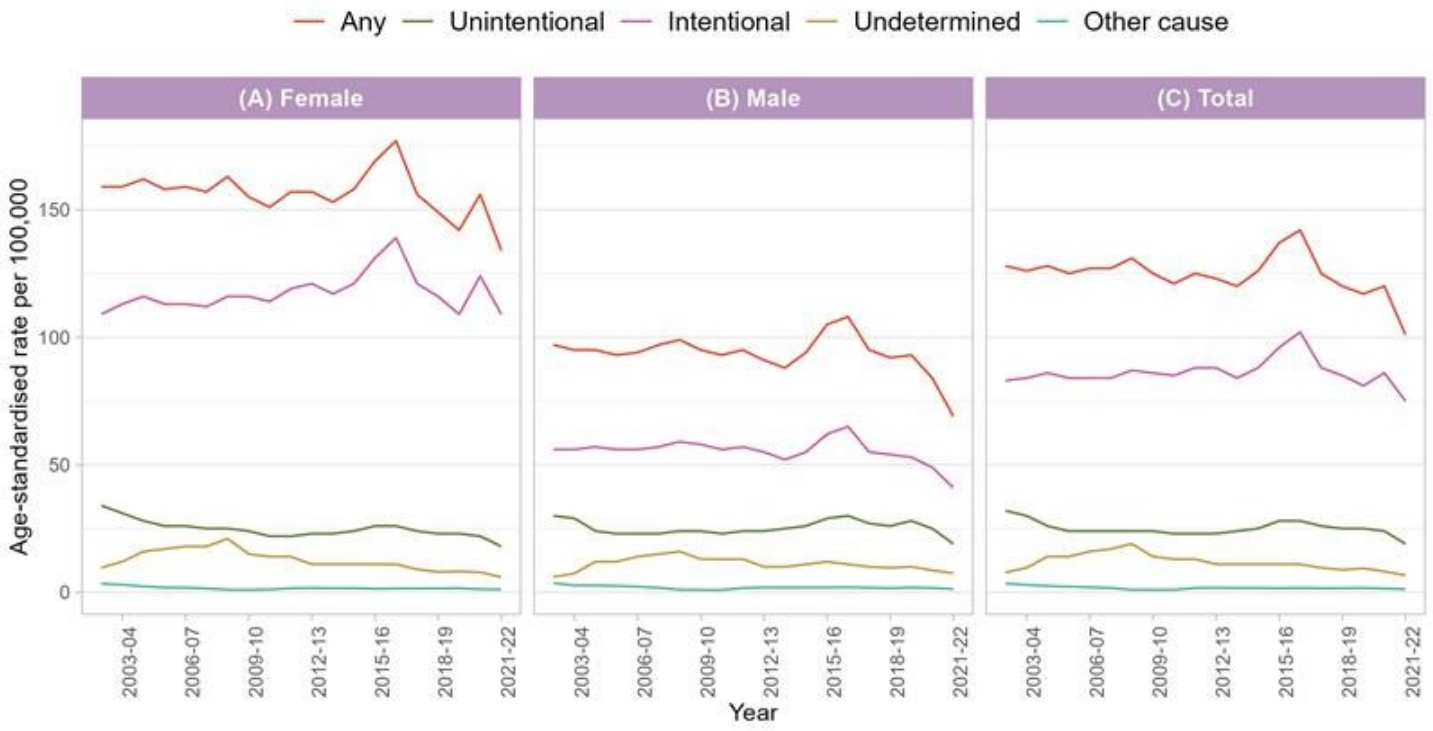


Over the course of monitoring, nearly three-quarters of drug poisonings were intentional, accounting for 73% in 2021-22 (18,485 hospitalisations), equivalent to 75 hospitalisations per 100,000 people.

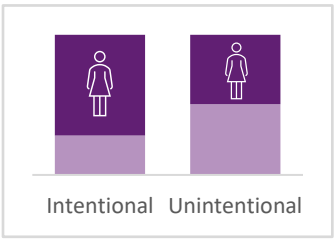
Trend since 2002-03

- The rate of intentional drug poisoning was relatively stable between 2002-03 and 2014-15. It peaked at 102 hospitalisations per 100,000 people in 2016-17, subsequently decreasing (**Figure 6**).
- The rate of hospitalisation related to intentional drug poisoning in 2021-22 was significantly lower than the 2020-21 rate, marking its lowest level within the last two decades.
- The rate of hospitalisations due to unintentional drug poisoning declined from 32 hospitalisations per 100,000 people in 2002-03 to 24 hospitalisations per 100,000 people in 2020-21. This was followed by a notable 21% decrease in 2021-22 compared with 2020-21, reaching its lowest point over the course of monitoring (Table A9, Appendix).

Figure 6. Age-standardised rate per 100,000 people of drug-related hospitalisations among the Australian population, by external cause of poisoning, 2002-03 to 2021-22.



Sex

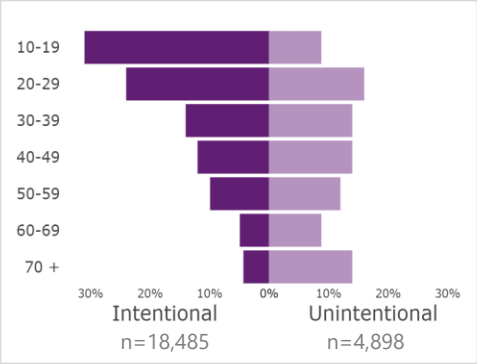


In 2021-22, 72% of intentional drug poisoning hospitalisations occurred among females, with a population rate of 109 hospitalisations per 100,000 females. In contrast, the rate of intentional drug poisoning hospitalisations among males was 41 hospitalisations per 100,000 males. Unintentional drug poisoning hospitalisations were equally distributed between males (51%, 19 hospitalisations per 100,000 males) and females (49%, 18 hospitalisations per 100,000 females).

Trend since 2002-03

- Over the monitoring period, the rate of intentional drug poisoning among females was more than double that observed among males. Both rates declined in 2021-22 compared to 2020-21, with the female rate decreasing by 12% and the male rate by 16%, making the male rate the lowest observed in the monitoring period.
- In contrast, the rates of unintentional drug poisoning hospitalisations were similar among males and females throughout the monitoring period. Both rates declined in 2021-22 compared to 2020-21, with the female rate decreasing by 18% and the male rate by 24% (Table A9, Appendix). This decline brought both rates to their lowest levels since the beginning of the monitoring.

Age



In 2021-22, intentional drug poisoning was most common among people aged

- 10-19 (31%, 178 hospitalisations per 100,000 people) and
- 20-29 (24%, 126 hospitalisations per 100,000 people),

and least common among people aged

- 60-69 (4.9%, 32 hospitalisations per 100,000 people) and
- 70 and over (4.3%, 25 hospitalisations per 100,000 people).

In contrast, unintentional drug poisoning hospitalisations were more evenly distributed among the age groups, with the highest rate in the 20-29 age group (23 hospitalisations per 100,000 people) followed by the 70 and over age group (21 hospitalisations per 100,000 people).

Trend since 2002-03

Intentional poisoning

- The rate of hospitalisations for the 10-19 age group doubled between 2002-03 and 2020-21, rising from 95 to 203 hospitalisations per 100,000 people, and since 2012-13 surpassing the rate observed among the 20-29 age group.
- Over the same time period, the rates for the 30-39 and 40-49 age groups halved, decreasing from 138 and 114 to 69 hospitalisations per 100,000 people, respectively.
- In 2021-22, a further decrease compared to 2020-21 was observed in the 30-39 and 40-49 age groups as well as in the 10-19, 20-29 and 50-59 age groups (Table A10, Appendix).

Unintentional poisoning

- Throughout the monitoring period, the rate of hospitalisations was generally highest among people aged 20-29 and 30-39.
- However, between 2002-03 and 2020-21, rates of hospitalisations due to unintentional poisoning declined in the 10-19, 20-29 and 30-39 age groups, while an overall increase was recorded in older age groups (50-59, 60-69 and 70 and over).
- In 2021-22, decreases in rates compared to 2020-21 were recorded in all age groups except the 50-59 age group (Table A10, Appendix).

Remoteness Area of Usual Residence

Intentional poisoning

In 2021-22, the rate of hospitalisations due to intentional drug poisoning was highest in outer regional areas (104 hospitalisations per 100,000 people) and lowest in major city areas and remote and very remote areas (each 69 hospitalisations per 100,000 people, respectively). Compared to 2020-21, declines in hospitalisation rates due to intentional drug poisoning were observed in all remoteness areas except remote and very remote which remained stable (Table A11, Appendix).

Unintentional poisoning

In contrast, the rate of hospitalisations due to unintentional drug poisoning was highest in remote and very remote areas (26 hospitalisations per 100,000 people) and lowest in inner regional areas (16 hospitalisations per 100,000 people). These two remoteness areas were also the only areas that did not record a significant decrease in hospitalisations due to unintentional poisoning in 2021-22 compared to 2020-21 (Table A11, Appendix).

4

Drug-Related Hospitalisations by Drug

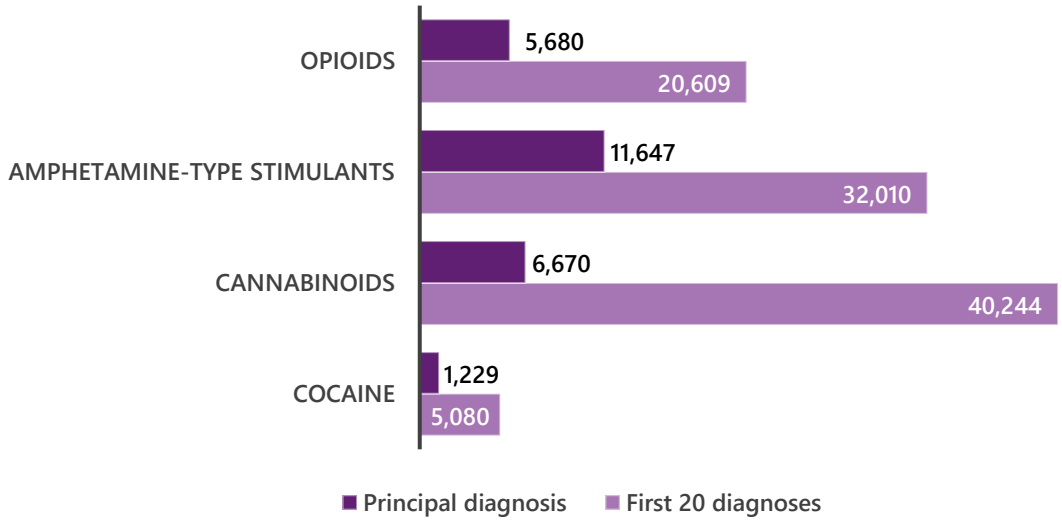
In 2021-22, the largest number of drug-related hospitalisations identified by principal diagnosis among the Australian population were attributable to amphetamine-type stimulants (mostly comprising methamphetamine), followed by antiepileptic, sedative-hypnotic and antiparkinsonism drugs (e.g., benzodiazepines; GHB), non-opioid analgesics, cannabinoids and opioids (**Table 3**). Notably, considering the first 20 diagnoses, cannabinoids emerged as the most commonly identified drug (**Figure 7**).

Table 3. Percentage and number of hospitalisations by drug type, Australia, 2021-22

Drug type	Percentage	Number	Rate per 100,000
Amphetamine-type stimulants	22%	11,647	48
Methamphetamine	18%	9,347	38
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	15%	8,085	31
Benzodiazepines	7.1%	3,725	14
GHB	2.2%	1,154	4.7
Non-opioid analgesics	14%	7,141	29
4-Aminophenol derivatives (Paracetamol)	12%	6,071	25
Cannabinoids	13%	6,670	27
Opioids	11%	5,680	22
Natural and semi-synthetic opioids	2.7%	1,406	5.1
Heroin	1.2%	644	2.6
Synthetic opioids	0.74%	390	1.5
Methadone	0.35%	186	0.73
Other and unspecified opioids	0.29%	150	0.55
Multiple drug use	7.2%	3,758	15
Antipsychotics and neuroleptics	6.9%	3,629	15
Antidepressants	6.9%	3,628	15
Cocaine	2.3%	1,229	5.0
Volatile solvents	1.2%	642	2.5
Hallucinogens	0.58%	304	1.3

Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions

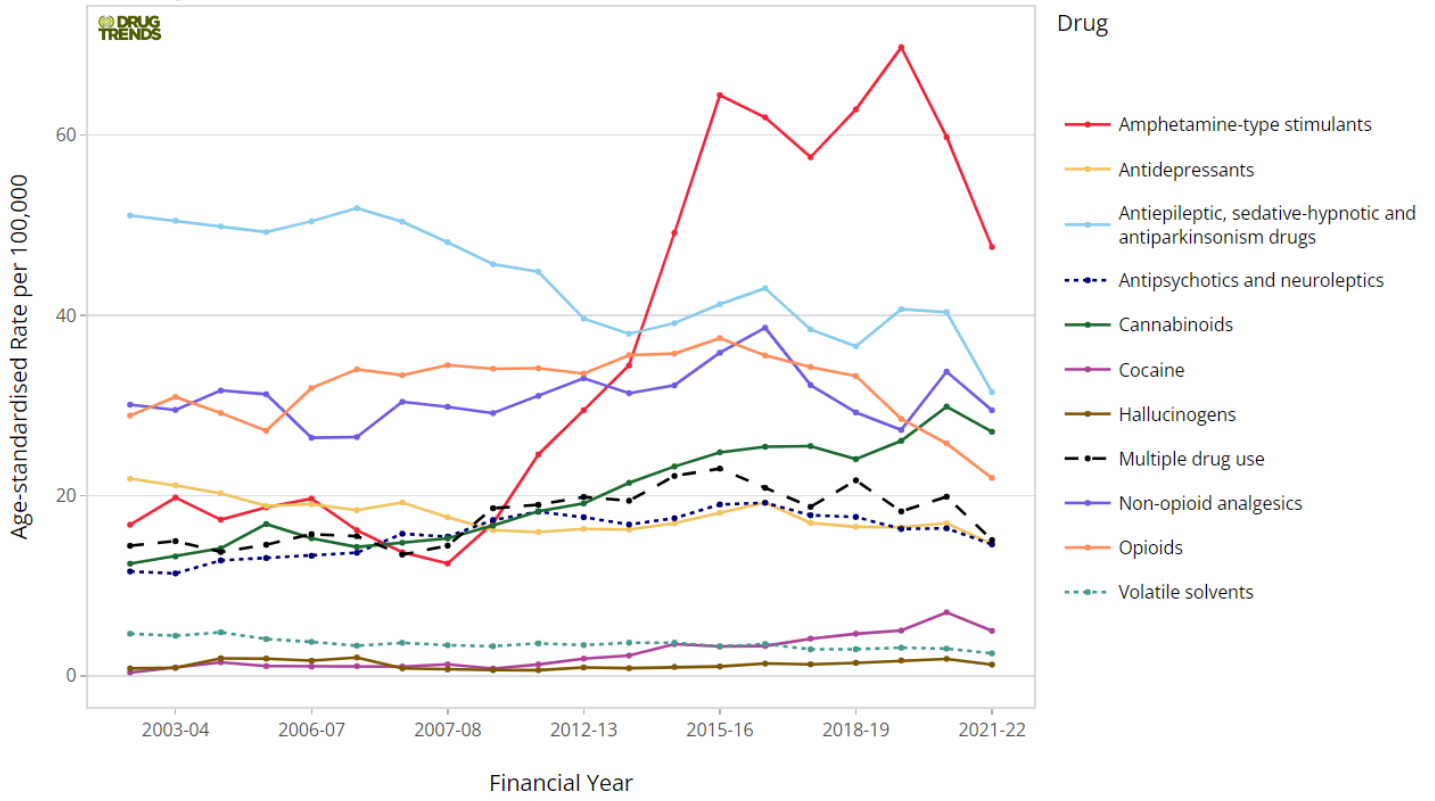
Figure 7. Number of selected drug-related hospitalisations in Australia identified in the principal diagnosis and in the first 20 diagnosis fields, 2021-22.



Trend since 2002-03

- From 2002-03 to 2013-14, the highest age-standardised rate of drug-related hospitalisations was observed for a principal diagnosis indicating antiepileptic, sedative-hypnotic and antiparkinsonism drugs, followed typically by opioids and non-opioid analgesics (**Figure 8**).
- Since 2014-15, the rate of hospitalisations for amphetamine-type stimulants has surpassed the rate observed for opioids and antiepileptic, sedative-hypnotic and antiparkinsonism drugs, peaking in 2019-20 at 70 hospitalisations per 100,000 people.
- While still the highest rate across all drug classes, there was a decline in hospitalisations for amphetamine-type stimulants from 2019-20 to 2021-22, decreasing to 48 hospitalisations per 100,000 people.
- Over the past six years, the rate of opioid-related hospitalisations has steadily declined.
- Compared with the previous year, 2021-22 saw significant decreases in the rates of hospitalisations with a principal diagnosis related to all major drug classes (Table A12, Appendix). Compared with the decrease of 17% in the overall rate of drug-related hospitalisations, more substantial decreases were observed for hallucinogens (34%), cocaine (29%), multiple drug use (24%), antiepileptic, sedative-hypnotic and antiparkinsonism drugs (22%), and amphetamine-type stimulants (20%).
- Detailed description of trends over the course of monitoring for opioid-, amphetamine-type stimulant-, cannabinoid-, cocaine- and other drug-related hospitalisations are included below.

Figure 8. Age-standardised rate per 100,000 people of drug-related hospitalisations among the Australian population, by drug identified in the principal diagnosis, 2002-03 to 2021-22.



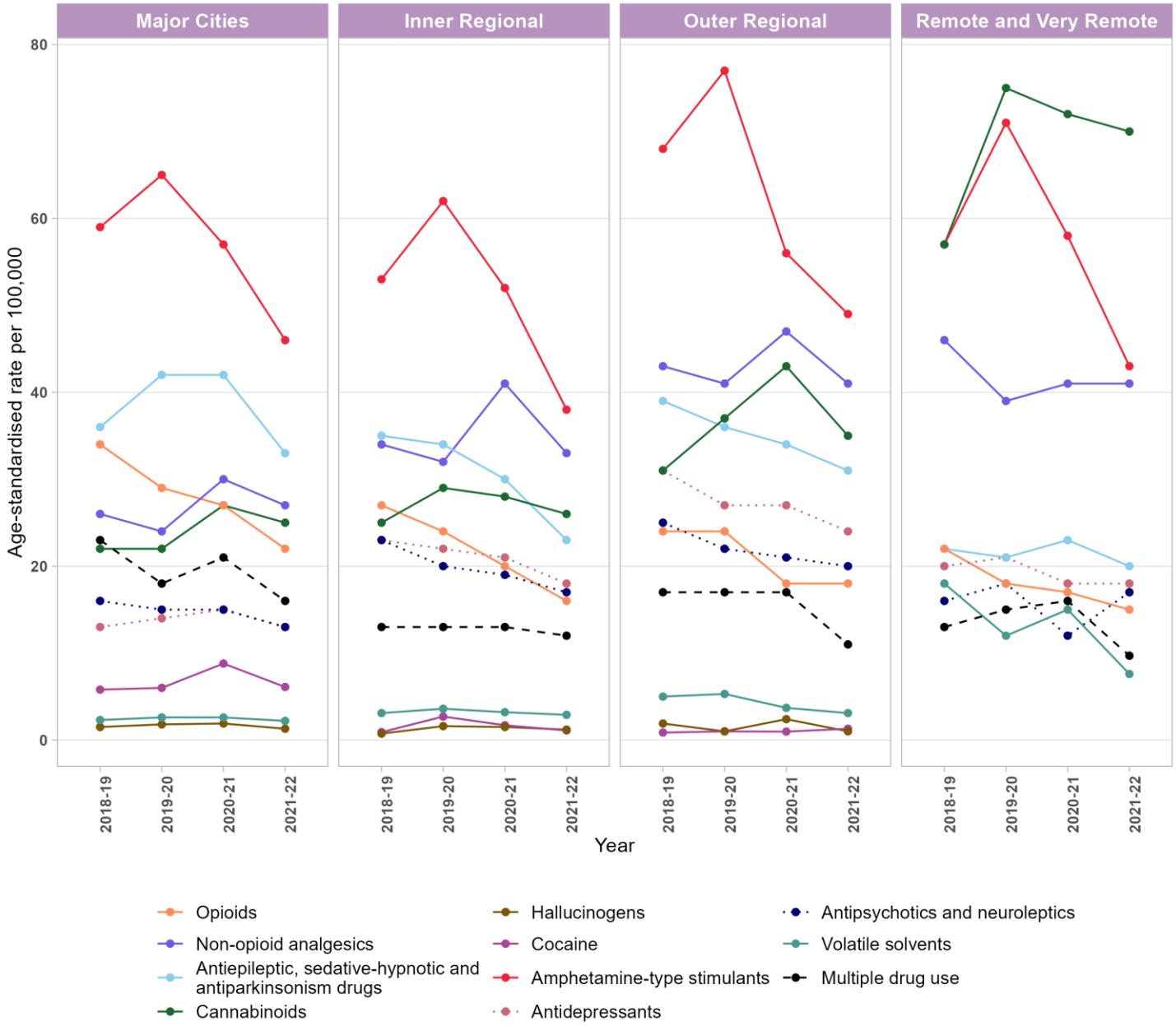
Note: Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Drug Type and Remoteness Area of Usual Residence

In 2021-22, amphetamine-type stimulants was the most common drug class identified as the principal diagnosis for drug-related hospitalisations in all areas, except for remote and very remote areas where cannabinoid-related hospitalisations remained the most common (**Figure 9**).

A detailed description of the distribution of selected drug-related hospitalisation rates across remoteness areas can be found in the subsequent sections.

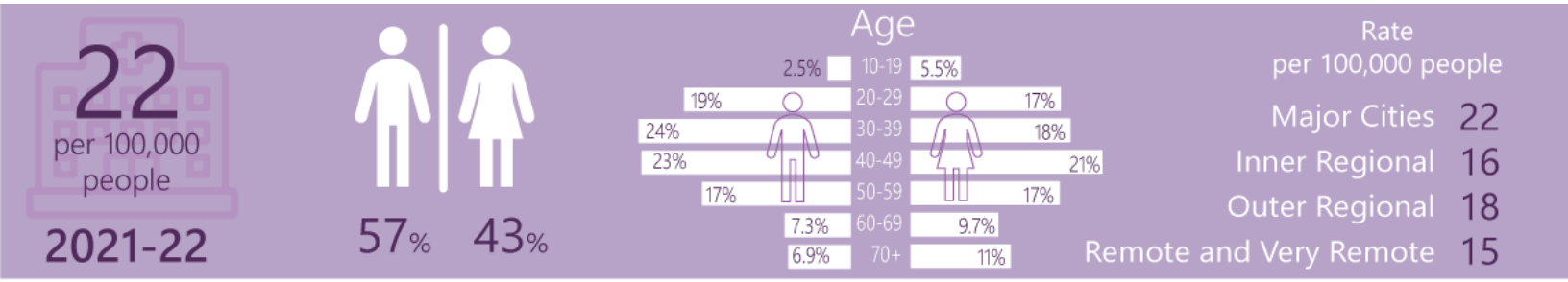
Figure 9. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug type identified in the principal diagnosis and remoteness area, among the Australian population, 2018-19 to 2021-22.



Note: Age-standardised rates are not shown for remote and very remote areas for some drug types because the number of hospitalisations was less than or equal to 10. Please refer to our methods document for details.

5

Opioid-Related Hospitalisations



The following findings describe opioid-related hospitalisations due to illicit opioids (e.g., heroin), as well as opioids typically used for the treatment of pain (e.g., oxycodone) or for the treatment of opioid dependence (e.g., methadone).

In 2021-22, there were 20,609 hospitalisations where opioids were recorded as a principal or other diagnosis, among which 5,680 hospitalisations specifically identified opioids as a principal diagnosis. The latter estimate translates to a population rate of 22 hospitalisations per 100,000 people.

Trend since 2002-03

- A steady decrease in the rate of opioid-related hospitalisations has been observed since its peak in 2015-16 (37 hospitalisations per 100,000 people), including a further 15% decrease from 2020-21 to 2021-22 (**Figure 10**) (Table A12, Appendix).

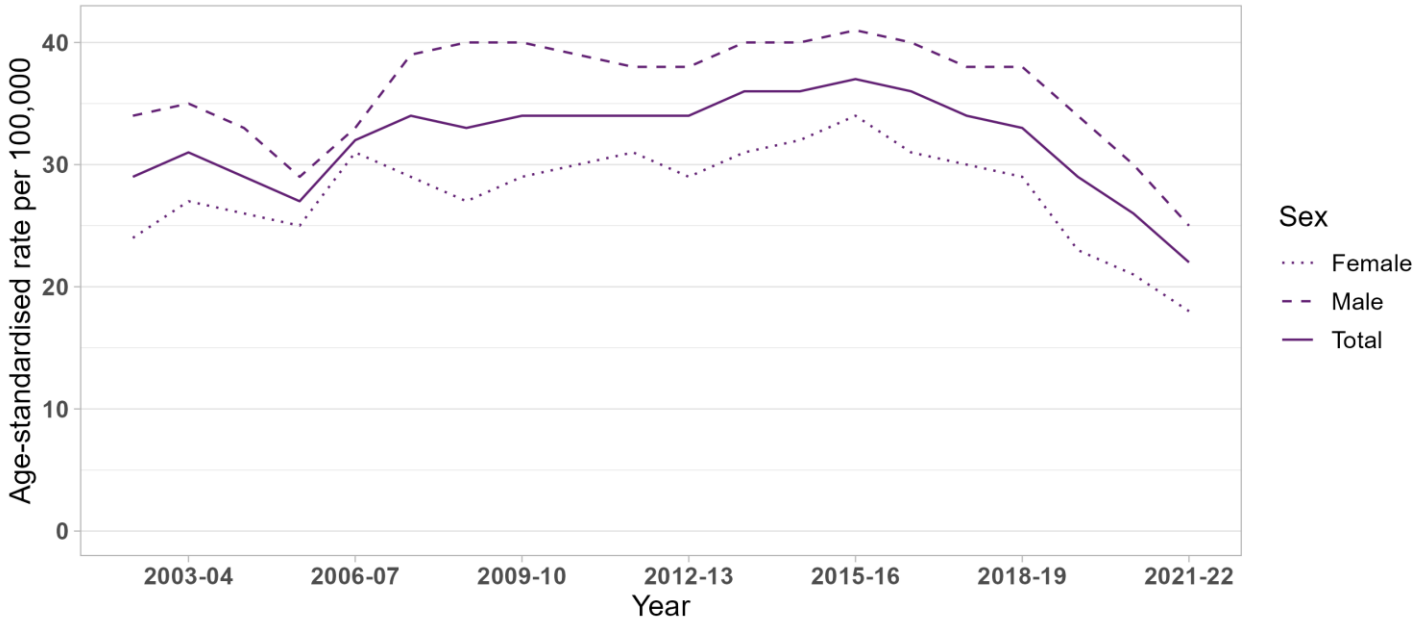
Sex

In 2021-22, opioid-related hospitalisations were more prevalent among males (57%) than females (43%), with a rate of 30 hospitalisations per 100,000 people for males compared to 21 for females.

Trend since 2002-03

- The pattern of males having higher rates of opioid-related hospitalisations than females has been consistent over time.
- A steady decrease in the rates of opioid-related hospitalisations has been observed in both males and females since 2015-16 (**Figure 10**).
- A further decline has been observed from 2020-21 to 2021-22 in the rates for both males and females (by 16% and 14%, respectively), placing the rates at their lowest in the past two decades (Table A1, Appendix).

Figure 10. Age-standardised rate per 100,000 people of opioid-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



Age

In 2021-22, opioid-related hospitalisations remained most common among the 40-49 age group, comprising 23% (1,280 hospitalisations) of all opioid-related hospitalisations, with a rate of 38 hospitalisations per 100,000 people. This was followed by:

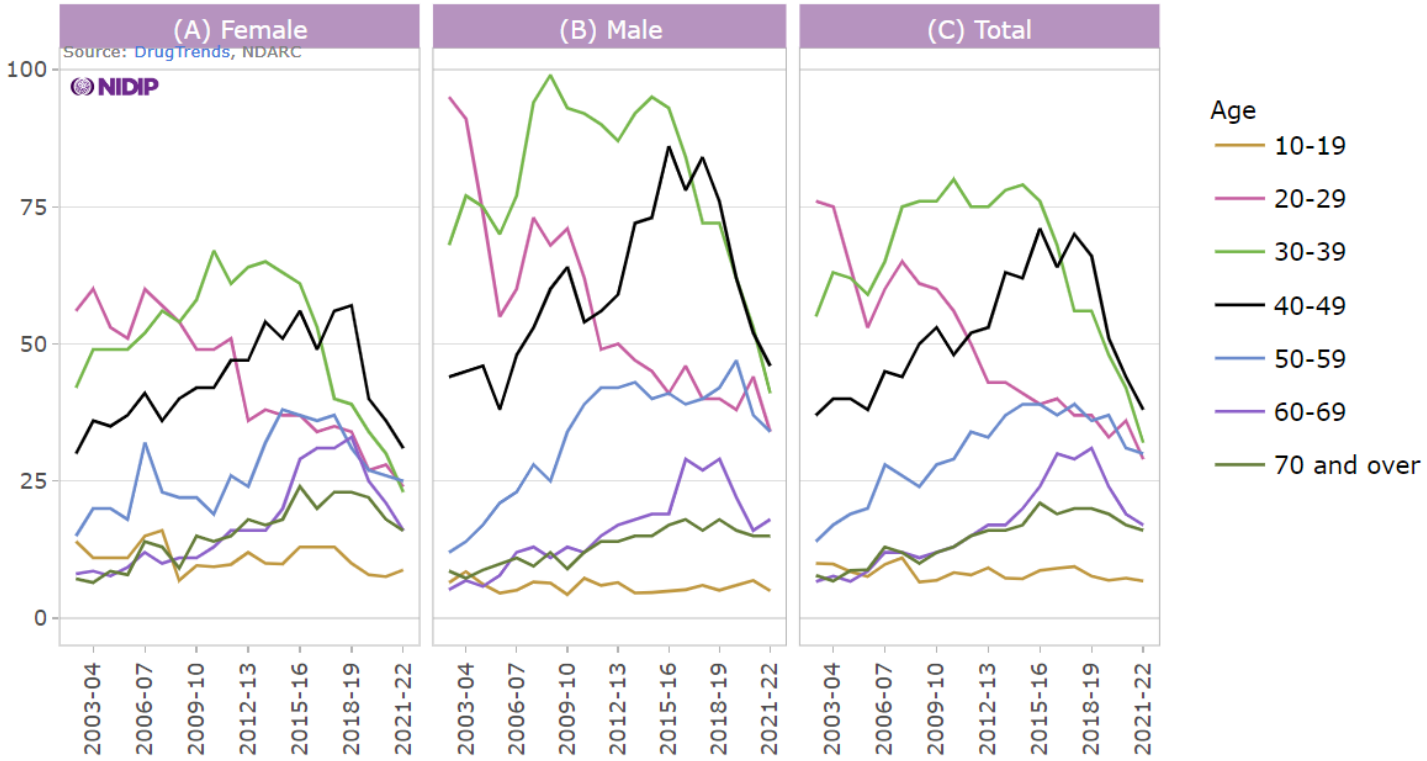
- 30-39 age group: 21%, 1,203 hospitalisations, 32 hospitalisations per 100,000 people,
- 20-29 age group: 18%, 1,012 hospitalisations, 29 hospitalisations per 100,000 people,
- 50-59 age group: 17%, 941 hospitalisations, 30 hospitalisations per 100,000 people,
- 70 and over age group: 8.7%, 493 hospitalisations, 16 hospitalisations per 100,000 people,
- 60-69 age group: 8.3%, 474 hospitalisations, 17 hospitalisations per 100,000 people and
- 10-19 age group: 3.8%, 216 hospitalisations, 6.8 hospitalisations per 100,000 people.

