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National Illicit Drug Indicators Project

TRENDS IN DRUG-RELATED HOSPITALISATIONS IN AUSTRALIA, 1999-2020

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ISBN 978-0-7334-4009-0

Recommended citation: Chrzanowska, A., Man, N., Sutherland, R., Degenhardt, L. & Peacock, A. (2021). Trends in drug-related hospitalisations in Australia, 1999-2020. Sydney: National Drug and Alcohol Research Centre, UNSW Sydney.

Please note that as with all statistical reports there is the potential for minor revisions to data in this report over its life. 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

Funding

The Drug Trends program is funded by the Australian Government Department of Health under the Drug and Alcohol Program.

Data source

We would like to acknowledge the Australian Institute of Health and Welfare for data from the National Hospital Morbidity Database.

Contributors

We would like to acknowledge the contribution of those who have been involved in past reporting on drug-related hospitalisations by Drug Trends, specifically: A/Prof Timothy Dobbins, Dr Amanda Roxburgh, and A/Prof Lucinda Burns.

We thank Dr Louise Tierney and her team from the Tobacco, Alcohol and Other Drugs Unit at the Australian Institute of Health and Welfare for reviewing the report.

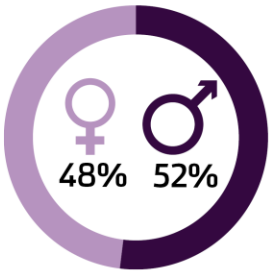
We acknowledge the traditional custodians of the land on which the work for this report was undertaken. We pay respect to Elders past, present, and emerging.

Related Links

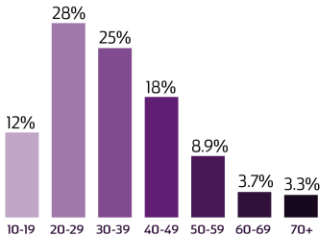
- Hospitalisations data visualisations: https://drugtrends.shinyapps.io/hospital_separations
- Hospitalisations methods document: https://ndarc.med.unsw.edu.au/resource-analytics/trends-drug-related-hospitalisations-australia-1999-2020
- For other Drug Trends publications on drug-related hospitalisations and drug-induced deaths in Australia, go to: https://ndarc.med.unsw.edu.au/project/national-illicit-drug-indicators-project-nidip
- For more information on NDARC research, go to: http://ndarc.med.unsw.edu.au/
- For more information about the AIHW and NHMD, go to: https://www.aihw.gov.au/
- For more information on ICD coding go to: http://www.who.int/classifications/icd/en/ https://www.ihpa.gov.au/what-we-do/icd-10-am-achi-acs-current-edition
- For more research from the Drug Trends program go to: https://ndarc.med.unsw.edu.au/program/drug-trends

Drug-related hospitalisations (excluding alcohol and tobacco), Australia, 2019-20

There were 62,757 drug-related hospitalisations in Australia in 2019-20 (excluding alcohol and tobacco).



In 2019-20, males accounted for 52% of drug-related hospitalisations.



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

27% Amphetamines and other stimulants

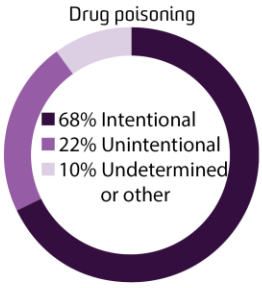
16% Antiepileptic, sedative-hypnotic and antiparkinsonism drugs

12% Opioids

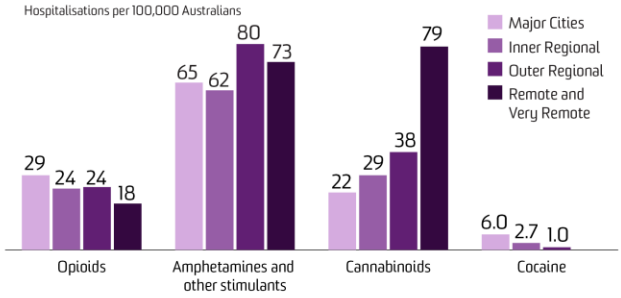
11% Non-opioid analgesics

10% Cannabinoids

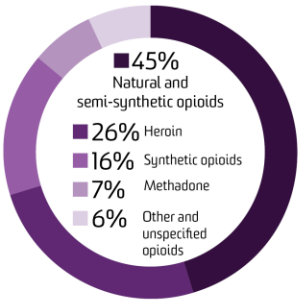
The five drug classes most commonly identified as the principal diagnosis in drug-related hospitalisations.



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

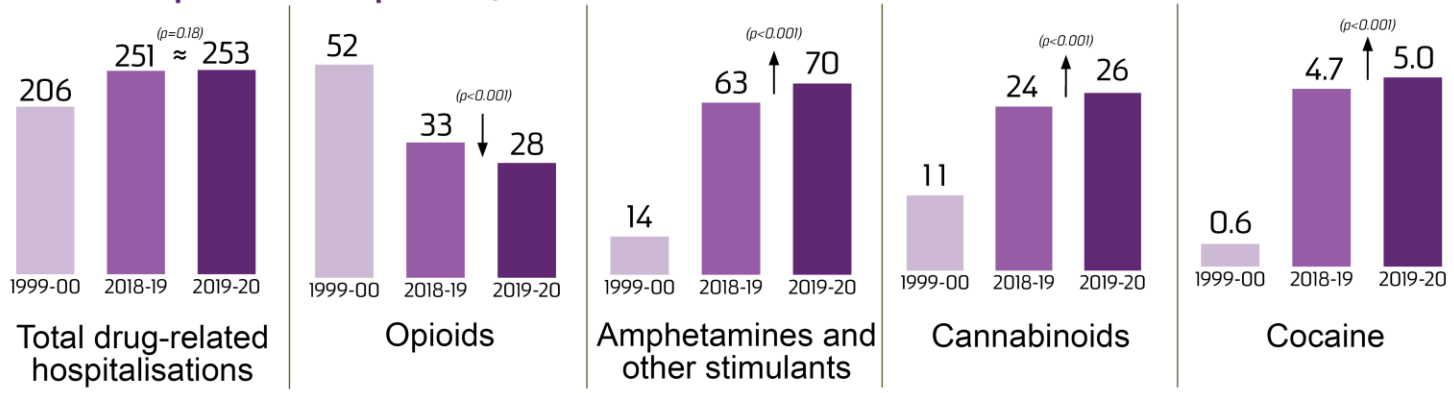


The highest rates of opioid- and cocaine-related hospitalisations were in major cities, amphetamines and other stimulants in outer regional areas and cannabinoids in remote and very remote areas.



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

Rate of hospitalisations per 100,000 Australians



Executive Summary

There were 62,757 drug-related hospitalisations (excluding alcohol and tobacco) among Australians in 2019-20, equivalent to 0.56% of all hospitalisations in Australia.

The age-standardised rate of drug-related hospitalisations was relatively stable between 1999-00 and 2009-10. It subsequently increased from 199 hospitalisations per 100,000 people in 2010-11 to 272 in 2015-16 and 2016-17, before declining to 250 in 2017-18. This rate remained stable in 2018-19 and 2019-20 (251 and 253 hospitalisations per 100,000 people, respectively).

Sex

In 2019-20, males accounted for 52% of drug-related hospitalisations. This is a reversal of findings up until 2014-15 where drug-related hospitalisations more commonly involved females than males.

Age

In 2019-20, the highest rates of drug-related hospitalisations continued to be observed among the 20-29 and the 30-39 age groups. The greatest increase since 1999-00 has been observed in males aged 40-49 and 50-59, with the rates of drug-related hospitalisations over two times higher in 2019-20 than in 1999-00, however, the rates have been relatively stable since 2015-16. Among females, the second highest rate of drug-related hospitalisations was among those aged 10-19.

Remoteness Area of Usual Residence

In 2019-20, the majority of drug-related hospitalisations were among people residing in major cities (73% of hospitalisations where remoteness was coded), although the age-standardised rate of drug-related hospitalisations was highest in remote and very remote areas of Australia (301 hospitalisations per 100,000 people).

Principal Diagnosis

In 2019-20, psychotic disorder was the leading diagnosis among the hospitalisations related to mental and behavioural disorders due to psychoactive substance use (37%), followed closely by dependence syndrome (31%).

In 2019-20, two-thirds (68%) of hospitalisations due to drug poisoning were intentional.

Drug Type

In 2019-20, the largest proportion of drug-related hospitalisations was attributable to amphetamines and other stimulants (70 hospitalisations per 100,000 people, 27% of drug-related hospitalisations), followed by antiepileptic, sedative-hypnotic and antiparkinsonism drugs (e.g., benzodiazepines; 16%), opioids (12%), non-opioid analgesics (e.g., paracetamol; 11%), and cannabinoids (10%).

From 1999-00 to 2019-20, cannabinoid-related hospitalisations increased from 11 to 26 per 100,000 people. Psychostimulant-related hospitalisations also increased in that period, with cocaine-related hospitalisations increasing from 0.6 to 5.0 and amphetamines and other stimulants from 14 to 70 hospitalisations per 100,000 people. Opioid-related hospitalisations decreased from the peak of 52 hospitalisations per 100,000 people in 1999-00 to 28 hospitalisations per 100,000 people in 2019-20.

Compared with the previous year, 2019-20 saw a significant decrease in the rates of hospitalisations with opioids; non-opioid analgesics; and antipsychotics and neuroleptics identified under principal diagnosis ($p<0.001$). In contrast, there was a significant increase in

hospitalisation rates due to amphetamines and other stimulants; cannabinoids; antiepileptic, sedative-hypnotic and antiparkinsonism drugs; and hallucinogens (p<0.050).

In 2019-20, natural and semi-synthetic opioids (e.g., oxycodone, morphine) were responsible for nearly half (45%) of all hospitalisations due to opioid poisoning. The rate of hospitalisations related to natural and semi-synthetic opioids almost doubled from 1999-00 to 2019-20 (3.5 to 6.0 hospitalisations per 100,000 people, respectively).

Major cities had the highest rate of opioid-related (29 per 100,000 people) and cocaine-related (6.0 per 100,000 people) hospitalisations compared to other remoteness areas, while outer regional areas had the highest rate of hospitalisations related to amphetamines and other stimulants (80 hospitalisations per 100,000 people) and remote and very remote areas had the highest rate of cannabinoid-related hospitalisations (79 per 100,000 people).

Jurisdiction

From 2018-19 to 2019-20, the age-standardised rate of drug-related hospitalisations increased in the Australian Capital Territory, the Northern Territory, Queensland, South Australia, and Western Australia, decreased in Tasmania and Victoria, and remained similar in New South Wales.

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

This bulletin reports on drug-related hospitalisations (see **Panel A** for definition) in Australia from 1999-00 to 2019-20, with a particular focus on opioid-, amphetamine and other stimulant-, cannabinoid-, and cocaine-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.

Panel A. Terminology

- A **hospitalisation** in this bulletin (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.

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). Data presented here describe hospitalisations only 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). The data presented will therefore be an underestimate of the total number of hospitalisations related to drug use as: i) those presentations where drugs are coded as an additional diagnosis are excluded, and ii) 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 from 2012-13 to 2017-18. For this reason, we present data by remoteness area in Australia for the years 2018-19 and 2019-20 only.

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 change have been conducted between estimates for 2019-20 compared to 2018-19 only; significance level was set at $p<0.050$.

An accompanying online interactive data visualisation allows disaggregation of data in many different ways, and download of these images. 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).

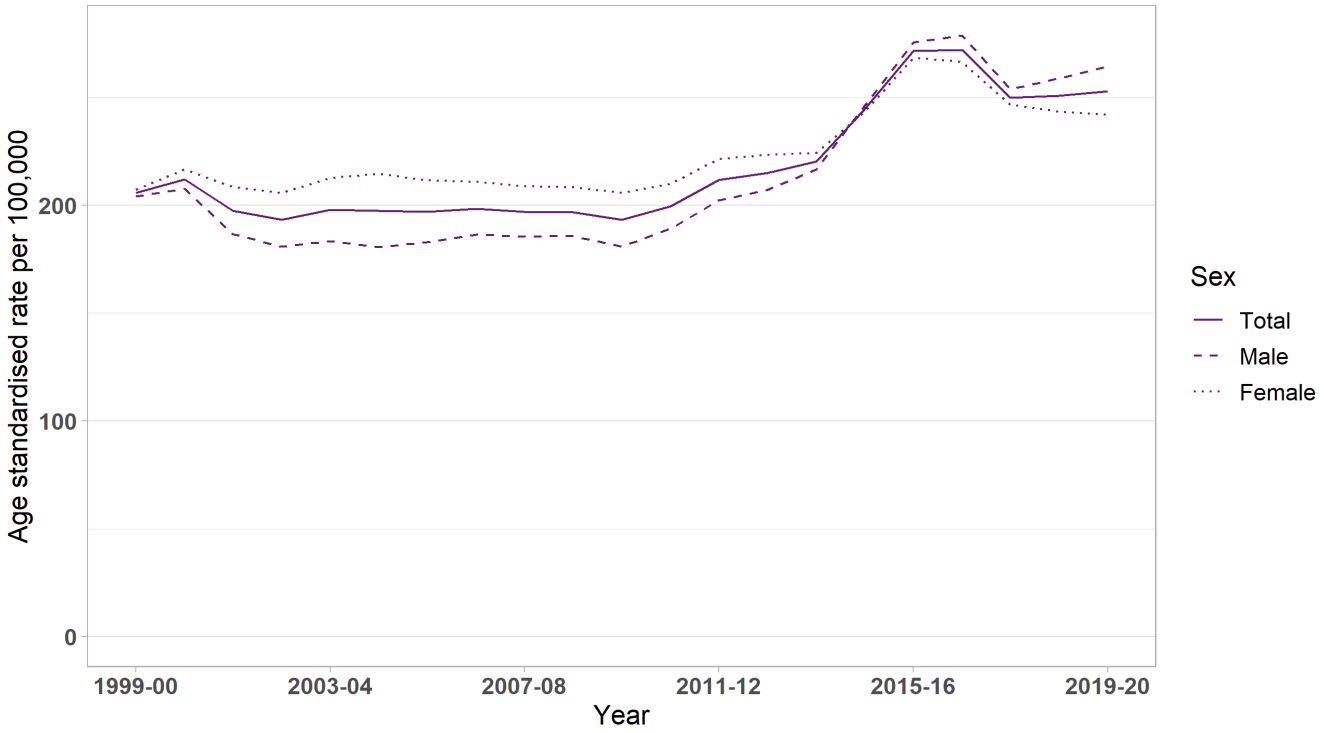
1

Trends in Drug-Related Hospitalisations among Australians

In 2019-20 there were 11.1 million hospitalisations in Australia's public and private hospitals. There were 62,757 hospitalisations with a drug-related principal diagnosis (excluding alcohol and tobacco) among Australians of all ages in 2019-20, equivalent to 0.56% of all hospitalisations and an average of 172 hospitalisations per day. Relative to population size and adjusting for age distribution, we estimate that there were 253 drug-related hospitalisations per 100,000 people in 2019-20 (Figure 1).

The age-standardised rate of drug-related hospitalisations was relatively stable between 1999-00 and 2009-10. We observed an increase in the age-standardised rate of drug-related hospitalisations from 199 in 2010-11 to 272 hospitalisations per 100,000 people in both 2015-16 and 2016-17. The rate then decreased to 250 hospitalisations per 100,000 people in 2017-18, and remained similar in 2018-19 (251 hospitalisations per 100,000 people) and 2019-20 (253 hospitalisations per 100,000 people; p=0.181) (Table 1).

Figure 1. Age-standardised rate per 100,000 people of drug-related hospitalisations among the total Australian population and for males and females, 1999-00 to 2019-20.



Sociodemographic Characteristics of Drug-Related Hospitalisations

Sex

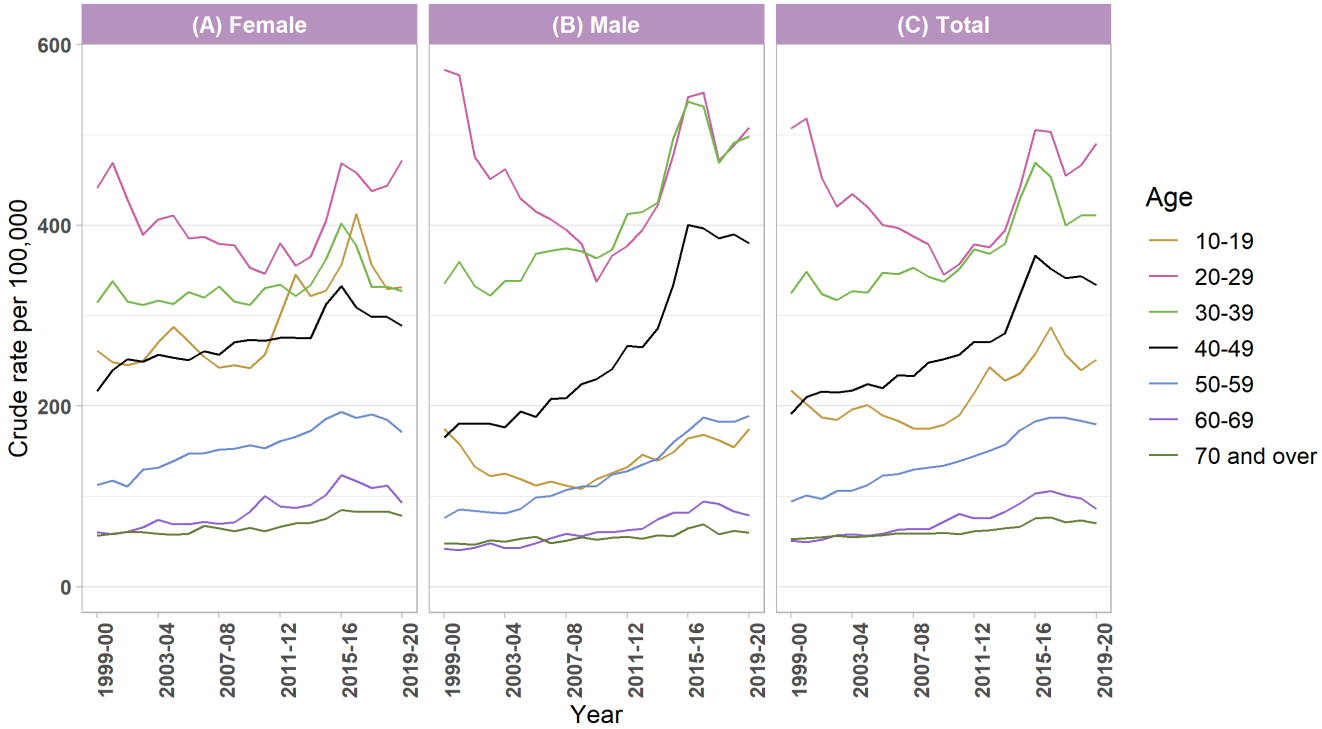
In 2019-20, the age-standardised rate of drug-related hospitalisations was higher for males compared to females (264 versus 242 hospitalisations per 100,000 people), with 52% of hospitalisations occurring among males. The difference was larger than observed in 2018-19 (51% male), and is a reversal of findings up until 2014-15 where the rate of drug-related hospitalisations was higher for females than males (Figure 1).

There was a significant increase in drug-related hospitalisations among males in 2019-20 compared with 2018-19 (p<0.001) from 259 to 264 hospitalisations per 100,000 people while the decrease among females was not statistically significant (p=0.419) (Table 1).