Trend since 2002-03

- Since 2002-03, there have been shifts in the age groups experiencing the greatest rate of opioid-related hospitalisations. In 2002-03, the rates were highest in the 20-29 and 30-39 age groups, accounting for 65% of all opioid-related hospitalisations.
- From 2002-03 to 2020-21, the rate halved for the 20-29 age group, declining steadily from 76 to 36 hospitalisations per 100,000 people. The rate for the 30-39 age group increased from 55 hospitalisations per 100,000 people in 2002-03 to 79 hospitalisations per 100,000 people in 2014-15, before declining to 42 hospitalisations per 100,000 people in 2020-21.
- At the same time, rates of hospitalisations increased among older Australians:
    - 50-59 age group: from 14 to 31 hospitalisations per 100,000 people, peaking at 39 hospitalisations per 100,000 people in 2015-16,
    - 60-69 age group: from 6.7 to 19 hospitalisations per 100,000 people, peaking at 31 hospitalisations per 100,000 people in 2018-19,
    - 70 and over age group: from 7.8 to 17 hospitalisations per 100,000 people, peaking at 21 hospitalisations per 100,000 people in 2015-16.

- The rate of opioid-related hospitalisations for the 40-49 age group, after an initial increase and reaching its peak of 71 hospitalisations per 100,000 people in 2015-16, declined to 44 hospitalisations per 100,000 people in 2020-21 (**Figure 11**).
- In comparison to 2020-21, the rates in the age groups 20-29, 30-39 and 40-49 showed a further decline in 2021-22, resulting in record low rates for the 20-29 and 30-39 age groups, while the 40-49 age group declined to the rate observed at the beginning of monitoring. (Table A2, Appendix).

Figure 11. Crude rate per 100,000 people of opioid-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 2002-03 to 2021-22.



Note: The rates for the 0-9 years age group are not presented due to sensitivity of the data.

Sex and Age

Trends in opioid-related hospitalisations for males and females by age group follow a similar pattern as described above (**Figure 11**).

Remoteness Area of Usual Residence

In 2021-22, the rate of opioid-related hospitalisations was highest in major city areas (22 hospitalisations per 100,000 people; 4,253 hospitalisations), followed by outer regional (18 per 100,000 people; 383 hospitalisations), inner regional (16 per 100,000 people; 746 hospitalisations), and remote and very remote areas (15 per 100,000 people; 74 hospitalisations) (**Figure 9**).

Compared to 2020-21, the rate of opioid-related hospitalisations in 2021-22 decreased by 17% in major city and in inner regional areas (Table A13, Appendix).

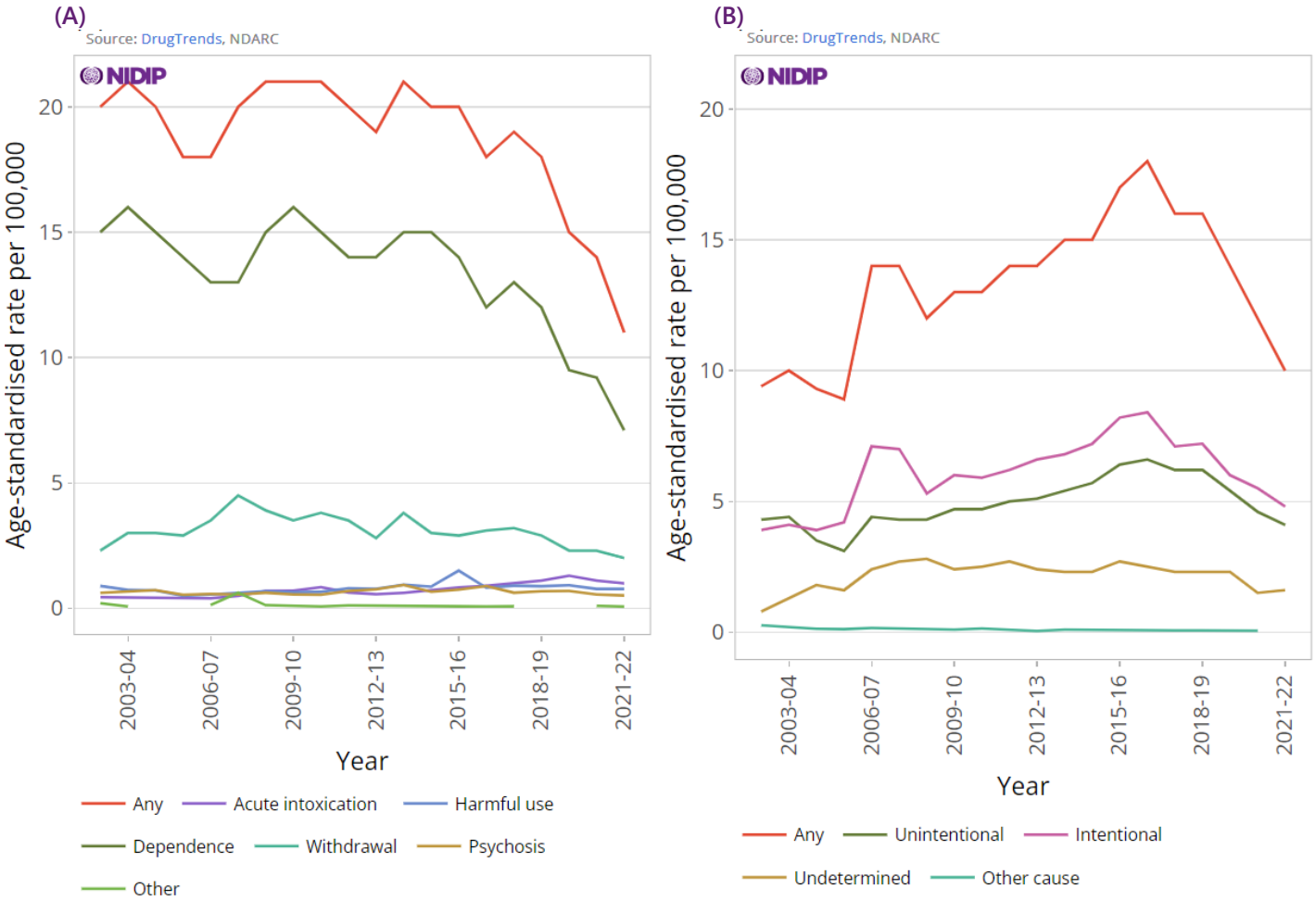
Principal Diagnosis

In 2021-22, nearly half (49%) of all opioid-related hospitalisations were due to opioid poisoning (2,776 hospitalisations; 10 per 100,000 people), with slightly more of these poisonings determined to be intentional (45%; 1,242 hospitalisations; 4.8 per 100,000 people) than unintentional (40%; 1,120 hospitalisations; 4.1 per 100,000 people) (Table A15, Appendix).

Mental and behavioural disorder due to use of opioids accounted for the other half of opioid-related hospitalisations, with dependence syndrome the most commonly identified principal diagnosis among these hospitalisations (62%; 1,791 hospitalisations; 7.1 per 100,000 people) (**Figure 12**) (Table A14, Appendix).

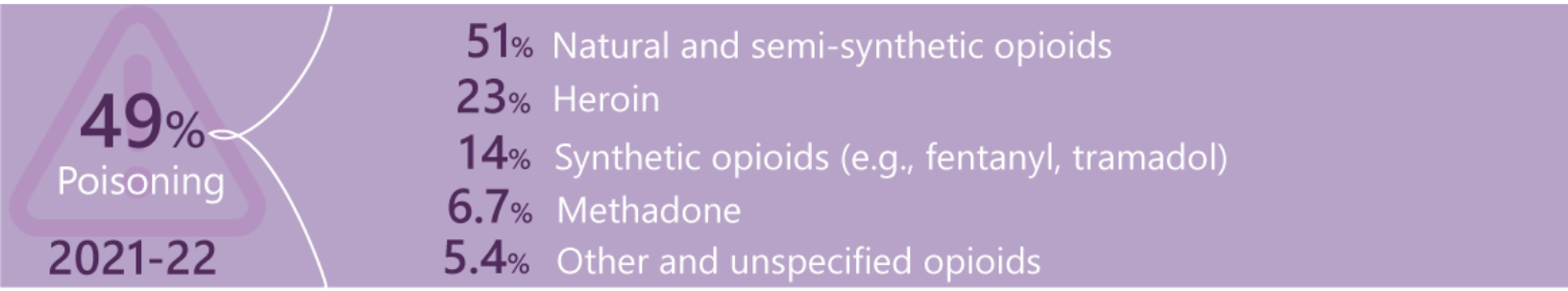
See the visualisation tool for trends over time by diagnosis type, although it is important to note changes over time may partly reflect changes in coding practices.

Figure 12. Age-standardised rate per 100,000 people of opioid-related hospitalisations among the Australian population, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Opioid Type

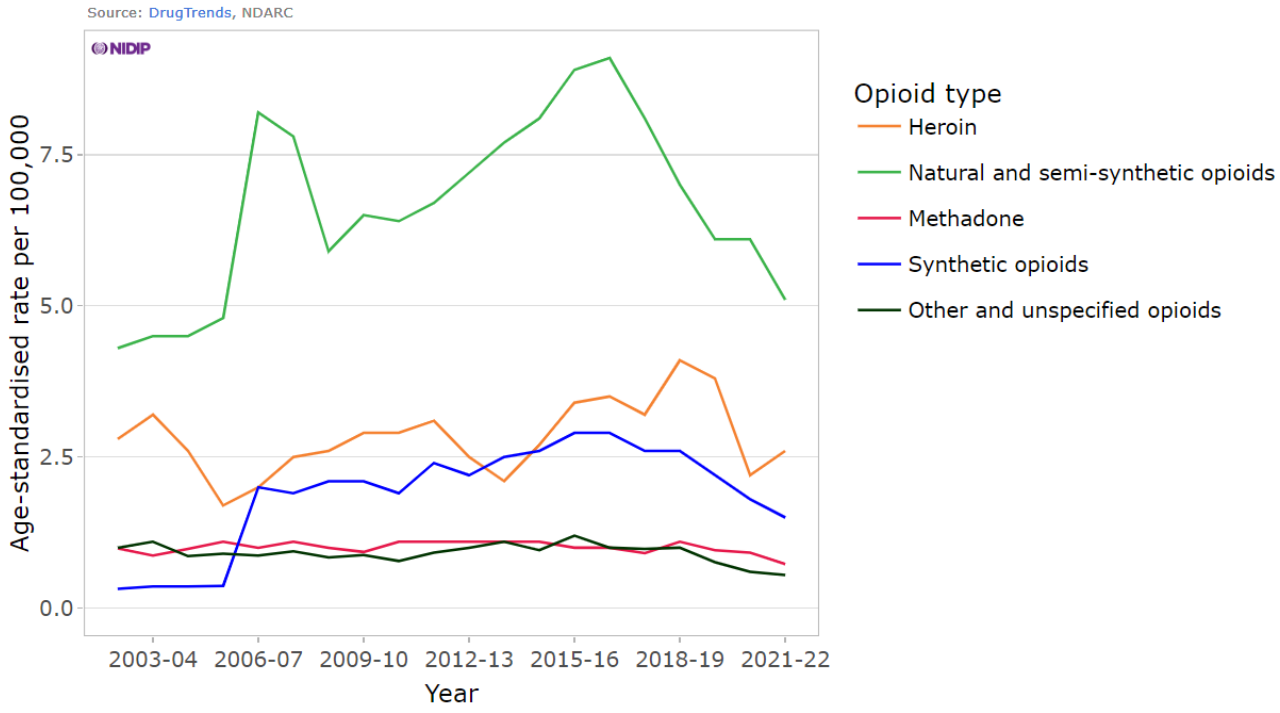


The ICD-10-AM coding system means that the type of opioid involved in hospitalisations is only identified where the diagnosis relates to opioid poisoning. Hospitalisations coded to mental and behavioural disorder due to opioid use (e.g., opioid withdrawal) do not identify the specific opioid involved (see methods document). In this section, we present opioid-related hospitalisations where the principal diagnosis was opioid poisoning and the opioid involved was identified. This comprised 49% of all opioid-related hospitalisations in 2021-22; see section on Opioid-related hospitalisations by diagnosis).

Natural and semi-synthetic opioids

- Natural and semi-synthetic opioids (e.g., oxycodone, morphine) were responsible for over half (51%) of all hospitalisations due to opioid poisoning in 2021-22. It has consistently been the most common opioid type identified over the years of monitoring.
- The hospitalisation rate for natural and semi-synthetic opioid poisoning surged from 2002-03, reaching its peak in 2016-17 at 9.1 hospitalisations per 100,000 people, before subsequently declining. (**Figure 13**).
- The rate continued to decline in 2021-22, decreasing to 5.1 hospitalisations per 100,000 (Table A16, Appendix).

Figure 13. Age-standardised rate per 100,000 people of opioid poisoning-related hospitalisations among the Australian population, by opioid type, 2002-03 to 2021-22.



Heroin

- In 2021-22, heroin was the second most commonly cited opioid in hospitalisations due to opioid poisoning. With 644 hospitalisations attributed to heroin poisoning, it comprised 23% of all opioid poisoning-related hospitalisations.
- Throughout the monitoring period, the rate of hospitalisations due to heroin poisoning fluctuated, with the highest rate of 4.1 hospitalisations per 100,000 people observed in 2018-19, after which the rate decreased to 2.2 hospitalisations per 100,000 people in 2020-21.
- In 2021-22, however, despite the overall decrease in opioid-related hospitalisations, the rate of hospitalisations due to heroin poisoning recorded a significant 15% increase compared to 2020-21, from 2.2 to 2.6 hospitalisations per 100,000 people (Table A16, Appendix).

Synthetic opioids

- The third most common opioid type, responsible for 14% of hospitalisations due to opioid poisoning in 2021-22, was synthetic opioids (e.g., fentanyl, tramadol).
- The rate of hospitalisations where poisoning related to synthetic opioids was the principal diagnosis remained below 0.4 hospitalisations per 100,000 people between 2002-03 and 2005-06.
- Subsequently, the rate of hospitalisations showed an increase, reaching its peak in 2016-17 at 2.9 hospitalisations per 100,000 individuals, followed by a gradual decline thereafter.
- Indeed, a further 19% decrease was observed in 2021-22 compared to 2020-21, bringing the rate down from 1.8 to 1.5 hospitalisations per 100,000 people (**Figure 13**).

Methadone, and other and unspecified opioids

- Rates of hospitalisations for opioid poisoning were low for methadone and 'other and unspecified opioids' over the period of monitoring (≤1.2 hospitalisations per 100,000 people) (Table A15, Appendix).

Opioid Type and Remoteness Area of Usual Residence

Natural and semi-synthetic opioids

- In 2021-22, natural and semi-synthetic opioids were the leading cause of hospitalisations related to opioid poisoning in all remoteness areas.
- The highest rate was observed in outer regional areas (7.0 hospitalisations per 100,000 people), followed by inner regional areas (5.5 hospitalisations per 100,000 people), remote and very remote areas (5.0 hospitalisations per 100,000 people) and major city areas (4.7 hospitalisations per 100,000 people) (**Figure 14**).
- In 2021-22, the biggest decrease was observed in inner regional areas, where the rate dropped from 7.3 in 2020-21 to 5.5 hospitalisations per 100,000 people.

Heroin

- The rate of heroin poisoning hospitalisations was highest in major city areas in 2021-22 (2.7 hospitalisations per 100,000 people). This was followed by inner regional areas (1.2 hospitalisations per 100,000 people) and outer regional areas (0.72 hospitalisations per 100,000 people).
- The age-standardised rate was not computed for heroin poisoning hospitalisations in remote and very remote Australia because the total number of hospitalisations was too small (n≤10).

Synthetic opioids

- In 2021-22, the rate of synthetic opioid poisoning-related hospitalisations was highest in remote and very remote areas (3.4 hospitalisations per 100,000 people), followed by outer regional (1.9 hospitalisations per 100,000

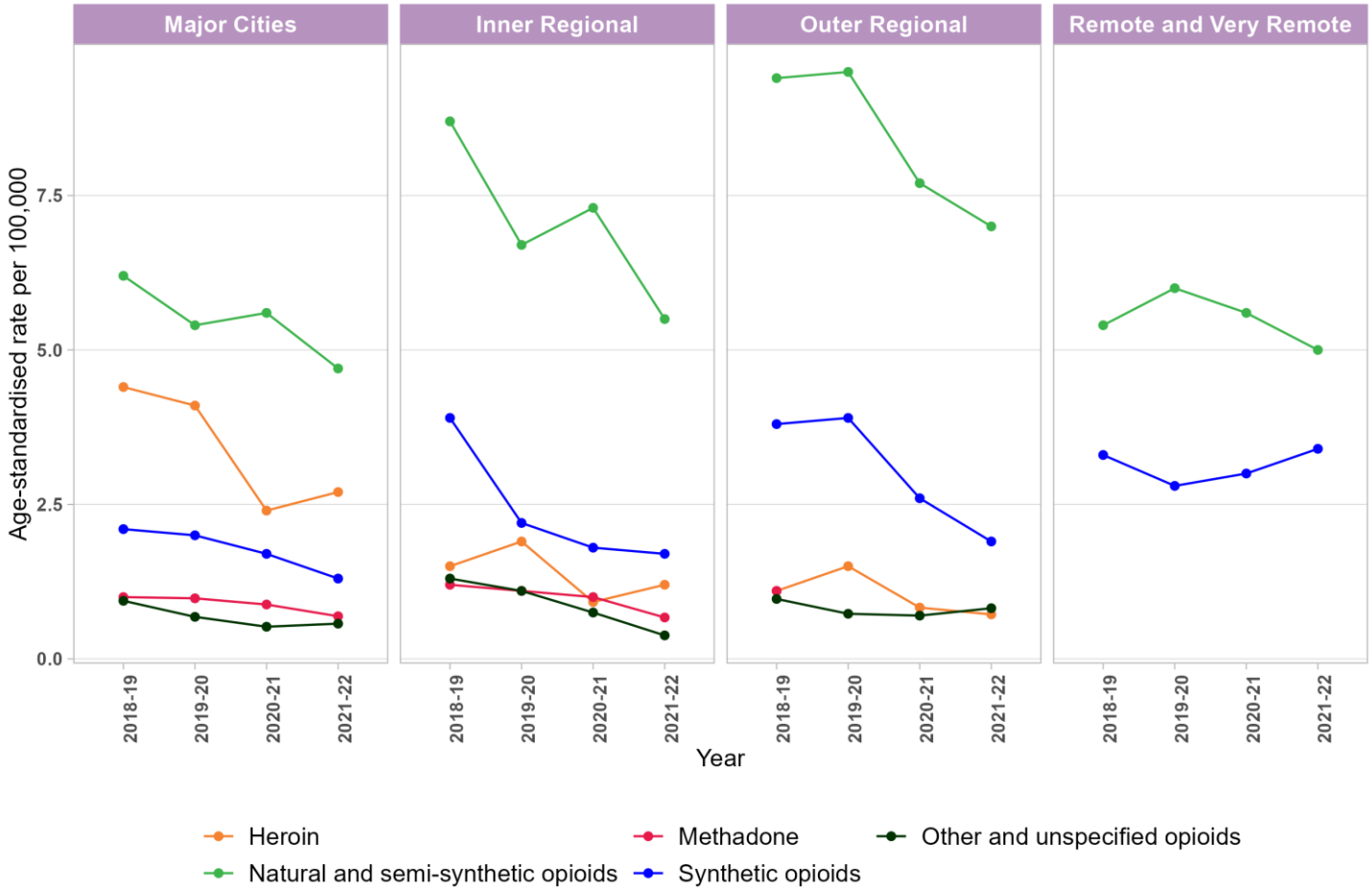
people) and inner regional areas (1.7 hospitalisations per 100,000 people), and was lowest in major city areas (1.3 hospitalisations per 100,000 people).

- The rate of poisoning-related hospitalisations due to synthetic opioids increased in remote and very remote areas only (from 3.0 in 2020-21 to 3.4 hospitalisations per 100,000 people in 2021-22).

Other opioids

- The numbers of hospitalisations due to poisoning by methadone and other and unspecified opioids were low in major city areas and regional Australia, with the rate below 1.0 hospitalisations per 100,000 people. Estimates were even smaller in the outer regional and remote and very remote areas.

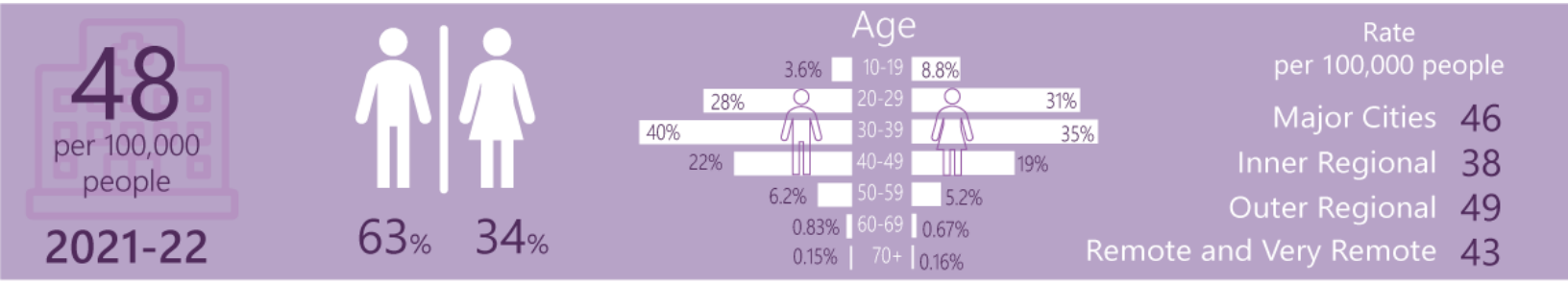
Figure 14. Age-standardised rate per 100,000 people of opioid poisoning-related hospitalisations among the Australian population, by remoteness and opioid type, 2018-19 to 2021-22.



Note: Age-standardised rates were not shown for remote and very remote areas with some opioid types because the number of hospitalisations was less than or equal to 10. Please refer to our methods document for details.

6

Amphetamine-Type Stimulant-Related Hospitalisations



The following findings describe hospitalisations with the principal diagnosis identified as amphetamine-type stimulant. This includes methamphetamines, 3,4-methylenedioxymethamphetamine (MDMA, 'ecstasy'), pharmaceutical stimulants (e.g., dexamphetamine), and other stimulants (e.g., caffeine).

In 2021-22, there were 32,010 hospitalisations where amphetamine-type stimulants were recorded as a principal or other diagnosis, among which 11,647 hospitalisations specifically identified amphetamine-type stimulants as a principal diagnosis. The latter figure translates to a population rate of 48 hospitalisations per 100,000 people.

Trend since 2002-03

- From 2002-03, the rate of hospitalisations related to amphetamine-type stimulants increased from 17 hospitalisations per 100,000 people to a peak of 70 hospitalisations per 100,000 people in 2019-20, before subsequently decreasing to 60 hospitalisations per 100,000 people in 2020-21 (**Figure 15**).
- In 2021-22 the rate recorded a further annual decrease of 20% (Table A1, Appendix).

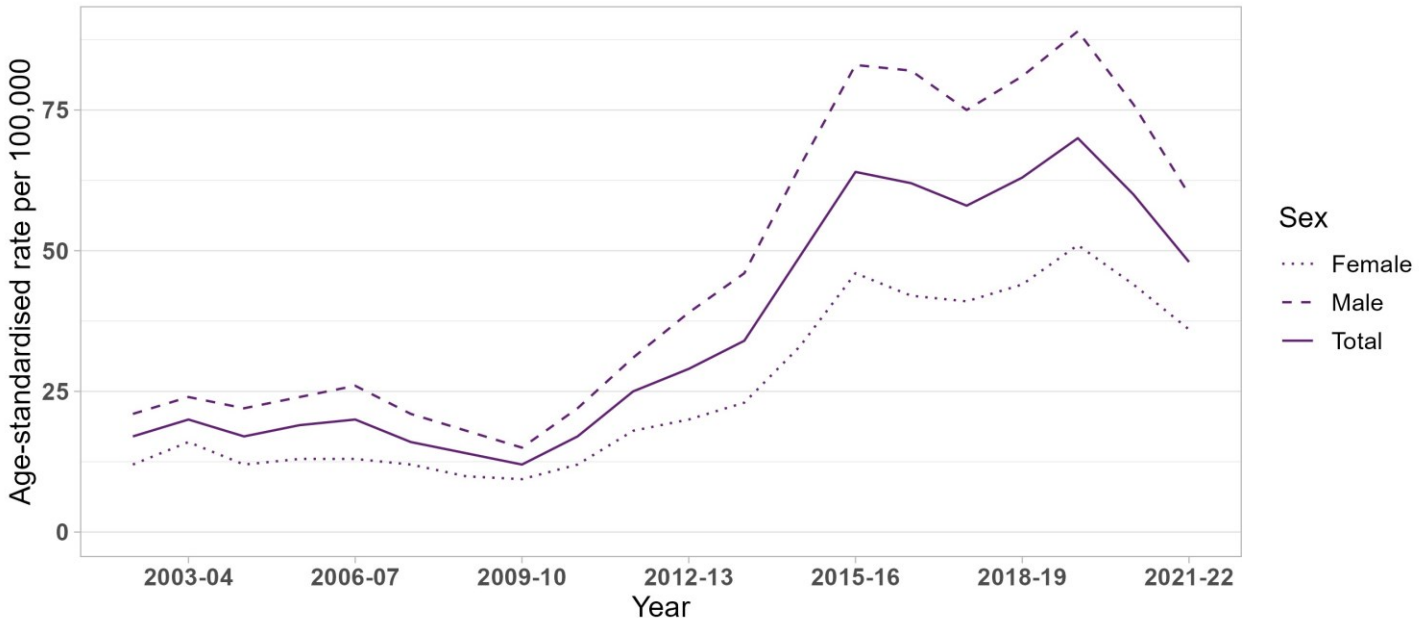
Sex

In 2021-22, hospitalisations related to amphetamine-type stimulants were about 1.5 times as prevalent in males as in females, constituting 63% of all amphetamine-type stimulant-related hospitalisations, with a rate of 60 hospitalisations per 100,000 people for males compared to 36 hospitalisations per 100,000 people for females (**Figure 15**).

Trend since 2002-03

- The rate of hospitalisations related to amphetamine-type stimulants in males has been about 1.5 times that of females since 2002-03.
- The 2021-22 rates significantly decreased for both males and females compared to 2020-21 by 22% and 18%, respectively (Table A1, Appendix).

Figure 15. Age-standardised rate per 100,000 people of amphetamine-type stimulant-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



Age

In 2021-22, hospitalisations related to amphetamine-type stimulants remained most common among the 30-39 age group, comprising 38% (4,387 hospitalisations) of these hospitalisations, with a rate of 115 hospitalisations per 100,000 people (**Figure 16**). This was followed by:

- 20-29 age group: 29%, 3,367 hospitalisations, 97 hospitalisations per 100,000 people,
- 40-49 age group: 21%, 2,419 hospitalisations, 72 hospitalisations per 100,000 people,
- 50-59 age group: 5.8%, 678 hospitalisations, 21 hospitalisations per 100,000 people,
- 10-19 age group: 5.5%, 643 hospitalisations, 20 hospitalisations per 100,000 people, and
- 60 and over age group: 0.93%, 108 hospitalisations, 1.8 hospitalisations per 100,000 people.