Age

The highest crude rate of hospitalisations has consistently been observed amongst the 20-29 age group, followed by the 30-39 age group (491 and 412 hospitalisations per 100,000 people in 2019-20, respectively) (Figure 2). In 2019-20, these age groups accounted for the greatest percentage of drug-related hospitalisations (28% and 25%, respectively), followed by the 40-49 (18%), 10-19 (12%), 50-59 (8.9%), 60-69 (3.7%) and 70 and over (3.3%) age groups.

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, 1999-00 to 2019-20.



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

There was a significant increase in drug-related hospitalisations in the two youngest age groups (i.e., 10-19 and 20-29) in 2019-20 compared with 2018-19 (251 and 491 versus 240 and 466 hospitalisations per 100,000 people; p=0.005 and p<0.001, respectively). In contrast, a decrease in the rate of hospitalisations was observed in the 40-49 and 60-69 age groups (334 and 86 versus 344 and 98 hospitalisations per 100,000 people; p=0.032 and p<0.001, respectively) (Table 2).

Sex and Age

The crude rate of drug-related hospitalisations increased across most age groups for both males and females from 1999-00 to 2019-20. The greatest increase has been observed in males aged 40-49 and 50-59, with the rates of drug-related hospitalisations over two times higher in 2019-20 than in 1999-00. However, the highest rate of drug-related hospitalisations in 2019-20 was observed amongst the male 20-29 and 30-39 age groups, followed by the female 20-29 age group (508, 498, and 472 hospitalisations per 100,000 people, respectively) (Figure 2).

Compared with 2018-19, there was a significant increase in the rate of drug-related hospitalisations among males aged 10-19 (p<0.001) and 20-29 (p=0.006) in 2019-20. There was also a significant increase in the rate of drug-related hospitalisations among females aged 20-29 (p<0.001), while the rates among females aged 50-59 and 60-69 decreased significantly (p=0.003 and p<0.001, respectively) compared to 2018-19 (Table 3).

Remoteness Area of Usual Residence

Remoteness area of usual residence (hereafter ‘remoteness’) could not be identified in 2.9% of hospitalisations in 2019-20.

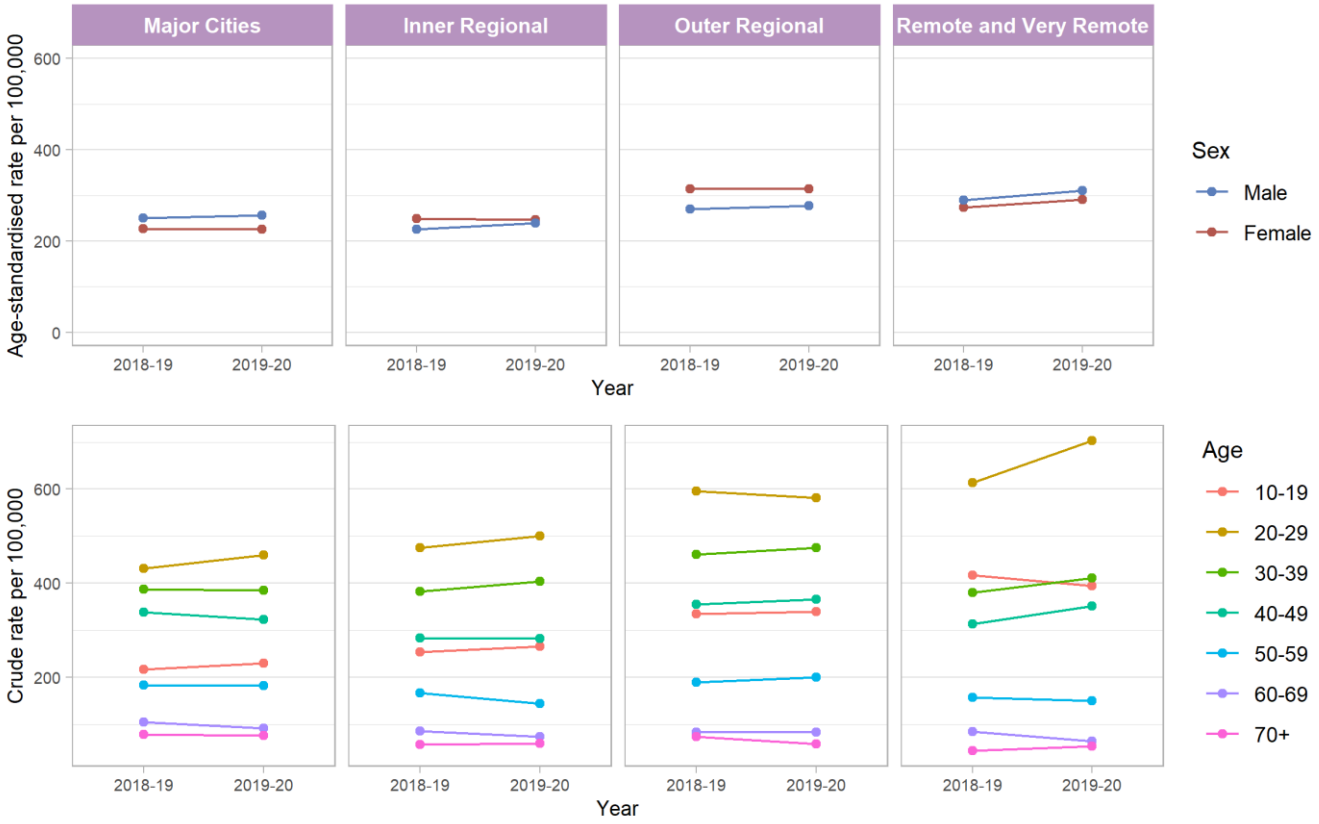
In 2019-20, the majority of hospitalisations were among people residing in major cities (44,629 hospitalisations; 73% of hospitalisations with remoteness identified). By contrast, the age-standardised rate was lowest in major cities (240 hospitalisations per 100,000 people) and highest in remote and very remote areas (301 hospitalisations per 100,000 people), followed by outer regional areas (295 hospitalisations per 100,000 people) and inner regional areas (242 hospitalisations per 100,000 people). This represents a shift in rates when compared to 2018-19 where the highest rate was recorded in outer regional areas, followed by remote and very remote areas (292 and 282 hospitalisations per 100,000 people, respectively) (Table 4).

Remoteness and Sex

In 2019-20, rates of drug-related hospitalisations were higher among males than females in major cities (256 per 100,000 people and 225 per 100,000 people, respectively) and remote and very remote (311 per 100,000 people and 291 per 100,000 people, respectively) areas. Conversely, rates of drug-related hospitalisations were higher among females than males in inner regional (246 per 100,000 people and 239 per 100,000 people, respectively) and outer regional (314 per 100,000 people and 277 per 100,000 people, respectively) areas (Figure 3).

In 2019-20, the rate of drug-related hospitalisations among males significantly increased compared to 2018-19 in all remoteness areas (p<0.001). For females, a significant increase was observed in remote and very remote area (p<0.001) and a significant decrease was observed in inner regional area (p=0.049) (Table 4).

Figure 3. Rate per 100,000 people of drug-related hospitalisations among the Australian population, by remoteness, sex and age group, 2018-19 and 2019-20.



Remoteness and Age

The highest rate of hospitalisations was observed among the 20-29 age group in all remoteness areas; however, the rates were higher in remote and very remote (703 hospitalisations per 100,000 people) and outer regional (582 hospitalisations per 100,000 people) areas compared to inner regional areas (501 hospitalisations per 100,000 people) and major cities (460 hospitalisations per 100,000 people). A similar picture was observed for the younger group (10-19 years; 394, 340, 266 and 229 hospitalisations per 100,000 people, respectively). By contrast, the older age groups (60-69 and 70+) in major cities recorded a higher rate of hospitalisations as compared to other areas (Figure 3).

In 2019-20, the rate of hospitalisations increased significantly compared to 2018-19 for the 10-19 and 20-29 age groups in major cities (p<0.050). Conversely, a significant decrease in rates was observed for older age groups in certain areas; specifically, for the 40-49 and 60-69 age groups in major cities, the 50-59 and 60-69 age groups in inner regional areas and the 70+ age group in outer regional areas (p<0.050) (Table 5).

2

Drug-Related Hospitalisations by Diagnosis

In 2019-20, diagnoses of mental and behavioural disorder due to substance use were identified in 53% of all drug-related hospitalisations, while drug poisoning accounted for 46%. Between 1999-00 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. Since 2010-11, this difference has gradually been getting smaller, with an increasing number of hospitalisations related to mental and behavioural disorder due to substance use. Caution, however, should be used in comparing diagnosis over time, as the classifications and coding standards for those data can change over time.

Principal Diagnosis of Mental and Behavioural Disorder Due to Substance Use

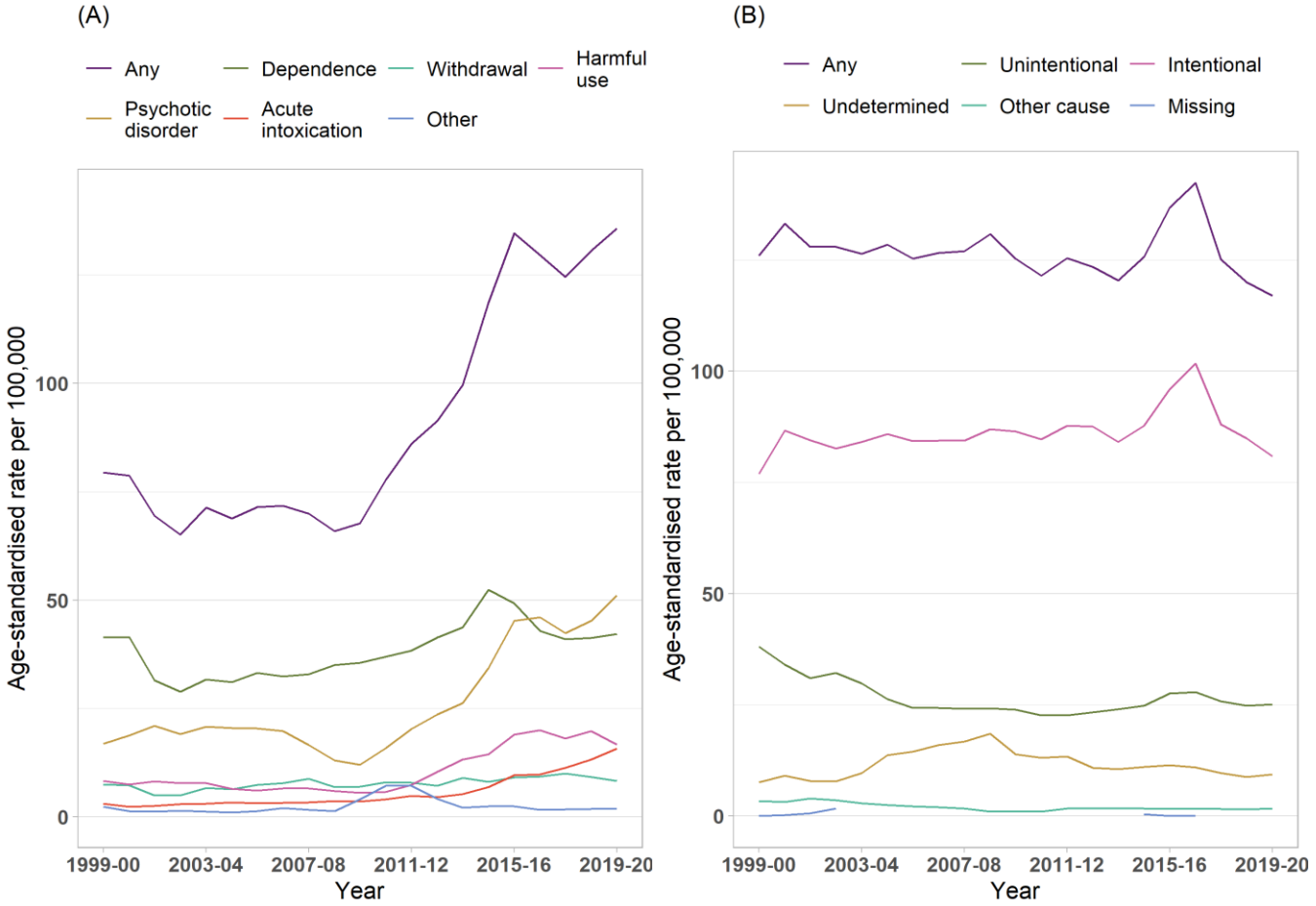
Among hospitalisations with a principal diagnosis from the group of ICD-10-AM codes indicating mental and behavioural disorder due to substance use, psychotic disorder was the leading diagnosis in 2019-20 (37%) followed closely by dependence syndrome (31%). Hospitalisations with a principal diagnosis of harmful use, acute intoxication, withdrawal state and other use disorder accounted for the remaining 30% of hospitalisations coded to the ICD-10-AM diagnoses of 'mental and behavioural disorder due to substance use' (Figure 4).

There was a substantial increase in the rate of hospitalisations with a principal diagnosis of a drug-related psychotic disorder, increasing over four-fold between 2009-10 (12 per 100,000 people) and 2019-20 (51 per 100,000 people), and with a significant increase recorded in 2019-20 compared to 2018-19 (p<0.001). An overall increase from 1999-00 to 2018-19 was also observed in the rates of hospitalisations with a principal diagnosis of acute intoxication and harmful use; however, the latter has decreased in 2019-20 (p<0.001), while acute intoxication continued to increase (p<0.001) (Table 6). The rates of withdrawal-related hospitalisations remained low over the course of monitoring, ranging between 4.9 and 10 hospitalisations per 100,000 people, with a significant decrease recorded between 2018-19 and 2019-20 (p=0.002).

Sex

Males have had a higher rate of hospitalisations with a principal diagnosis of a mental and behavioural disorder due to substance use than females over the course of monitoring (171 versus 100 hospitalisations per 100,000 people in 2019-20). This has been consistent across all diagnoses within this cluster of ICD-10-AM codes.

Figure 4. 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 (A) and external cause of poisoning (B), 1999-00 to 2019-20.



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.

In 2019-20 as compared to 2018-19, rates of hospitalisations increased among males and females with principal diagnosis of acute intoxication (17 and 9.2 in 2018-19 to 20 and 12 per 100,000 people in 2019-20, respectively; $p<0.001$) and psychotic disorder (60 and 30 in 2018-19 to 66 and 36 per 100,000 people in 2019-20, respectively; $p<0.001$) and among males with dependence (51 in 2018-19 to 53 per 100,000 people in 2019-20; $p=0.004$).

A significant decrease in rates of hospitalisations was observed among both males and females with a principal diagnosis of harmful use (25 and 14 in 2018-19 to 21 and 13 per 100,000 people in 2019-20, respectively; $p<0.001$), among males with withdrawal (11 in 2018-19 to 9.3 per 100,000 people in 2019-20; $p<0.001$) and females with other mental and behavioural disorder due to substance use (1.5 in 2018-19 to 1.2 per 100,000 people in 2019-20; $p=0.004$) (Table 6).

Age

In 2019-20, the rate 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 (297 and 279 hospitalisations per 100,000 people, respectively).

In 1999-00, the rate of hospitalisations in the 20-29 age group was twice the rate in the 30-39 age group (264 versus 125 per 100,000 people). Rates for these two age groups converged by 2009-10 (148 and 150 per 100,000 people, respectively), subsequently typically increasing, including a significant increase from 2018-19 to 2019-20 in the 20-29 age group (277 to 297 hospitalisations per 100,000 people; $p<0.001$). In 2019-20, the rate for the 20-29 age group was the highest since monitoring began.

Rates in 40-49 and 50-59 age groups increased 4-fold over the time of monitoring (49 and 17 hospitalisations per 100,000 people in 1999-00 to 198 and 76 per 100,000 people in 2019-20, respectively). A similar trend was observed in the 60-69 age group up until 2015-16 with the rate increasing from 7.0 in 1999-00 to 40 hospitalisations per 100,000 people in 2015-16. In more recent years, the rate has declined including a significant decline from 2018-19 to 2019-20 (32 to 26 hospitalisations per 100,000 people; $p<0.001$) (Table 7).

Remoteness Area of Usual Residence

In 2019-20, the rate of hospitalisations with a principal diagnosis of mental and behavioural disorder due to substance use was highest in remote and very remote areas (170 per 100,000 people) and lowest in inner regional areas (114 per 100,000 people). It varied, however, depending on the principal diagnosis. The rate of dependence-related hospitalisations was highest in major cities (48 per 100,000 people) and lowest in remote and very remote areas (9.2 per 100,000 people). Psychotic disorder and withdrawal-related hospitalisations were highest in remote and very remote areas (100 and 19 hospitalisations per 100,000 people, respectively) and lowest in major cities (44 and 7 hospitalisations per 100,000 people, respectively). Rates of harmful use and acute intoxication hospitalisations were also highest in remote and very remote areas (21 and 17 per 100,000 people).

Between 2018-19 and 2019-20, an increase in rates of hospitalisation due to psychotic disorder was recorded in all remoteness areas ($p<0.001$). Dependence syndrome-related hospitalisations increased in inner regional and outer regional areas, while a decrease in rates was observed in remote and very remote Australia. Harmful use-related hospitalisations increased in all remoteness areas except major cities, where a significant decrease in rates was recorded ($p<0.001$). Acute intoxication hospitalisations significantly increased in major cities, inner and outer regional areas ($p<0.001$). Withdrawal-related hospitalisations decreased in major cities and inner regional areas but increased in outer regional areas ($p<0.050$) (Table 8).

Principal Diagnosis of Drug Poisoning

Over the course of monitoring, about two-thirds of drug poisonings were intentional (68% in 2019-20).

The rate of intentional drug poisoning was relatively stable between 1999-00 and 2014-15 varying between 77 and 88 hospitalisations per 100,000 people; however, it peaked at 102 hospitalisations per 100,000 people in 2016-17. Since then, the rate has fallen again to 81 hospitalisations per 100,000 people

in 2019-20, a significant decrease compared to 2018-19 (85 hospitalisations per 100,000 people; $p<0.001$) (Figure 4; Table 9).

By contrast, the rate of hospitalisations for unintentional drug poisoning has remained relatively stable (between 22 and 28 hospitalisations per 100,000 people) since 2005-06.

Sex

In 2019-20, 67% of intentional drug poisoning hospitalisations were among females. The rate of intentional drug poisoning among females was double that observed among males over the course of monitoring (109 and 53 per 100,000 people, respectively, in 2019-20). However, the rate of intentional drug poisonings among females in 2019-20 represents a significant decline relative to 2018-19 116 per 100,000 people ($p<0.001$).

By contrast, unintentional drug poisoning hospitalisations were more common among males than females in 2019-20 (54% versus 46%; 28 and 23 per 100,000 people, respectively), but this has fluctuated over the years. Males showed a significant increase in rates of unintentional poisoning hospitalisations from 26 per 100,000 people in 2018-19 to 28 per 100,000 people in 2019-20 ($p=0.019$) (Table 9).

Age

In 2019-20, intentional drug poisoning was most common among people aged 20-29 (26%, 143 per 100,000 people) and 10-19 (23%, 150 per 100,000 people). The rate of hospitalisations for the 10-19 age group started increasing substantially from 2007-08 (99 per 100,000 people) and in 2012-13 overtook the rate observed among the 20-29 age group (159 and 127 per 100,000 people) (Table 10).

In 2019-20, people aged 20-29 had the highest rate of hospitalisations due to unintentional poisoning (34 per 100,000 people), followed by those aged 40-49 and 30-39 (29 and 23 per 100,000 people, respectively) (Table 10).