Trend since 2002-03

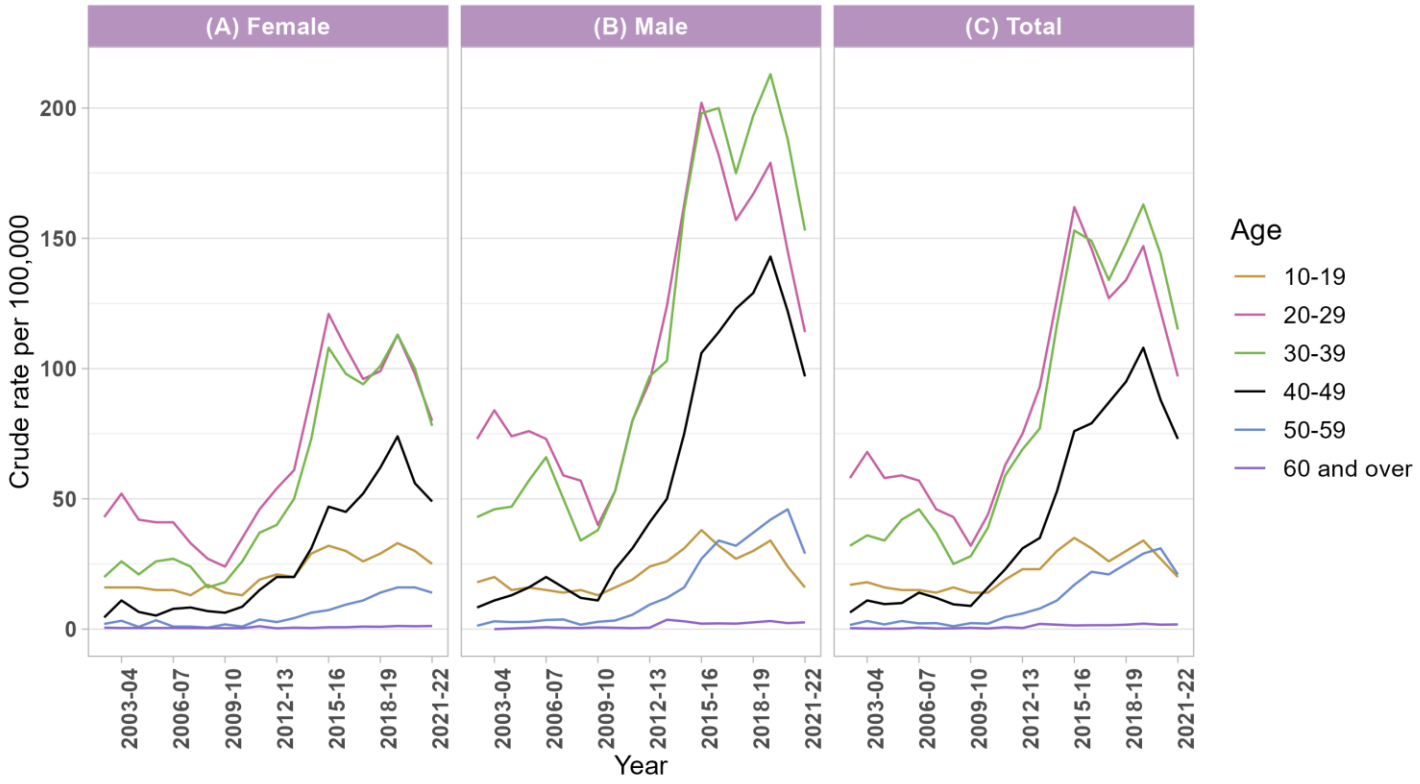
- Since 2002-03, there have been shifts in the age groups experiencing the greatest rate of amphetamine-type stimulant-related hospitalisations.
- The 20-29 age group had the highest rate of amphetamine-type stimulant-related hospitalisations prior to 2016-17 but has since been exceeded by the 30-39 age group.
- From 2002-03, the rate for the 40-49 age group increased 17-fold from 6.8 to its peak of 108 hospitalisations per 100,000 people in 2019-20, subsequently declining (**Figure 16**).
- In comparison to the figures from 2020-21, the rates in the age groups 10-19, 20-29, 30-39 and 40-49 showed a further decline in 2021-22 by 25%, 20%, 30% and 18%, respectively (Table A2, Appendix).

- Of all age groups, the 50-59 age group recorded the biggest decrease from 2020-21 to 2021-22, which followed a 19-fold increase observed between 2002-03 and 2020-21 (Table A2, Appendix).
- The rates in the 60 and over age group stayed low and stable throughout monitoring.

Sex and Age

Trends in amphetamine-type related hospitalisations for males and females by age group follow a similar pattern as described above (**Figure 16**).

Figure 16. Crude rate per 100,000 people of amphetamine-type stimulant-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 2002-03 to 2021-22.



Note: Given the small numbers, the age groups 60-69 years and 70 years and over are combined into the 60 and over age group. The rates for the 0-9 years age group are not presented due to the sensitivity of the data.

Remoteness Area of Usual Residence

The highest rate of amphetamine-type stimulant-related hospitalisations in 2021-22 was observed in outer regional areas (49 hospitalisations per 100,000 people) followed by major cities (46 hospitalisations per 100,000 people) and remote and very remote areas (43 hospitalisations per 100,000 people). The lowest rate was in inner regional Australia (38 hospitalisations per 100,000 people) (**Figure 9**).

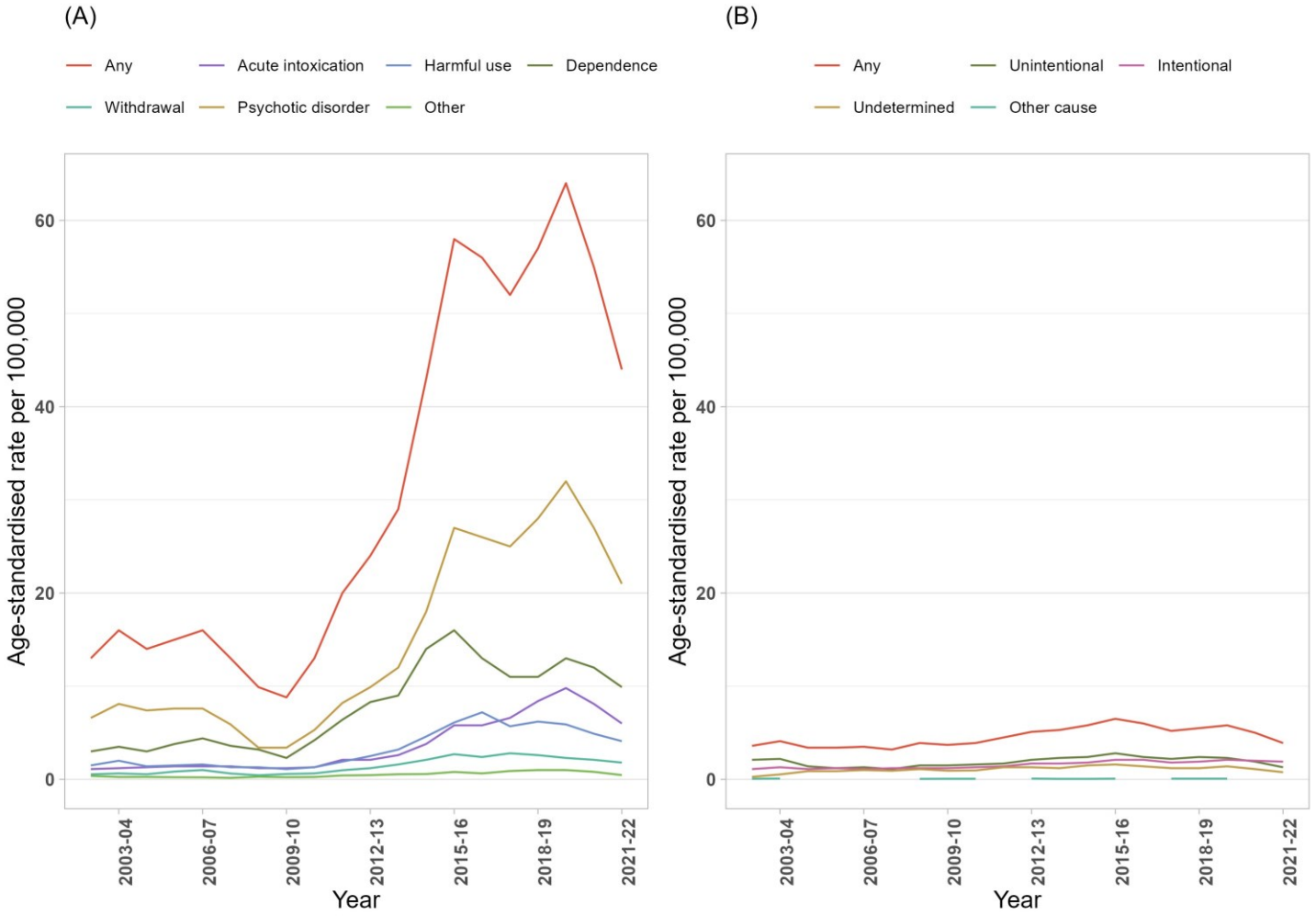
The rate of amphetamine-type stimulant-related hospitalisations declined significantly in all remoteness areas compared to 2020-21, with the decrease being most prominent in remote and very remote and inner regional areas, by 27% and 26%, respectively (Table A13, Appendix).

Principal Diagnosis

Over the 20-year monitoring period, amphetamine-type stimulant-related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder due to substance use (92% in 2021-22). Among those who received a principal diagnosis of mental and behavioural disorder due to use of amphetamine-type stimulants in 2021-22 (10,699 hospitalisations; 44 per 100,000 people), drug-induced psychotic disorder was the most common reason for hospitalisation (49%; 5,237 hospitalisations; 21 per 100,000 people), followed by dependence (23%; 2,444 hospitalisations; 9.9 per 100,000 people) and acute intoxication (14%; 1,464 hospitalisations; 6.0 per 100,000 people), all of which declined in 2021-22 compared to 2020-21 (**Figure 17**) (Table A14, Appendix).

Please refer to the visualisation tool for trends over time by diagnosis type, although it is important to note changes over time may partly reflect changes in coding practices.

Figure 17. Age-standardised rate per 100,000 people of amphetamine-type stimulant-related hospitalisations among the Australian population, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Methamphetamine

Since 2008-09, specific ICD-10-AM codes tailored to methamphetamine were implemented (refer to the methods document for details on the incorporated ICD-10-AM codes), enabling the distinct classification of this substance from other amphetamine-type stimulants.

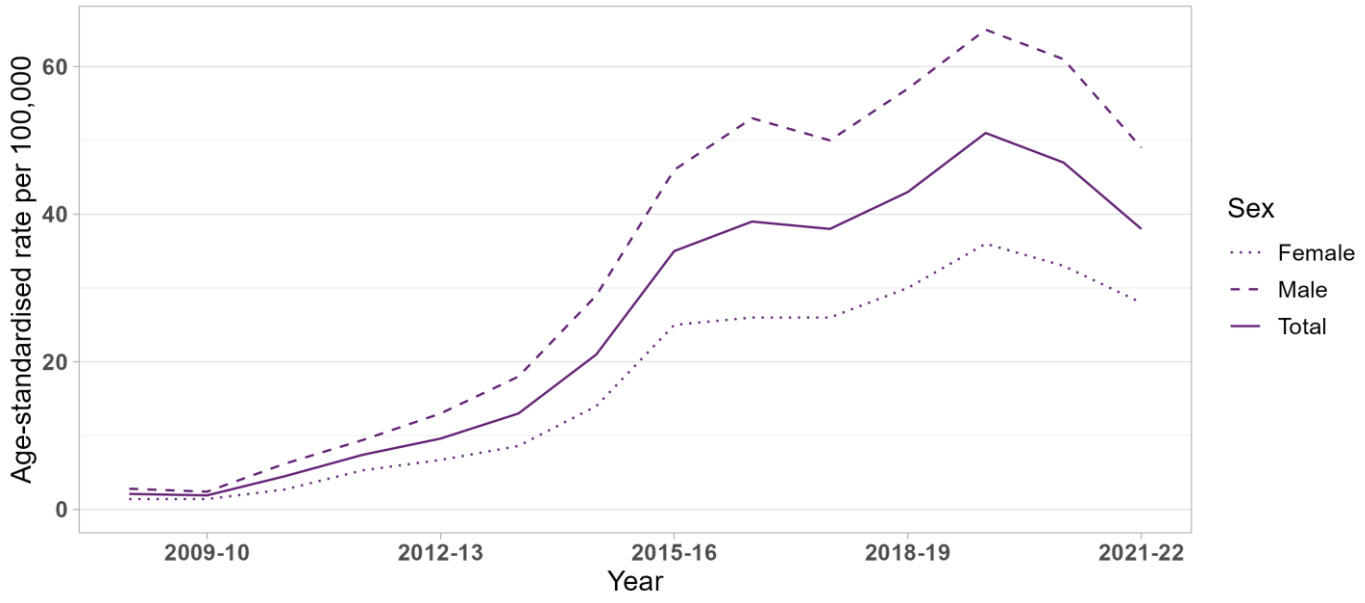
In 2021-22

- Methamphetamine-related hospitalisation comprised 80% of all hospitalisations related to amphetamine-type stimulants. With 9,347 hospitalisations and a rate of 38 hospitalisations per 100,000 people, it emerged as the most prevalent drug type.
- Among methamphetamine-related hospitalisations, males represented 64% (5,969 hospitalisations), equating to a rate of 49 hospitalisations per 100,000 people, whereas the female rate was 28 hospitalisations per 100,000 people (**Figure 18**).
- Age distribution in methamphetamine-related hospitalisation was similar to that observed for amphetamine-type stimulants:
    - 10-19 age group 2.9% 267 hospitalisation 8.4 hospitalisations per 100,000 people,
    - 20-29 age group 30% 2,772 hospitalisation 80 hospitalisations per 100,000 people,
    - 30-39 age group 40% 3,709 hospitalisation 97 hospitalisations per 100,000 people,
    - 40-49 age group 21% 1,987 hospitalisation 60 hospitalisations per 100,000 people,
    - 50-59 age group 5.7% 533 hospitalisation 17 hospitalisations per 100,000 people,
    - 60-69 age group 0.75% 70 hospitalisation 2.5 hospitalisations per 100,000 people.
- The highest rate of methamphetamine-related hospitalisations in 2021-22 was observed in outer regional areas (38 hospitalisations per 100,000 people), followed by major city areas (37 hospitalisations per 100,000 people) and remote and very remote areas 34 hospitalisations per 100,000 people). The lowest rate was in inner regional Australia (30 hospitalisations per 100,000 people)

Trend since 2008-09

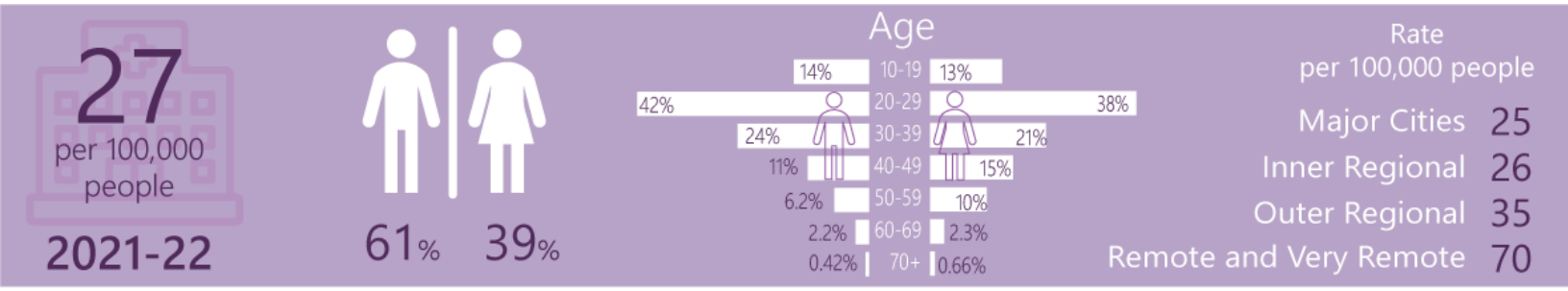
- Since 2008-09 methamphetamine-related hospitalisations followed a similar pattern as described above for amphetamine-type stimulants.

Figure 18. Age-standardised rate per 100,000 people of methamphetamine-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



7

Cannabinoid-Related Hospitalisations



In 2021-22, there were 40,244 hospitalisations with a cannabinoid-related diagnosis (including cannabis and synthetic cannabinoids) recorded in the first 20 diagnosis fields. Among them, 6,670 hospitalisations specifically identified cannabinoids as a principal diagnosis. The latter figure equates to an age-standardised rate of 27 hospitalisations per 100,000 people.

This represents a decline of 9.4% from the highest rate recorded in 2020-21 (**Figure 19**) (Table A1, Appendix). Nonetheless, it remained more than double the rate observed in 2002-03, which was 12 hospitalisations per 100,000 people.

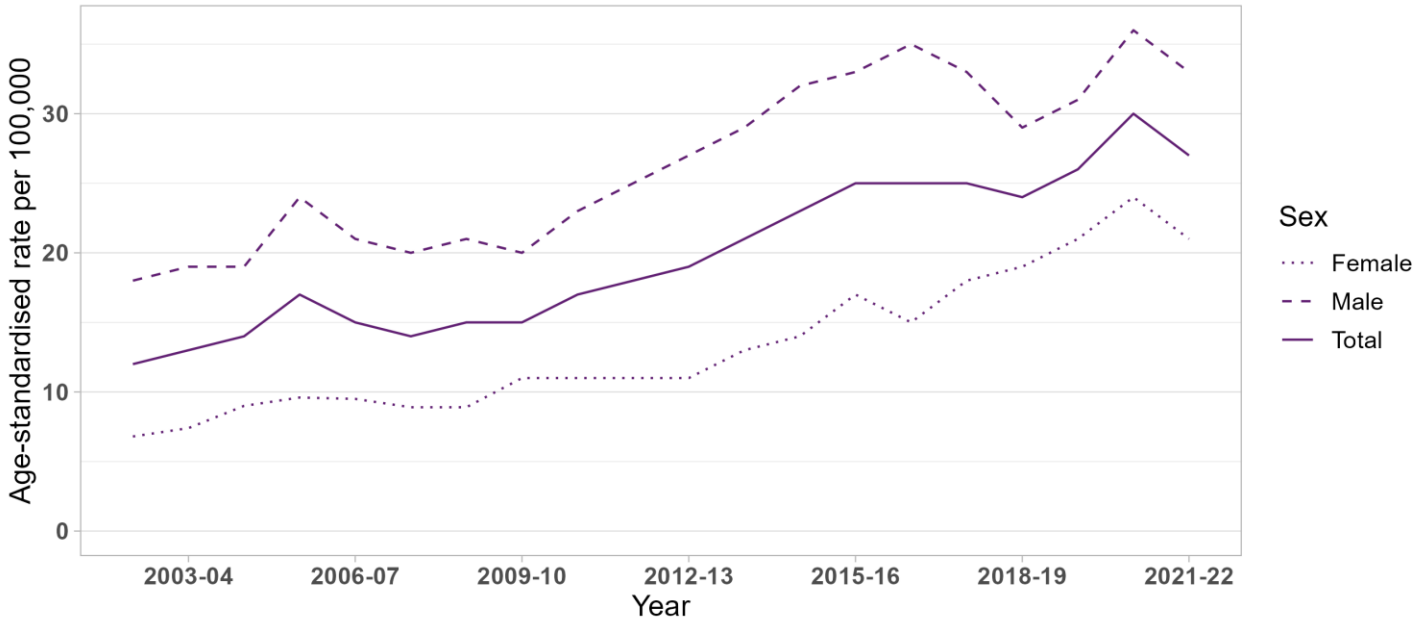
Sex

In 2021-22, males presented to hospitals with a cannabinoid-related principal diagnosis about 1.5 times more often than females, accounting for 61% of hospitalisations (4,096 versus 2,570 hospitalisations, respectively). This is equivalent to a rate of 33 and 21 hospitalisations per 100,000 people among males and females, respectively.

Trend since 2002-03

- The rate of cannabinoid-related hospitalisations has been consistently higher among males than females throughout monitoring.
- Between 2002-03 and 2020-21, both male and female rates followed an overall upward trend. However, during the period from 2016-17 to 2018-19, the male rate recorded a decline, while the female rate continued to rise. Since 2018-19, both rates have followed a similar upward trend until 2020-21 (**Figure 19**).
- The 2021-22 rates significantly decreased for both males and females compared to 2020-21 by 8.1% and 11%, respectively (Table A1, Appendix).

Figure 19. Age-standardised rate per 100,000 people of cannabinoid-related hospitalisations among the total Australian population and for males and females, 2002-03 to 2021-22.



Age

In 2021-22, hospitalisations related to cannabinoids remained most common among the 20-29 age group, constituting 40% (2,698 hospitalisations) of all related hospitalisations, with a rate of 78 hospitalisations per 100,000 people (**Figure 20**). This was followed by:

- 30-39 age group: 23%, 1,520 hospitalisations, 40 hospitalisations per 100,000 people,
- 10-19 age group: 13%, 889 hospitalisations, 28 hospitalisations per 100,000 people,
- 40-49 age group: 13%, 837 hospitalisations, 25 hospitalisations per 100,000 people,
- 50-59 age group: 7.7%, 514 hospitalisations, 16 hospitalisations per 100,000 people, and
- 60 and over age group: 2.8%, 186 hospitalisations, 3.1 hospitalisations per 100,000 people.

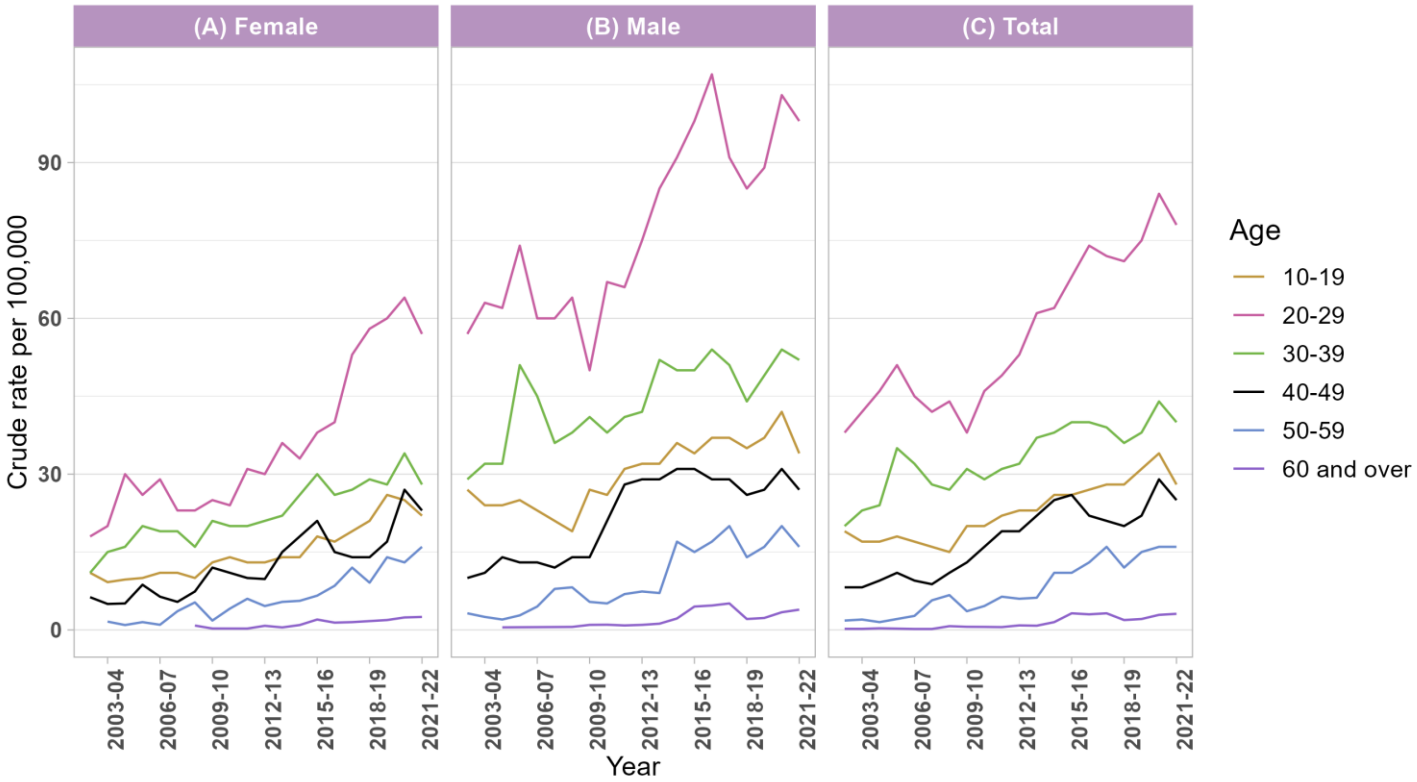
Trend since 2002-03

- All age groups recorded an increase in cannabinoid-related hospitalisations since 2002-03, peaking usually in 2020-21.
- In 2021-22, the rates decreased across the 10-19, 20-29, 30-39 and 40-49 age groups, with the 10-19 age group recording the largest decline (17%) compared to 2020-21.

Sex and Age

In the last six years, we have observed a continual increase in the rates of cannabinoid-related hospitalisations among young females, particularly those aged 20-29 years, while the rate among males aged 20-29 peaked in 2016-17and have remained relatively high since (**Figure 20**).

Figure 20. Crude rate per 100,000 people of cannabinoid-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 2002-03 to 2021-22.



Note: Given the small numbers, the age groups 60-69 years, and 70 years and over are combined into the 60 years and over age group. Numbers for the 50-59 years, and the 60 years and over age groups in the earlier years are small and thus rates are suppressed to protect confidentiality. The rates for the 0-9 years age group are not presented due to sensitivity of the data.

Remoteness Area of Usual Residence

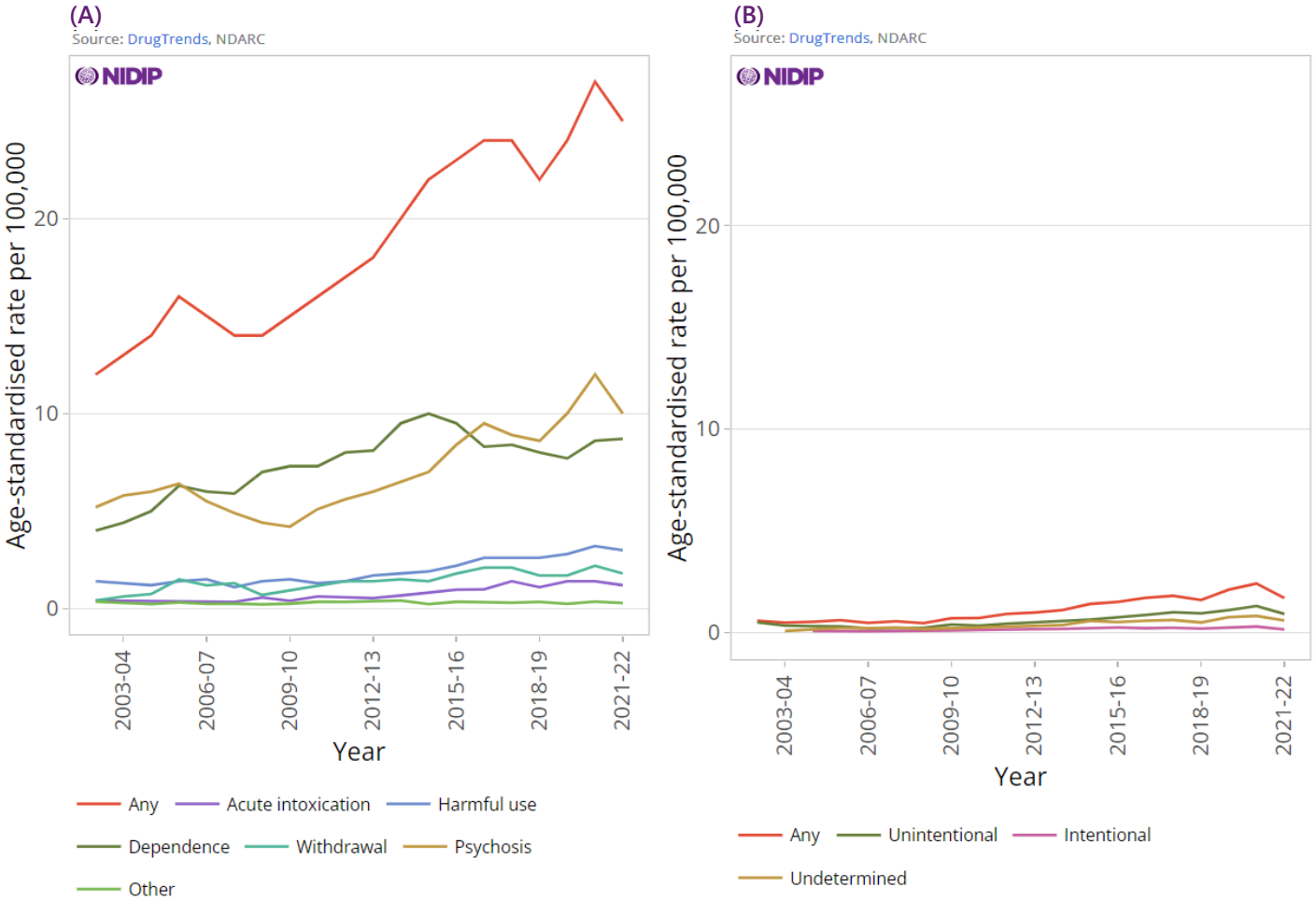
- The highest rate of cannabinoid-related hospitalisations was observed in remote and very remote areas, with a rate similar to that observed in 2020-21 (70 versus 72 hospitalisations per 100,000 people in 2020-21).
- This rate was two times the rate in outer regional Australia (35 hospitalisations per 100,000 people), and nearly three times the rate in inner regional and in major city areas (26 and 25 hospitalisations per 100,000 people, respectively) (**Figure 9**).
- From 2020-21 to 2021-22, the hospitalisation rate declined in outer regional areas, dropping from 43 to 35 hospitalisations per 100,000 people). Meanwhile, rates in other remoteness areas remained similar to those recorded in 2020-21.

Principal Diagnosis

Over the period of monitoring, cannabinoid-related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder (94% in 2021-22). Among those who received a principal diagnosis of mental and behavioural disorder due to use of cannabinoids in 2021-22 (6,251 hospitalisations; 25 per 100,000 people), drug-induced psychotic disorder was the main reason for hospitalisation (41%; 2,540 hospitalisations; 10 per 100,000 people), followed by dependence (35%; 2,164 hospitalisations; 8.7 per 100,000 people) (**Figure 21**) (Table A14, Appendix).

Please refer to the visualisation tool for trends over time by diagnosis type, although it is important to note changes over time may partly reflect changes in coding practices.