Between 1999-00 and 2011-12, the rates of hospitalisation due to unintentional poisoning decreased in the 10-19, 20-29, 30-39 and 40-49 age groups (from 33, 73, 49 and 32 per 100,000 people to 16, 29, 30 and 23 per 100,000 people, respectively). From 2012-13 until 2019-20, rates of hospitalisations due to unintentional poisoning stabilised for age group 10-19 and in 2019-20, they had the lowest rate of unintentional poisoning among all age groups (16 per 100,000 people). In contrast, rates of hospitalisations for people aged 20-29, 30-39 and 40-49 showed an increasing trend between 2012-13 until 2015-16, before declining again. In the older age groups (50-59, 60-69 and 70+) rates of hospitalisation have steadily increased since 1999-00, reaching their highest levels in 2017-18, with the highest increase observed in the 70+ age group (14 per 100,000 people in 1999-00 to 28 in 2017-18).

Remoteness Area of Usual Residence

In 2019-20, the rate of hospitalisations due to intentional drug poisoning was highest in outer regional areas (116 hospitalisations per 100,000 people) and lowest in major cities (73 hospitalisations per 100,000 people). A decline in hospitalisation rates due to intentional drug poisoning was observed in inner and outer regional areas ($p<0.001$) and in remote and very remote areas ($p=0.001$) between 2018-19 and 2019-20 (Table 11).

In contrast, the rate of hospitalisations due to unintentional drug poisoning was highest in remote and very remote areas (34 hospitalisations per 100,000 people) and lowest in inner regional Australia (21 hospitalisations per 100,000 people). No significant changes were observed in rates for any of the remoteness areas for 2019-20 compared to 2018-19 (Table 11).

3

Drug-Related Hospitalisations by Drug

In 2019-20, the largest number of drug-related hospitalisations among the Australian population were attributable to amphetamines and other stimulants (17,044 hospitalisations, 70 per 100,000 people, 27% of all drug-related hospitalisations), followed by antiepileptic, sedative-hypnotic and antiparkinsonism drugs (e.g., benzodiazepines; 16%), opioids (12%), non-opioid analgesics (e.g., paracetamol, 11%), and cannabinoids (10%). The remaining drug classes comprised less than 8% of drug-related hospitalisations each (Figure 5).

From 1999-00 to 2013-14, the highest age-standardised rate of drug-related hospitalisations was observed for a principal diagnosis indicating antiepileptic/sedative-hypnotic/antiparkinsonism drugs, followed typically by opioids. The rate of hospitalisations with a principal diagnosis indicating amphetamines and other stimulants (e.g., methamphetamine, MDMA) increased five-fold from 2009-10 (13 hospitalisations per 100,000 people) to 2015-16 (64 hospitalisations per 100,000 people). Since 2014-15, the rate of hospitalisations for amphetamines and other stimulants has surpassed the rate observed for opioids, and in 2019-20 it reached its highest level (70 hospitalisations per 100,000 people).

There has been a decline in the rate of hospitalisations with a principal diagnosis related to antiepileptic, sedative-hypnotic and antiparkinsonism drugs, from a peak of 56 hospitalisations per 100,000 people in 2000-01 to 37 hospitalisations per 100,000 people in 2018-19, although this increased significantly in 2019-20 (41 hospitalisations per 100,000 people; $p<0.001$). In 2019-20, nearly half of hospitalisations related to antiepileptic, sedative-hypnotic and antiparkinsonism drugs involved benzodiazepines (47%, 4,874 hospitalisations, 19 hospitalisations per 100,000 people).

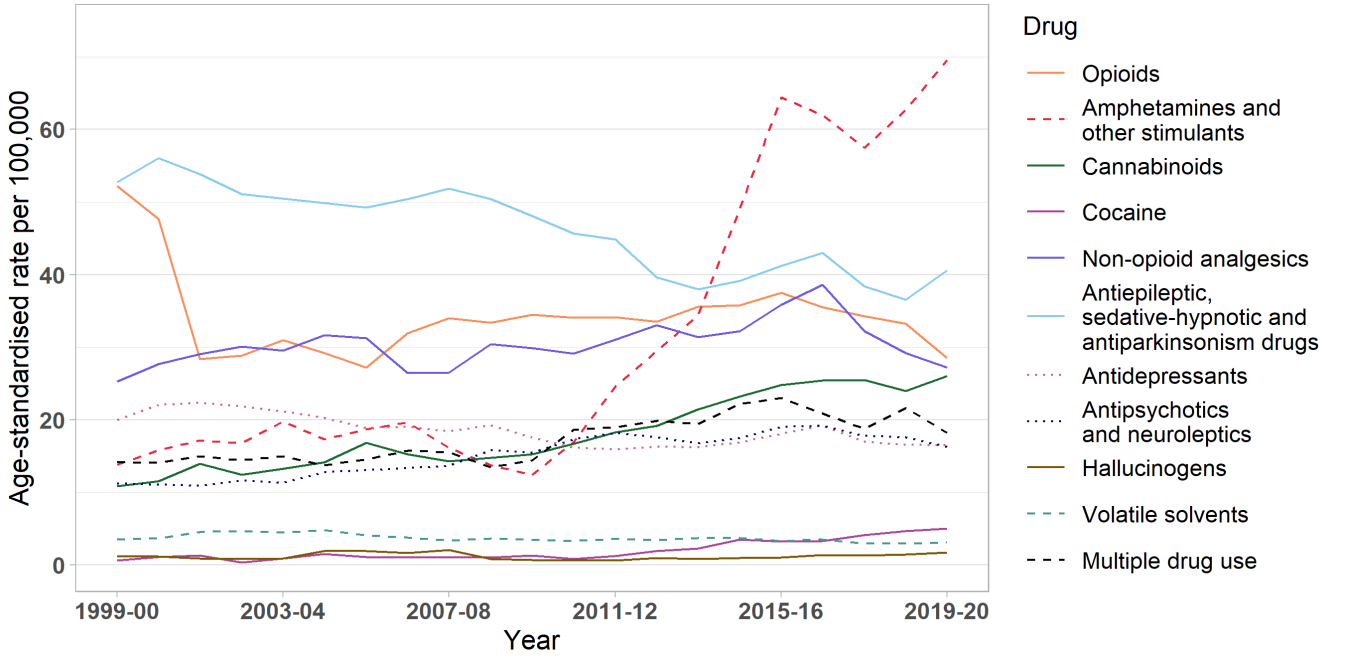
In contrast, after increasing between 1999-00 and 2016-17, the rate of non-opioid analgesic hospitalisations has shown a recent decrease. Specifically, the rate of hospitalisations decreased from 39 to 27 hospitalisations per 100,000 people from 2016-17 to 2019-20, which is comparable to what was observed in 1999-00 (25 hospitalisations per 100,000 people).

The rate of cannabinoid-related hospitalisations increased from 1999-00 to 2019-20 (11 to 26 hospitalisations per 100,000 people, respectively). Similarly, cocaine-related hospitalisations have increased over time. Specifically, although the number of hospitalisations related to cocaine remained relatively low (1,241 in 2019-20), the age-standardised rate in 2019-20 was over six times the rate in 2010-11 (5.0 versus 0.8 per 100,000 people).

Compared with the previous year, 2019-20 saw significant decreases in the rate of hospitalisations with principal diagnosis related to opioids ($p<0.001$), non-opioid analgesics ($p<0.001$), and antipsychotics and neuroleptics ($p=0.001$). In contrast, there were significant increases in the rate of hospitalisations with amphetamines and other stimulants ($p<0.001$), antiepileptic, sedative-hypnotic and antiparkinsonism

drugs (p<0.001), cannabinoids (p<0.001), and hallucinogens (p=0.037) identified under principal diagnosis (Table 14).

Figure 5. Age-standardised rate per 100,000 people of drug-related hospitalisations among the Australian population, by drug identified in the principal diagnosis, 1999-00 to 2019-20.



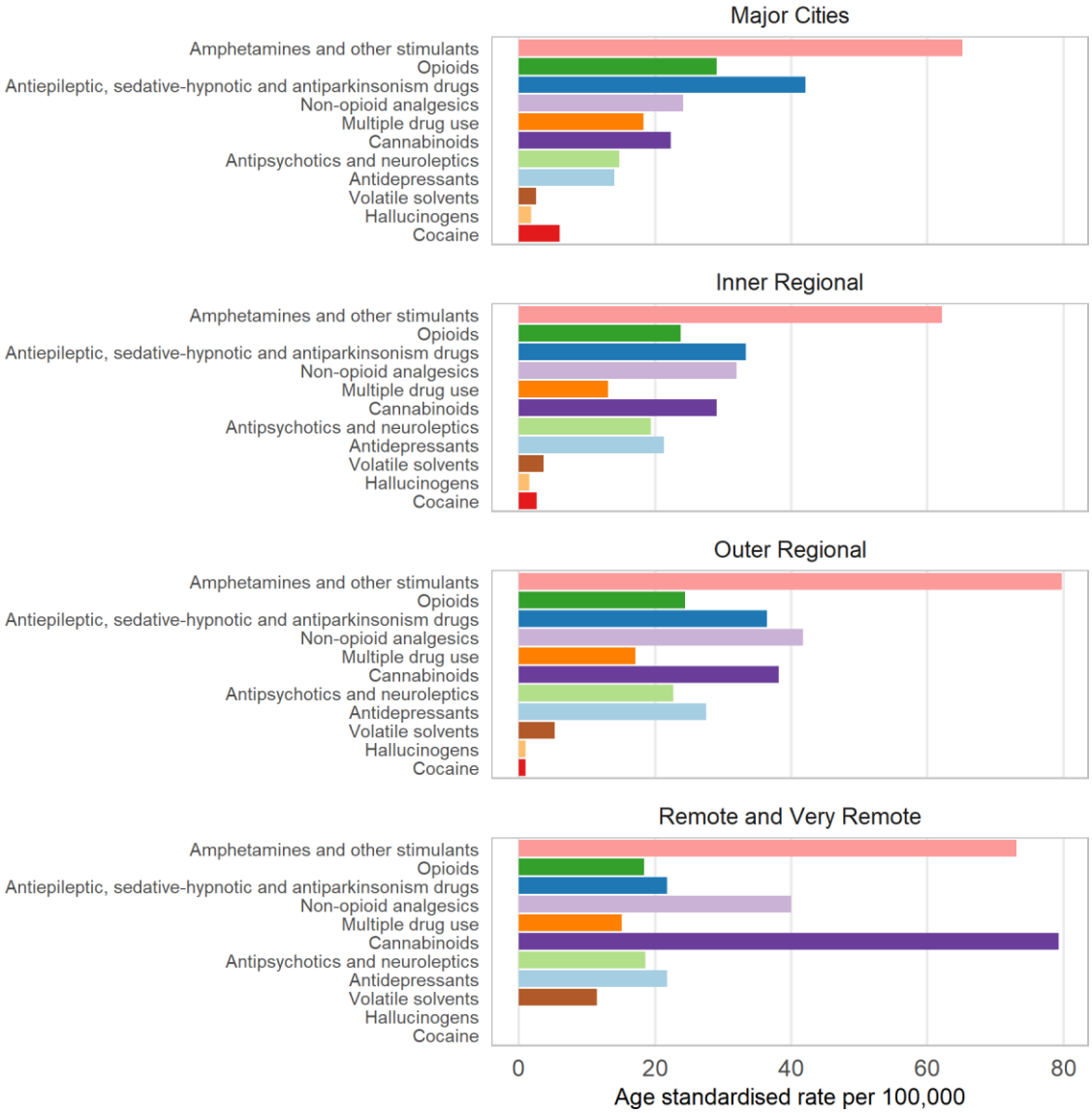
Drug Type and Remoteness Area of Usual Residence

In 2019-20, amphetamine and other 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 were the most common (Figure 6).

The rate of cannabinoid-related hospitalisations in remote and very remote areas (79 per 100,000 people) was two times higher than in outer regional areas (38 per 100,000 people), over two times higher than in inner regional areas (29 per 100,000 people) and nearly three times higher than in major cities (22 per 100,000 people). Rates of hospitalisations related to volatile solvents were also highest in the remote and very remote areas (11 per 100,000 people, respectively), while cocaine, opioids and antiepileptic, sedative-hypnotic and antiparkinsonism drugs had the highest rates in major cities (6.0, 29 and 42 per 100,000 people, respectively).

Comparison of the rate of hospitalisations in 2018-19 versus 2019-20 by remoteness area and drug type can be found in Table 15 but are discussed in more detail in the subsequent sections concentrated on specific drugs.

Figure 6. 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, 2019-20.



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

Opioid-Related Hospitalisations

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

In 2019-20, there were 7,295 hospitalisations with a principal diagnosis related to opioids (28 hospitalisations per 100,000 people). A slow but stable decrease in the rate of opioid-related hospitalisations has been observed since 2016-17. The decrease in age-standardised rate of opioid-related hospitalisations in 2019-20 compared to 2018-19 (33 hospitalisations per 100,000 people) was statistically significant (p<0.001) (Table 1).

Sex

There were more opioid-related hospitalisations among males than females in 2019-20 (34 versus 23 hospitalisations per 100,000 people), with 58% of opioid-related hospitalisations occurring among males. This trend has been consistent over time, although the difference in the age-standardised rate of opioid-related hospitalisations between males and females was smaller in 2019-20 as compared to 1999-00. Despite these sex differences, the rate of opioid-related hospitalisations among both males and females significantly decreased in 2019-20 compared to 2018-19 (38 and 29 per 100,000 people; p<0.001) (Table 1).

Age

In 2019-20, the highest rate of opioid-related hospitalisations occurred among the 40-49 age group (1,684 hospitalisations; 23%; 51 hospitalisations per 100,000 people), followed by the 30-39 age group (1,799 hospitalisations; 25%; 48 hospitalisations per 100,000 people), 50-59 age group (1,159 hospitalisations; 16%; 37 hospitalisations per 100,000 people), 20-29 age group (1,172 hospitalisations; 16%; 32 hospitalisations per 100,000 people), 60-69 age group (646 hospitalisations; 8.9%; 24 hospitalisations per 100,000 people), and the 70 and over age group (561 hospitalisations; 7.7%; 19 hospitalisations per 100,000 people). The lowest rate of opioid-related hospitalisations was among the 10-19 age group (214 hospitalisations, 2.9%, 6.9 hospitalisations per 100,000 people).

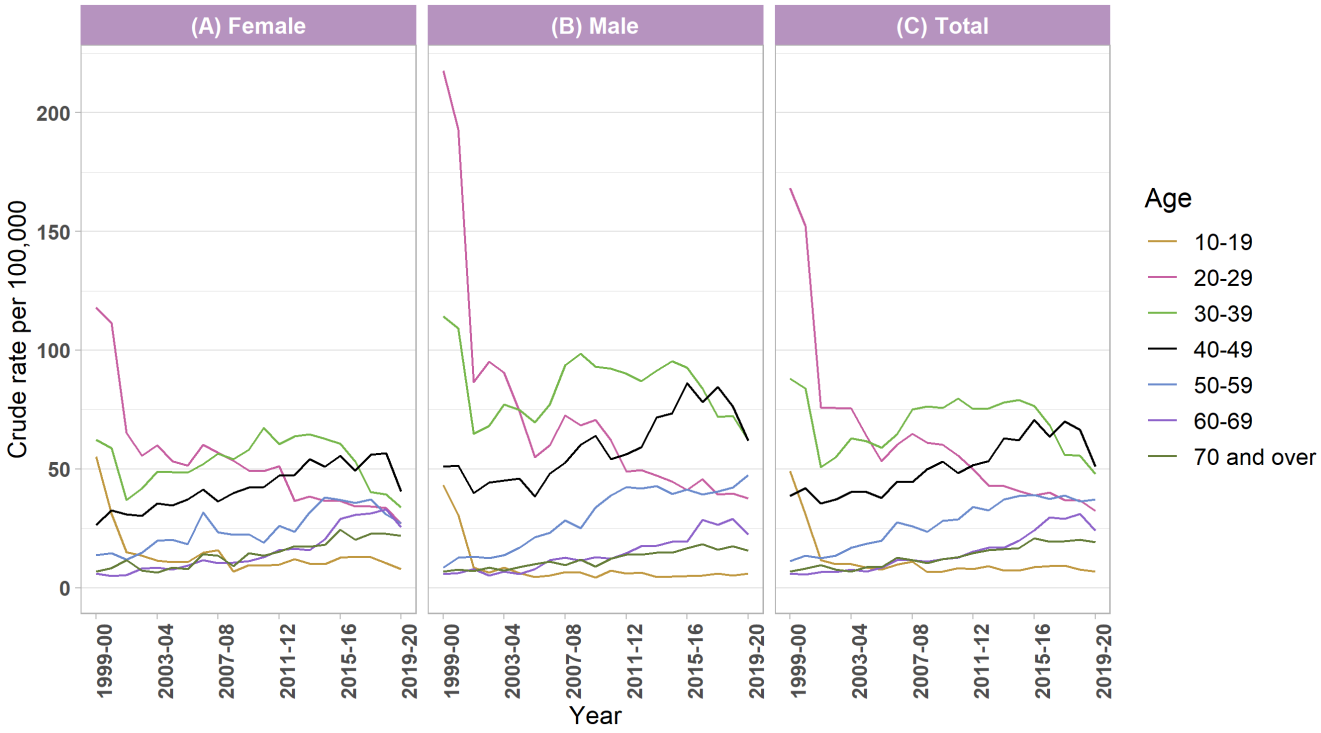
There have been shifts in the age groups experiencing the greatest rate of opioid-related hospitalisations. In 1999-00, crude rates were highest in the 20-29 and 30-39 age groups (168 and 88 hospitalisations per 100,000 people, respectively). The rate of hospitalisations has, however, declined in these age groups over the course of monitoring. By contrast, opioid-related hospitalisations have increased among older Australians. The rate of opioid-related hospitalisations is over three times higher in 2019-20 compared to 1999-00 for the 50-59 age group (37 versus 11 hospitalisations per 100,000 people), about five times higher for the 60-69 age group (24 versus 6 hospitalisations per 100,000 people) and almost three times higher for those aged 70 and older (19 versus 7 hospitalisations per 100,000 people) (Figure 7).

Compared to 2018-19, there were significant decreases in opioid-related hospitalisation rates in the 20-29, 30-39, 40-49 and 60-69 age groups in 2019-20 (p<0.050) (Table 2).

Sex and Age

Trends in opioid-related hospitalisations for males and females by age group follow a similar pattern as described above (Figure 7).

Figure 7. Crude rate per 100,000 people of opioid-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 1999-00 to 2019-20.



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

Remoteness Area of Usual Residence

In 2019-20, the rate of opioid-related hospitalisations was highest in major cities (29 hospitalisations per 100,000 people; 5,475 hospitalisations), followed by outer regional (24 per 100,000 people; 500 hospitalisations) and inner regional Australia (24 per 100,000 people; 1,019 hospitalisations), and it was lowest in remote and very remote areas (18 per 100,000 people; 88 hospitalisations) (Figure 6).

Compared to 2018-19, the rate of opioid-related hospitalisations in 2019-20 decreased significantly in major cities (34 to 29 hospitalisations per 100,000 people; $p<0.001$), inner regional areas (27 to 24 per 100,000 people; $p<0.001$) and remote and very remote areas (22 to 18 per 100,000 people; $p<0.001$) (Table 15).