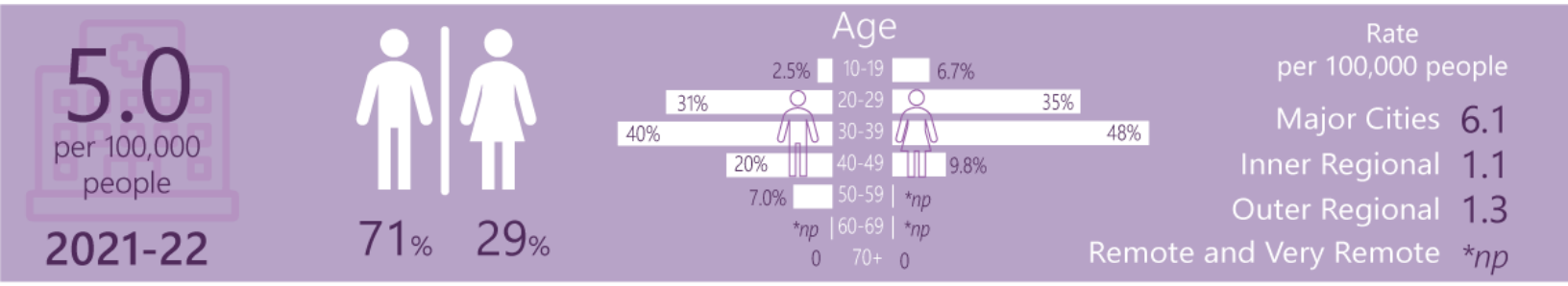
Figure 21. Age-standardised rate per 100,000 people of cannabinoid-related hospitalisations among the Australian population, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

8

Cocaine-Related Hospitalisations



Note: **np* means data not publishable due to numbers being too small to present.

In 2021-22, there were 5,080 hospitalisations with a cocaine-related diagnosis recorded in the first 20 diagnosis fields. Among them, 1,229 hospitalisations specifically identified cocaine as a principal diagnosis, which equates to an age-standardised rate of 5.0 hospitalisations per 100,000 people. This represents a significant decrease from 2020-21 (Table A1, Appendix) after a continuing upward trend observed from around 2010-11 to 2020-21.

Sex

- In 2021-22, there were 7.1 cocaine-related hospitalisations per 100,000 people among males and 2.9 hospitalisations per 100,000 people among females (870 versus 359 hospitalisations; 71% male).
- The aforementioned increase in the rate of cocaine-related hospitalisations between 2010-11 and 2020-21 was driven mostly by an increase in hospitalisations among males (**Figure 22A**).
- Between 2020-21 and 2021-22, however, there was a significant decrease in the rate of cocaine-related hospitalisations among both males and females, by 32% and 21%, respectively (Table A1, Appendix).

Age

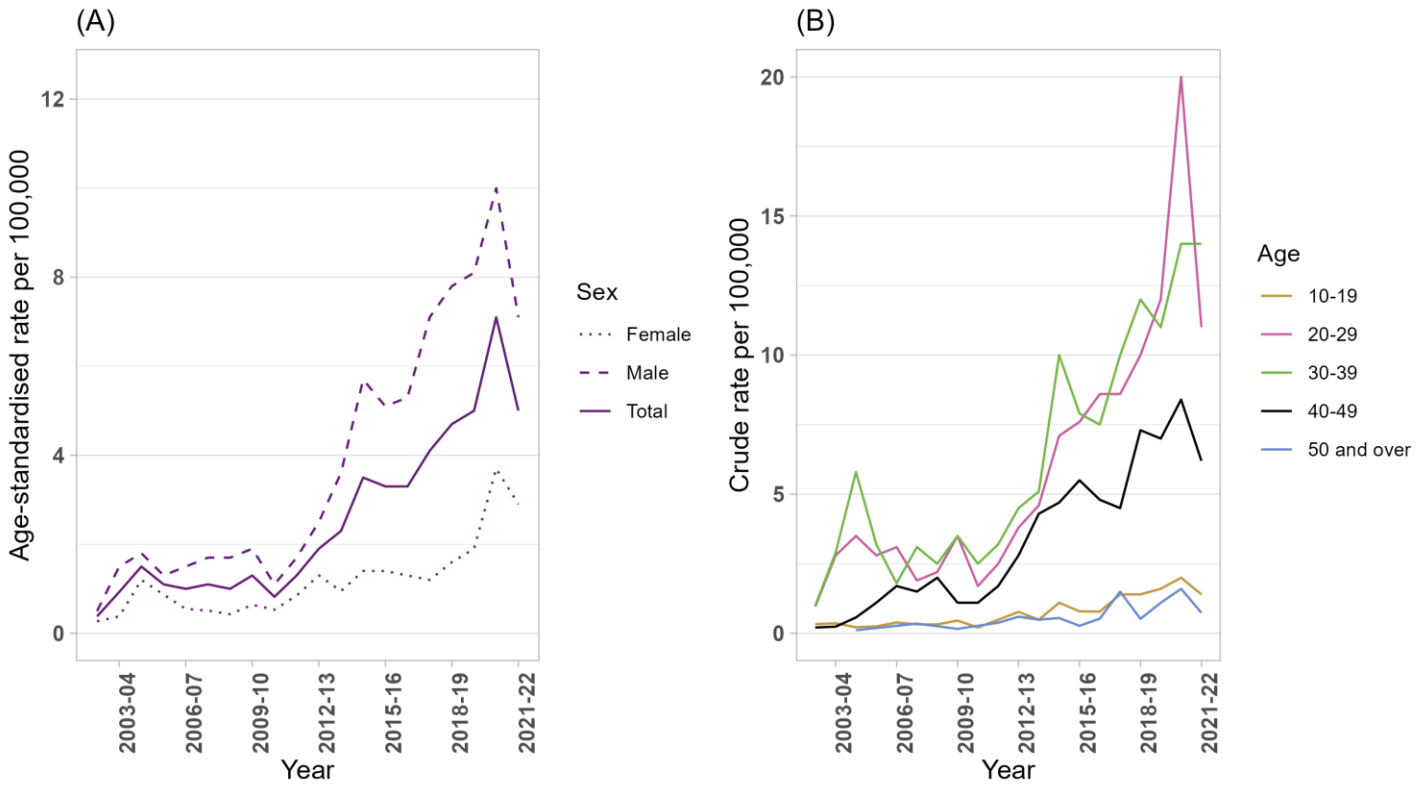
- In 2021-22, three out of four cocaine-related hospitalizations occurred among individuals aged 30-39 (42%) and 20-29 (32%). Their rates were 14 and 11 hospitalizations per 100,000 people, respectively.
- Both the 20-29 and 30-39 age groups experienced an increase in rates from 2002-03, reaching a peak in 2020-21 with 20 and 14 hospitalisations per 100,000 people.
- Compared to 2020-21, there was a sharp 45% decline in rates within the 20-29 age group. Meanwhile, the 30-39 age group remained stable (**Figure 16B**).

- An overall increase has also been observed in cocaine-related hospitalisations among the 40-49 age group from 0.21 hospitalisations per 100,000 people in 2002-03 to 8.4 hospitalisations per 100,000 people in 2020-21, followed by a significant decline to 6.2 hospitalisations per 100,000 people in 2020-21.

Sex and Age

- The small number of hospitalisations precludes reporting of estimated trend disaggregated by both age and sex. However, the large majority of cocaine-related hospitalisations for both males and females were among the 20-29 and 30-39 age groups in 2021-22.

Figure 22. Age-standardised rate per 100,000 people of cocaine-related hospitalisations among the Australian population by sex (A) and crude rate per 100,000 people of cocaine-related hospitalisations among the Australian population by age group (B), 2002-03 to 2021-22.



Note: Given the small numbers, the age groups 50-59 years, 60-69 years, and 70 years and over are combined into the 50 years and over age group. The rates for the 0-9 years age group are not presented due to the sensitivity of the data.

Remoteness Area of Usual Residence

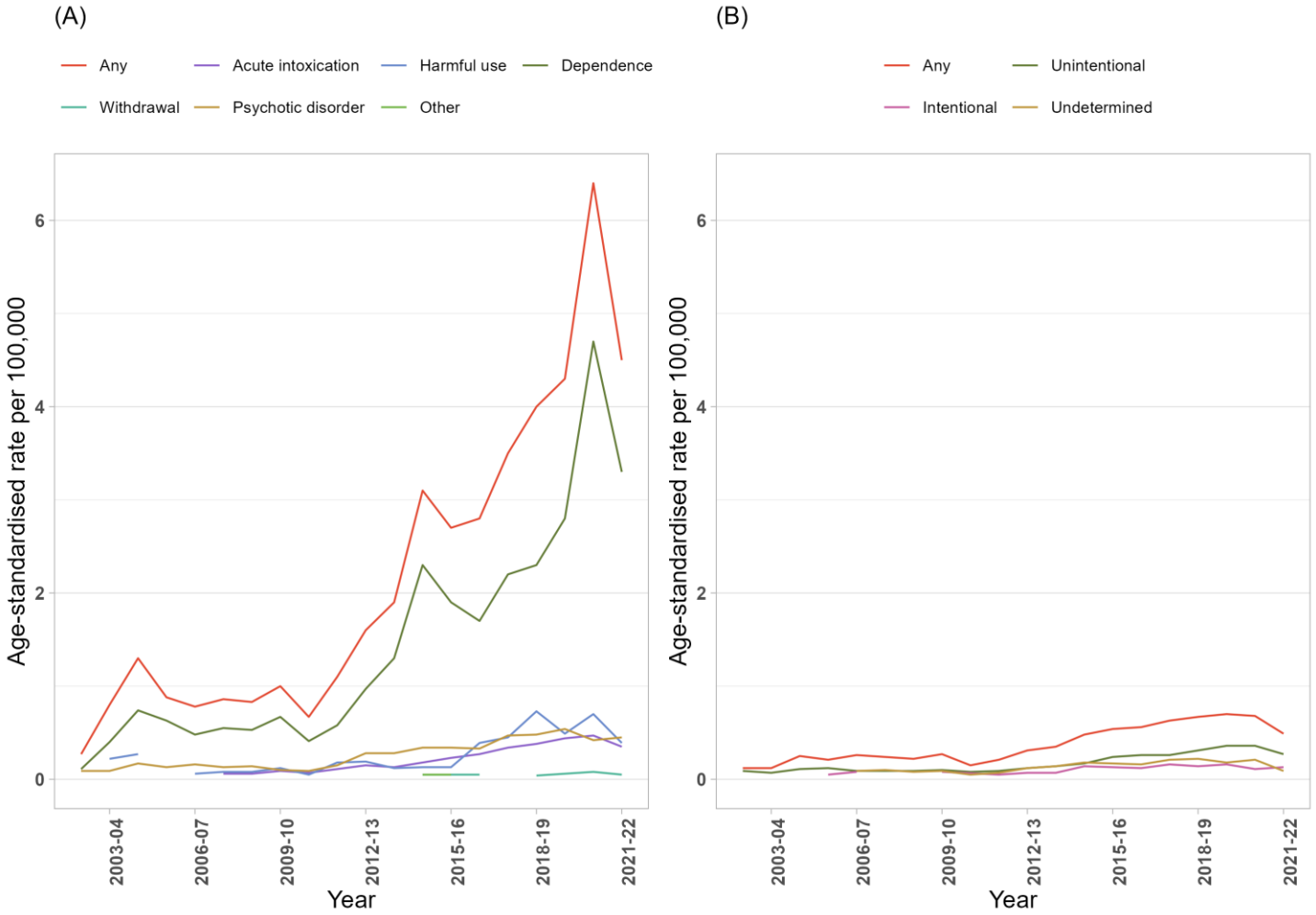
- In 2021-22, the rate of cocaine-related hospitalisations was highest in major city areas (6.1 hospitalisations per 100,000 people). This rate was nearly five times higher than that for outer regional areas (1.3 hospitalisations per 100,000 people) and nearly six times higher than that for inner regional areas (1.1 hospitalisations per 100,000 people) (**Figure 9**). Numbers were too small (≤10) to present for remote and very remote areas.
- In 2021-22, a significant decrease in the rate of cocaine-related hospitalisations was recorded in major city areas compared to 2020-21 and in inner regional areas (Table A13, Appendix).

Principal Diagnosis

- Over the course of monitoring, cocaine-related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder (90% in 2021-22). Among those who received a principal diagnosis of mental and behavioural disorder due to use of cocaine in 2021-22 (1,109 hospitalisations; 4.5 per 100,000 people), dependence syndrome was the main reason for hospitalisation (72%; 799 hospitalisations; 3.3 per 100,000 people) (**Figure 23**) (Table A13, Appendix).

Please refer to the visualisation tool for trends over time by diagnosis type, although it is important to note changes over time may partly reflect changes in coding practices.

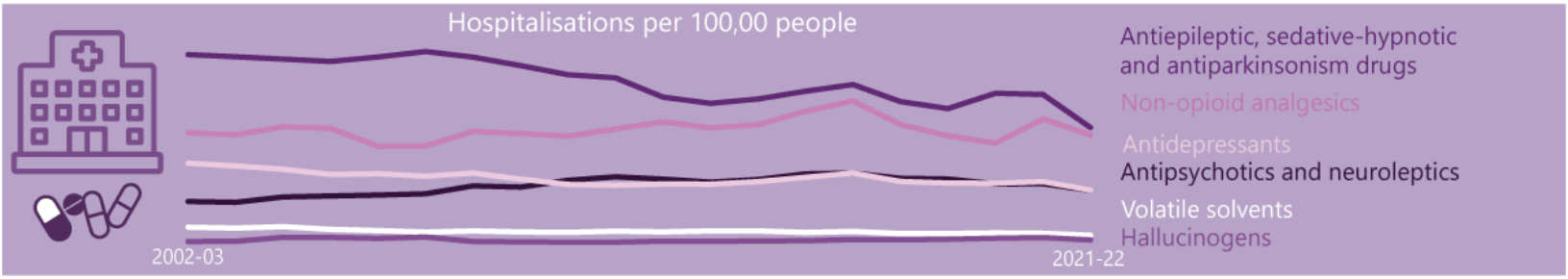
Figure 23. Age-standardised rate per 100,000 people of cocaine-related hospitalisations among the Australian population, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

10

Hospitalisations Related to Other Drugs



There was a decline in the rate of hospitalisations with a principal diagnosis related to **antiepileptic, sedative-hypnotic and antiparkinsonism drugs**, from 51 hospitalisations per 100,000 people in 2002-03 to 31 hospitalisations per 100,000 people in 2021-22 (Figure 8). In 2021-22, nearly half of the hospitalisations related to antiepileptic, sedative-hypnotic and antiparkinsonism drugs involved benzodiazepines (46%, 3,725 hospitalisations, 14 hospitalisations per 100,000 people).

The rate of **non-opioid analgesic**-related hospitalisations fluctuated between 2003-03 and 2021-22, peaking at 39 hospitalisations per 100,000 people in 2016-17. The rate recently declined from 34 in 2020-21 to 29 hospitalisations per 100,000 people in 2021-22 (Figure 8). In 2021-22, 85% of hospitalisations related to non-opioid analgesics involved 4-aminophenol derivatives such as paracetamol (6,071 hospitalisations, 25 hospitalisations per 100,000 people).

Antidepressant-related hospitalisations decreased from 22 per 100,000 people in 2002-03 to 15 per 100,000 people in 2021-22. In the same period, **antipsychotic and neuroleptic**-related hospitalisations increased from 12 to 15 per 100,000 people, with a peak recorded in 2016-17 at 19 hospitalisations per 100,000 people (Figure 8).

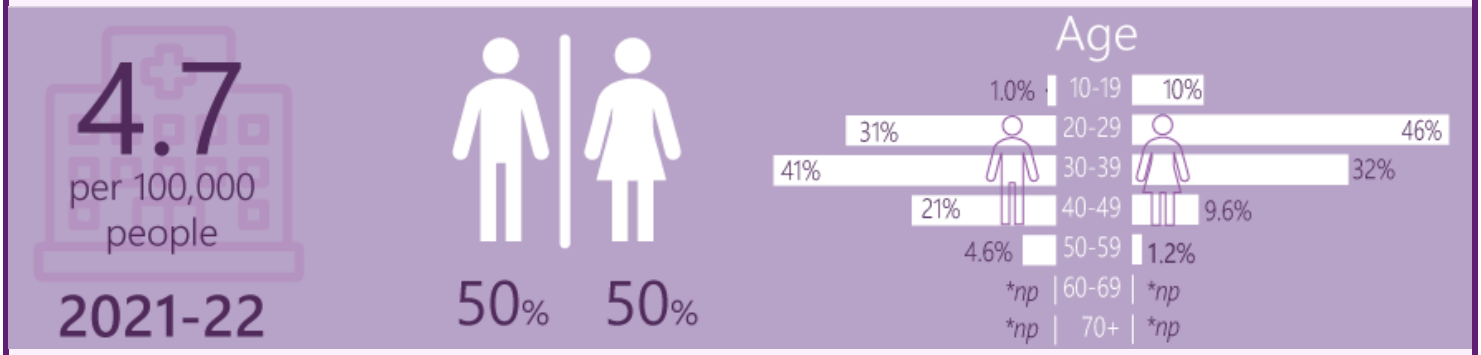
Throughout the monitoring period, the rate of hospitalisations related to **volatile solvents** has been low, dropping from 4.7 in 2002-03 to 2.5 hospitalisations per 100,000 people in 2021-22 (Figure 8).

The rate of **hallucinogen**-related hospitalisations has consistently remained low over the years, never exceeding 2.0 hospitalisations per 100,000 people (Figure 8).

Please see the visualisation tool for trends over time by sociodemographic characteristics and diagnosis type for these drug classes.

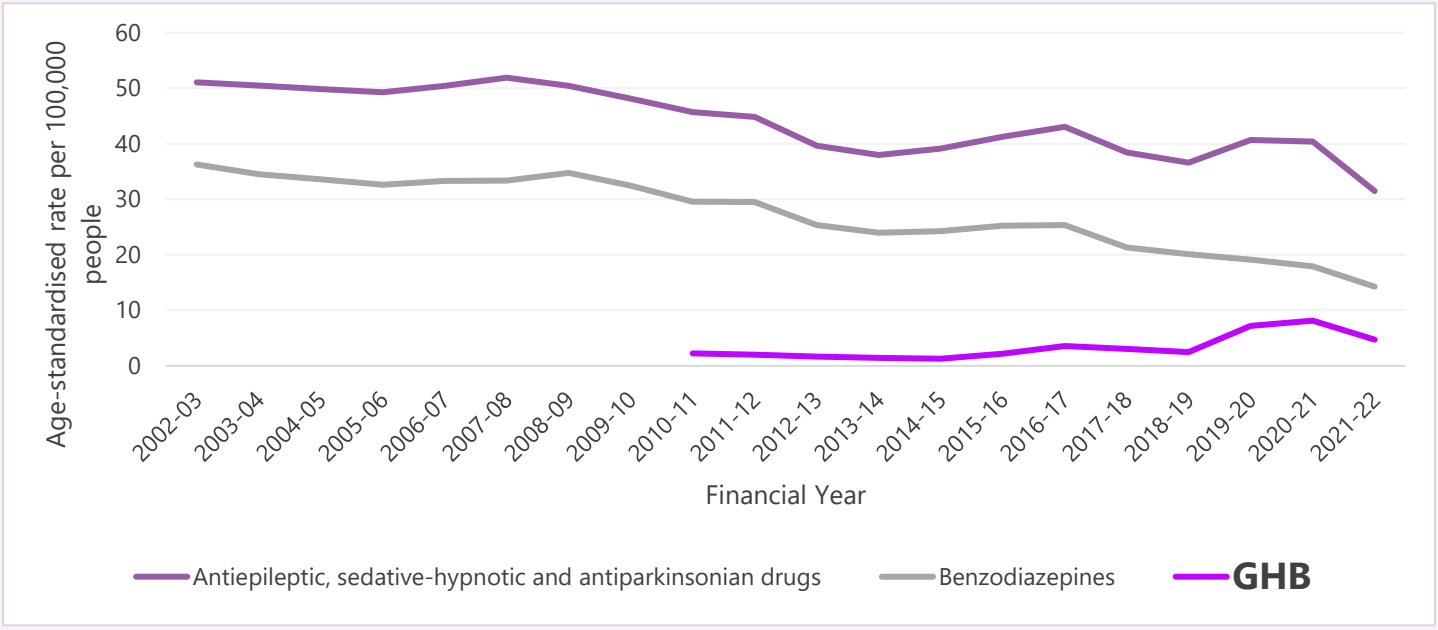
Panel D. GHB-Related Hospitalisations

Use of **gamma-hydroxybutyrate (GHB)** is less prevalent in the general population compared to the use of other drugs like cocaine and MDMA (NDSHS 2022–2023), however, its increasing recognition in emergency toxicology presentations and associated harms in recent years have raised concerns (Peter Stockham et al., Rowan P. Ogeil et al.). Since 2010-11, specific ICD-10-AM codes tailored to GHB were implemented (refer to the methods document for details on the incorporated ICD-10-AM codes), enabling the distinct classification of this substance from other antiepileptic, sedative-hypnotic and antiparkinsonism drugs.



Note: **np* means data not publishable due to numbers being too small to present (n≤5).

Figure 24. Age-standardised rate per 100,000 people of antiepileptic, sedative-hypnotic and antiparkinsonism drug-related hospitalisations among the total Australian population by selected drug type, 2002-03 to 2021-22.



In 2021-22

- GHB-related hospitalisations comprised 14% of hospitalisations related to antiepileptic, sedative-hypnotic and antiparkinsonian drugs, accounting for 1,154 hospitalisations with a rate of 4.7 hospitalisations per 100,000 people (**Figure 24**).
- GHB-related hospitalisations were equally prevalent among males and females, with 581 hospitalisations among males and 573 hospitalisations among females, equating to a rate of 4.7 hospitalisations per 100,000 people for each sex.

- The largest proportion (75%) of GHB-related hospitalisations occurred among individuals aged 20-39:
  - 10- 19 age group 5.6% 65 hospitalisation 2.0 hospitalisations per 100,000 people
  - 20-29 age group 38% 444 hospitalisation 13 hospitalisations per 100,000 people
  - 30-39 age group 36% 421 hospitalisation 11 hospitalisations per 100,000 people
  - 40-49 age group 15% 177 hospitalisation 5.3 hospitalisations per 100,000 people
  - 50-59 age group 2.9% 34 hospitalisation 1.1 hospitalisations per 100,000 people
- The majority (84%) of GHB-related hospitalisations in 2021-22 was observed in major city areas (971 hospitalisations, 5.2 per 100,000 people), followed by inner regional areas (6%, 65 hospitalisations, 1.8 per 100,000 people).

Trend since 2010-11

- Since 2010-11, GHB-related hospitalisations increased from 2.2 to 8.1 hospitalisations per 100,000 people in 2020-21, with a particularly notable increase recorded between 2018-19 and 2019-20.
- In 2021-22, however, the rate declined by 42% compared to its 2020-21 peak (Table A1, Appendix).

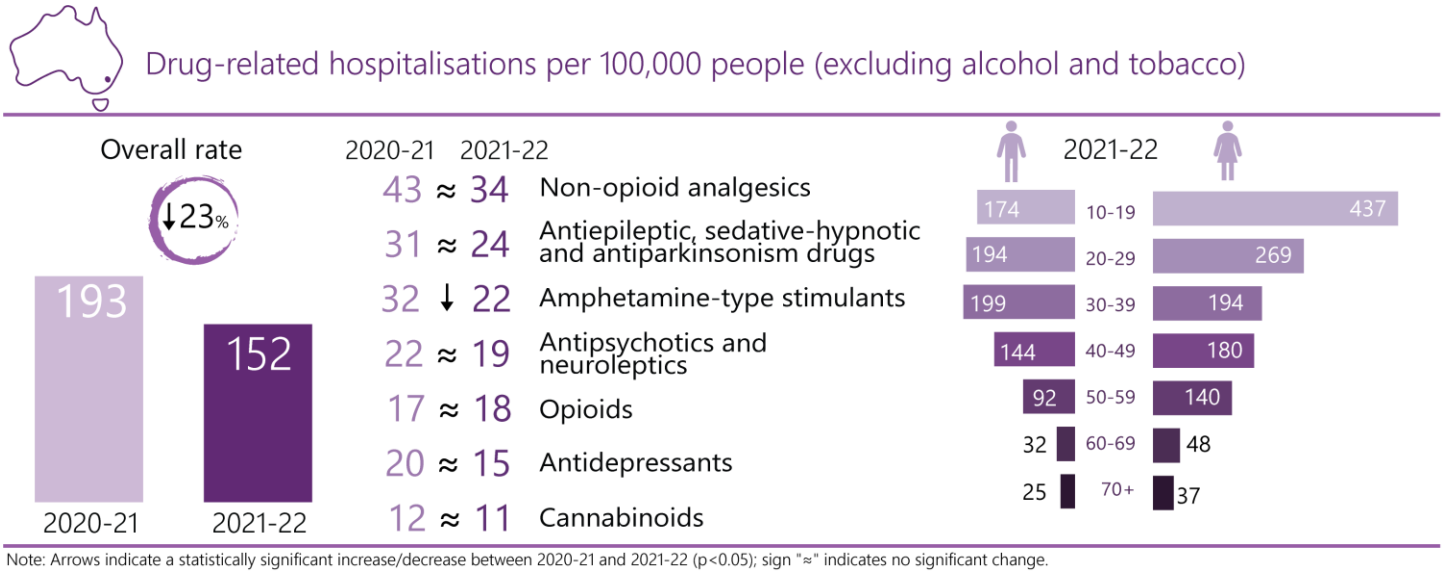
11

Drug-Related Hospitalisations by Jurisdiction

The below sections describe trends in drug-related hospitalisations for each jurisdiction from 2002-03 to 2021-22. We encourage caution when interpreting these figures given the small number of hospitalisations in less populous jurisdictions (e.g., Northern Territory, Tasmania). Data on the number and rate (crude and/or age-standardised) of hospitalisations by sex, age group and drug type for each jurisdiction can be obtained from the publicly-accessible online interactive data visualisation. Data by remoteness area are not reported for the Australian Capital Territory as over 99.8% of the population reside in major city areas, and data on remoteness area for Queensland are only provided for 2019-20 to 2021-22. Data by remoteness area are available for all other jurisdictions from 2012-13 to 2021-22.

An additional consideration is that hospitalisations between March 2020 and June 2022 occurred during the COVID-19 pandemic. Each state and territory had a different experience of the pandemic including different levels of COVID-19 infections and hospitalisations, as well as some jurisdiction-specific public health measures, which may have influenced hospitalisation trends. Further, varying levels of COVID-19 restrictions, access to healthcare services, socioeconomic conditions, and community support systems may have shaped drug use patterns and contributed to differing trends in drug-related hospitalisations across jurisdictions between 2020 and 2022.

Australian Capital Territory



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 693 hospitalisations with a drug-related principal diagnosis in the Australian Capital Territory in 2021-22.

This is equivalent to 152 hospitalisations per 100,000 people, which was 21% lower than the rate in 2020-21 (193 hospitalisations per 100,000 people) (Table A17, Appendix) but higher than the rate observed from 2002-03 to 2013-14 (**Figure 25**).

Sex

The rate of hospitalisations was higher among females than males in 2021-22 (179 versus 123 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 10-19 age group, followed by the 20-29 and 30-39 age groups (306, 235 and 197 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 30-39 age group, and among females in the 10-19 age group.

Remoteness Area of Usual Residence

Over 99.8% of the population in the Australian Capital Territory resided in major city areas and the remaining resided in inner regional areas. For this reason, data on hospitalisations by remoteness area are not presented.

External Cause of Drug Poisoning

In 2021-22, 72% of drug-related hospitalisations in the Australian Capital Territory were due to drug poisoning. Furthermore, 80% of drug poisoning-related hospitalisations were intentional (88 hospitalisations per 100,000 people) and 16% were unintentional (18 hospitalisations per 100,000 people) (**Figure 26**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating non-opioid analgesics (34 hospitalisations per 100,000 people (**Figure 27**).

Compared to 2020-21, there was a significant decrease in the rate of hospitalisations involving amphetamine-type stimulants from 32 to 22 hospitalisations per 100,000 people in 2021-22. In contrast, the rates for all other drug classes remained relatively unchanged (Table A17, Appendix).

Figure 25. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Australian Capital Territory, 2002-03 to 2021-22.

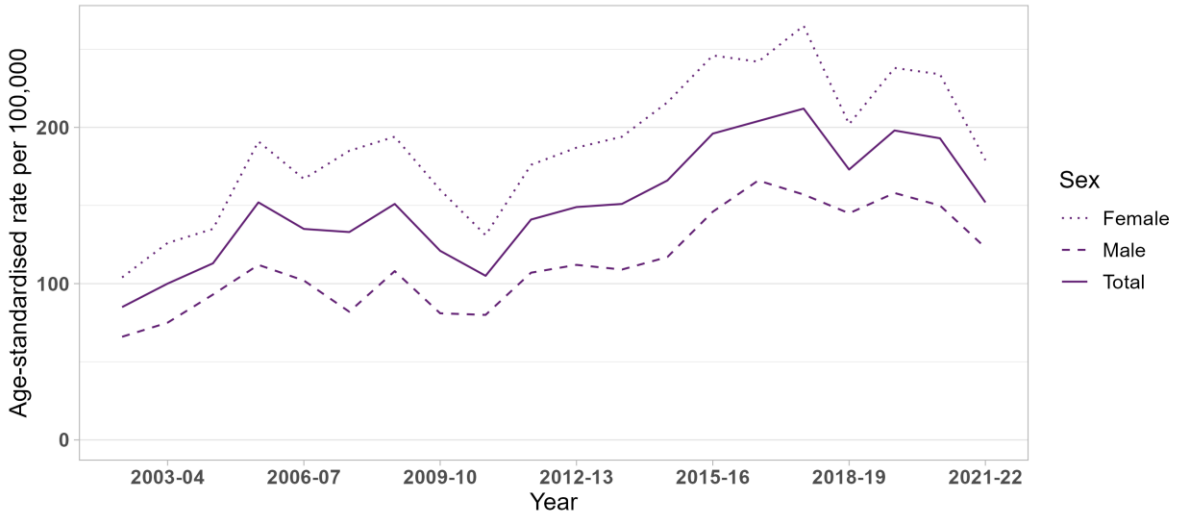
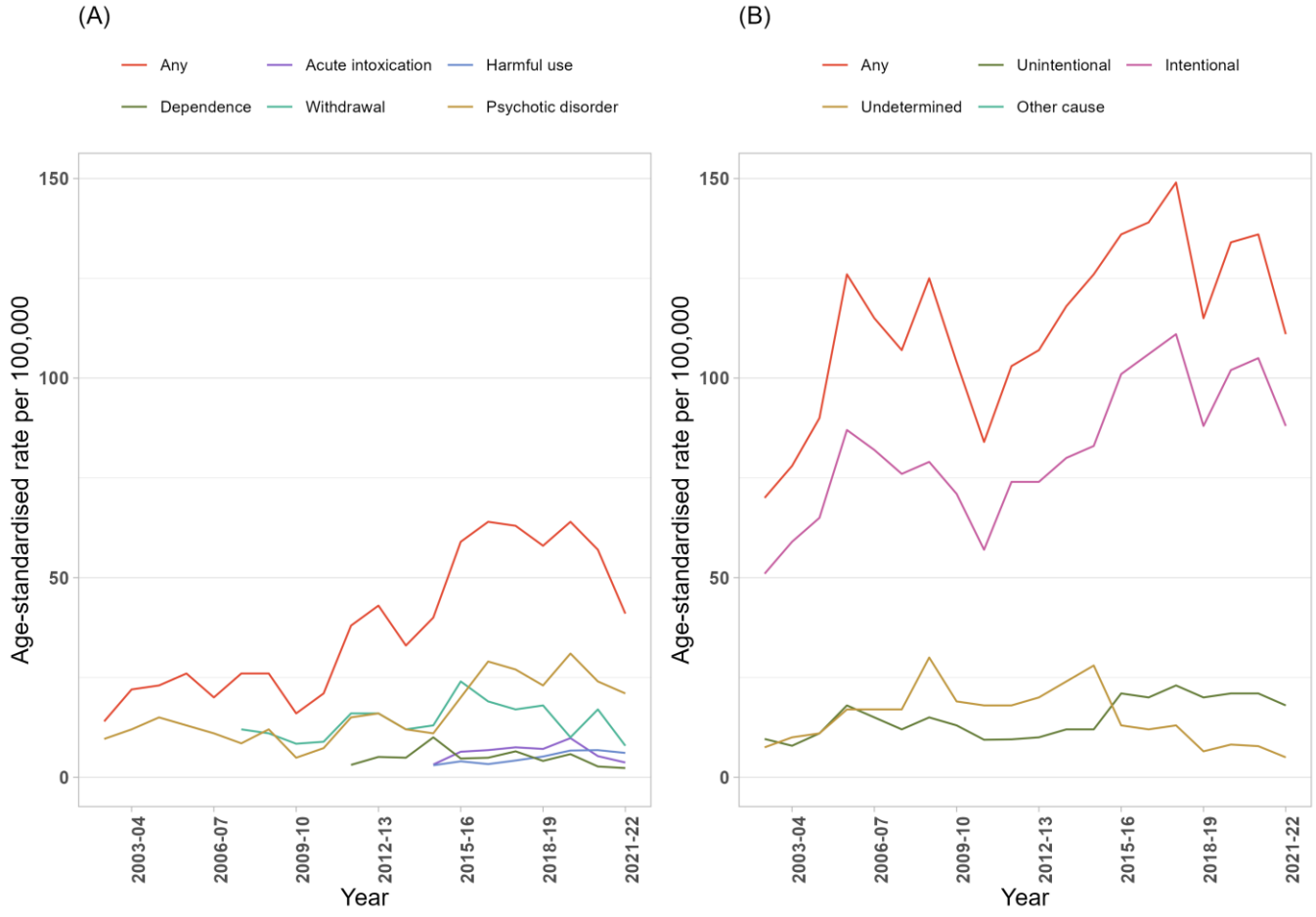
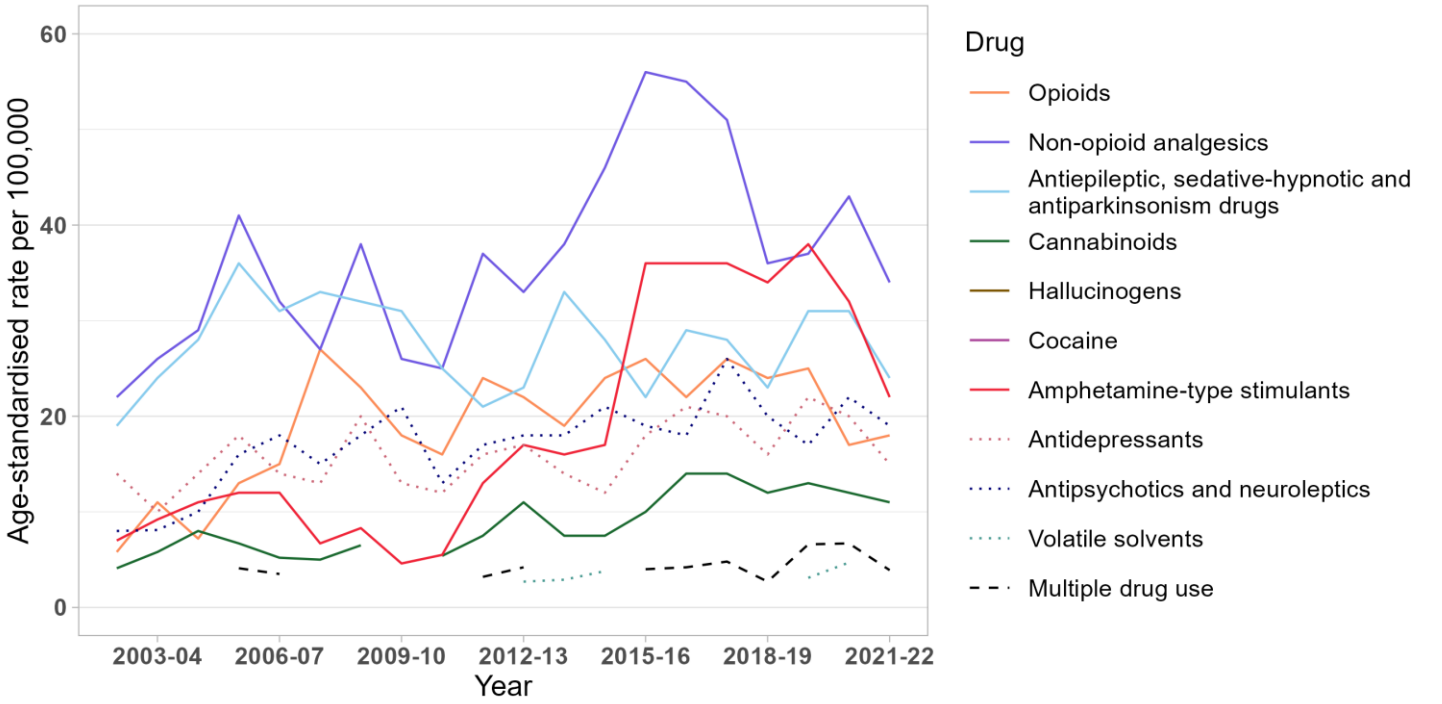


Figure 26. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Australian Capital Territory, 2002-03 to 2021-22.



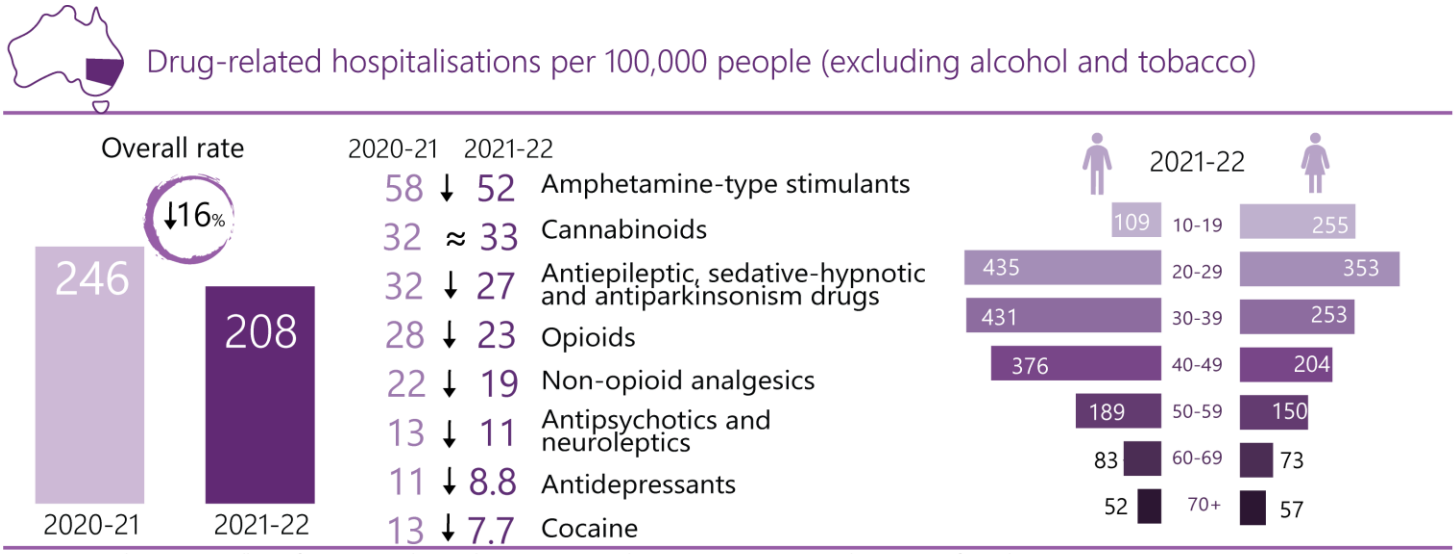
Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Figure 27. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Australian Capital Territory, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

New South Wales



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 16,169 hospitalisations with a drug-related principal diagnosis in New South Wales in 2021-22, equivalent to 0.52% of all hospitalisations in New South Wales.

This is equivalent to 208 hospitalisations per 100,000 people, which was 16% lower than the rate in 2020-21 (246 hospitalisations per 100,000 people) (Table A18, Appendix), but similar to the rate observed at the beginning of monitoring (**Figure 28**).

Sex

In 2021-22, the rate of hospitalisations was higher among males than females (232 versus 184 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (396, 342, and 289 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 20-29 and 30-39 age groups, and among females in the 20-29 age group.

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2021-22 was observed in remote and very remote New South Wales (258 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major city areas (12,614 hospitalisations) (**Figure 29**).

External Cause of Drug Poisoning

In 2021-22, 35% of drug-related hospitalisations in New South Wales were due to drug poisoning. Furthermore, 70% of drug poisoning-related hospitalisations were intentional (50 hospitalisations per 100,000 people) and 21% were unintentional (14 hospitalisations per 100,000 people) (**Figure 30**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamine-type stimulants (52 hospitalisations per 100,000 people) (**Figure 31**).

Compared to 2020-21, there were significant decreases in the 2021-22 rates of hospitalisations related to:

- amphetamine-type stimulants (including methamphetamine),
- antiepileptic, sedative-hypnotic and antiparkinsonism drugs (including GHB),
- opioids,
- non-opioid analgesics,
- antipsychotics and neuroleptics,
- antidepressants,
- cocaine, and
- hallucinogens (Table A18, Appendix).

Figure 28. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, New South Wales, 2002-03 to 2021-22.

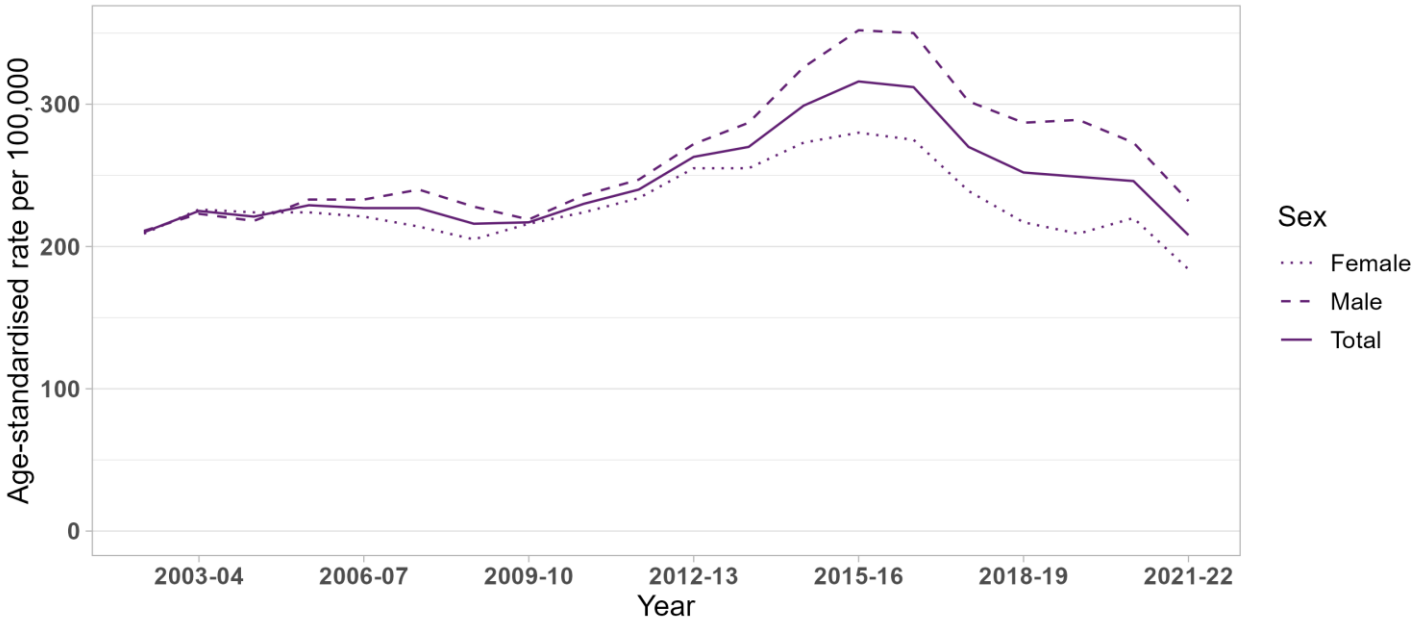
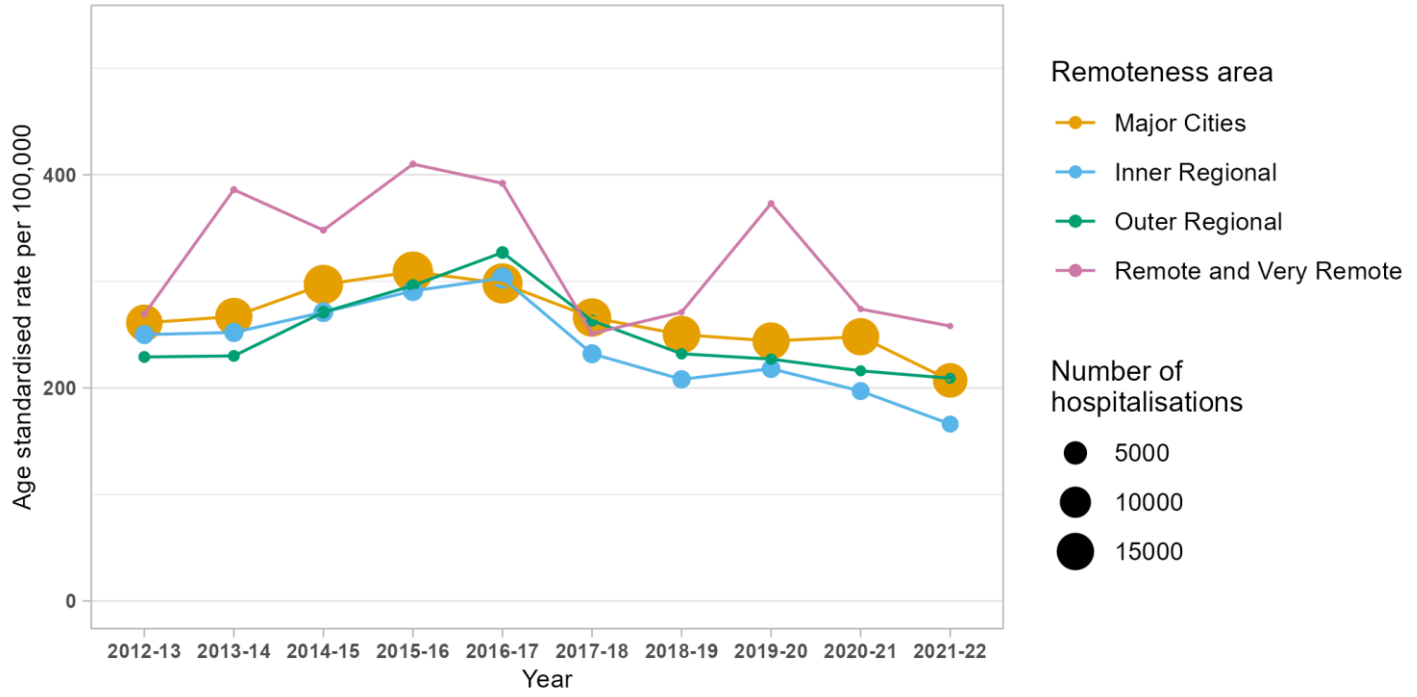


Figure 29. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, New South Wales, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. Data on remoteness are only available from 2012-13.

Figure 30. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), New South Wales, 2002-03 to 2021-22.

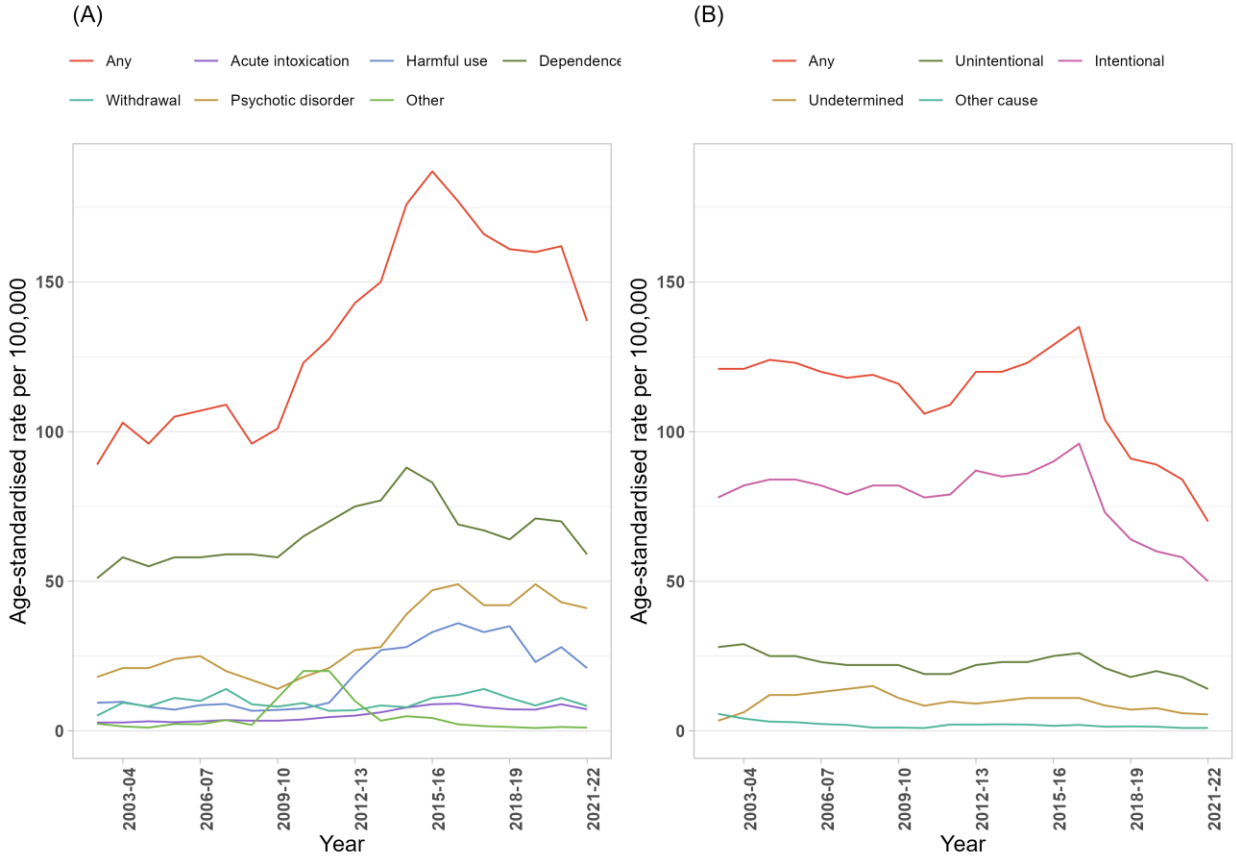
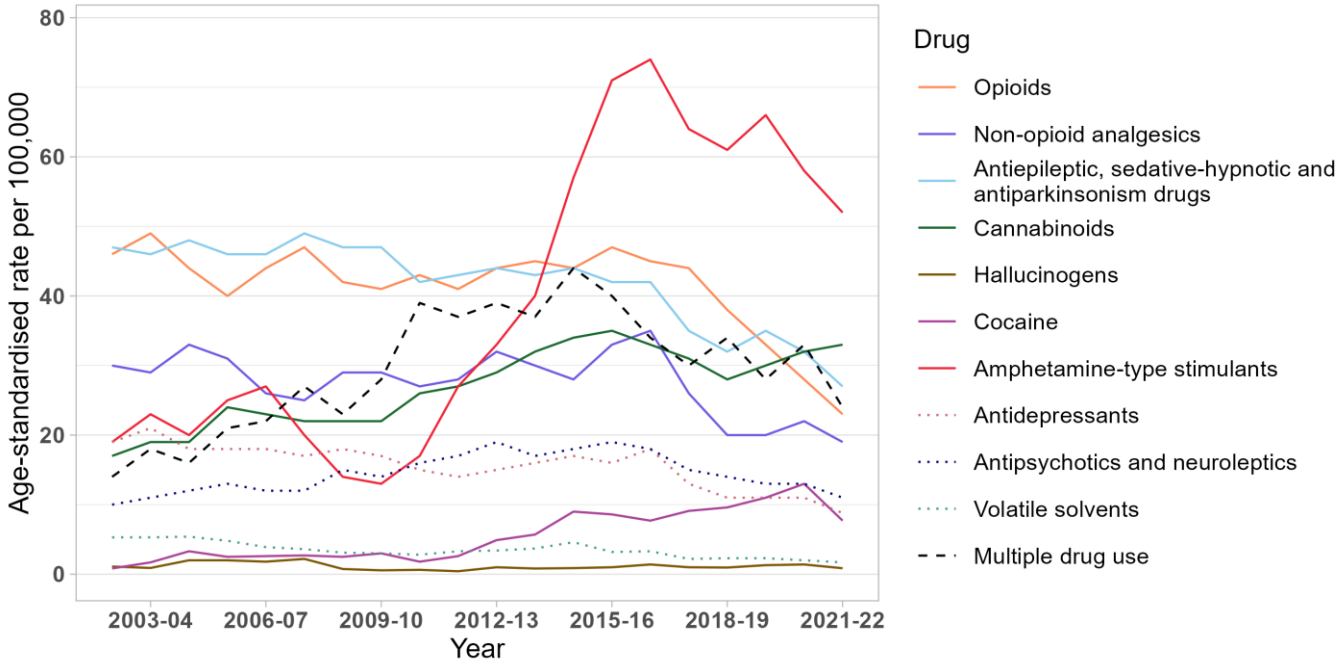
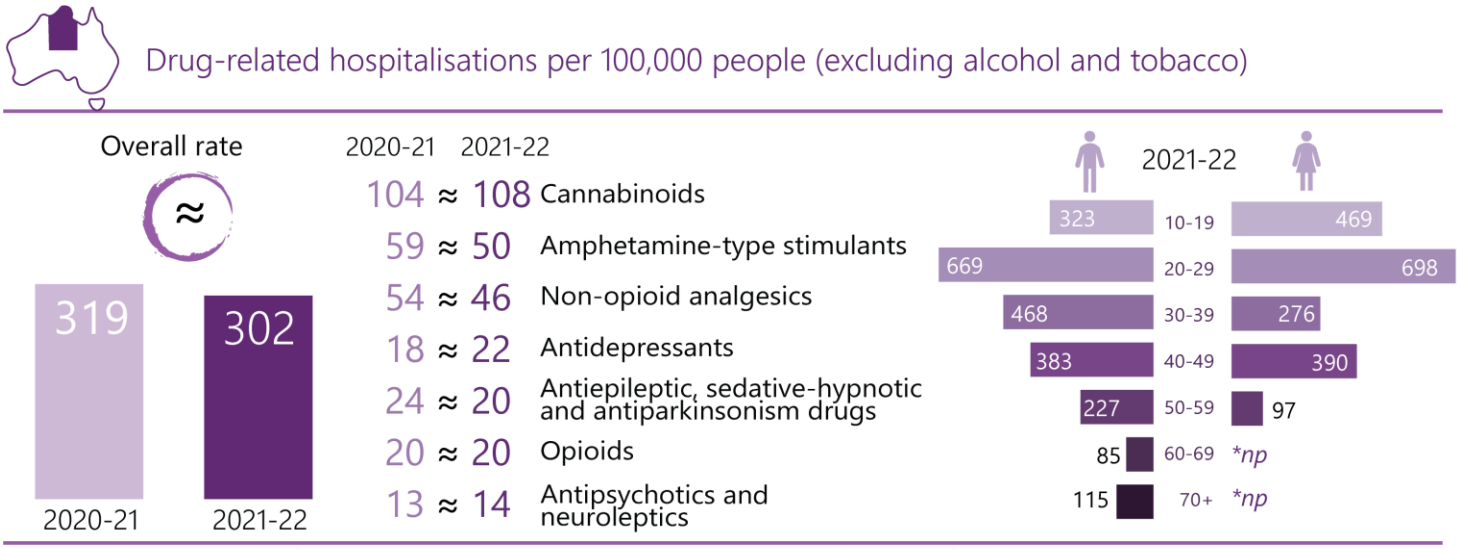


Figure 31. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, New South Wales, 2002-03 to 2021-22.



Northern Territory



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change; *np means data not publishable due to small numbers

There were 788 hospitalisations with a drug-related principal diagnosis in the Northern Territory in 2021-22.

This is equivalent to 302 hospitalisations per 100,000 people, which was similar to the 2020-21 rate (319 hospitalisations per 100,000 people) (Table A19, Appendix), although over twice the rate reported between 2002-03 and 2012-13 (**Figure 32**).

Sex

The rate of hospitalisations was higher among males than females in 2021-22 (213 versus 284 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19, 40-49 and 30-39 age groups (693, 408, 386 and 371 hospitalisations per 100,000 people, respectively). Among both males and females, the rates of drug-related hospitalisations were highest in the 20-29 age group.

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2021-22 was observed in the remote and very remote Northern Territory (401 hospitalisations, 369 per 100,000 people), followed by the outer regional Northern Territory (380 hospitalisations, 251 per 100,000 people), noting there are no major city areas or inner regional areas in the Northern Territory (**Figure 33**).

External Cause of Drug Poisoning

In 2021-22, 38% of drug-related hospitalisations in the Northern Territory were due to drug poisoning. Furthermore, 75% of drug poisoning-related hospitalisations were intentional (88 hospitalisations per 100,000 people) and 19% were unintentional (22 hospitalisations per 100,000 people) (**Figure 34**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating cannabinoids (108 hospitalisations per 100,000 people) (**Figure 35**).

Compared to 2020-21, there were no statistically significant changes in rates of hospitalisation with principal diagnosis related to any of the drug classes (Table A19, Appendix).

Figure 32. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Northern Territory, 2002-03 to 2021-22.

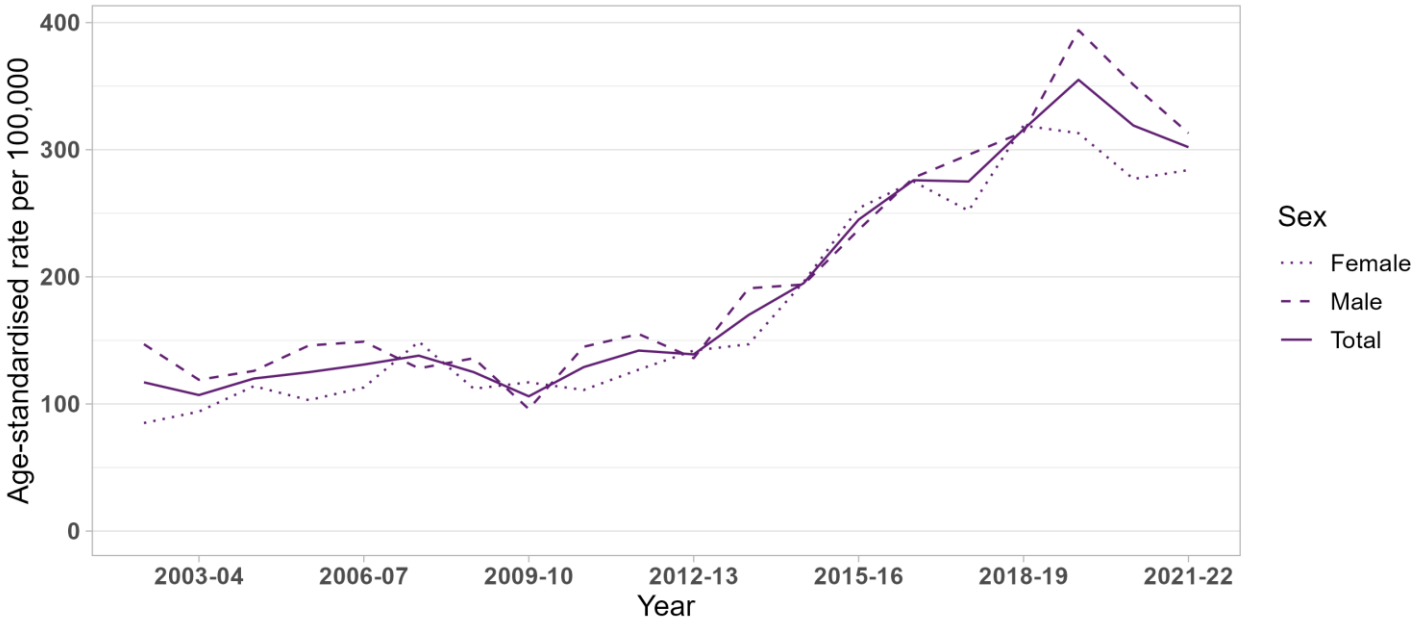
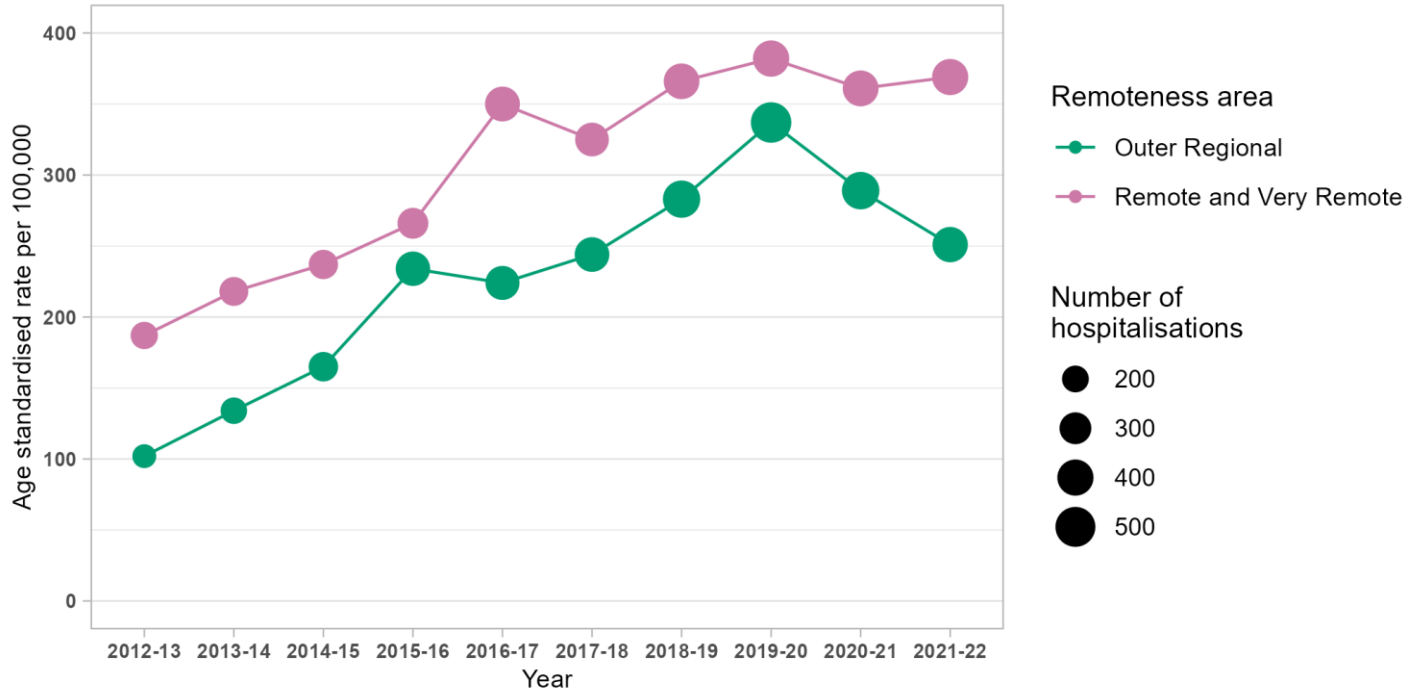


Figure 33. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Northern Territory, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. There are no major city areas and inner regional areas in the Northern Territory. Data on remoteness are only available from 2012-13.