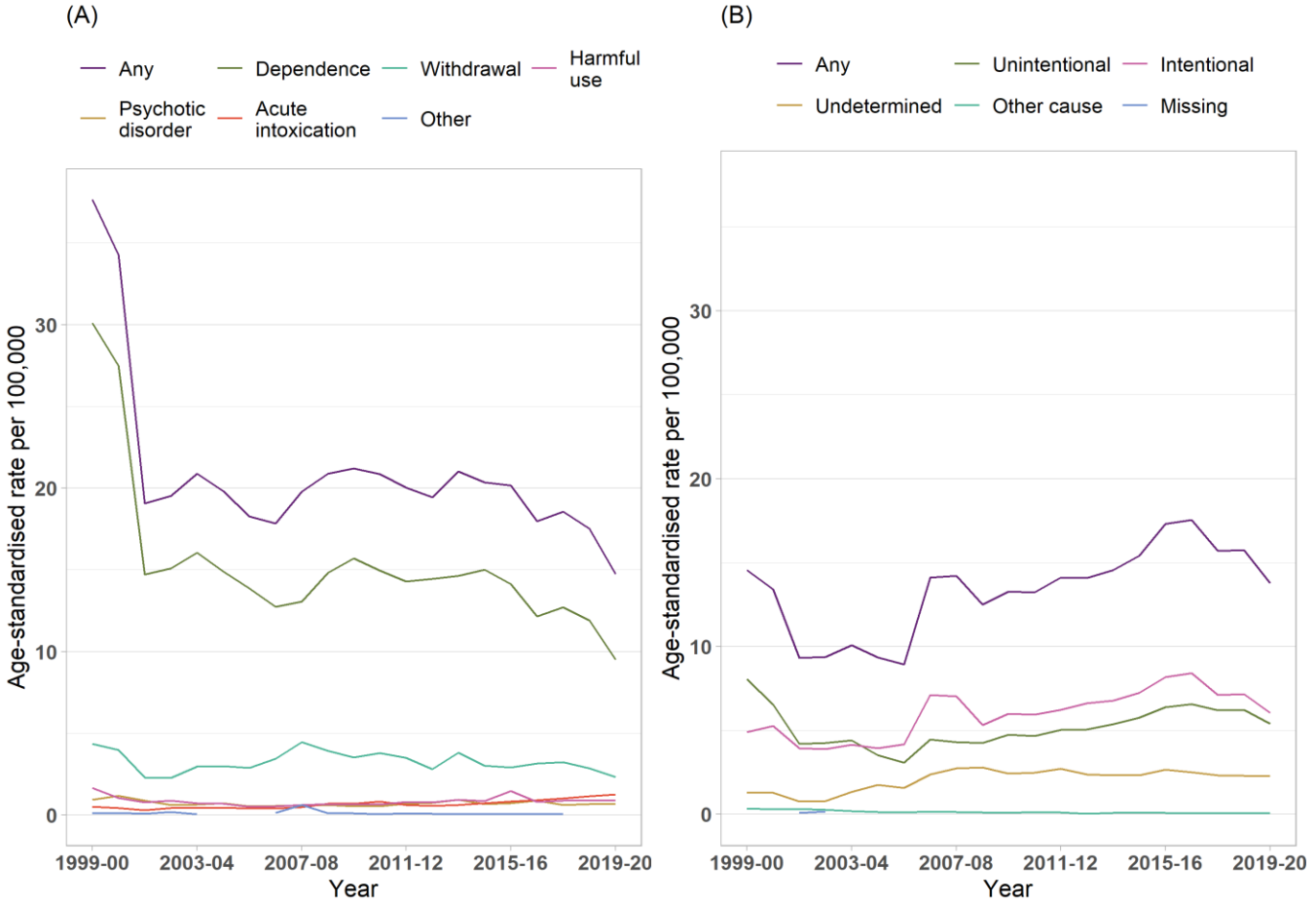
Principal Diagnosis

In 2019-20, nearly half (49%) of all opioid-related hospitalisations were due to opioid poisoning (3,565 hospitalisations; 14 per 100,000 people), with almost equal percentages of these poisonings determined to be intentional (43%; 1,550 hospitalisations; 6.0 per 100,000 people) or unintentional (40%; 1,426 hospitalisations; 5.4 per 100,000 people). Mental and behavioural disorder due to use of opioids

accounted for the other half of the opioid-related hospitalisations, with dependence syndromes the most commonly identified principal diagnosis (65%; 2,413 hospitalisations; 9.5 per 100,000 people) (Figure 8).

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 8. 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), 1999-00 to 2019-20.



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.

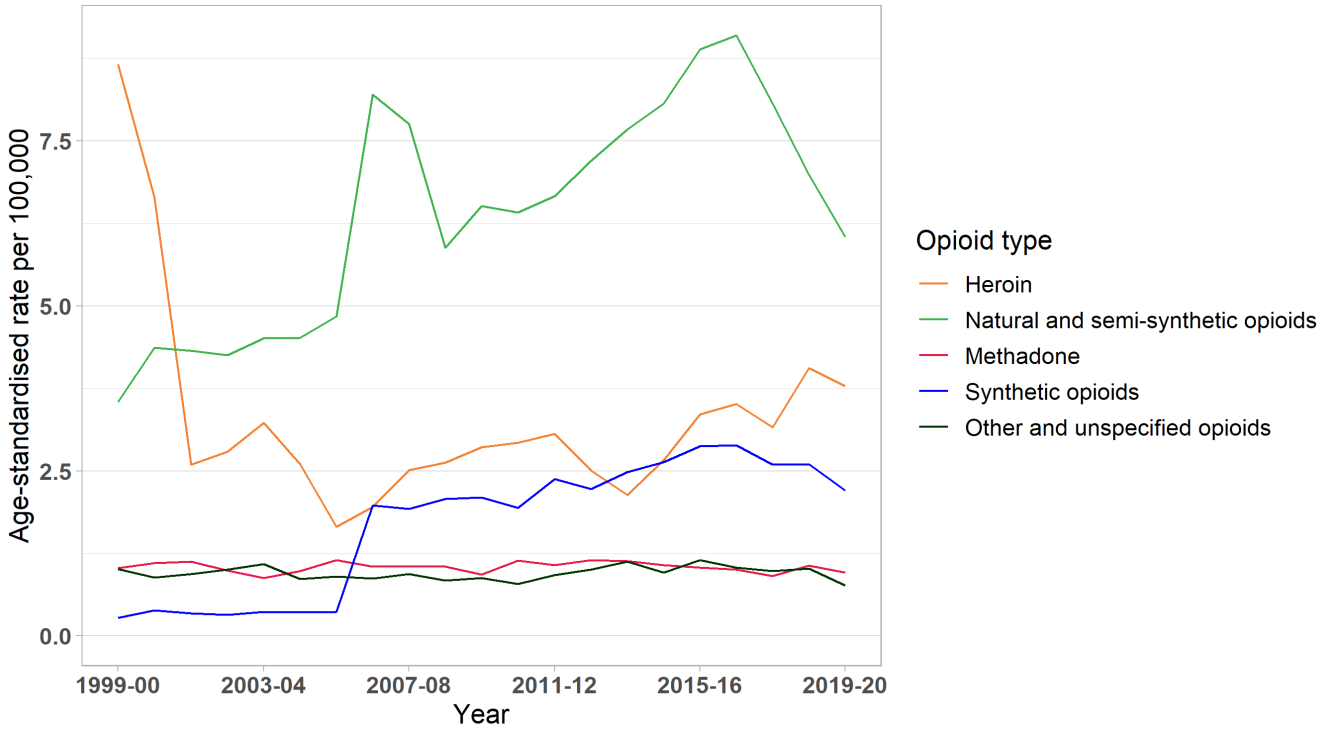
Opioid Type

ICD-10-AM coding means that the type of opioid involved in hospitalisations is only identified where the diagnosis relates to opioid poisoning; hospitalisations coded to other diagnosis types (e.g., opioid withdrawal) do not identify the specific opioid involved (see methods document for overview of diagnosis types). In this section, we present opioid-related hospitalisations where the principal diagnosis was opioid poisoning and the opioid involved was identified (comprising 49% of all opioid-related hospitalisations in 2019-20; see section on Opioid-related hospitalisations by diagnosis).

Natural and semi-synthetic opioids (e.g., oxycodone, morphine) were responsible for nearly half (45%) of all hospitalisations due to opioid poisoning in 2019-20. The rate of hospitalisations for natural and semi-

synthetic opioids poisoning more than doubled from 1999-00 to 2017-18 (3.5 to 9.2 hospitalisations per 100,000 people, or 674 to 2,262 hospitalisations, respectively) (Figure 9). The rate then decreased and in 2019-20 reached 6.0 hospitalisations per 100,000 people, a significant decrease from 7.0 hospitalisations per 100,000 people in 2018-19 (p<0.001) (Table 16).

Figure 9. Age-standardised rate per 100,000 people of opioid poisoning-related hospitalisations among the Australian population, by opioid type, 1999-00 to 2019-20.



The second most commonly cited opioid in opioid poisonings in 2019-20 was heroin, comprising 26% of all opioid poisoning-related hospitalisations. The rate of hospitalisations due to heroin poisoning was highest in 1999-00 (8.7 hospitalisations per 100,000 people), decreasing 70% by 2001-02 (2.6 per 100,000 people). From 2001-02 to 2017-18, the annual rate of hospitalisations where heroin poisoning was the principal diagnosis comprised 3.5 or fewer hospitalisations per 100,000 people each year. An increase in the rate was then observed from 3.1 in 2017-18 to 4.1 per 100,000 people in 2018-19, remaining similar in 2019-20 at 3.8 per 100,000 people (p=0.175) (Table 16).

The third most common opioid type, responsible for 16% of hospitalisations due to opioid poisoning in 2019-20, was synthetic opioids (e.g., fentanyl, tramadol). The rate of hospitalisations where poisoning related to synthetic opioids was the principal diagnosis increased from 0.3 per 100,000 people in 1999-00 to 2.9 in 2016-17 and since then dropped, including a decline from 2.6 in 2018-19 to 2.2 per 100,000 people in 2019-20 (p=0.012) (Table 16).

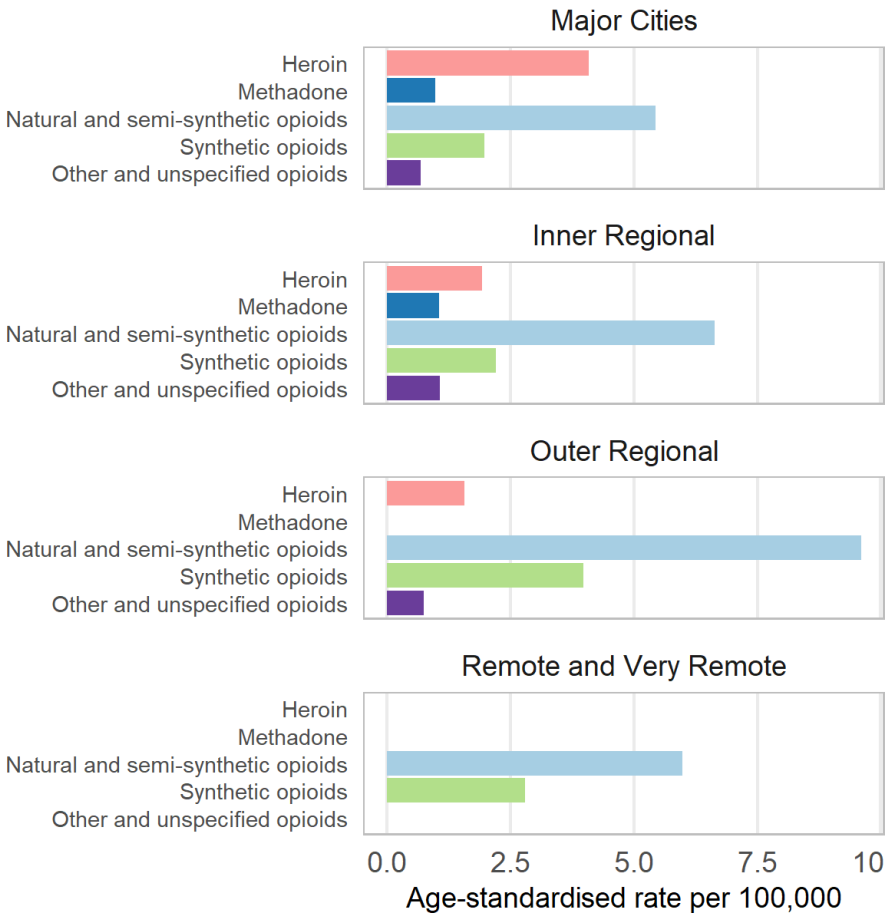
Rates of hospitalisations for opioid poisoning were low for methadone and 'other and unspecified opioids' over the period of monitoring (<0.9 per 100,000 people), with even fewer hospitalisations related to opium (data not shown to protect confidentiality).

Opioid Type and Remoteness Area of Usual Residence

In 2019-20, 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 Australia (9.6 hospitalisations per 100,000 people), followed by inner regional Australia (6.6 hospitalisations per 100,000 people), remote and very remote areas (6.0 hospitalisations per 100,000 people) and major cities (5.4 hospitalisations per 100,000 people) (Figure 10).

The rate of heroin poisoning hospitalisations was highest in major cities (4.1 hospitalisations per 100,000 people), double the rate in inner regional Australia (1.9 hospitalisations per 100,000 people) and more than double the rate in outer regional Australia (1.6 hospitalisations per 100,000 people). Age-standardised rate and crude rate were not computed for heroin poisoning hospitalisations in remote and very remote Australia because the total number of hospitalisations was too small (n≤5).

Figure 10. Age-standardised rate per 100,000 people of opioid poisoning-related hospitalisations among the Australian population, by remoteness and opioid type, 2019-20.



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.

In contrast, the rate of synthetic opioid poisoning-related hospitalisations was highest in outer regional areas (4.0 hospitalisations per 100,000 people), followed by remote and very remote (2.8 hospitalisations per 100,000 people) and inner regional areas (2.2 hospitalisations per 100,000 people), and double the rate in major cities (2.0 hospitalisations per 100,000 people).

The rates of hospitalisations due to poisoning by methadone and other and unspecified opioids were low in major cities and regional Australia (below 1.3 per 100,000 people), while in remote and very remote areas there were less than or equal to 5 hospitalisations for each of these opioid types (hence estimates are not shown) (Figure 10).

Amphetamine and Other Stimulant-Related Hospitalisations

The following findings describe amphetamine and other stimulant-related hospitalisations. Due to the coding system used, these hospitalisations may relate to methamphetamines, 3,4-methylenedioxymethamphetamine (MDMA, 'ecstasy'), pharmaceutical stimulants such as dexamphetamine, and other stimulants (e.g., caffeine).

In 2019-20, there were 17,044 hospitalisations (70 hospitalisations per 100,000 people) with a principal diagnosis related to amphetamines and other stimulants. From 2009-10 to 2015-16, the rate increased five times (64 compared to 13 hospitalisations per 100,000 people). The rate of hospitalisations in 2017-18 was 57 per 100,000 people, which represented two consecutive years of decline relative to 2015-16 yet remained elevated compared to the rates observed from 1999-00 through to 2014-15. After an increase in 2018-19, the rate of hospitalisations increased again in 2019-20 (p<0.001) (Table 1) and reached its highest level over the period of monitoring (70 per 100,000 people).

Sex

In 2019-20, the rate of hospitalisations related to amphetamines and other stimulants in Australian males was nearly double the rate of females (89 versus 51 per 100,000 people), with 64% of hospitalisations occurring among males. Despite the changes in rates over time, the magnitude of the difference between males and females has remained similar. The rates of hospitalisations significantly increased for both males and females compared to 2018-19 (81 and 44 per 100,000 people, respectively; p<0.001) (Table 1).

Age

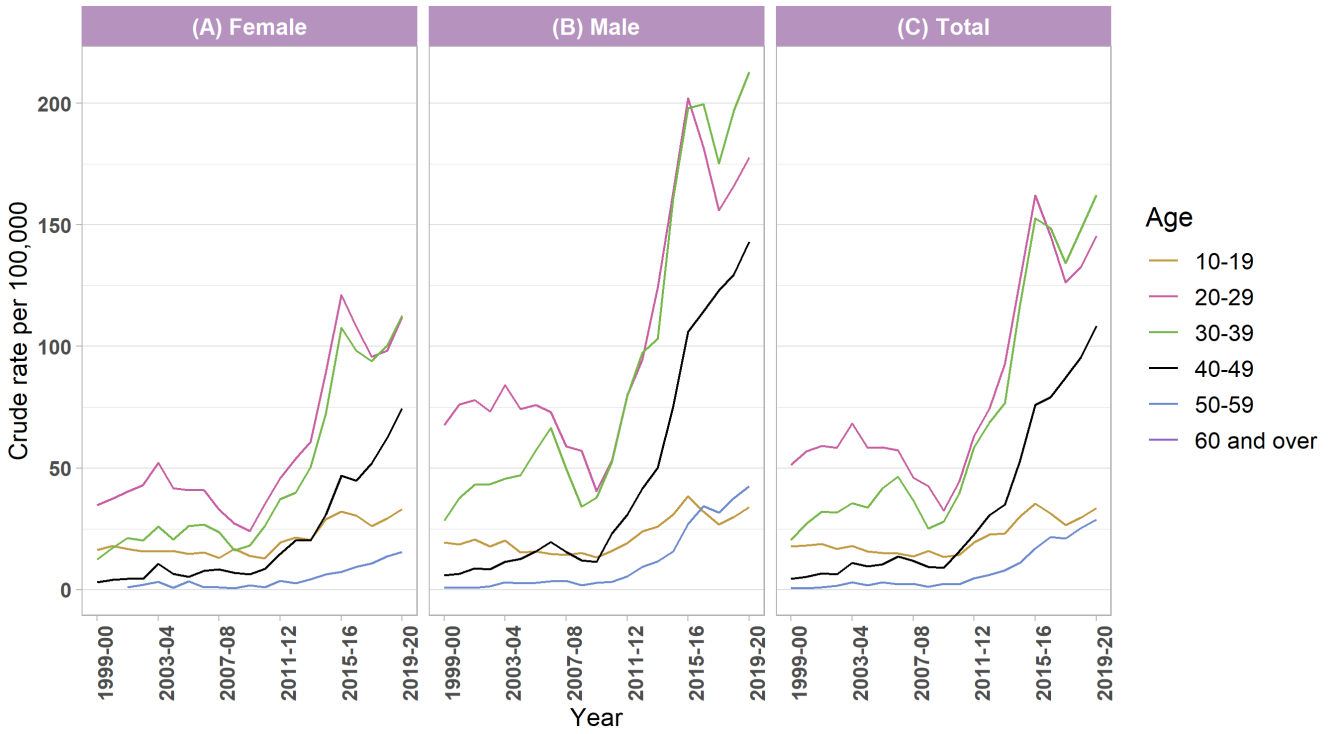
In 2019-20, hospitalisations related to amphetamines and other stimulants were most common among Australians aged 30-39 (36%; 6,099 hospitalisations; 162 per 100,000 people), followed by the 20-29 age group (31%; 5,268 hospitalisations; 146 per 100,000 people), and the 40-49 age group (21%; 3,574 hospitalisations; 108 per 100,000 people). The 20-29 age group had the highest rate of amphetamine and other stimulant-related hospitalisations prior to 2016-17, but has since been overtaken by the 30-39 age group.

Compared to 2018-19, amphetamines and other stimulant-related hospitalisation rates increased significantly in 2019-20 in the 10-19, 20-29, 30-39, 40-49 and 50-59 age groups (p<0.050) (Table 2).