Figure 34. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Northern Territory, 2002-03 to 2021-22.

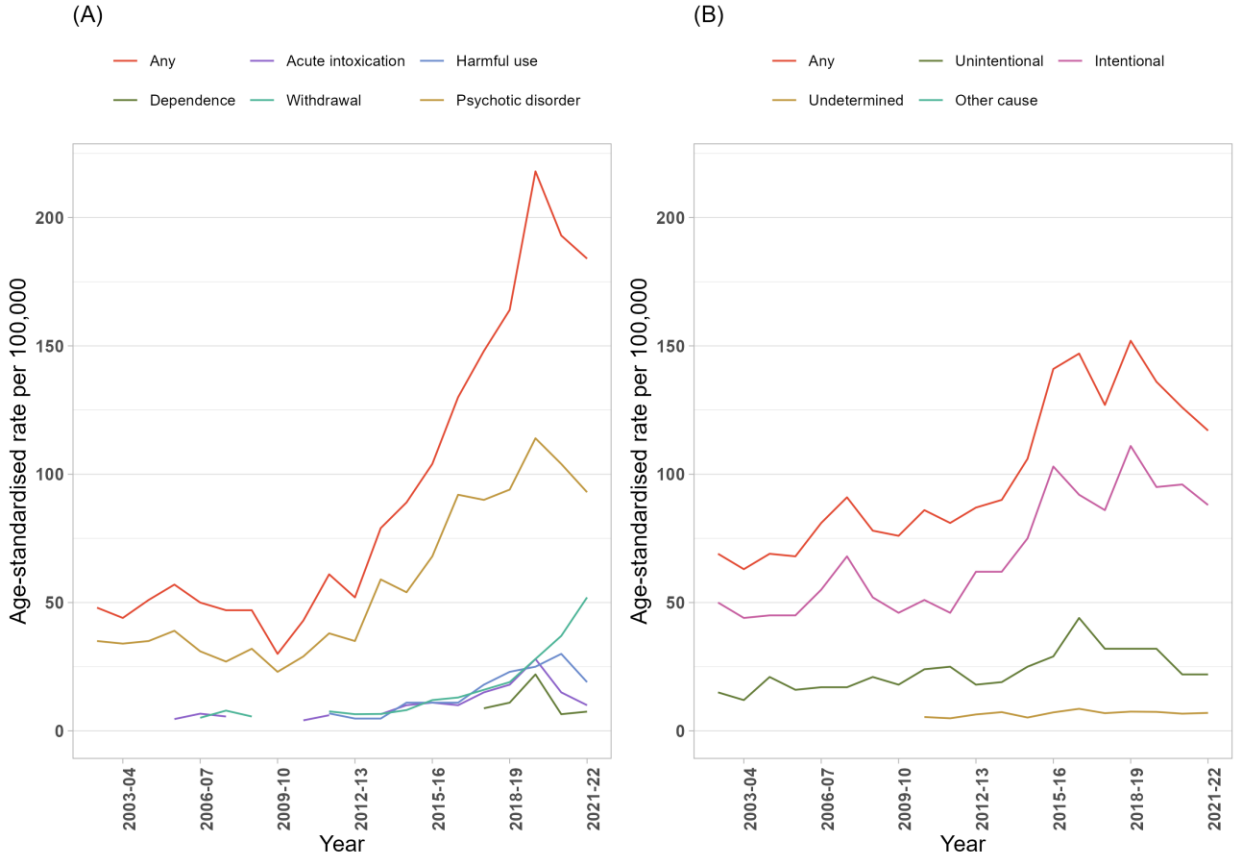
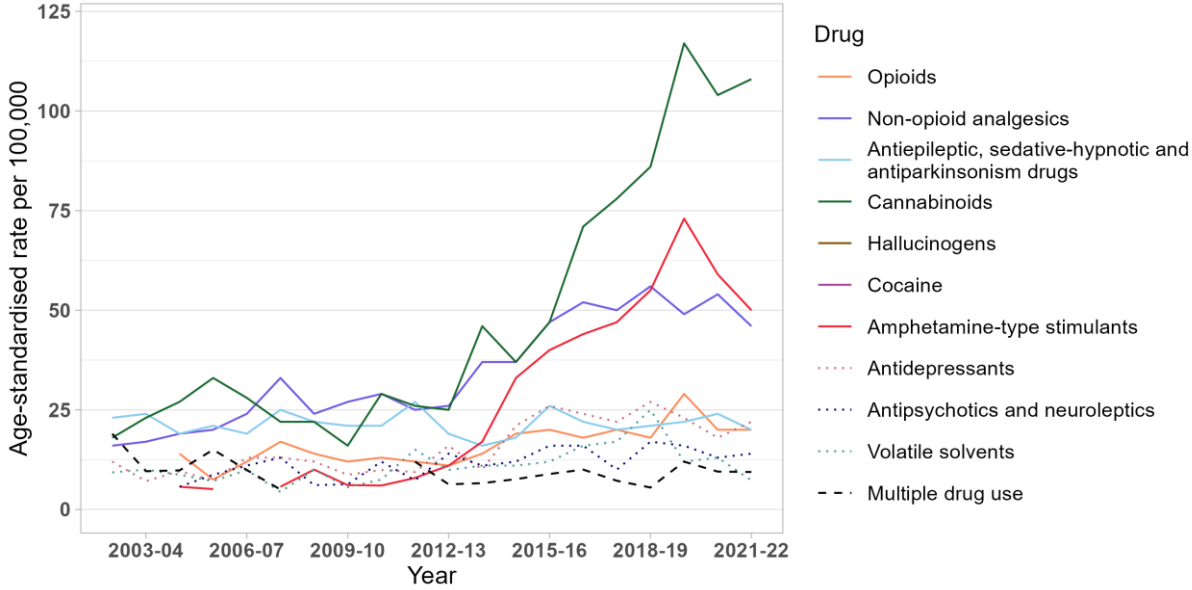
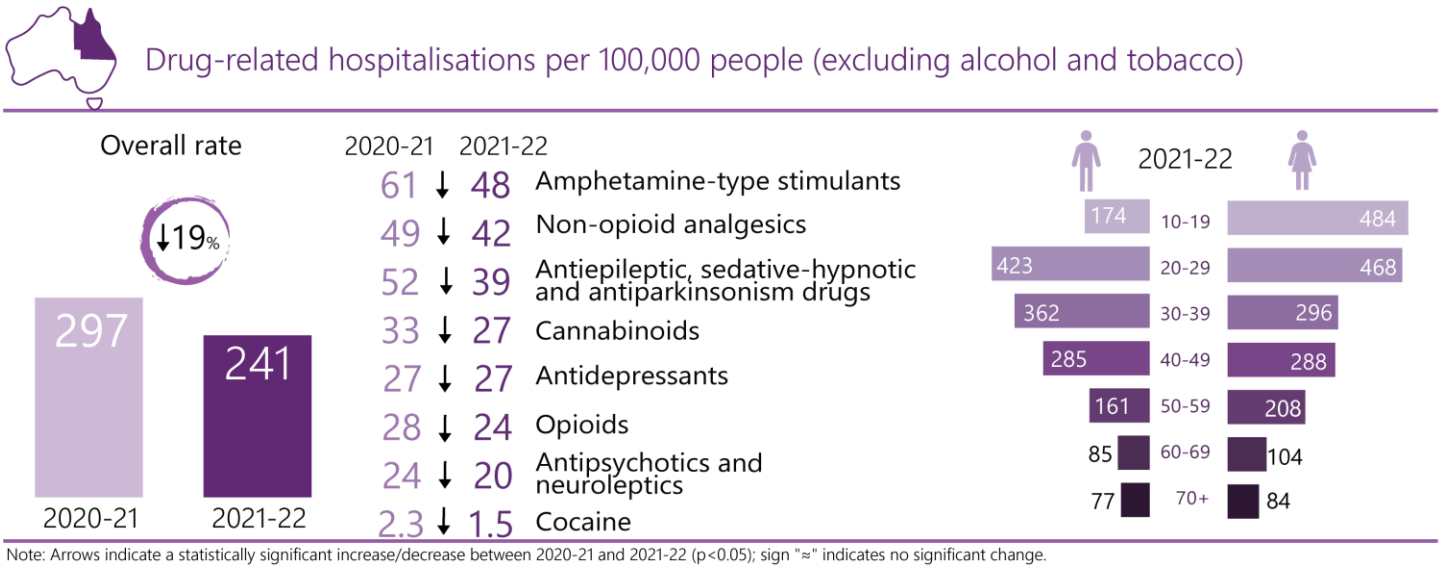


Figure 35. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Northern Territory, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Queensland



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 12,227 hospitalisations with a drug-related principal diagnosis in Queensland in 2021-22, equivalent to 0.42% of all hospitalisations in Queensland.

This is equivalent to 241 hospitalisations per 100,000 people, which was 19% lower than the 2020-21 rate (297 hospitalisations per 100,000 people) (Table A20, Appendix) and higher than reported between 2002-03 and 2012-13 (**Figure 36**).

Sex

The rate of hospitalisations was higher among females than males in 2021-22 (264 versus 218 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 10-19 age groups (446, 329, and 326 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 20-29 age group, and among females in the 10-19 age group.

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2021-22 was observed in outer regional Queensland (284 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major city areas (8,049 hospitalisations) (**Figure 37**).

External Cause of Drug Poisoning

In 2021-22, 61% of drug-related hospitalisations in Queensland were due to drug poisoning. Furthermore, 75% of drug poisoning-related hospitalisations were intentional (111 hospitalisations per 100,000 people) and 19% were unintentional (27 hospitalisations per 100,000 people) (**Figure 38**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamine-type stimulants (48 hospitalisations per 100,000 people) (**Figure 39**).

Compared to 2020-21, there were significant decreases in the 2021-22 rates of hospitalisations related to:

- amphetamine-type stimulants (including methamphetamine),
- non-opioid analgesics,
- antiepileptic, sedative-hypnotic and antiparkinsonism drugs (including GHB),
- cannabinoids,
- antidepressants,
- opioids,
- antipsychotics and neuroleptics,
- volatile solvents,
- hallucinogens,
- and cocaine (Table A20, Appendix).

Figure 36. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Queensland, 2002-03 to 2021-22.

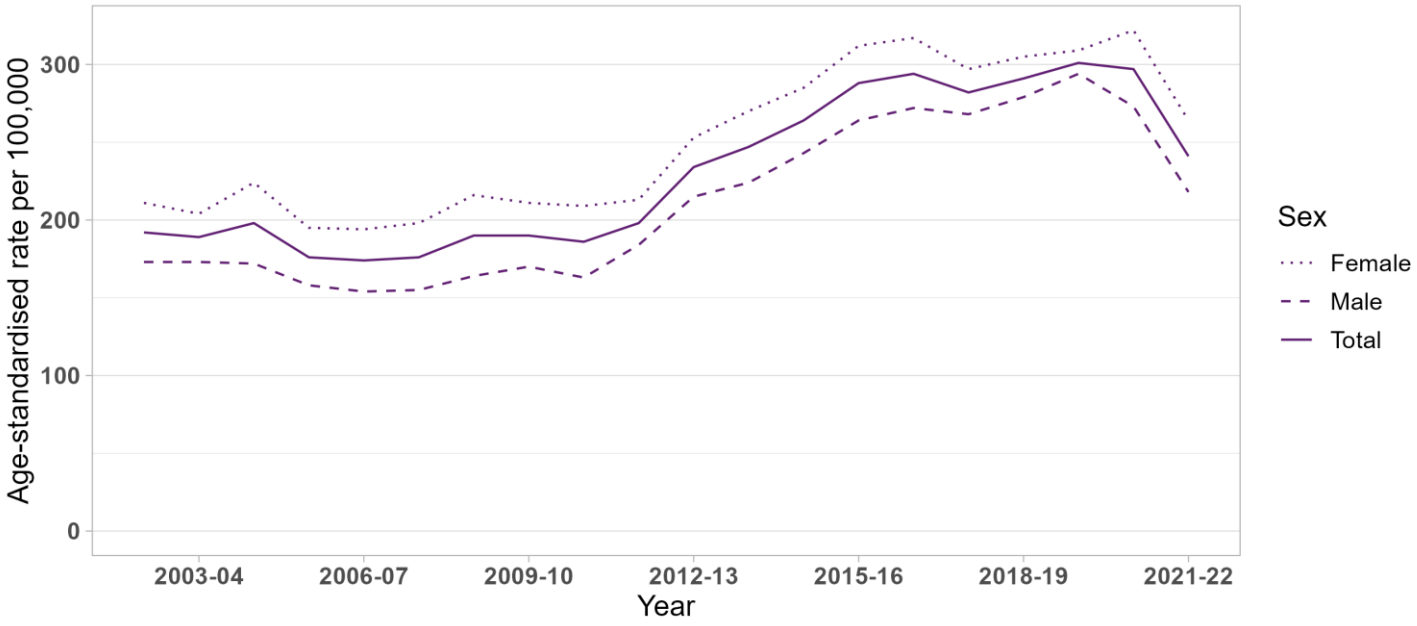
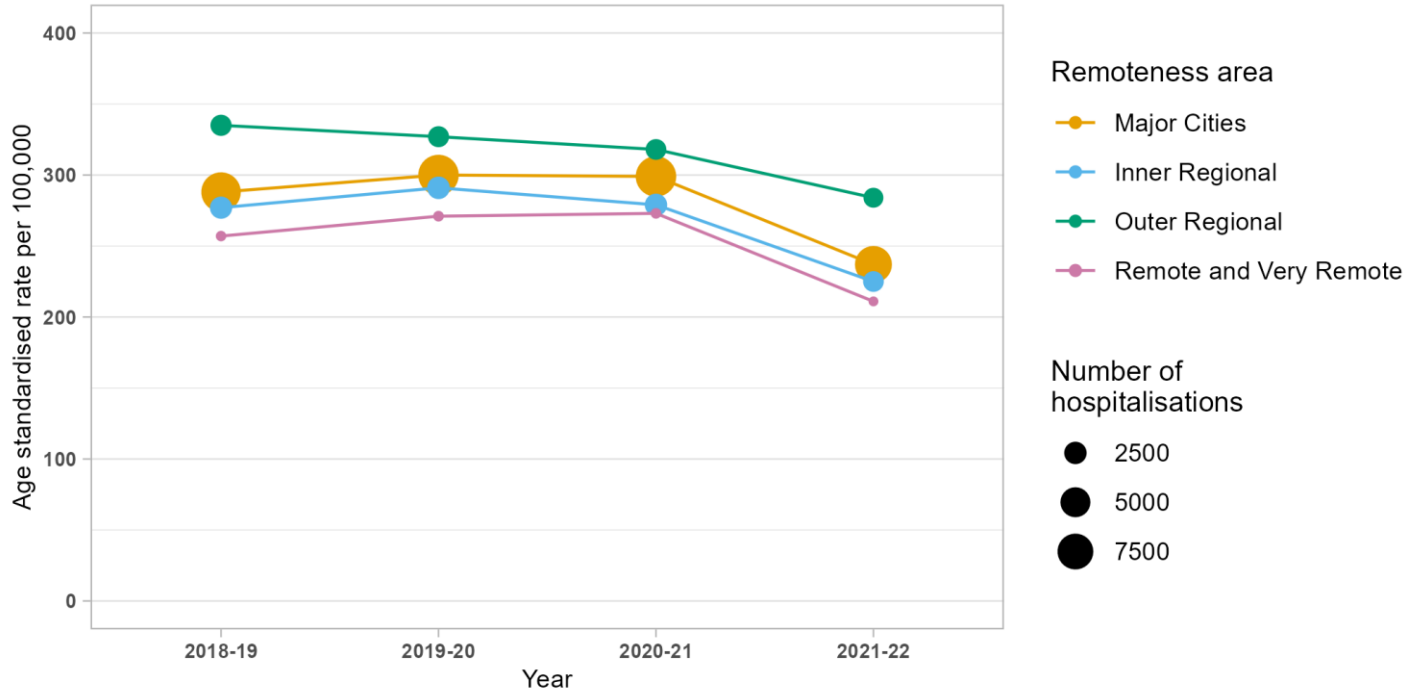


Figure 37. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Queensland, 2018-19 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. In Queensland, data by remoteness area are only available from 2018-19.

Figure 38. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Queensland, 2002-03 to 2021-22.

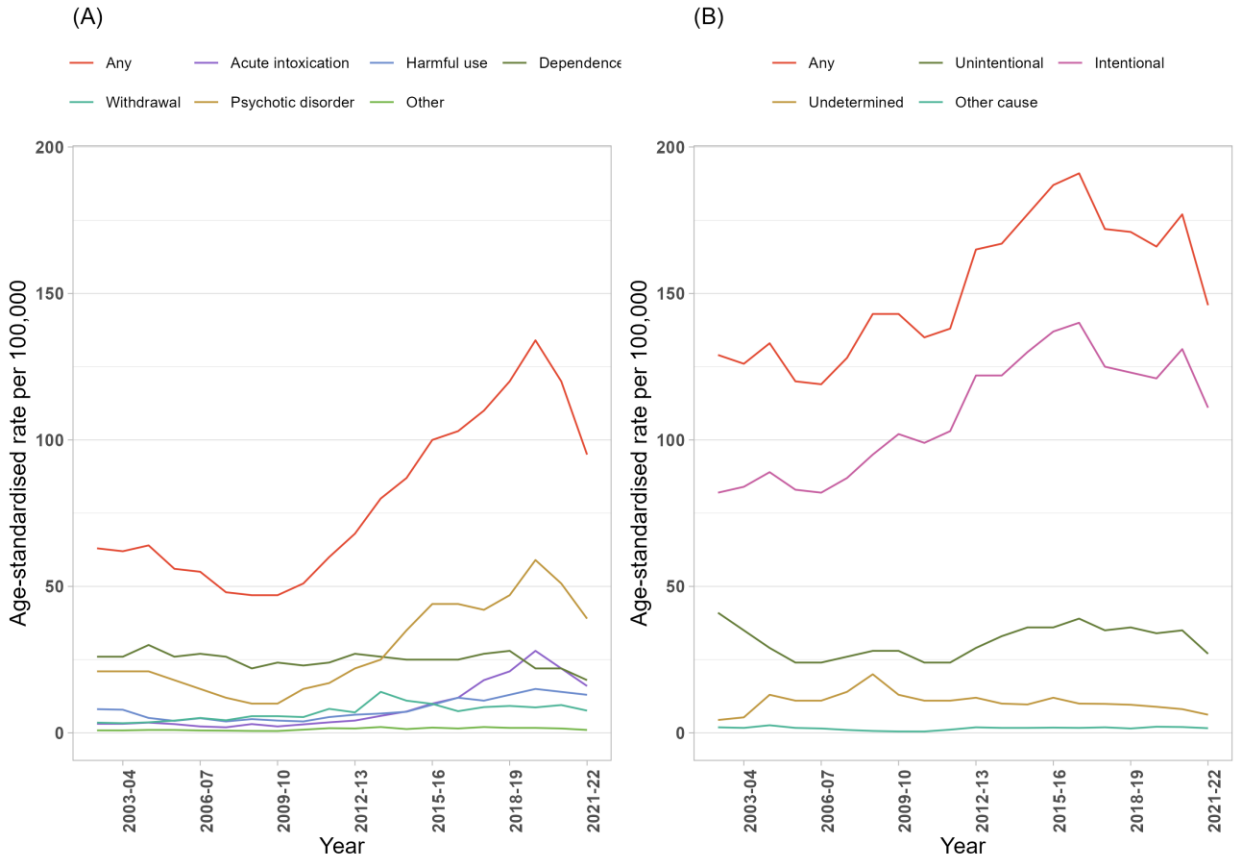
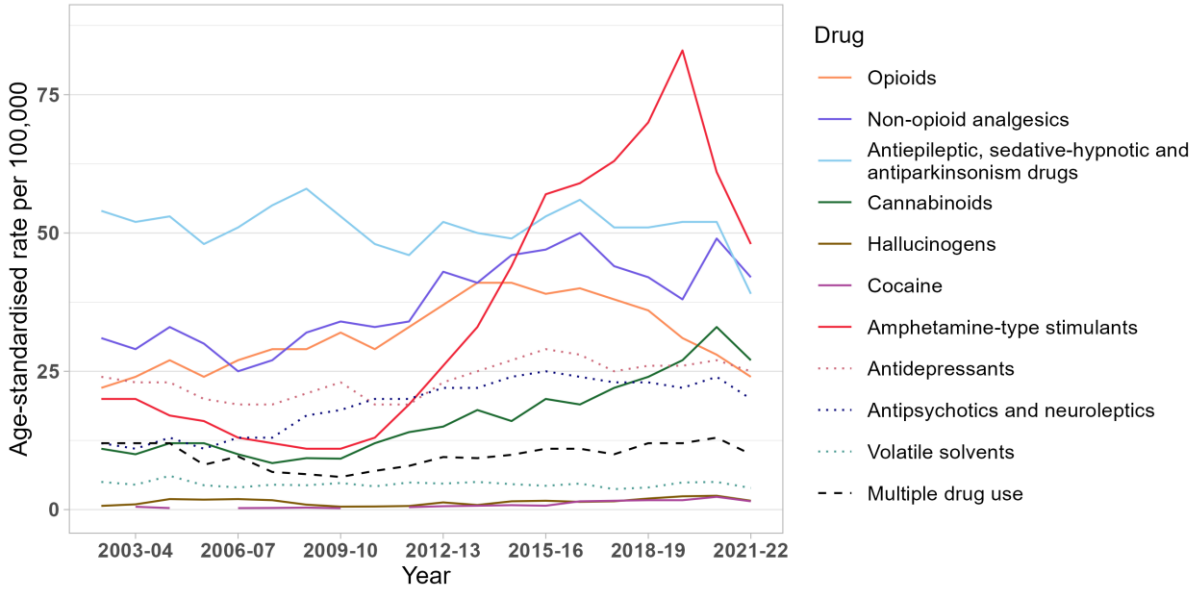
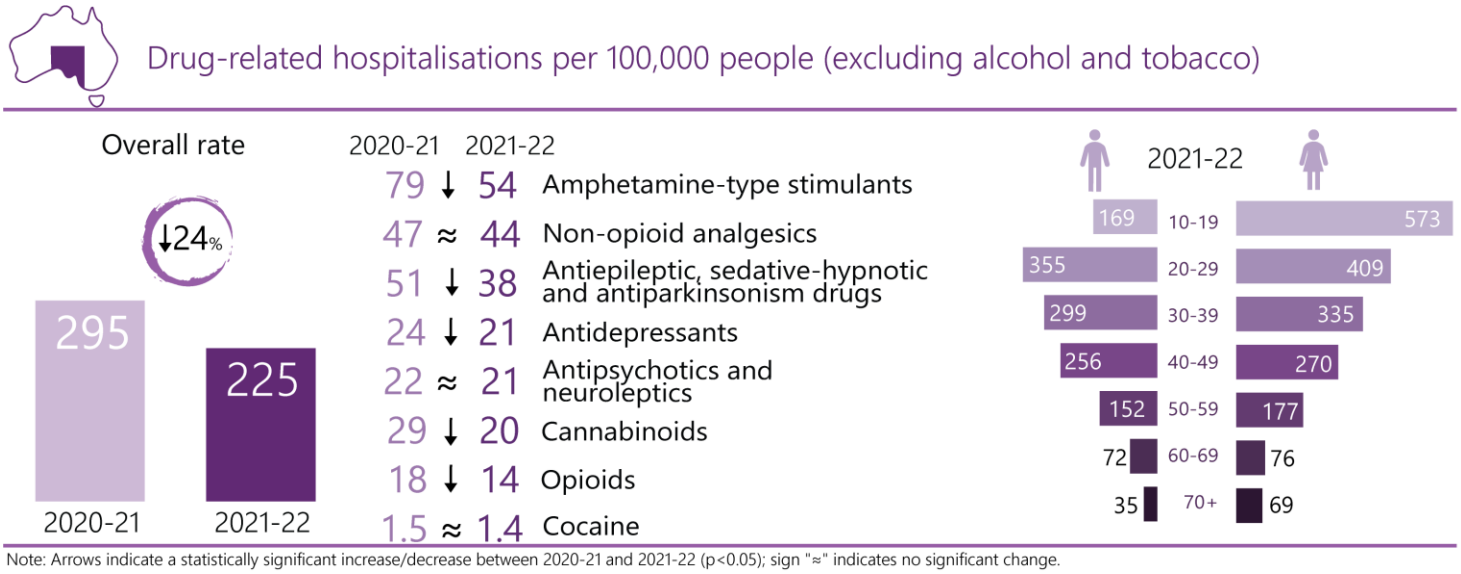


Figure 39. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Queensland, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

South Australia



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 3,758 hospitalisations with a drug-related principal diagnosis in South Australia in 2021-22, equivalent to 0.46% of all hospitalisations in South Australia.

This is equivalent to 225 hospitalisations per 100,000 people, which was 24% lower than the 2020-21 rate (295 hospitalisations per 100,000 people) (Table A21, Appendix), although still higher than reported between 2002-03 and 2013-14 (**Figure 40**).

Sex

The rate of hospitalisations was higher among females than males in 2021-22 (264 versus 186 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19 and 30-39 age groups (382, 368, and 317 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 20-29 age group, and among females in the 10-19 age group.

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2021-22 was observed in inner regional South Australia (301 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major city areas (2,591 hospitalisations) (**Figure 41**).

External Cause of Drug Poisoning

In 2021-22, 62% of drug-related hospitalisations in South Australia were due to drug poisoning. Furthermore, 77% of drug poisoning-related hospitalisations were intentional (108 hospitalisations per 100,000 people) and 16% were unintentional (21 hospitalisations per 100,000 people) (**Figure 42**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamine-type stimulants (54 hospitalisations per 100,000 people) (**Figure 43**).

Compared to 2020-21, there were significant decreases in the 2021-22 rates of hospitalisations related to:

- amphetamine-type stimulants (including methamphetamine),
- antiepileptic, sedative-hypnotic and antiparkinsonism drugs (including GHB)
- cannabinoids,
- opioids, and
- hallucinogens (Table A21, Appendix).

Figure 40. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, South Australia, 2002-03 to 2021-22.

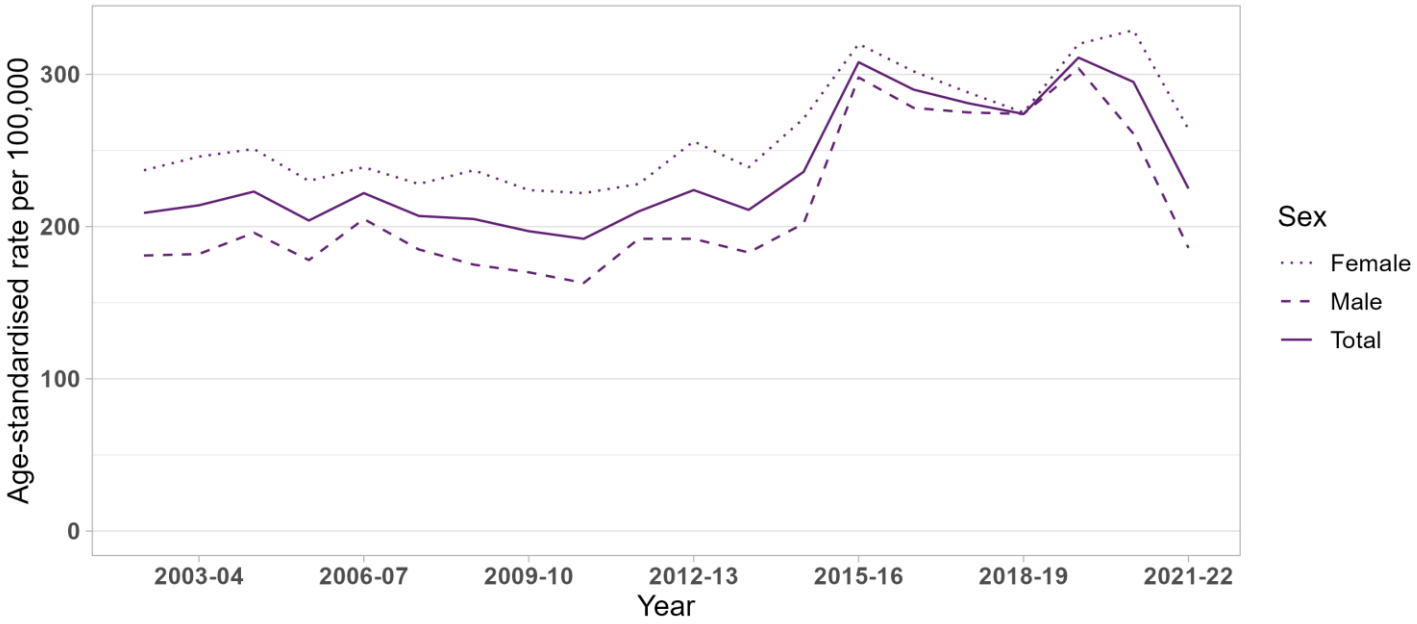
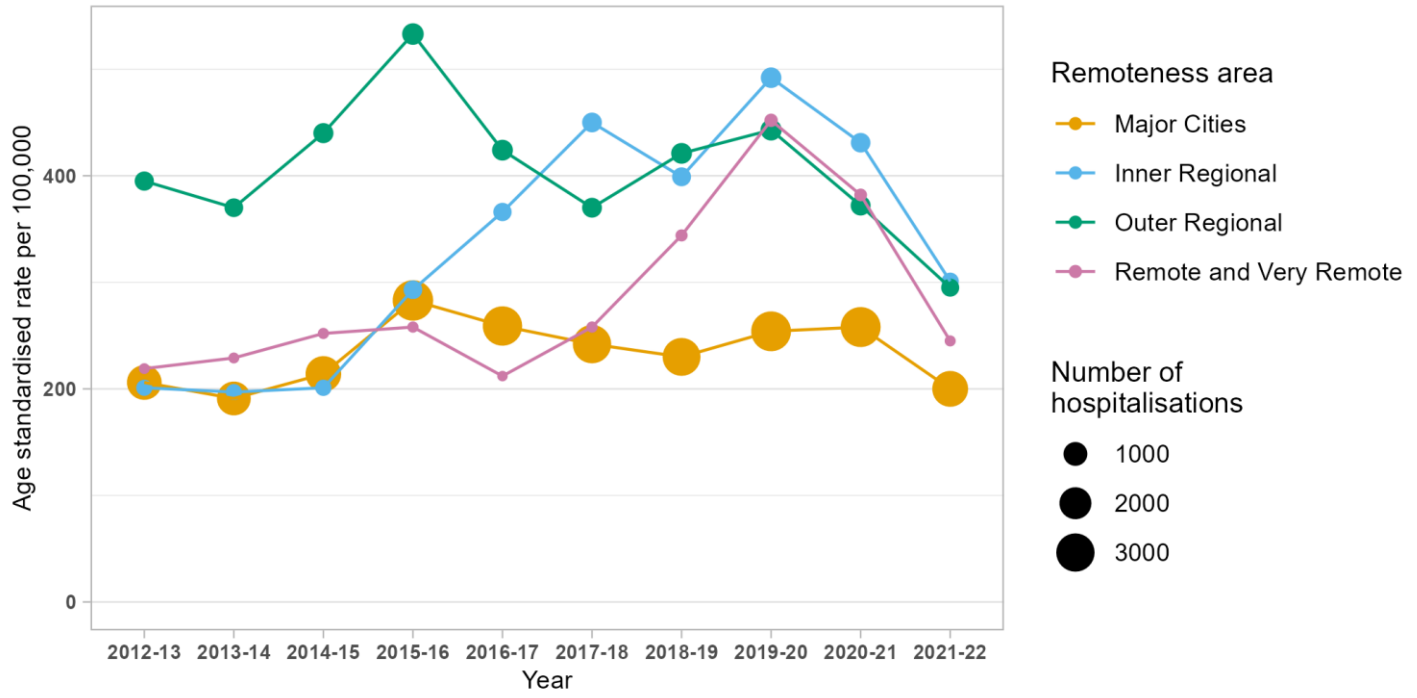


Figure 41. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, South Australia, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. Data on remoteness are only available from 2012-13.

Figure 42. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), South Australia, 2002-03 to 2021-22.

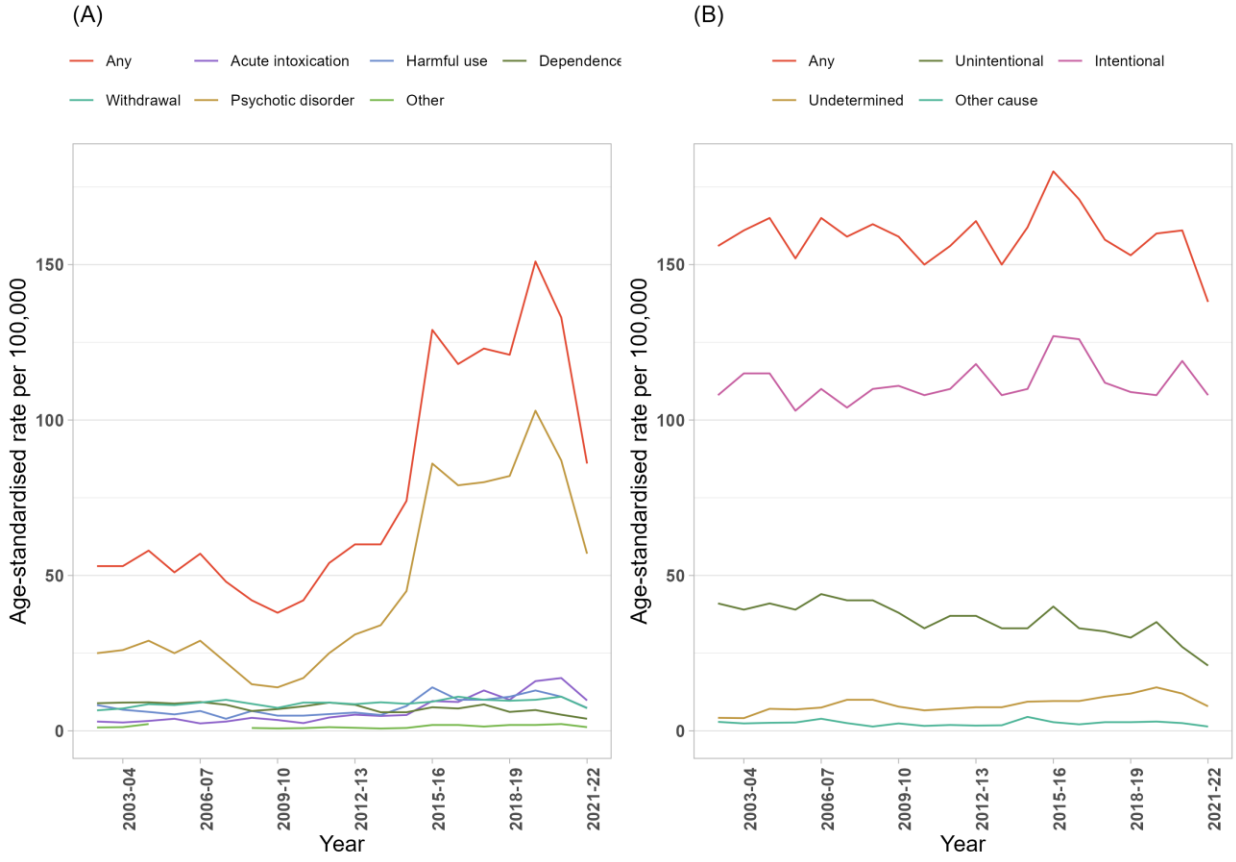
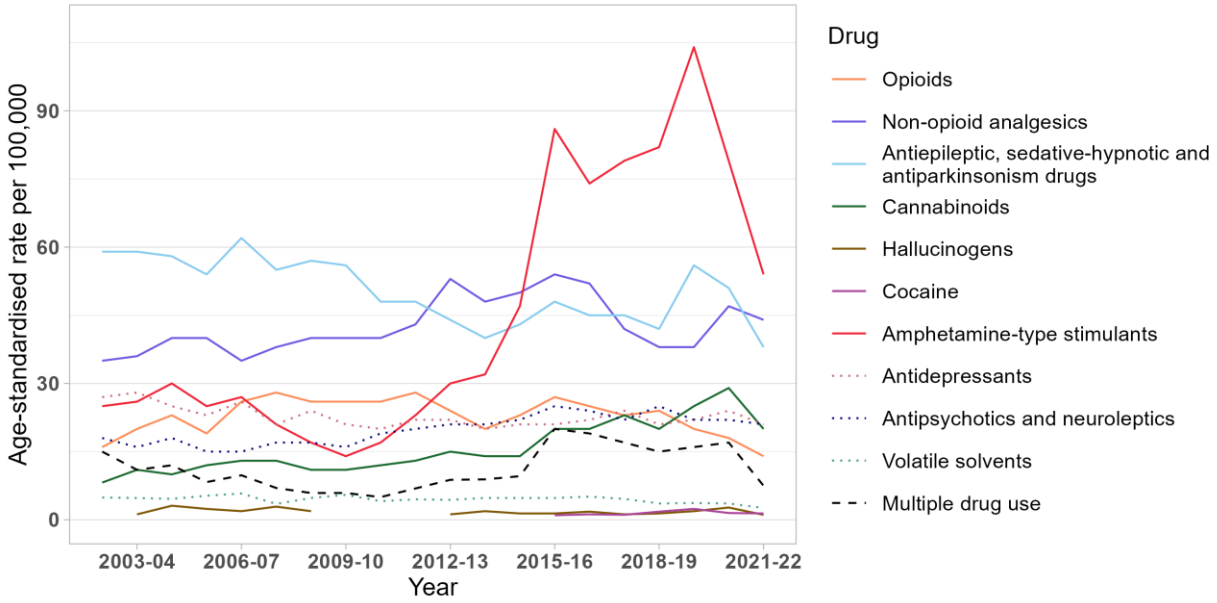
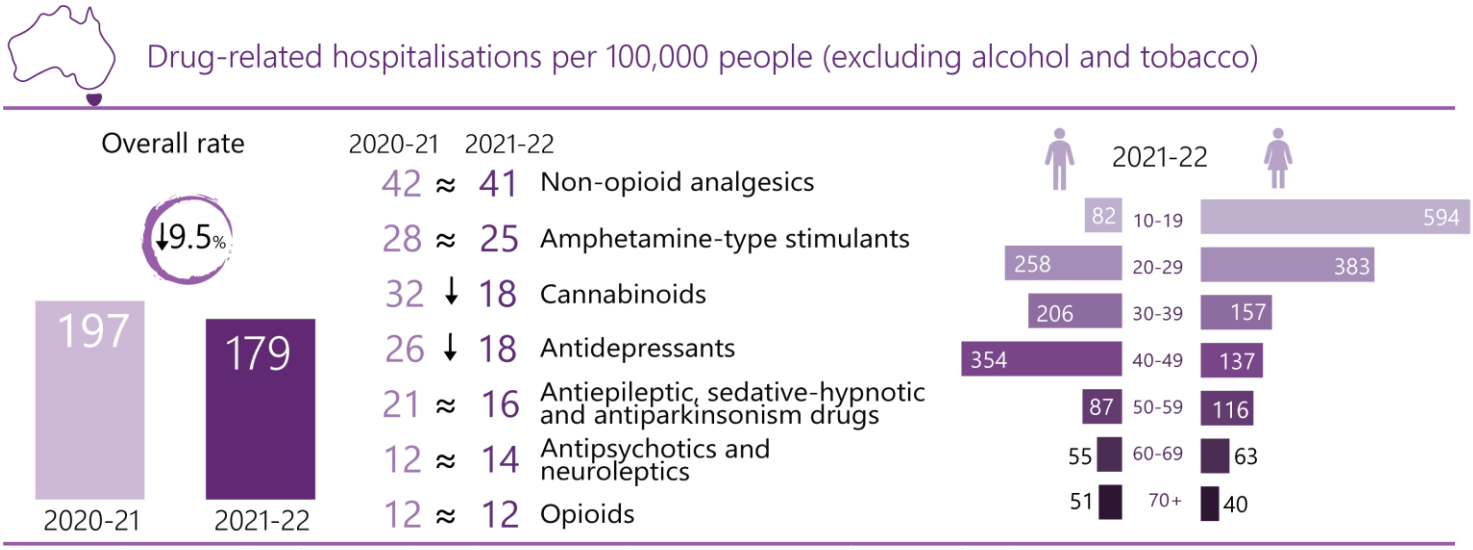


Figure 43. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, South Australia, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Tasmania



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 914 hospitalisations with a drug-related principal diagnosis in Tasmania in 2021-22.

This is equivalent to 179 hospitalisations per 100,000 people, which was 9.5% lower than the rate in 2020-21 (197 hospitalisations per 100,000 people) (Table A22, Appendix) (**Figure 44**).

Sex

The rate of hospitalisations was higher among females than males in 2021-22 (205 versus 155 hospitalisations per 100,000 people).

Age

In 2021-22, the rate of hospitalisations was highest among the 10-19 age group, followed by the 20-29 and 40-49 age groups (329, 320, and 243 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 40-49 age group, and among females in the 10-19 age group.

Remoteness Area of Usual Residence

The highest number and rate of hospitalisations in 2021-22 was observed in inner regional Tasmania (717 hospitalisations, 218 per 100,000 people), noting there are no major city areas in Tasmania (**Figure 45**).

External Cause of Drug Poisoning

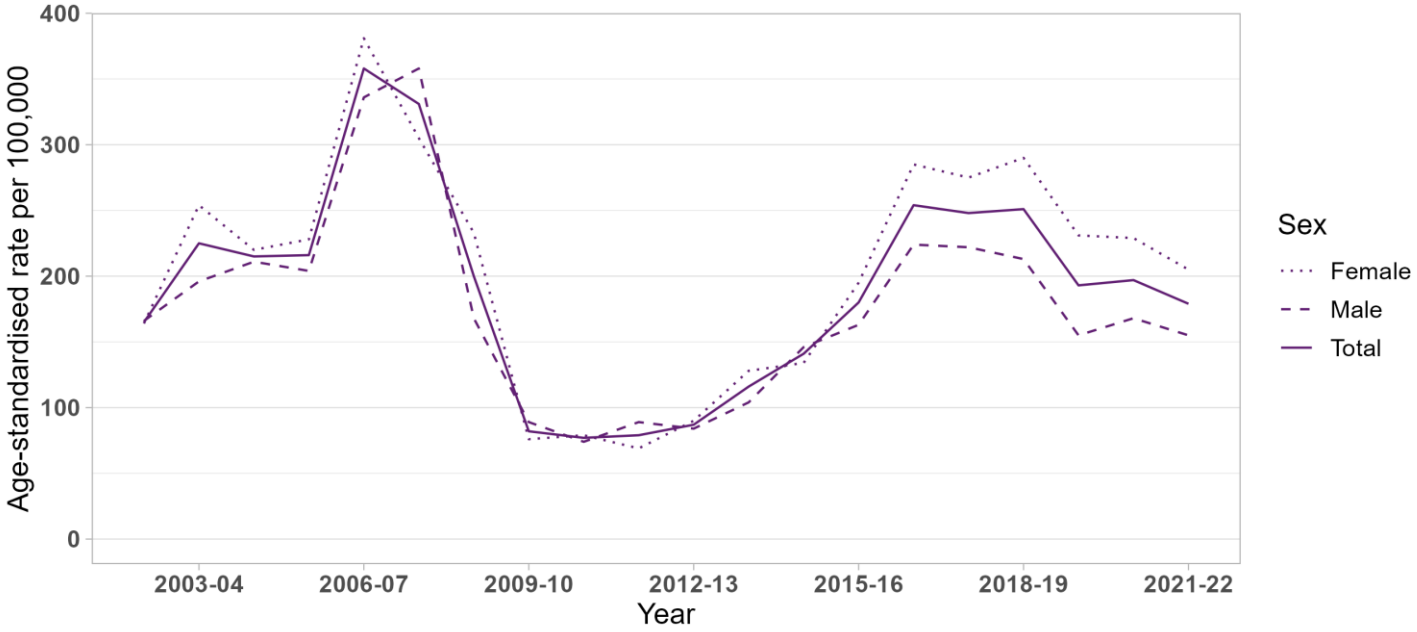
In 2021-22, 57% of drug-related hospitalisations in Tasmania were due to drug poisoning. Furthermore, 81% of drug poisoning-related hospitalisations were intentional (83 hospitalisations per 100,000 people) and 13% were unintentional (12 hospitalisations per 100,000 people) (**Figure 46**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating non-opioid analgesics (41 hospitalisations per 100,000 people) (**Figure 47**).

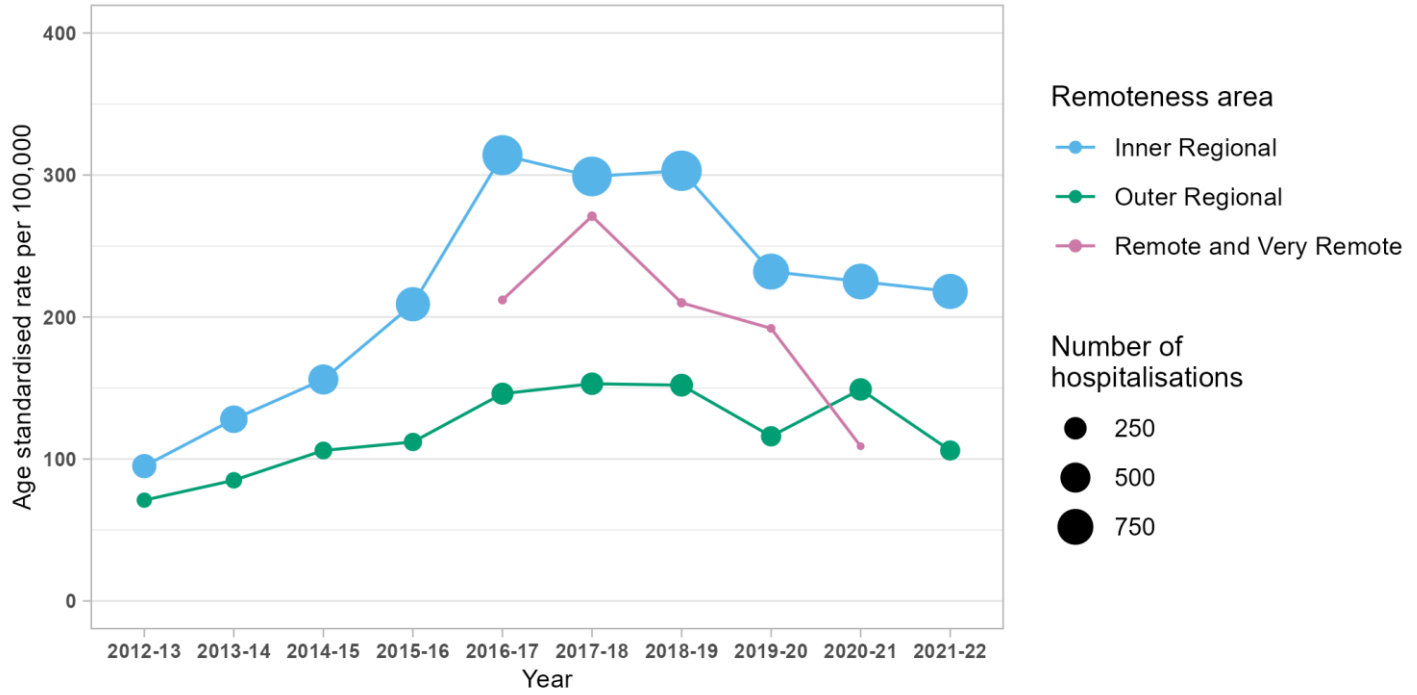
Compared to 2020-21, there were significant decreases in the 2021-22 rates of hospitalisations related to cannabinoids and antidepressants (Table A22, Appendix).

Figure 44. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Tasmania, 2002-03 to 2021-22.



Provision of Tasmanian data between 2008-09 and 2015-16 was limited to drug related hospitalisations based on selected drug-related ICD-10-AM codes (see the methods for the list of ICD-10-AM codes). Estimates of drug-related hospitalisations for this period are likely to be underestimated.

Figure 45. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Tasmania, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. Data on remoteness are only available from 2012-13. There are no major city areas in Tasmania. Where the number of hospitalisations for remote and very remote Tasmania were small (less than or equal to 10) age-standardised rates were not calculated. Please refer to our methods document for details.

Figure 46. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Tasmania, 2002-03 to 2021-22.

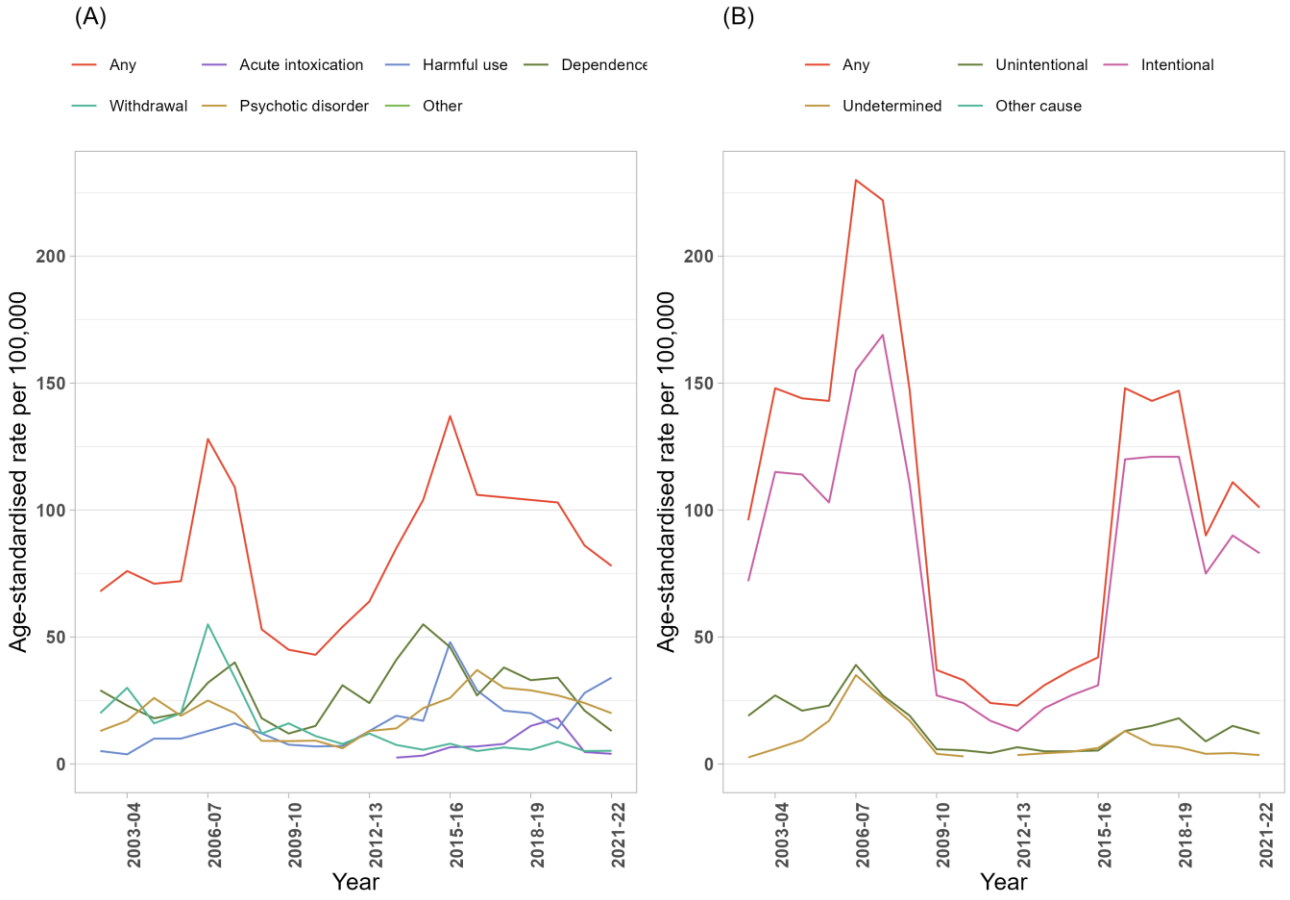
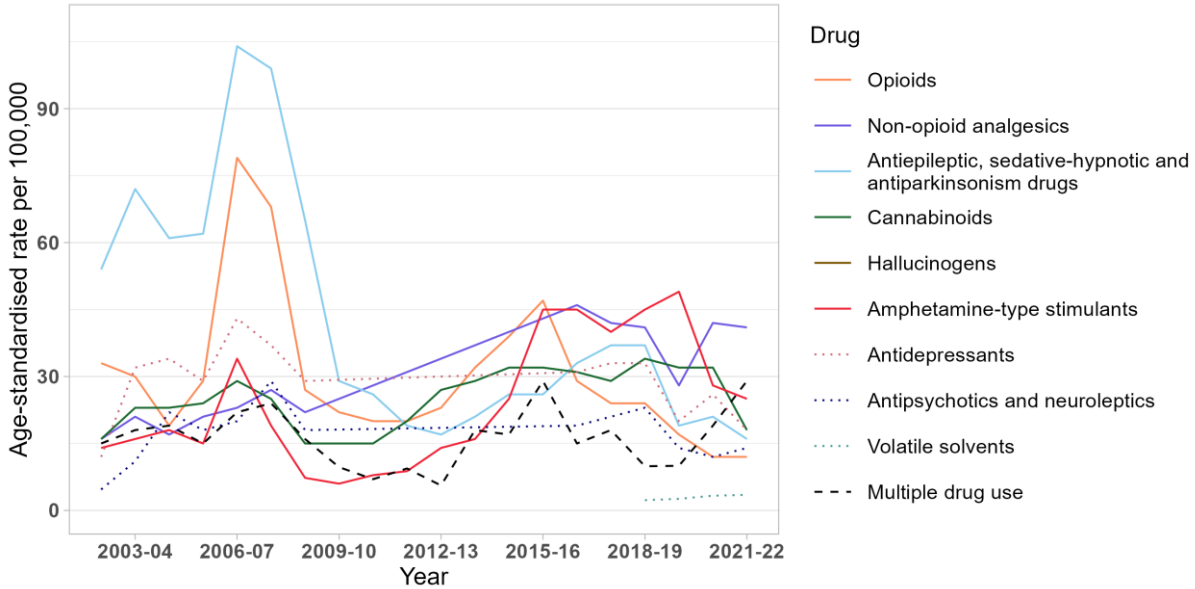
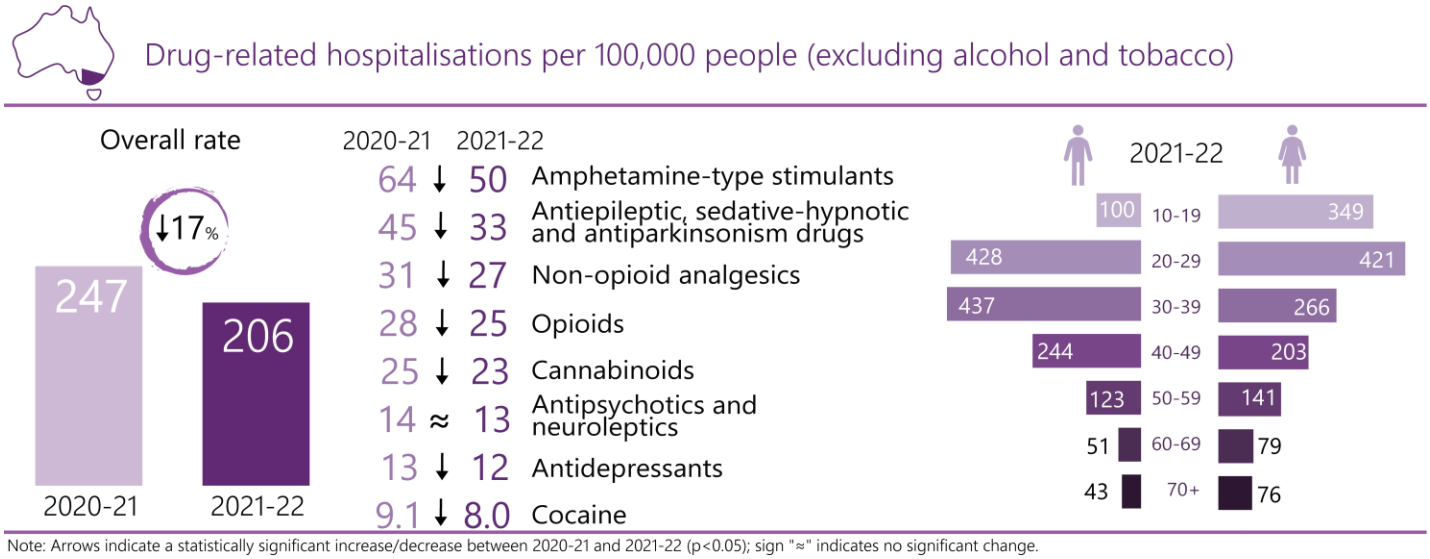


Figure 47. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Tasmania, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Victoria



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 13,265 hospitalisations with a drug-related principal diagnosis in Victoria in 2021-22, equivalent to 0.46% of all hospitalisations in Victoria.

This is equivalent to 206 hospitalisations per 100,000 people, which was 17% lower than the rate 2020-21 (247 hospitalisations per 100,000 people) (Table A23, Appendix), but still higher than the rate recorded between 2002-03 and 2014-15 (**Figure 48**).

Sex

The rate of hospitalisations was higher among males than females in 2021-22 (209 versus 201 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (428, 351, and 224 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 30-39 and 20-29 age groups, and among females in the 20-29 age group.