Sex and Age

The changes in the age demographic described above have mostly been driven by males, with hospitalisations among females remaining largely comparable among the 20-29 and 30-39 age groups (Figure 11).

Figure 11. Crude rate per 100,000 people of amphetamine and other stimulant-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 1999-00 to 2019-20.



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 amphetamine and other stimulant hospitalisations was observed in outer regional Australia (80 hospitalisations per 100,000 people) and the lowest rate in inner regional Australia (62 hospitalisations per 100,000 people) (Figure 6). The rate of amphetamine and other stimulant related hospitalisations increased significantly in all remoteness areas of Australia compared to 2018-19, with the increase being most prominent in remote and very remote areas where rates increased from 59 hospitalisations per 100,000 people in 2018-19 to 73 hospitalisations per 100,000 people in 2019-20 (p<0.001) (Table 15).

Principal Diagnosis

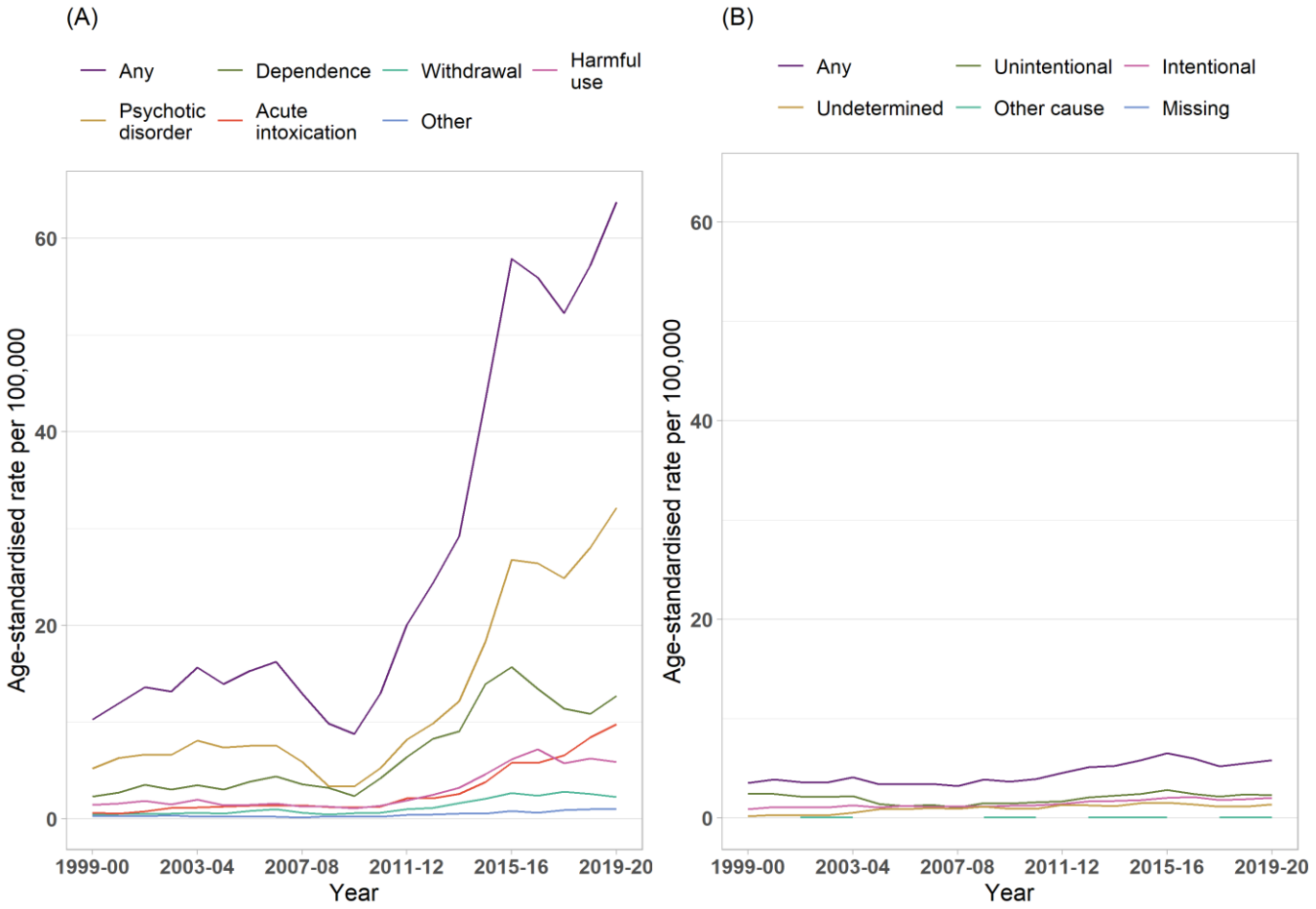
Over the entire period of monitoring, amphetamine and other stimulant related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder due to substance use (92% in 2019-20). Among those who received a principal diagnosis of mental and behavioural disorder due to use of amphetamine and other stimulants in 2019-20 (15,638 hospitalisations; 64 per 100,000 people),

psychotic disorder was the main reason for hospitalisation (50%; 7,890 hospitalisations; 32 per 100,000 people), followed by dependence (20%; 3,127 hospitalisations; 13 per 100,000 people) (Figure 12).

Rates of hospitalisations relating to amphetamine and other stimulant poisonings have remained low over the period of monitoring (8% of amphetamine and other stimulant-related hospitalisations; 1,406 hospitalisations; 5.8 per 100,000 people in 2019-20). In 2019-20, two-fifths (40%) of amphetamine and other stimulant related poisonings were unintentional (558 hospitalisations; 2.3 per 100,000 people), 35% were intentional (491 hospitalisations; 2.1 per 100,000 people) and 24% were of undetermined intent (339 hospitalisations; 1.4 per 100,000 people) (Table 13).

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 12. Age-standardised rate per 100,000 people of amphetamine and other 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), 1999-00 to 2019-20.



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.

Cannabinoid-Related Hospitalisations

In 2019-20, there were 6,427 cannabinoid-related hospitalisations (including cannabis and synthetic cannabinoids), which equates to an age-standardised rate of 26 hospitalisations per 100,000 people. This is the highest rate recorded over the course of monitoring and is more than double the rate observed in 1999-00 (11 hospitalisations per 100,000 people), and an increase relative to 2018-19 (24 hospitalisations per 100,000 people; $p<0.001$) (Table 1).

Sex

In 2019-20, males presented to hospital with a cannabinoid-related principal diagnosis more often than females (3,873 versus 2,552 hospitalisations; 60% male). This trend has remained relatively consistent, although there have been some fluctuations over time. Specifically, after an observed decrease between 2016-17 and 2018-19 (35 per 100,000 people in 2016-17 to 33 and 29 per 100,000 people in 2017-18 and 2018-19, respectively), male hospitalisations increased again in 2019-20 (31 per 100,000 people; $p<0.001$). In contrast, the rate of cannabinoid-related hospitalisations among females has continuously increased, particularly from 2016-17 onwards (16 per 100,000 people in 2016-17 to 18 and 19 per 100,000 people in 2017-18 and 2018-19, respectively), reaching a peak of 21 hospitalisations per 100,000 people in 2019-20 ($p<0.001$) (Table 1).

Age

In 2019-20, the highest rate of cannabinoid-related hospitalisations was recorded for the 20-29 age group (75 hospitalisations per 100,000 people; 42%), followed by the 30-39 (38 hospitalisations per 100,000 people; 22%) and 10-19 (31 hospitalisations per 100,000 people; 15%) age groups (Figure 13).

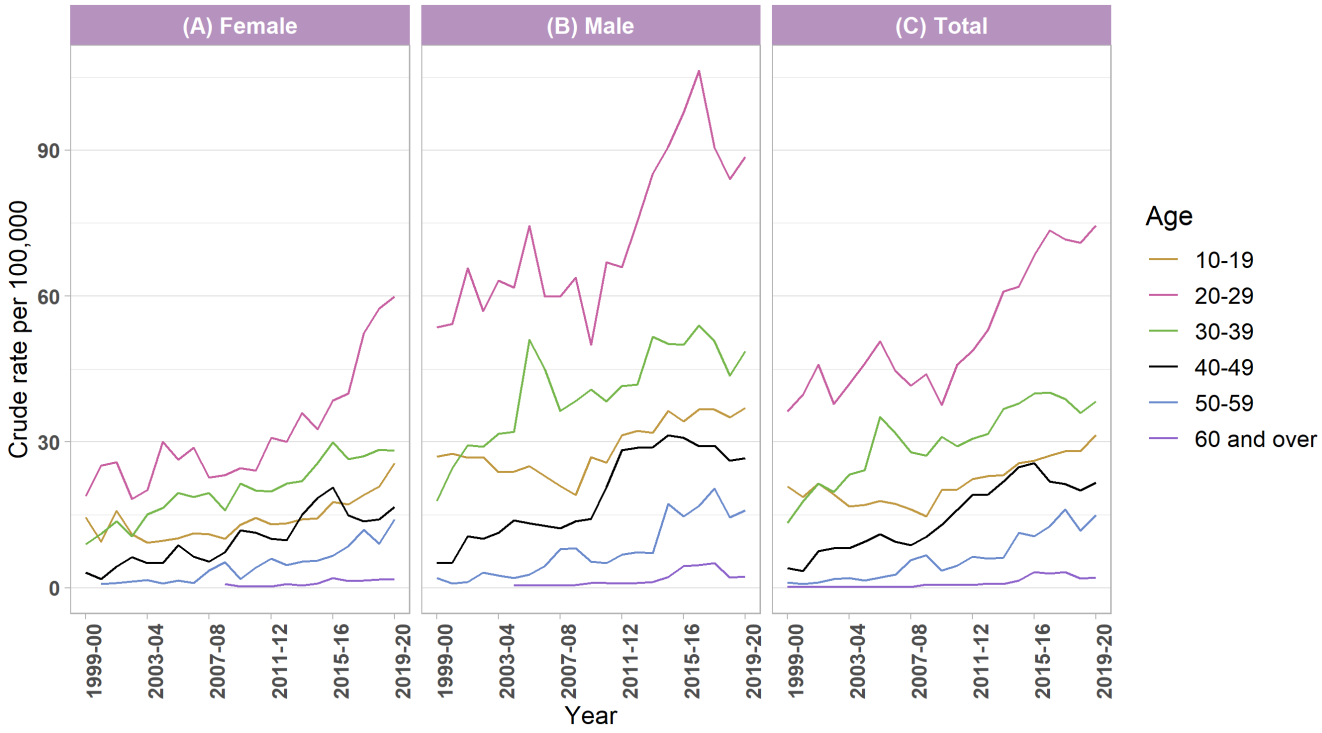
All age groups have recorded an increase in cannabinoid-related hospitalisations since 1999-00, with the greatest increase observed in the 20-29 age group (36 versus 75 hospitalisations per 100,000 people in 1999-00 versus 2019-20).

Compared to 2018-19, cannabinoid-related hospitalisation rates increased significantly in 2019-20 in the 10-19 and 50-59 age groups ($p=0.016$ and $p<0.001$, respectively) (Table 2).

Sex and Age

In the last three years, we have observed a particular 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 has decreased. There were only small numbers of hospitalisations each year for those aged 70 years and over; thus, data for this age group are not shown to protect confidentiality (Figure 13).

Figure 13. Crude rate per 100,000 people of cannabinoid-related hospitalisations among the female (A), male (B) and total (C) Australian population, by age group, 1999-00 to 2019-20.



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 the rate increasing from 59 hospitalisations per 100,000 people in 2018-19 to 79 hospitalisations per 100,000 people in 2019-20 (p<0.001). This rate was over two times the rate in regional Australia (38 and 29 hospitalisations per 100,000 people in outer and inner regional areas, respectively) and over three times the rate in major cities (22 hospitalisations per 100,000 people) (Figure 6). Increases in rates, however, were also observed between 2018-19 and 2019-20 in inner regional Australia (25 versus 29 hospitalisations per 100,000 people; p<0.001) and outer regional Australia (32 versus 38 hospitalisations per 100,000 people; p<0.001) (Table 15).

Principal Diagnosis

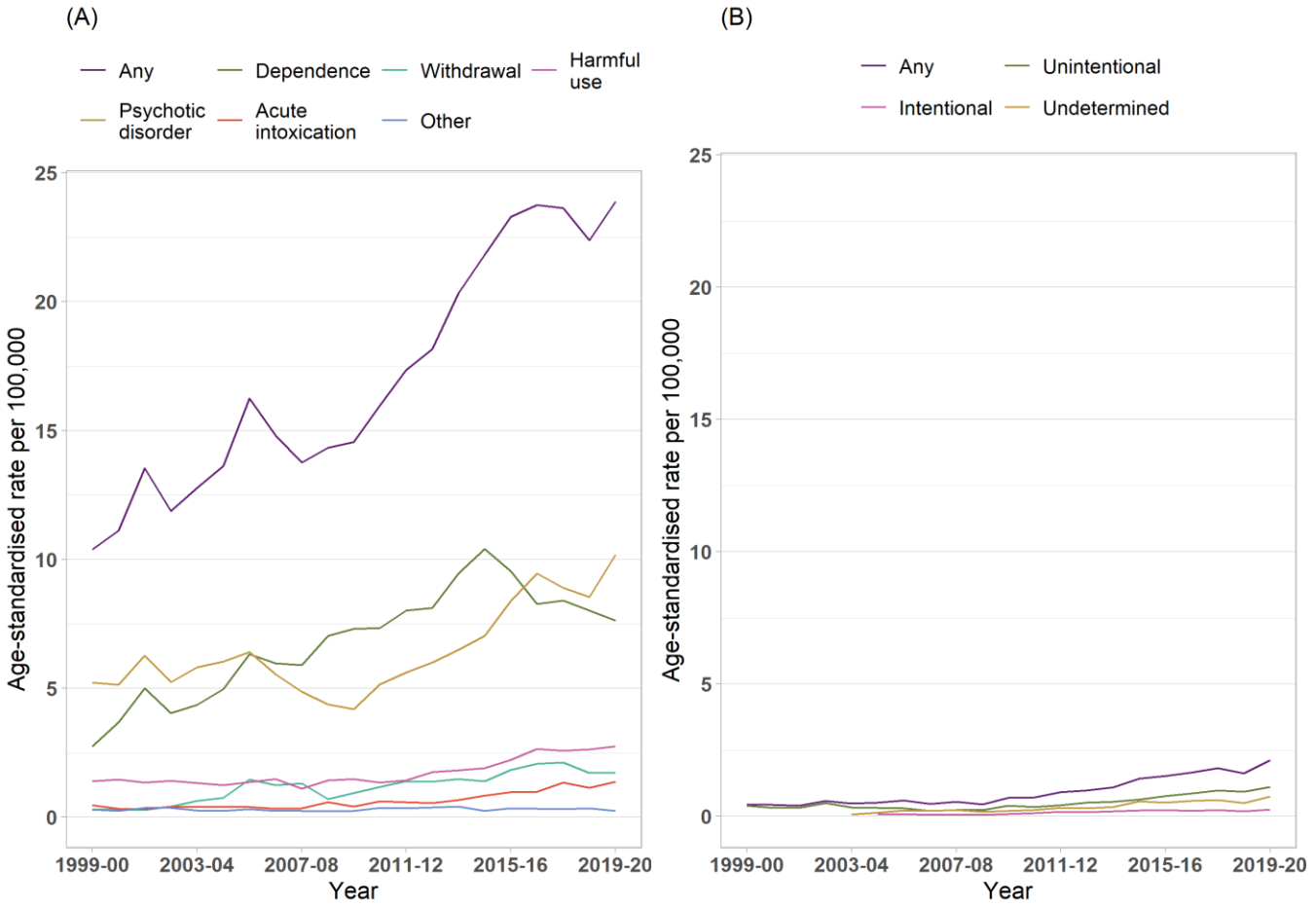
Over the entire period of monitoring, cannabinoid-related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder (92% in 2019-20). Among those who received a principal diagnosis of mental and behavioural disorder due to use of cannabinoids in 2019-20 (5,902 hospitalisations; 24 per 100,000 people), psychotic disorder was the main reason for hospitalisation (42%; 2,505 hospitalisations; 10 per 100,000 people) followed by dependence (32%; 1,902 hospitalisations; 7.6 per 100,000 people) (Figure 14; Table 12).

Over the course of monitoring, the rate of hospitalisations due to cannabinoid poisoning has remained low (8.2% of cannabinoids-related hospitalisations in 2019-20; 525 hospitalisations; 2.1 per 100,000

people). In 2019-20, about half of the cannabinoid-related poisoning hospitalisations were unintentional (53%; 277 hospitalisations; 1.1 per 100,000 people), 35% were of undetermined intent (184 hospitalisations; 0.7 per 100,000 people) and 11% were intentional (60 hospitalisations; 0.2 per 100,000 people) (Figure 14; Table 13).

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 14. 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), 1999-00 to 2019-20.



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.

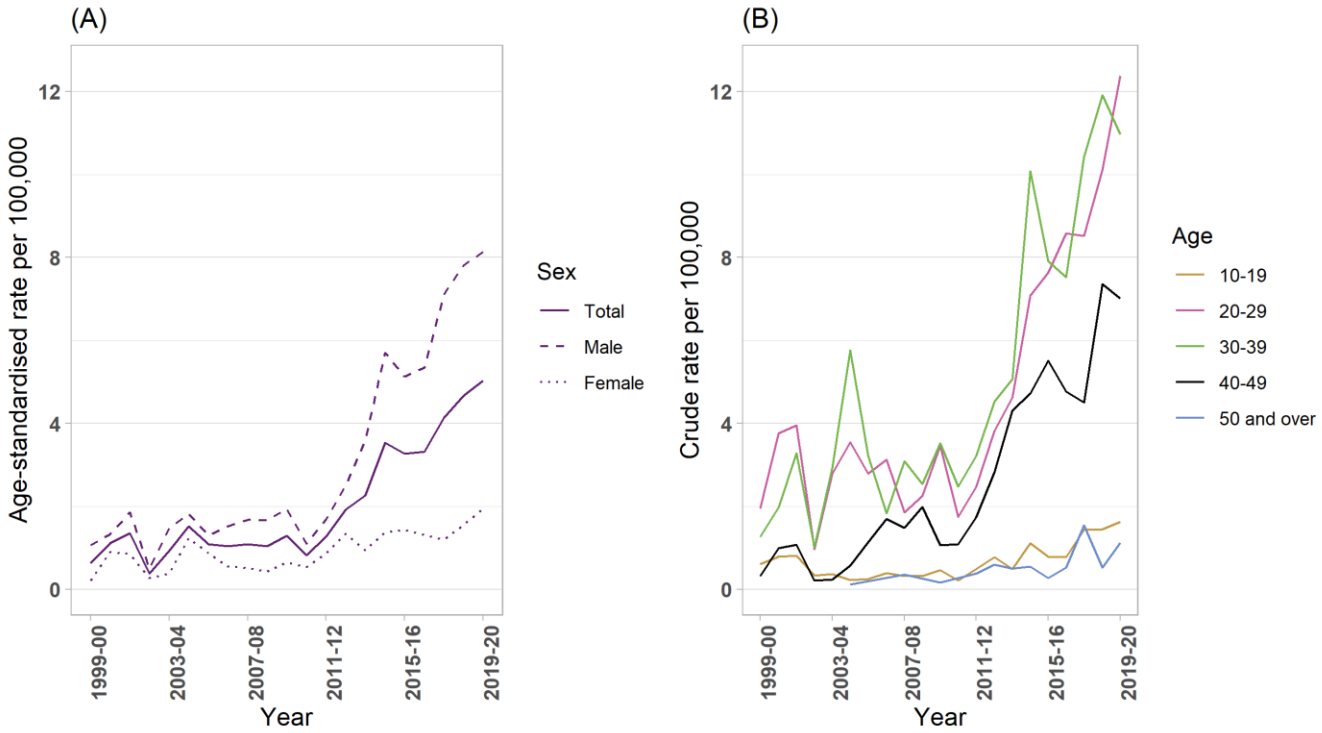
Cocaine-Related Hospitalisations

In 2019-20, there were 5.0 cocaine-related hospitalisations per 100,000 people (1,241 hospitalisations). This was stable from 2018-19 (p=0.114) (Table 1), and represents a plateauing of the upward trend that has been observed over the course of monitoring, particularly from 2010-11 to 2018-19 (Man et al., 2021).