Remoteness Area of Usual Residence

The highest number and rate of hospitalisations in 2021-22 was observed in major city areas (10,475 hospitalisations, 202 hospitalisations per 100,000 people) (**Figure 49**).

External Cause of Drug Poisoning

In 2021-22, 45% of drug-related hospitalisations in Victoria were due to drug poisoning. Furthermore, 70% of drug poisoning-related hospitalisations were intentional (66 hospitalisations per 100,000 people) and 18% were unintentional (16 hospitalisations per 100,000 people) (**Figure 50**).

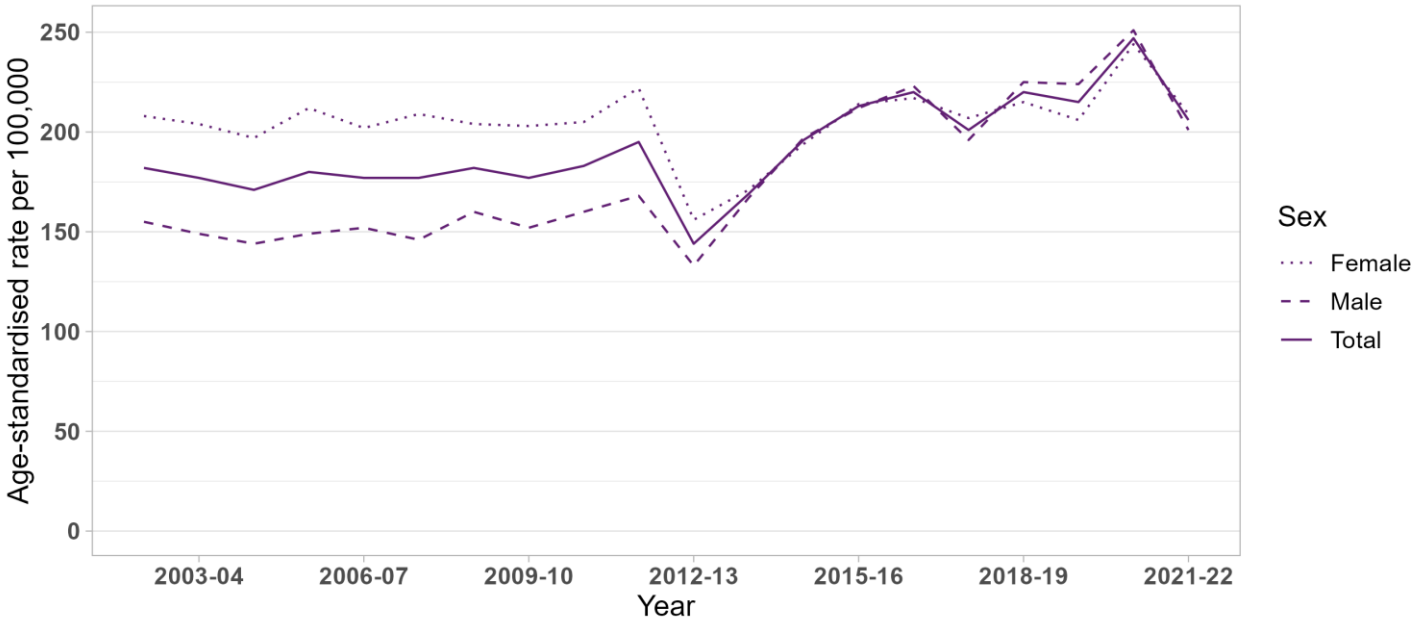
Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamine-type stimulants (50 hospitalisations per 100,000 people) (**Figure 51**).

Compared to 2020-21, there were significant increases in 2021-22 in the rates of hospitalisations related to:

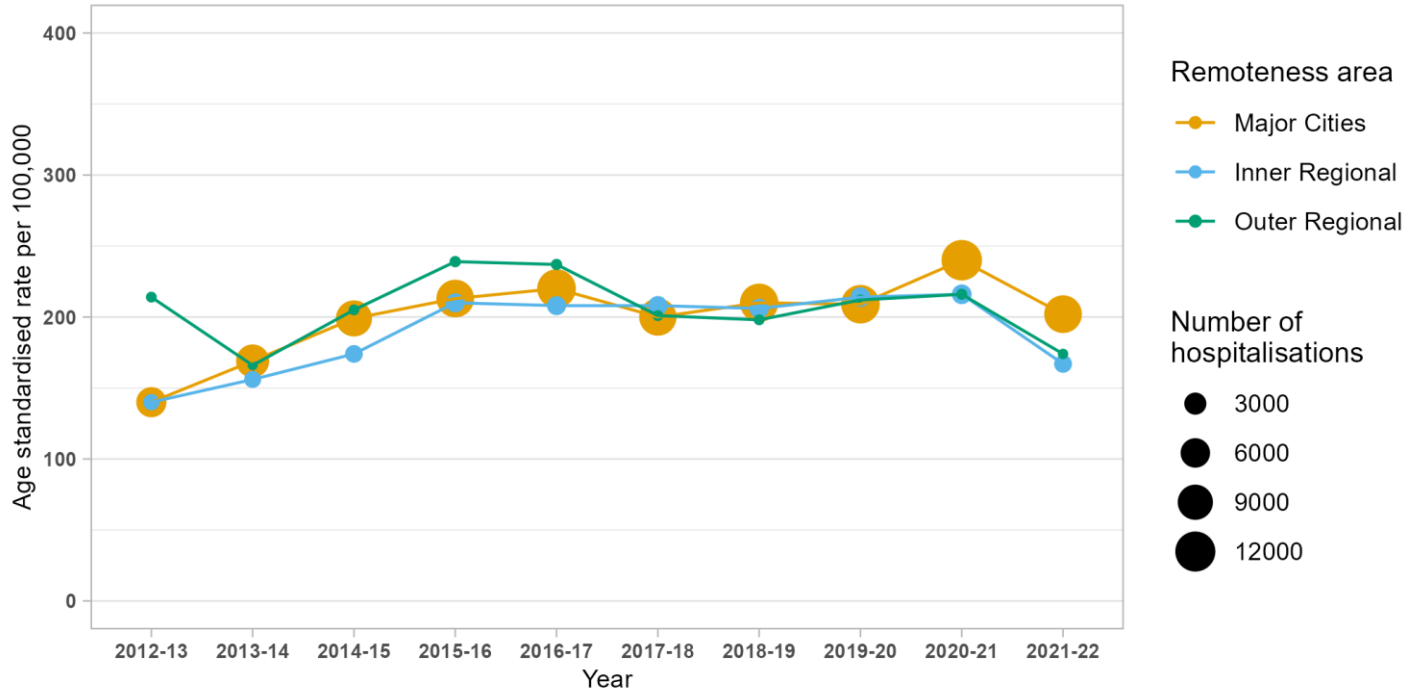
- amphetamine-type stimulants (including methamphetamine),
- antiepileptic, sedative-hypnotic and antiparkinsonism drugs (including GHB),
- non-opioid analgesics,
- opioids,
- cannabinoids,
- antidepressants, and
- cocaine (Table A23, Appendix).

Figure 48. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Victoria, 2002-03 to 2021-22.



Note: From 1st July 2011 to 30th June 2013 (i.e., between 2011-12 and 2012-13), there was a large decrease in public hospitalisations reported for the Victorian Admitted Episodes Dataset (VAED) because episodes where the patient's entire care is provided in the emergency department were not considered for admission, irrespective of whether a criterion for admission is met. From 2013-14 onwards, "ED-only admissions" were largely replaced with admissions to Short Stay Observation Units.

Figure 49. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Victoria, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. The number of hospitalisations for remote and very remote Victoria in each year were small (less than or equal to 10) thus age-standardised rates were not calculated. Please refer to our methods document for details. Data on remoteness are only available from 2012-13.

Figure 50. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Victoria, 2002-03 to 2021-22.

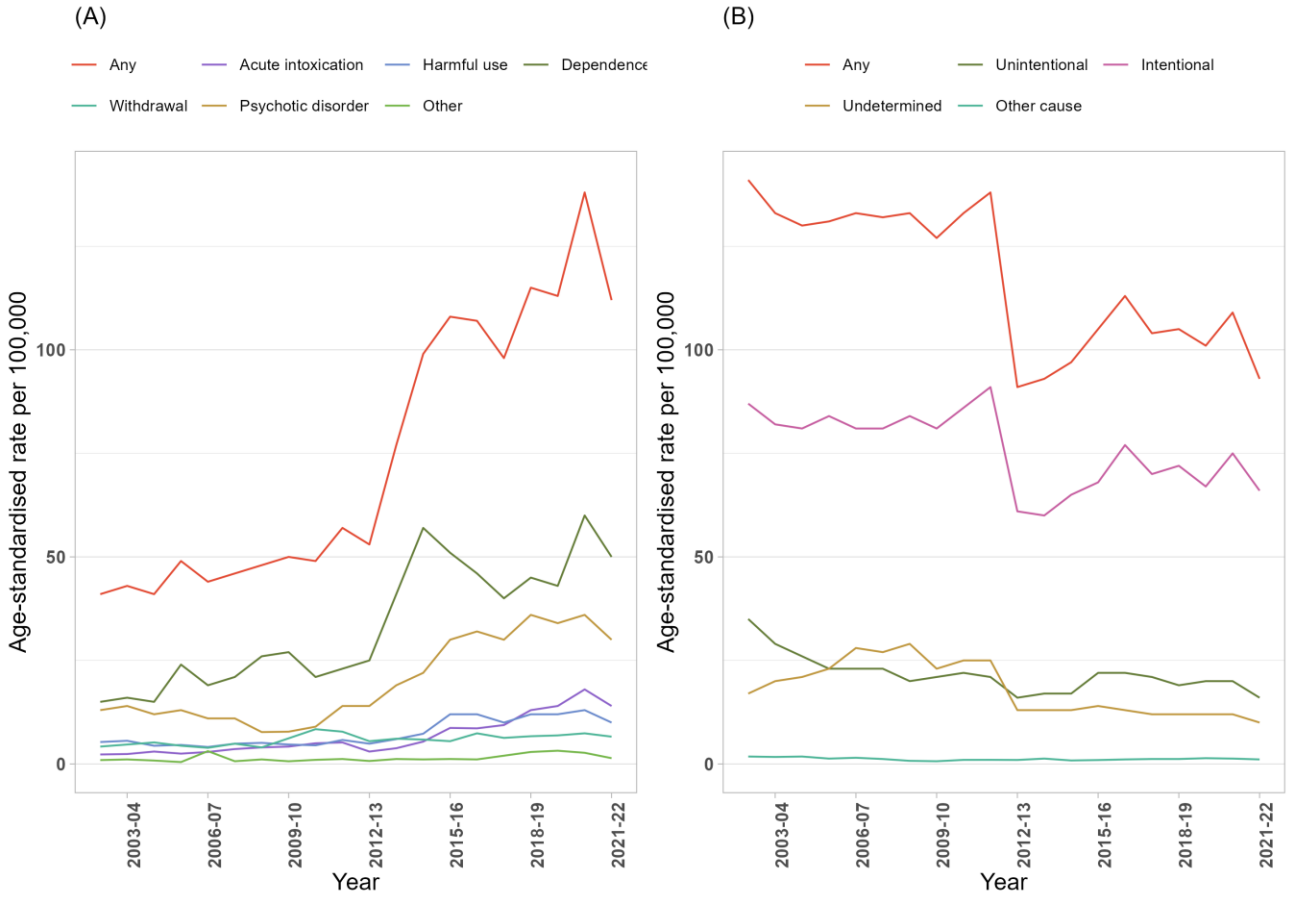
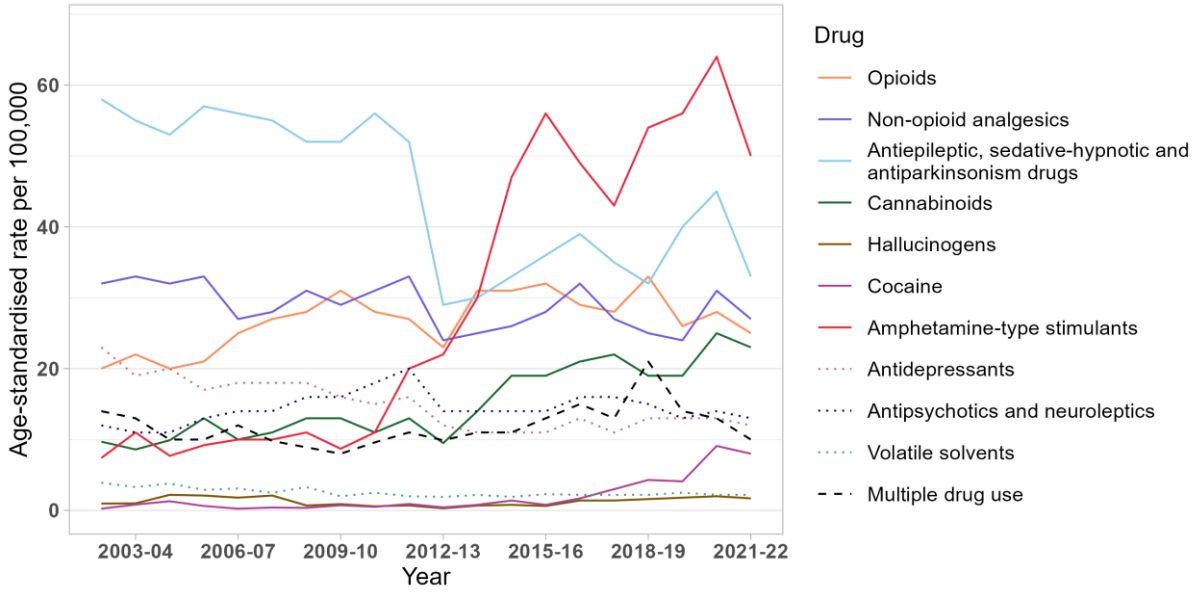
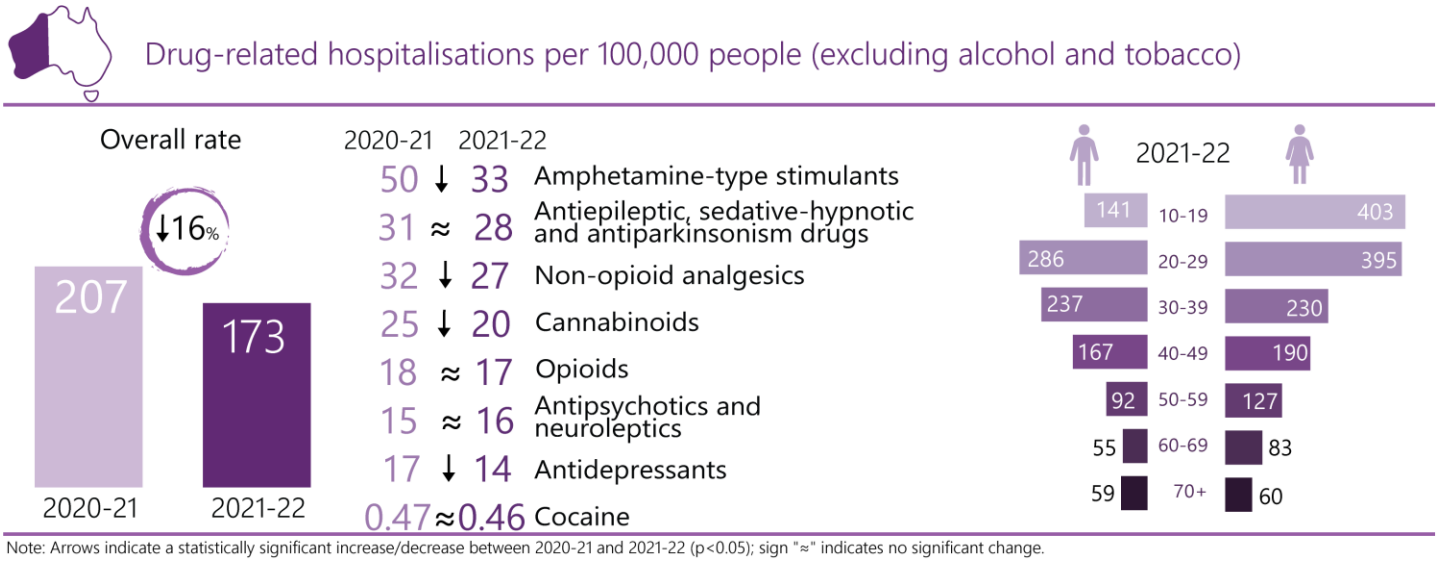


Figure 51. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Victoria, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.

Western Australia



Note: Arrows indicate a statistically significant increase/decrease between 2020-21 and 2021-22 ($p<0.05$); sign "≈" indicates no significant change.

There were 4,599 hospitalisations with a drug-related principal diagnosis in Western Australia in 2021-22, equivalent to 0.39% of all hospitalisations in Western Australia.

This is equivalent to 173 hospitalisations per 100,000 people, which was 16% lower than the rate in 2020-21 (207 hospitalisations per 100,000 people) (Table A24, Appendix) and the lowest rate since 2008-09 (**Figure 52**).

Sex

The rate of hospitalisations was higher among females than males in 2021-22 (204 versus 143 hospitalisations per 100,000 people, respectively).

Age

In 2021-22, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19 and 30-39 age groups (339, 268, and 233 hospitalisations per 100,000 people, respectively). Among males, the rate of drug-related hospitalisations was highest in the 20-29 age group, and among females in the 10-19 and 20-29 age groups.

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2021-22 was observed in outer regional Western Australia (227 per 100,000 people), while the number of hospitalisations was highest in major city areas (3,380 hospitalisations,) (**Figure 53**).

External Cause of Drug Poisoning

In 2021-22, 59% of drug-related hospitalisations in Western Australia were due to drug poisoning. Furthermore, 72% of drug poisoning-related hospitalisations were intentional (74 hospitalisations per 100,000 people) and 23% were unintentional (23 hospitalisations per 100,000 people) (**Figure 54**).

Drug Type

In 2021-22, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamine-type stimulants (33 hospitalisations per 100,000 people) (**Figure 55**).

Compared to 2020-21, there were significant decreases in 2021-22 in the rates of hospitalisations related to:

- amphetamine-type stimulants (including methamphetamine),
- non-opioid analgesics,
- cannabinoids, and
- antidepressants (Table A24, Appendix).

Figure 52. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Western Australia, 2002-03 to 2021-22.

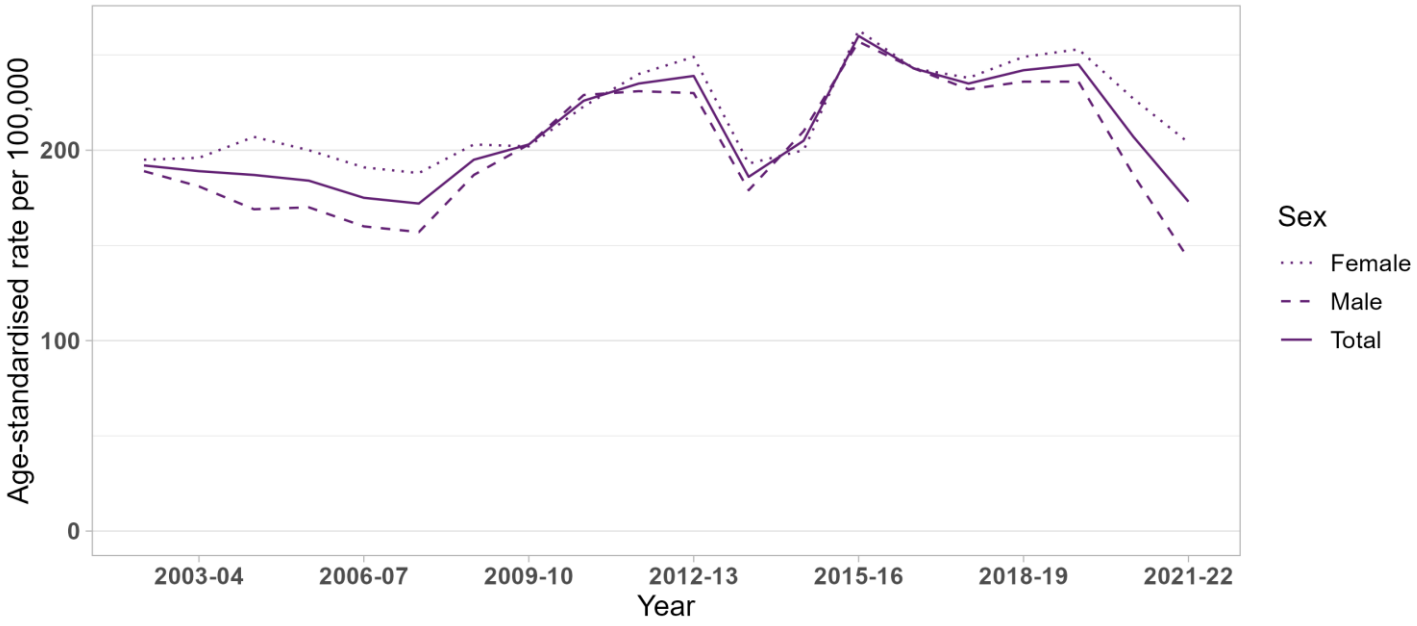
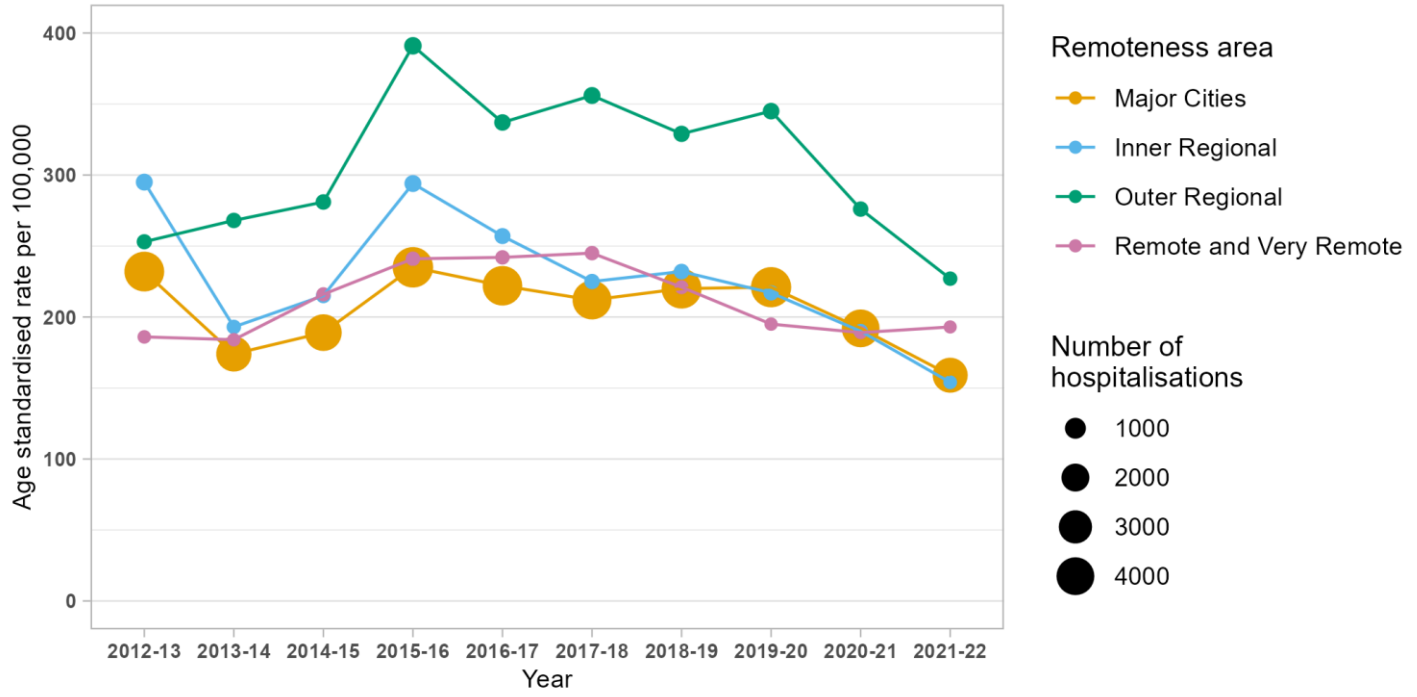


Figure 53. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Western Australia, 2012-13 to 2021-22.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. Data on remoteness are only available from 2012-13.

Figure 54. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Western Australia, 2002-03 to 2021-22.

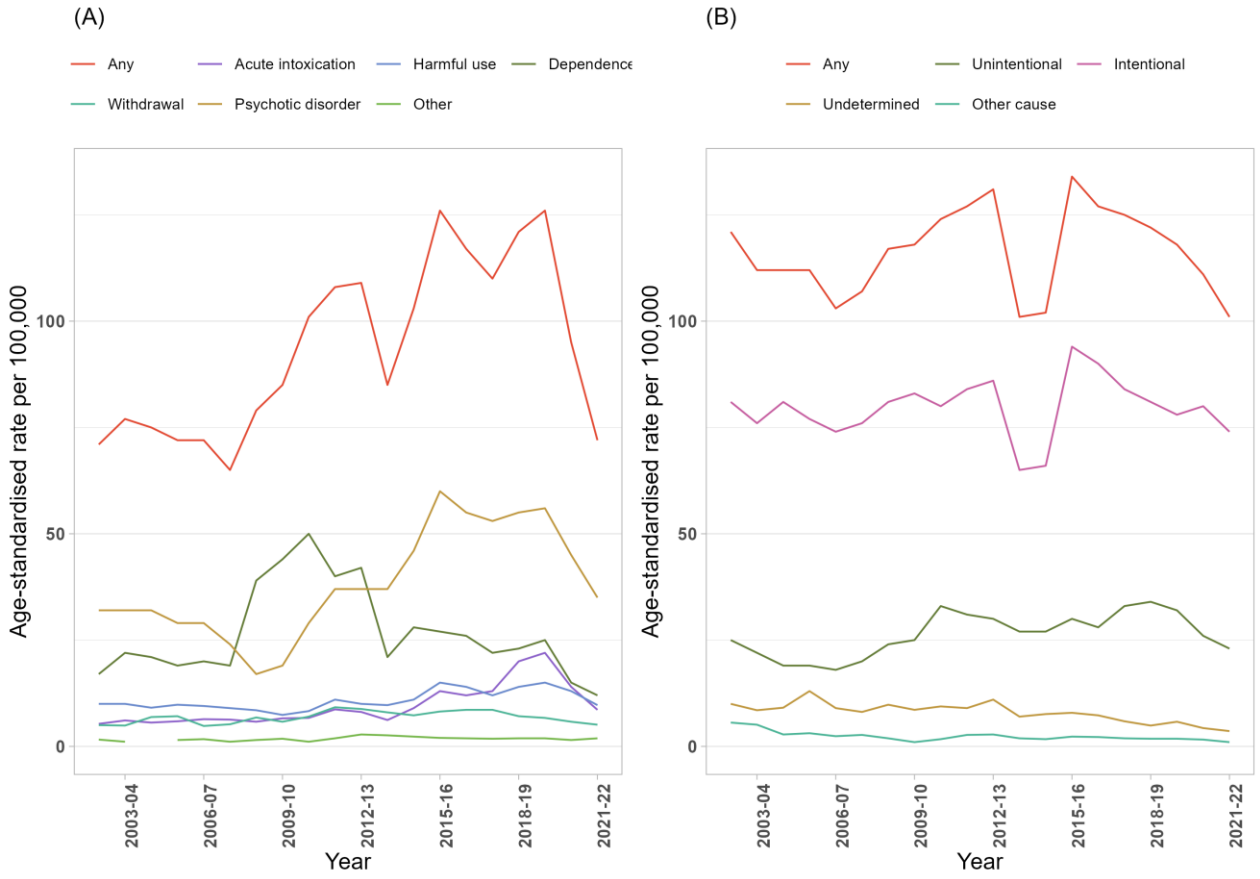
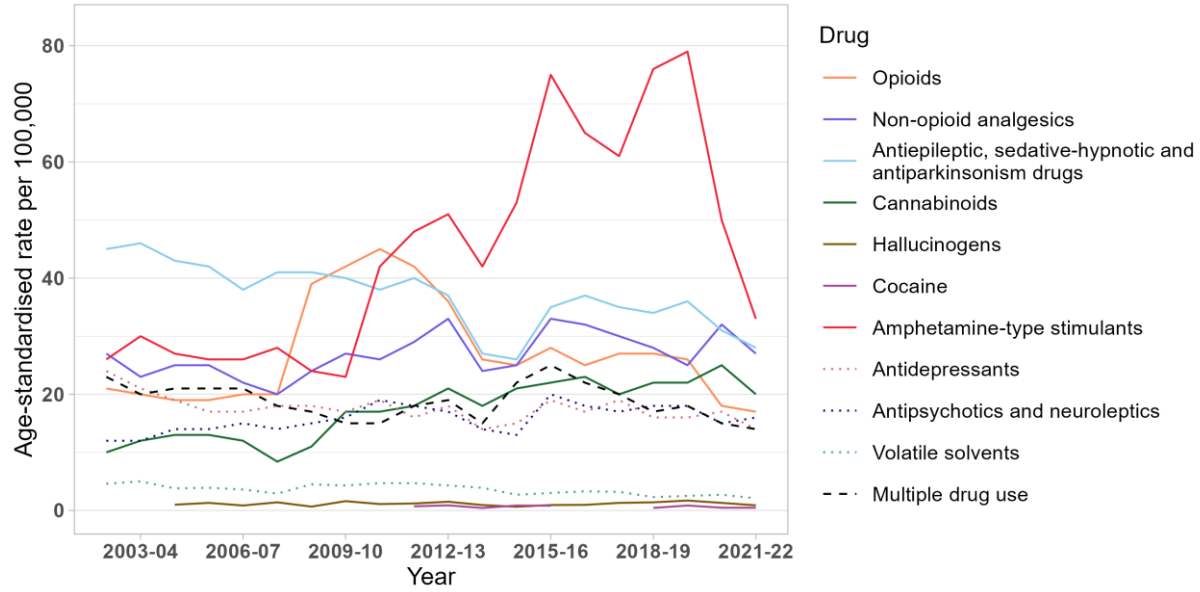


Figure 55. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Western Australia, 2002-03 to 2021-22.



Note: Age-standardised rates were not calculated if the number of hospitalisations was less than or equal to 10 (please refer to our methods document for details). Suppressed data are visible as gaps in the data series.