Sex

In 2019-20, there were 8.1 cocaine-related hospitalisations per 100,000 people among males and 1.9 hospitalisations per 100,000 people among females (1,005 versus 236 hospitalisations; 81% male). The aforementioned increase in the rate of cocaine-related hospitalisations between 2010-11 and 2018-19 has been driven mostly by an increase in hospitalisations among males (Figure 15A). Between 2018-19 and 2019-20, however, there was a significant increase in the rate of cocaine-related hospitalisations among females (1.6 to 1.9 hospitalisations per 100,000 people; p=0.004) (Table 1).

Figure 15. 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), 1999-00 to 2019-20.



Note: Numbers for age groups 50-59 years (before 2004-05), 60-69 and 70 years and over are small, thus rates are suppressed to protect confidentiality or data is presented for a collapsed group of 50 years and over where possible. The rates for the 0-9 years age group are not presented due to sensitivity of the data.

Age

In 2019-20, the majority of cocaine-related hospitalisations occurred among people aged 20-29 (36%) and 30-39 (33%), with particular increases in the rate of cocaine-related hospitalisations over time occurring among these two age groups (Figure 15B). However, the rate of cocaine-related hospitalisations did not show a significant change among the 30-39 age group between 2018-19 and

2019-20 (12 and 11 hospitalisations per 100,000 people, respectively; p=0.224), but continued to increase among the 20-29 age group, reaching a peak of 12 hospitalisations per 100,000 people in 2019-20 (p=0.004) (Table 2).

Compared to 2018-19, cannabinoids-related hospitalisation rates increased significantly in 2019-20 in the 20-29 and 50-59 age groups (p=0.004 and p<0.001, respectively) (Table 2).

Sex and Age

The small number of hospitalisations precludes reporting of estimates disaggregated by both age and sex.

Remoteness Area of Usual Residence

In 2019-20, the rate of cocaine-related hospitalisations was highest in major cities (6.0 hospitalisations per 100,000 people), and was three times higher than in inner regional areas (2.7 hospitalisations per 100,000 people) and six times higher than in outer regional areas (1.0 hospitalisations per 100,000 people) (Figure 6).

Inner regional areas recorded an increase in the rate of cocaine-related hospitalisations between 2018-19 and 2019-20, from 0.9 to 2.7 hospitalisations per 100,000 people (p<0.001) (Table 15).

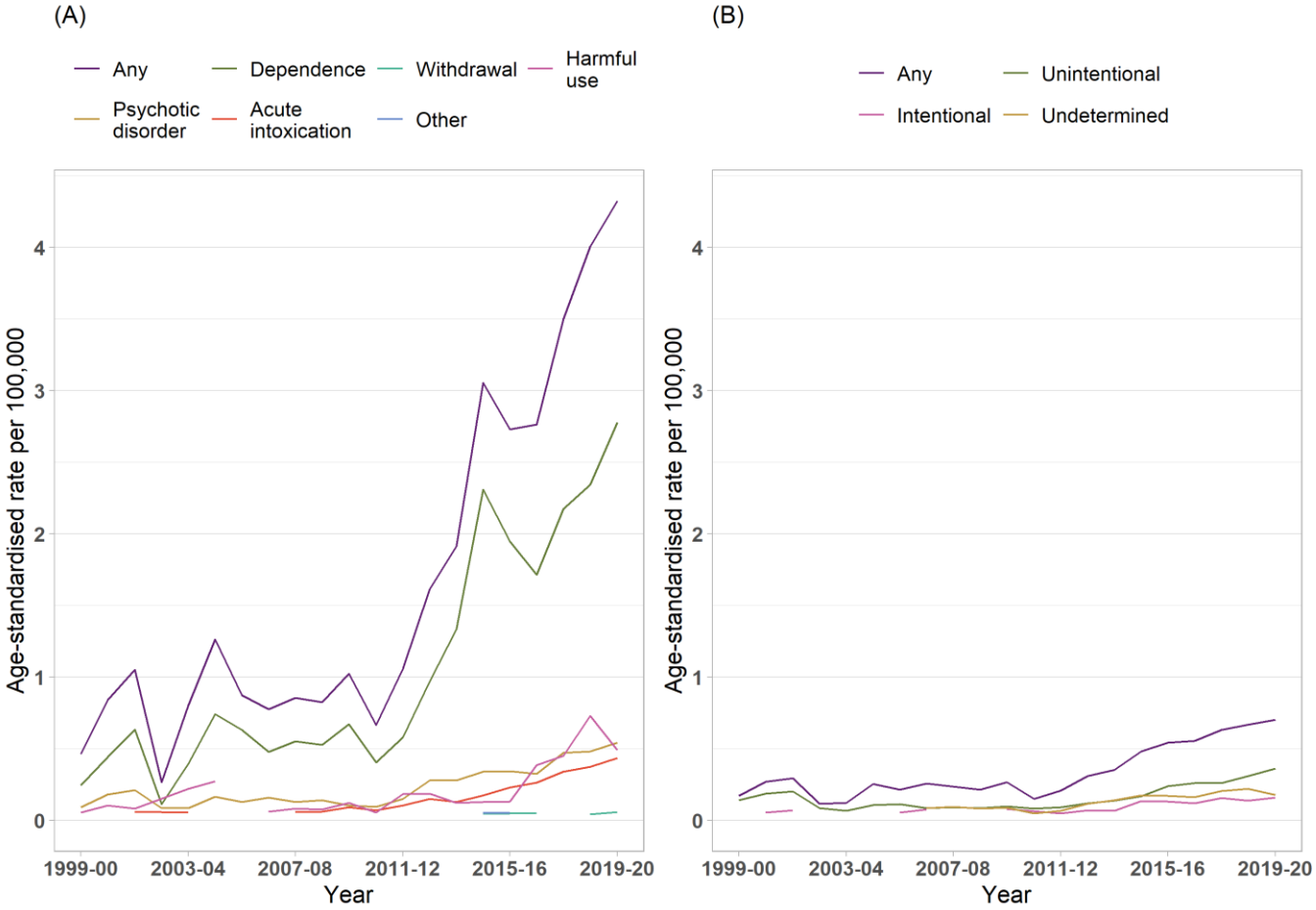
Principal Diagnosis

Over the entire period of monitoring, cocaine-related hospitalisations mostly comprised a principal diagnosis of mental and behavioural disorder (86% in 2019-20). Among those who received a principal diagnosis of mental and behavioural disorder due to use of cocaine in 2019-20 (1065 hospitalisations; 4.1 per 100,000 people), dependence syndrome was the main reason for hospitalisation (64%; 683 hospitalisations; 2.8 per 100,000 people), followed by psychotic disorder (12%; 133 hospitalisations; 0.5 per 100,000 people) (Figure 16).

Over the course of monitoring, the rate of hospitalisations due to cocaine poisoning has remained low (14% of cocaine-related hospitalisations in 2019-20, 176 hospitalisations; 0.7 per 100,000 people). In 2019-20, half of the hospitalisations due to cocaine poisoning were unintentional (52%; 91 hospitalisations; 0.4 per 100,000 people), 26% were of undetermined intent (45 hospitalisations; 0.2 per 100,000 people) and 23% were intentional (40 hospitalisations; 0.2 per 100,000 people) (Figure 16; Table 13).

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 16. 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), 1999-00 to 2019-20.



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.

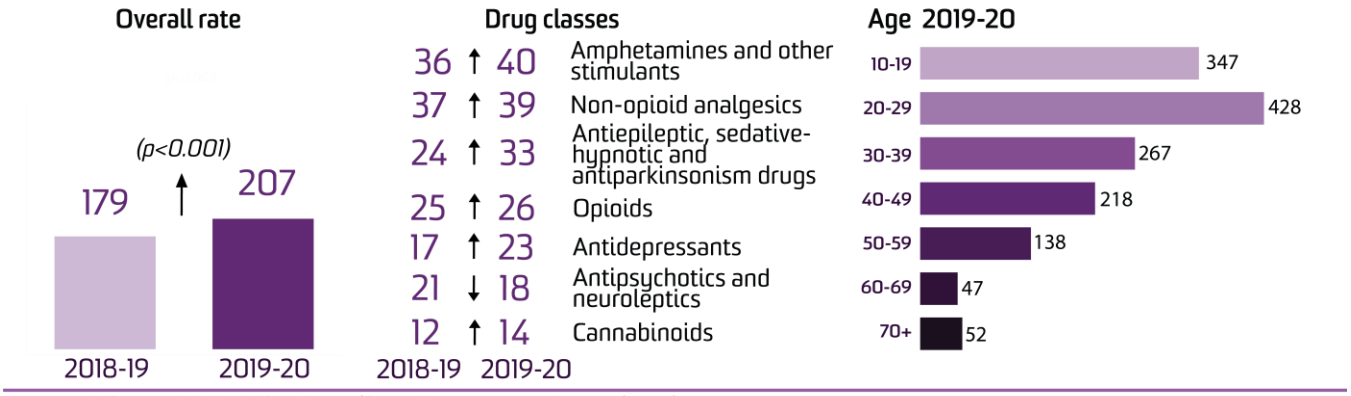
4

Drug-Related Hospitalisations by Jurisdiction

The below sections describe trends in drug-related hospitalisations for each jurisdiction from 1999-00 to 2019-20. We encourage caution when interpreting some of these figures given the small number of hospitalisations for some drug types 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 cities, and data on remoteness area for Queensland are only provided for 2018-19 and 2019-20. Data by remoteness area are available for all other jurisdictions from 2012-13 to 2019-20.

Australian Capital Territory

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 (p<0.05)

There were 892 hospitalisations with a drug-related principal diagnosis in the Australian Capital Territory in 2019-20.

This is equivalent to 207 hospitalisations per 100,000 people, which was a significant increase from 2018-19 (179 hospitalisations per 100,000 people; $p<0.001$) (Table 17) and higher than the rate in 1999-00 (125 hospitalisations per 100,000 people) (Figure 17).

Sex

The rate of hospitalisations was higher among females than males in 2019-20 (249 versus 167 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19 and 30-39 age groups (428, 347, and 267 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

Over 99.8% of the population in the Australian Capital Territory resided in major cities 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 2019-20, 66% of drug-related hospitalisations in the Australian Capital Territory were due to drug poisoning. Furthermore, 76% of drug poisoning related hospitalisations were intentional (108 hospitalisations per 100,000 people) and 16% were unintentional (22 hospitalisations per 100,000 people) (Figure 18).

Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (40 hospitalisations per 100,000 people), closely followed by non-opioid analgesics (39 hospitalisations per 100,000 people) (Figure 19).

Compared to 2018-19, there was a significant decrease in the rate of antipsychotic and neuroleptic-related hospitalisations in 2019-20 ($p<0.050$) (Table 17).

In contrast, there were significant increases in the rate of hospitalisations related to amphetamines and other stimulants; non-opioid analgesics (after a big decline from an earlier peak between 2016-17 and 2018-19); antiepileptic, sedative-hypnotic and antiparkinsonism drugs; opioids; antidepressants; cannabinoids; and multiple drug use ($p<0.050$) (Table 17).

Figure 17. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Australian Capital Territory, 1999-00 to 2019-20.

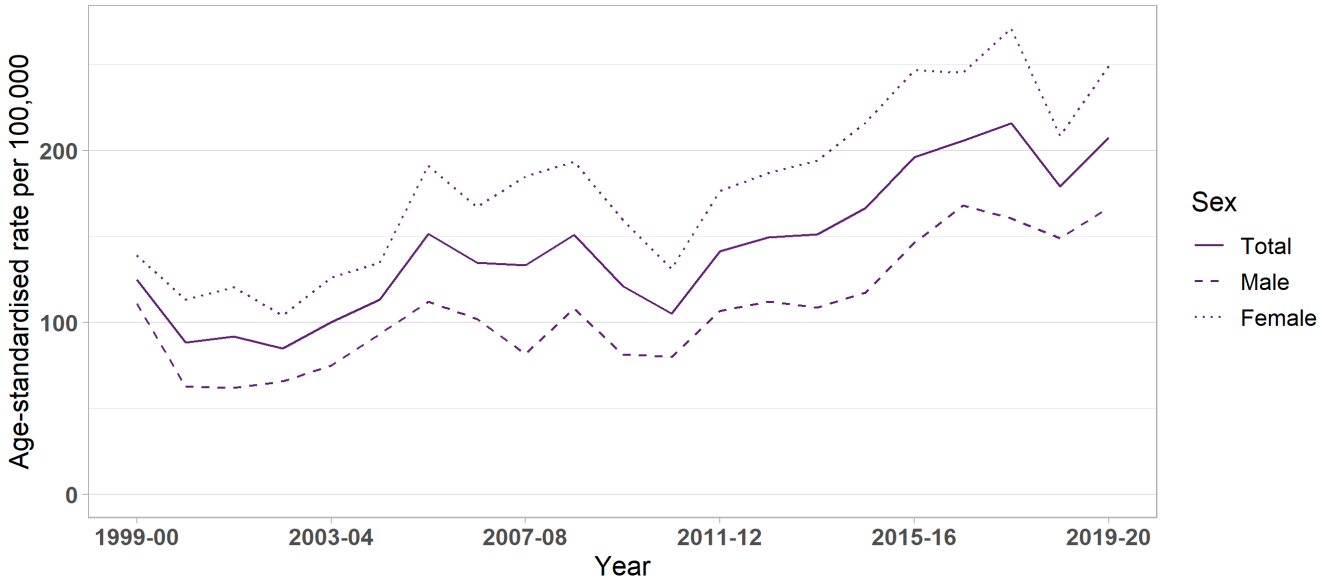
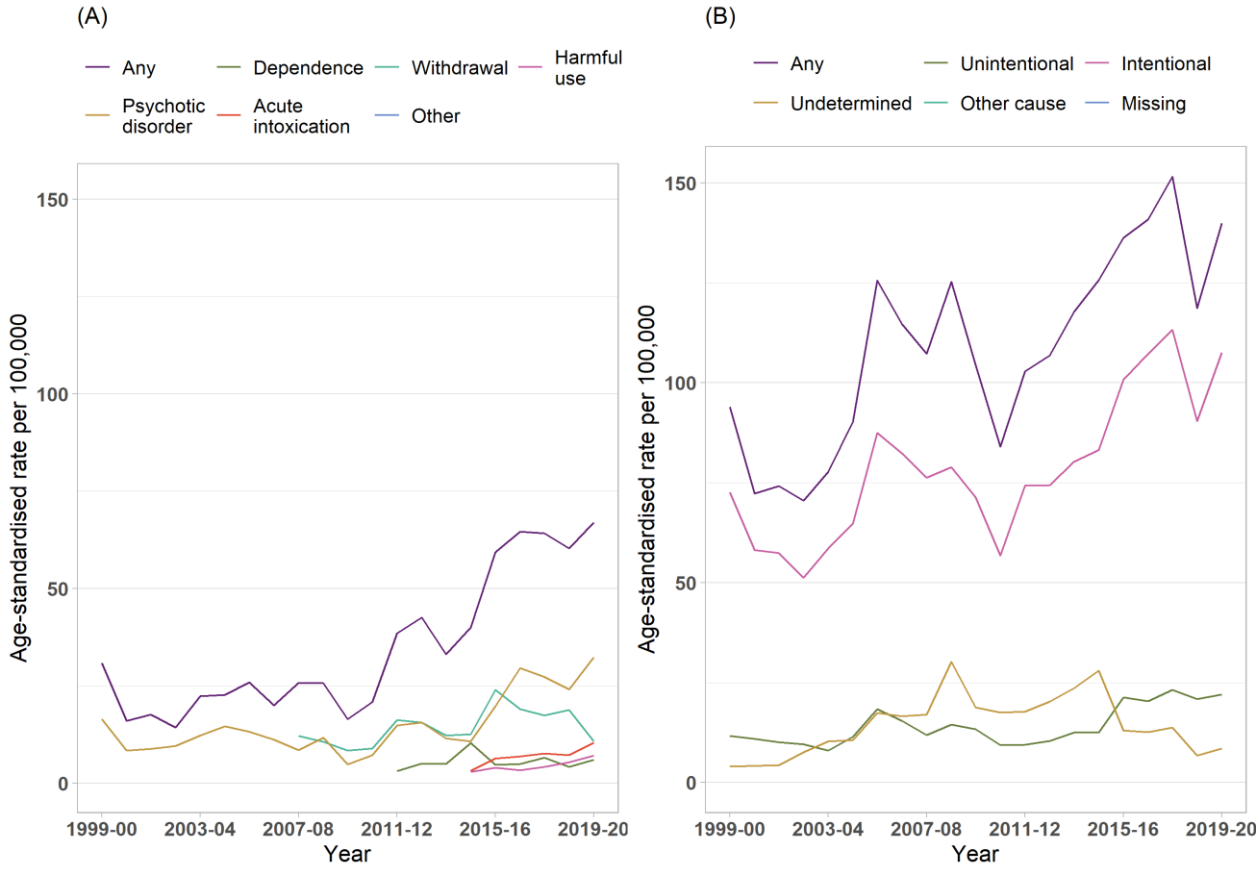
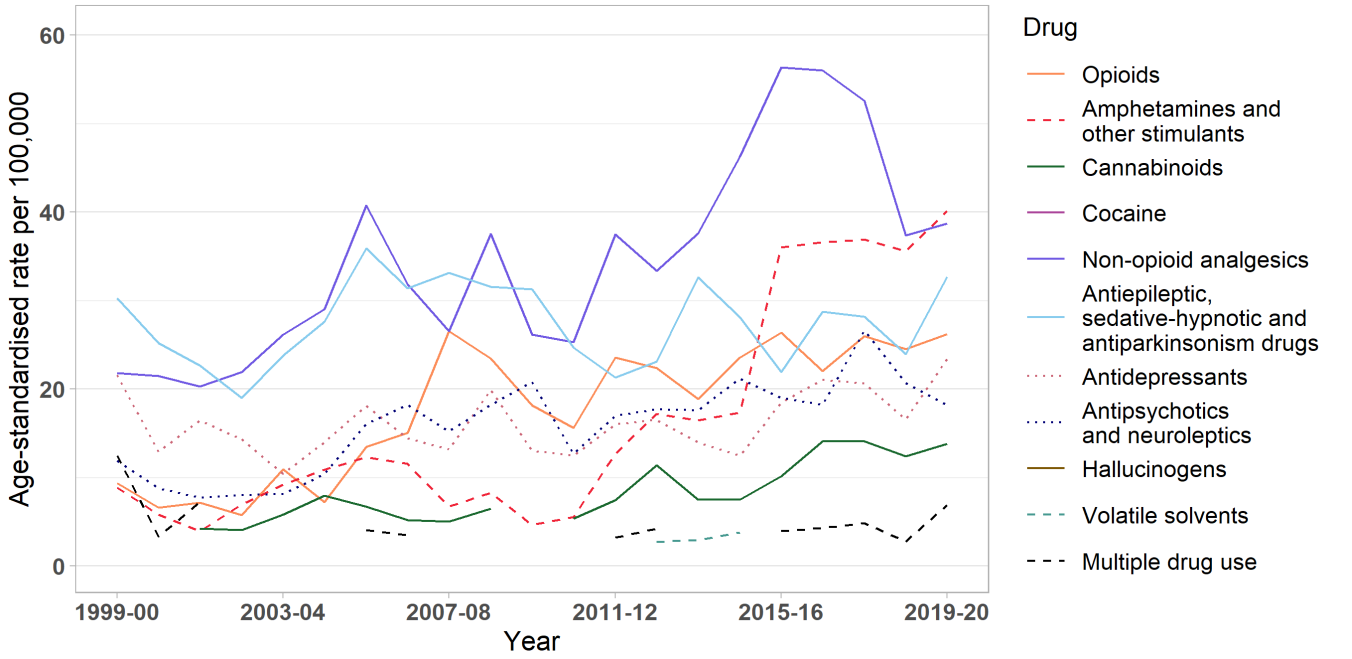


Figure 18. Age-standardised rate per 100,000 people of drug-related hospitalisations, by principal diagnosis of mental and behavioural disorder due to substance use (A) and external cause of poisoning (B), Australian Capital Territory, 1999-00 to 2019-20.



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.

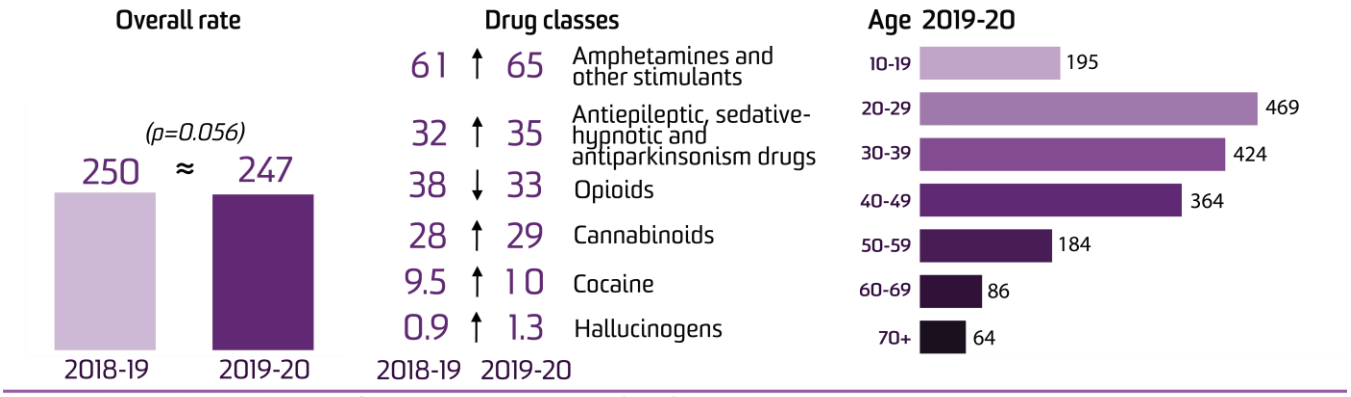
Figure 19. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Australian Capital Territory, 1999-00 to 2019-20.



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

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 (p<0.05); sign "≈" indicates no significant change.

There were 19,452 hospitalisations with a drug-related principal diagnosis in New South Wales in 2019-20, equivalent to 0.64% of all hospitalisations in New South Wales.

This is equivalent to 247 hospitalisations per 100,000 people, similar to 2018-19 (250 hospitalisations per 100,000 people; *p*=0.06) (Table 18), but an increase from 223 hospitalisations per 100,000 people in 1999-00 (Figure 20).

Sex

In 2019-20, the rate of hospitalisations was higher among males than females (287 versus 207 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (469, 424, and 364 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in remote and very remote New South Wales (384 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major cities (14,944 hospitalisations) (Figure 21).

External Cause of Drug Poisoning

In 2019-20, 36% of drug-related hospitalisations in New South Wales were due to drug poisoning. Furthermore, 67% of drug poisoning related hospitalisations were intentional (60 hospitalisations per 100,000 people) and 23% were unintentional (20 hospitalisations per 100,000 people) (Figure 22).

Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (65 hospitalisations per 100,000 people) (Figure 23).

Compared to 2018-19, there was a significant decrease in the rate of hospitalisations related to opioids in 2019-20, as well as hospitalisations where the principal diagnosis indicated involvement of multiple drugs (p<0.050) (Table 18).

In contrast, there were significant increases in the rate of hospitalisations related to amphetamines and other stimulants; antiepileptic, sedative-hypnotic and antiparkinsonism drugs; cannabinoids; cocaine; and hallucinogens (*p*<0.050) (Table 18).

Figure 20. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, New South Wales, 1999-00 to 2019-20.

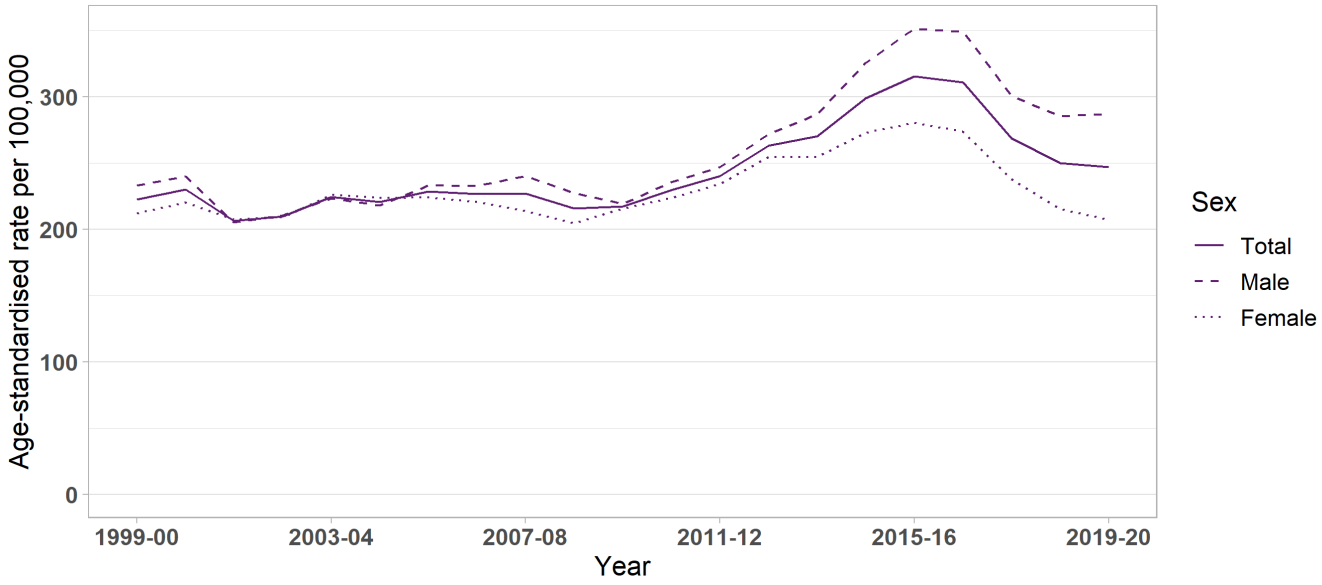
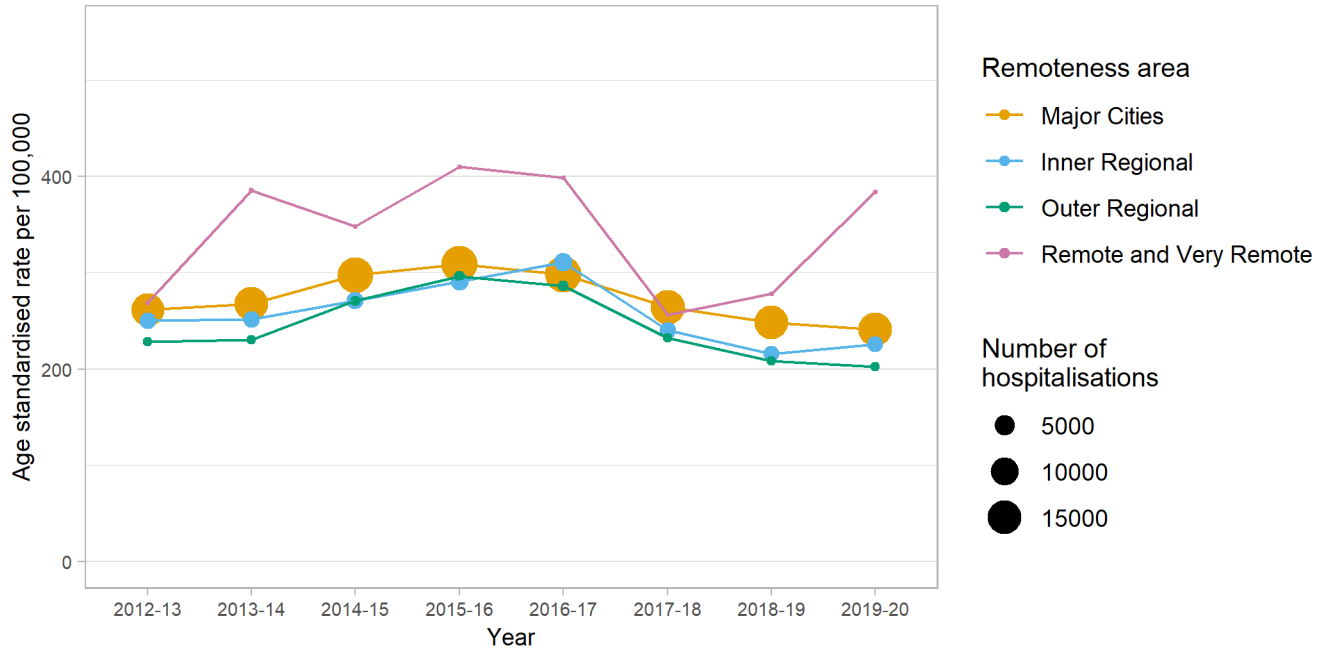


Figure 21. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, New South Wales, 2012-13 to 2019-20.



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

Figure 22. 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, 1999-00 to 2019-20.

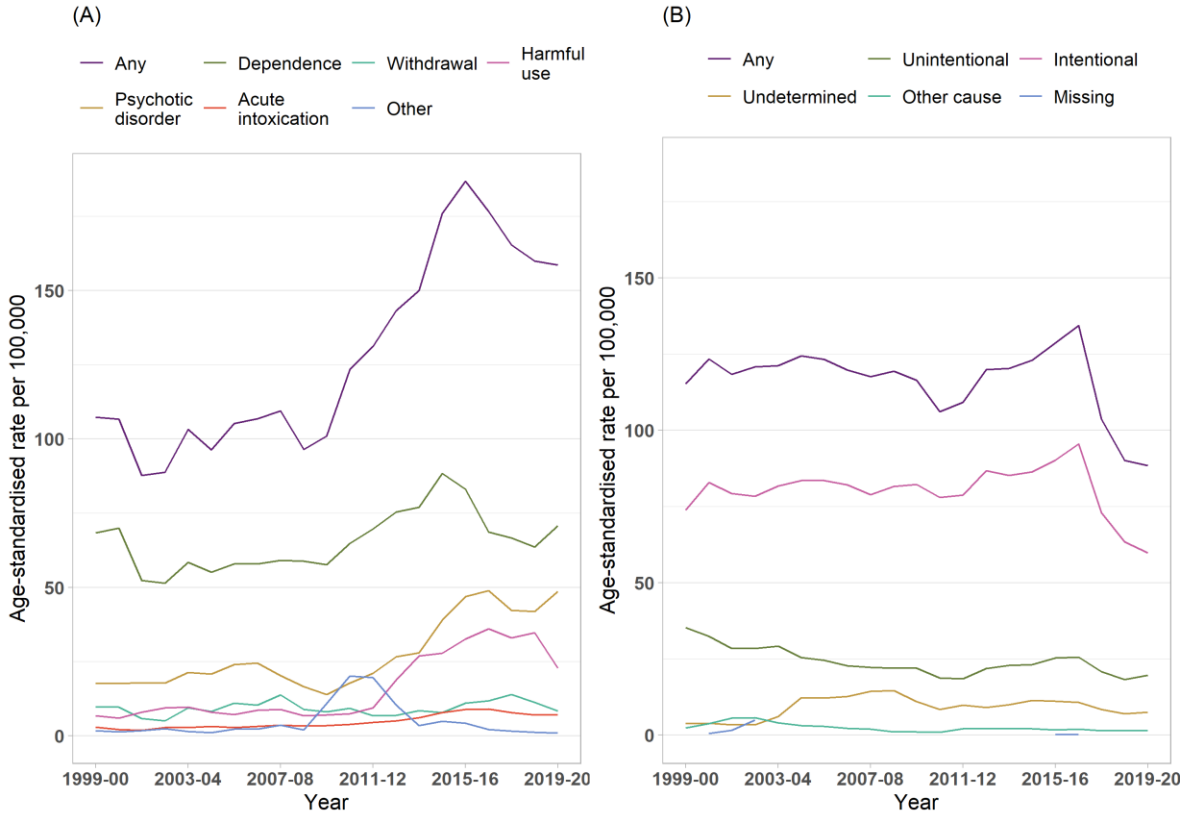
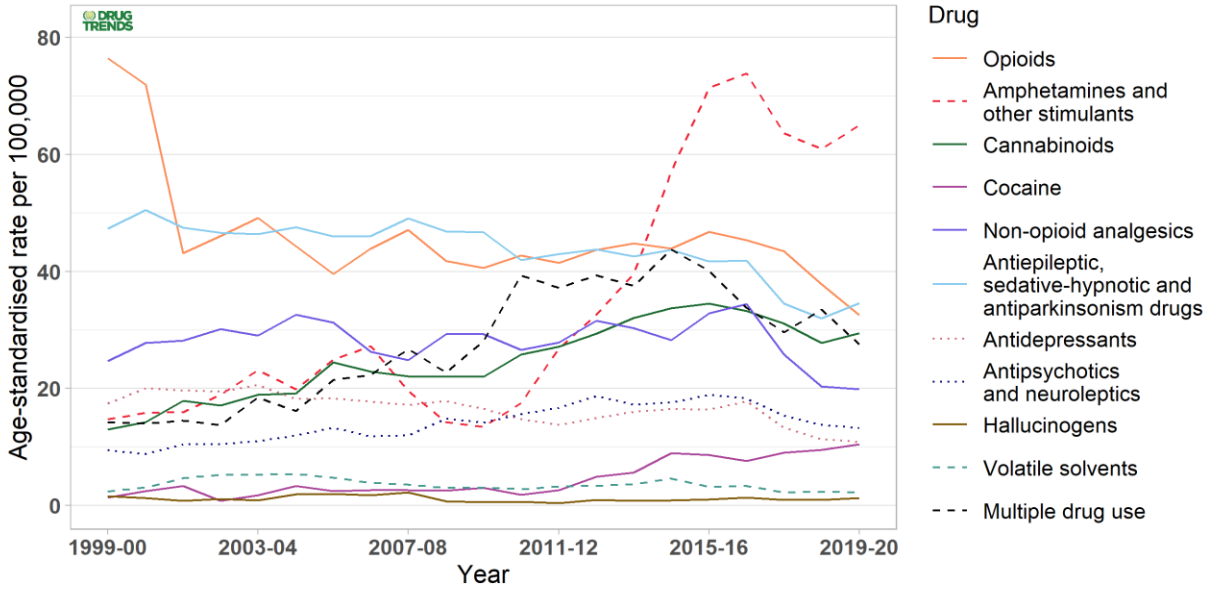


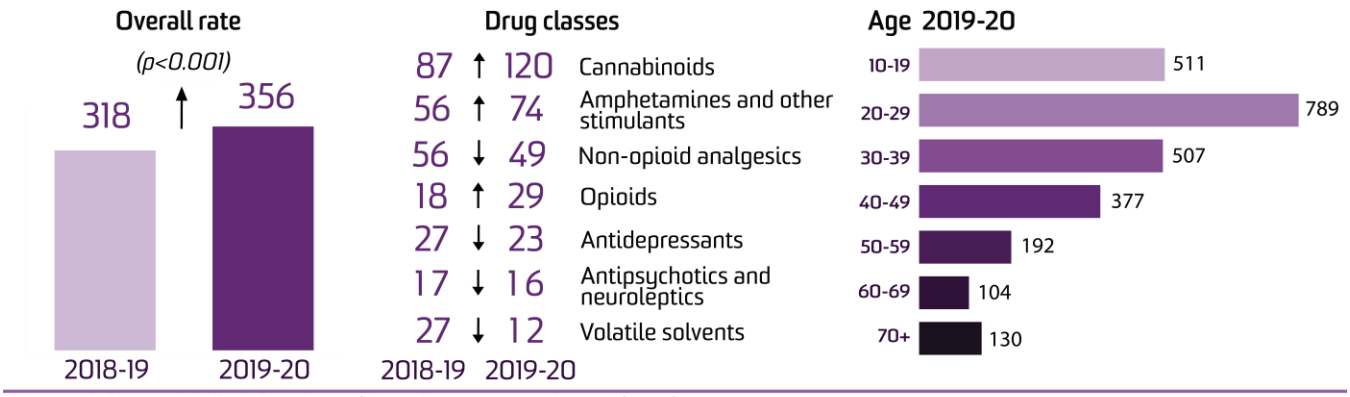
Figure 23. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, New South Wales, 1999-00 to 2019-20.



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.

Northern Territory

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 (p<0.05)

There were 919 hospitalisations with a drug-related principal diagnosis in the Northern Territory in 2019-20.

This is equivalent to 359 hospitalisations per 100,000 people, which was a significant increase from 2018-19 (318 hospitalisations per 100,000 people; p<0.001) (Table 19) and a four-fold increase from 1999-00 (90 hospitalisations per 100,000 people) (Figure 24).

Sex

The rate of hospitalisations was higher among males than females in 2019-20 (397 versus 319 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19 and 30-39 age groups (789, 511, and 507 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in the remote and very remote Northern Territory (389 hospitalisations per 100,000 people), while the number of hospitalisations was highest in the outer regional Northern Territory (515 hospitalisations; noting there are no major cities or inner regional areas in the Northern Territory) (Figure 25).

External Cause of Drug Poisoning

In 2019-20, 38% of drug-related hospitalisations in the Northern Territory were due to drug poisoning. Furthermore, 70% of drug poisoning related hospitalisations were intentional (96 hospitalisations per 100,000 people) and 24% were unintentional (33 hospitalisations per 100,000 people) (Figure 26).

Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating cannabinoids (120 hospitalisations per 100,000 people) (Figure 27).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to non-opioid analgesics; antidepressants; antipsychotics and neuroleptics and volatile solvents (p<0.050) (Table 19).

In contrast, there were significant increases in the rate of hospitalisations related to cannabinoids; amphetamines and other stimulants; opioids; and multiple drug use (p<0.050) (Table 19).

Figure 24. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Northern Territory, 1999-00 to 2019-20.

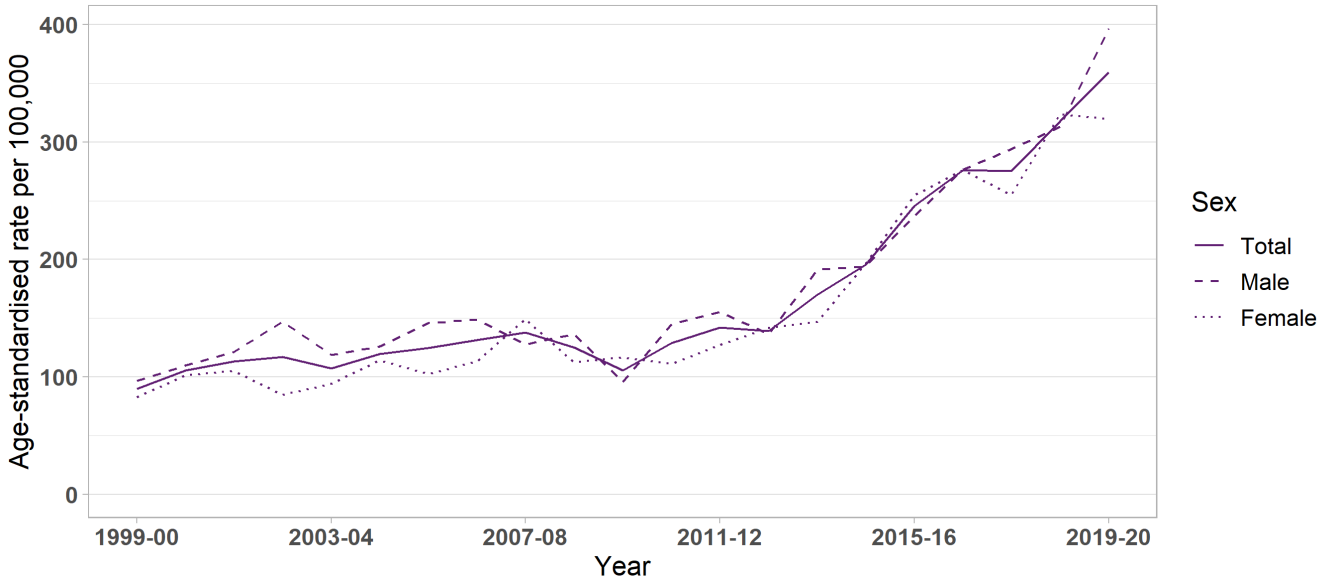
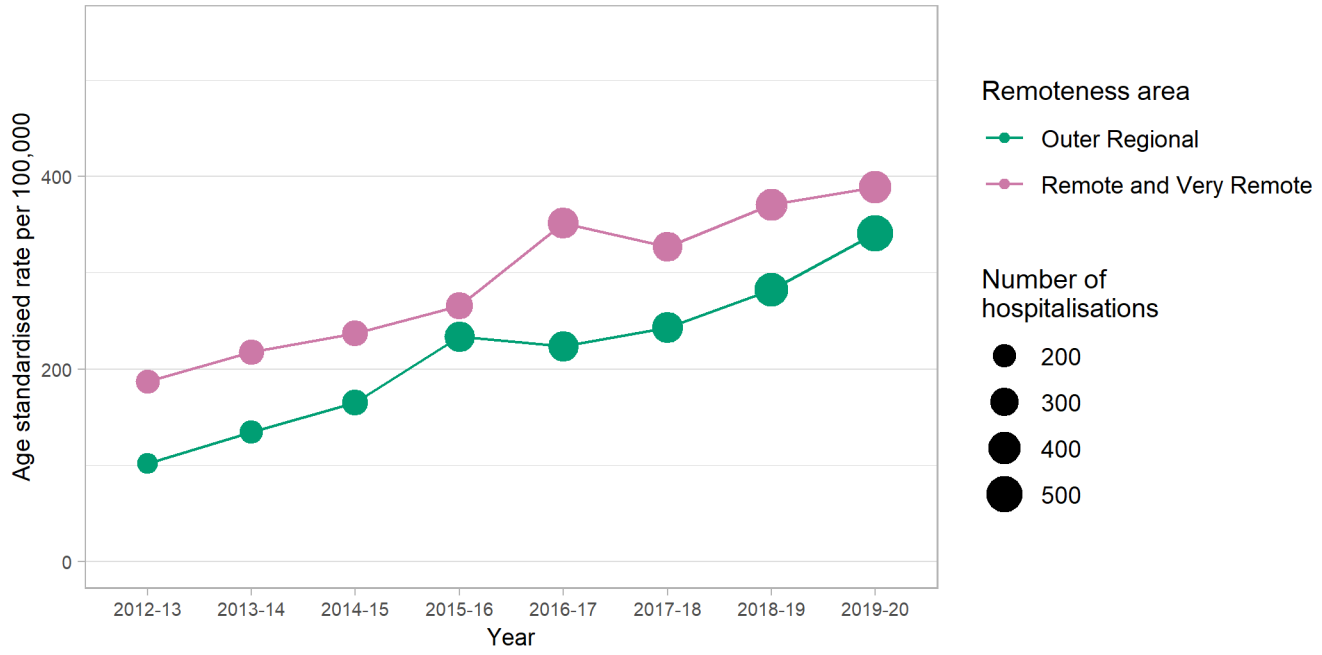


Figure 25. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Northern Territory, 2012-13 to 2019-20.



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

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), Northern Territory, 1999-00 to 2019-20.

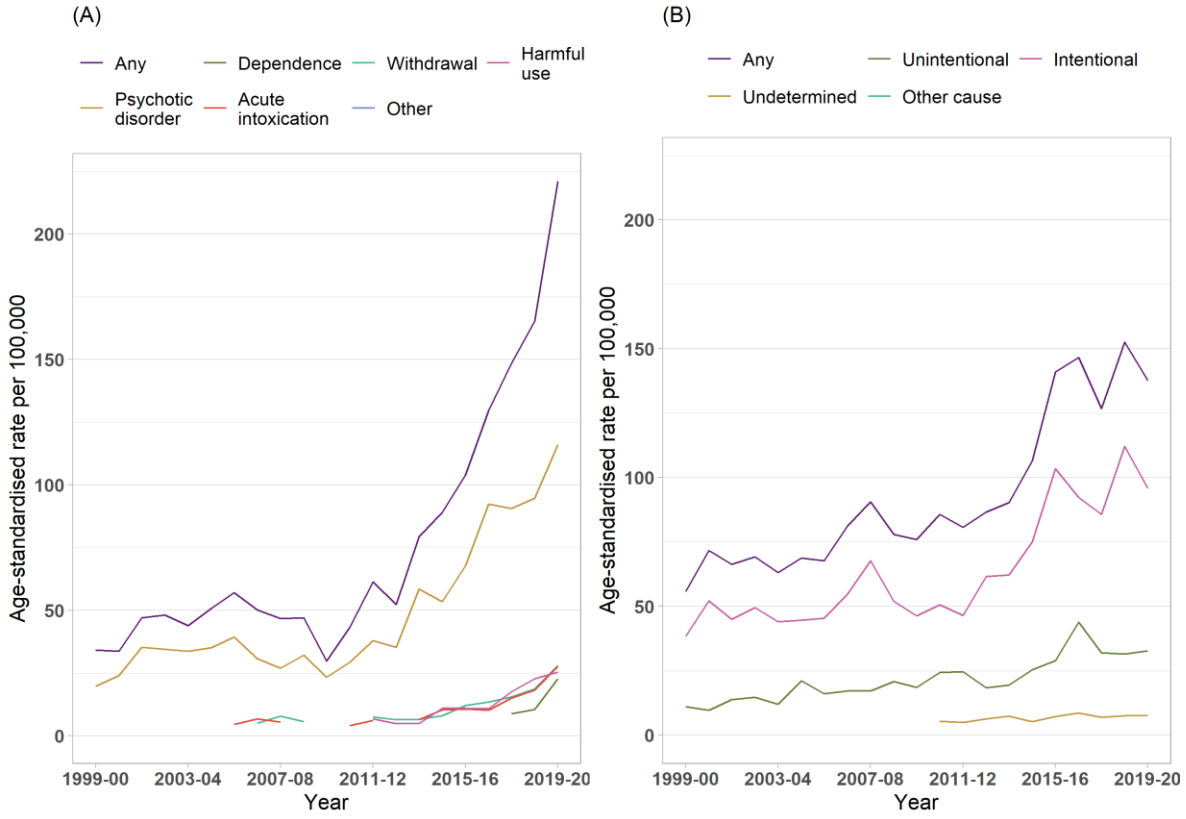
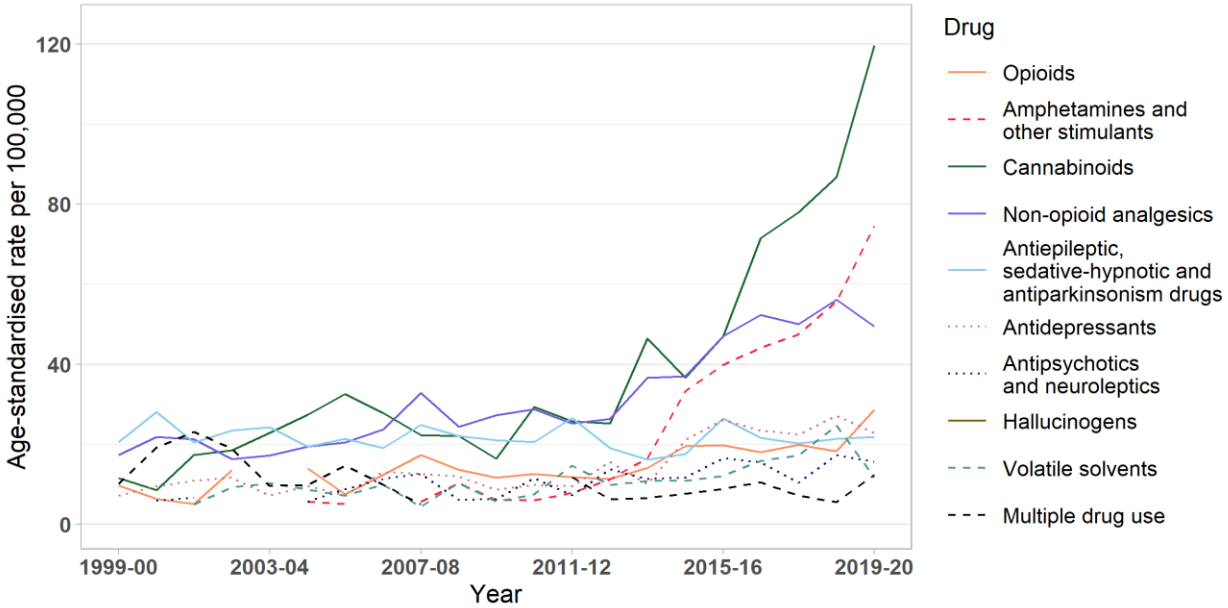


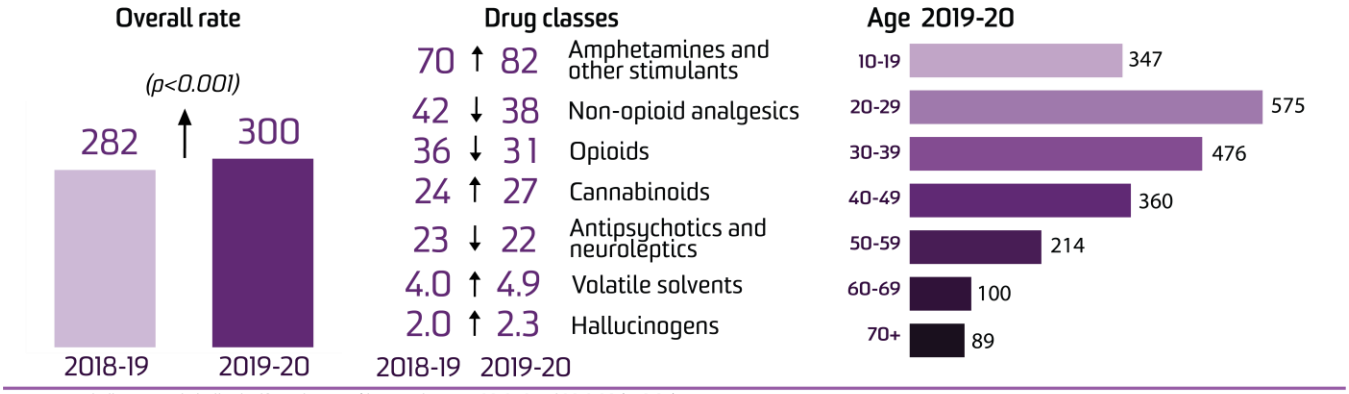
Figure 27. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Northern Territory, 1999-00 to 2019-20.



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

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 ($p<0.05$)

There were 14,893 hospitalisations with a drug-related principal diagnosis in Queensland in 2019-20, equivalent to 0.55% of all hospitalisations in Queensland.

This is equivalent to 300 hospitalisations per 100,000 people, which was a significant increase from 2018-19 (282 hospitalisations per 100,000 people; $p<0.001$) (Table 20) and higher than reported in 1999-00 (218 hospitalisations per 100,000 people) (Figure 28).

Sex

The rate of hospitalisations was higher among females than males in 2019-20 (307 versus 294 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (575, 476, and 360 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in outer regional Queensland (326 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major cities (9,884 hospitalisations) (Figure 29).

External Cause of Drug Poisoning

In 2019-20, 56% of drug-related hospitalisations in Queensland were due to drug poisoning. Furthermore, 72% of drug poisoning related hospitalisations were intentional (121 hospitalisations per 100,000 people) and 21% were unintentional (34 hospitalisations per 100,000 people) (Figure 30).

Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (82 hospitalisations per 100,000 people) (Figure 31).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to non-opioid analgesics; opioids; and antipsychotics and neuroleptics ($p<0.050$) (Table 20).

In contrast, there were significant increases in the rate of hospitalisations related to amphetamines and other stimulants; cannabinoids; multiple drug use; volatile solvents; and hallucinogens ($p<0.050$) (Table 20).

Figure 28. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Queensland, 1999-00 to 2019-20.

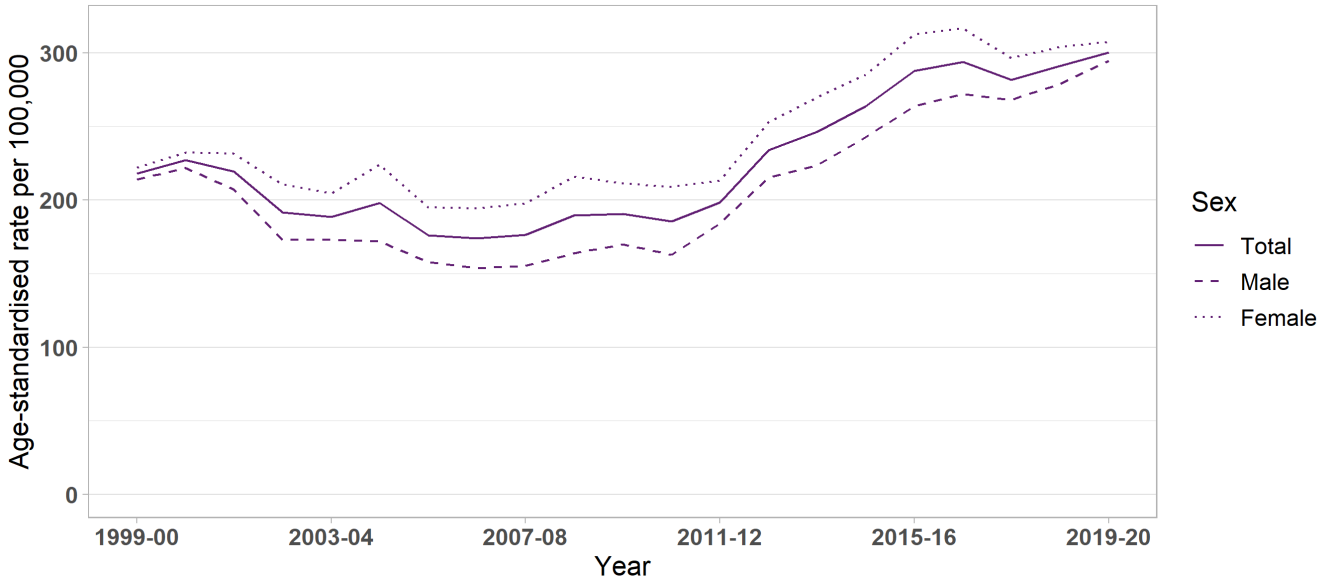
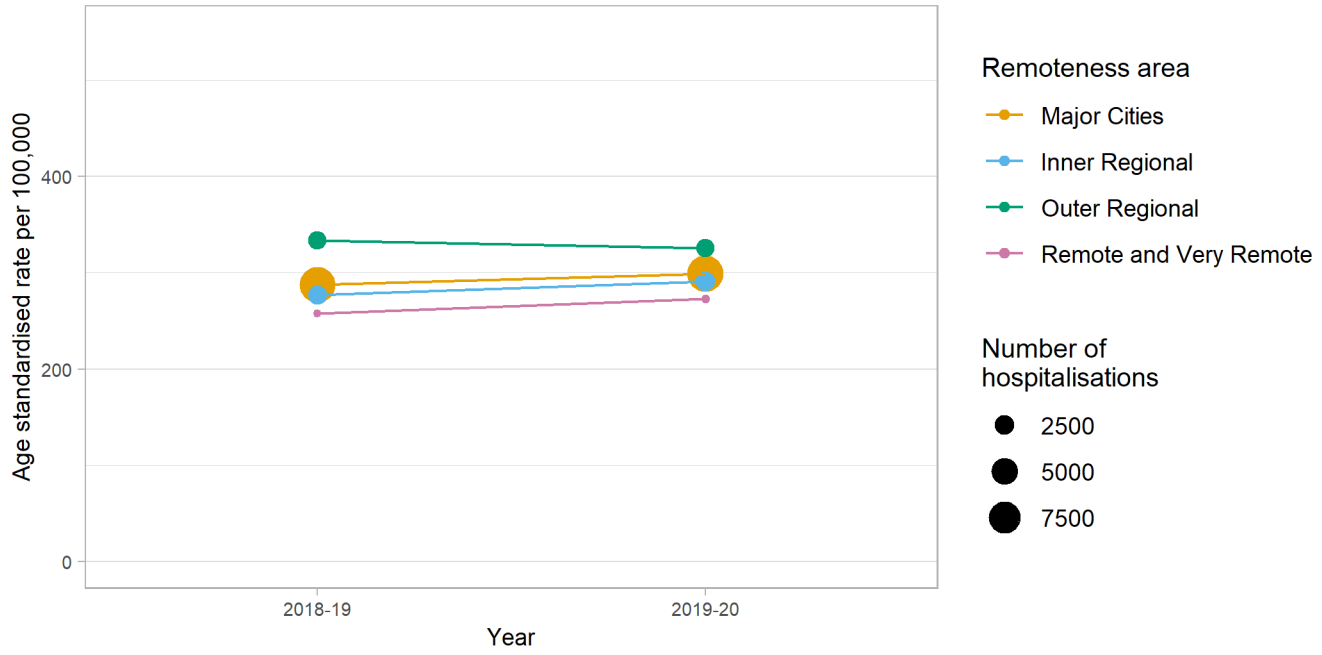


Figure 29. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Queensland, 2018-19 to 2019-20.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. Data by remoteness area was only provided for 2018-19 and 2019-20 in Queensland.

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), Queensland, 1999-00 to 2019-20.

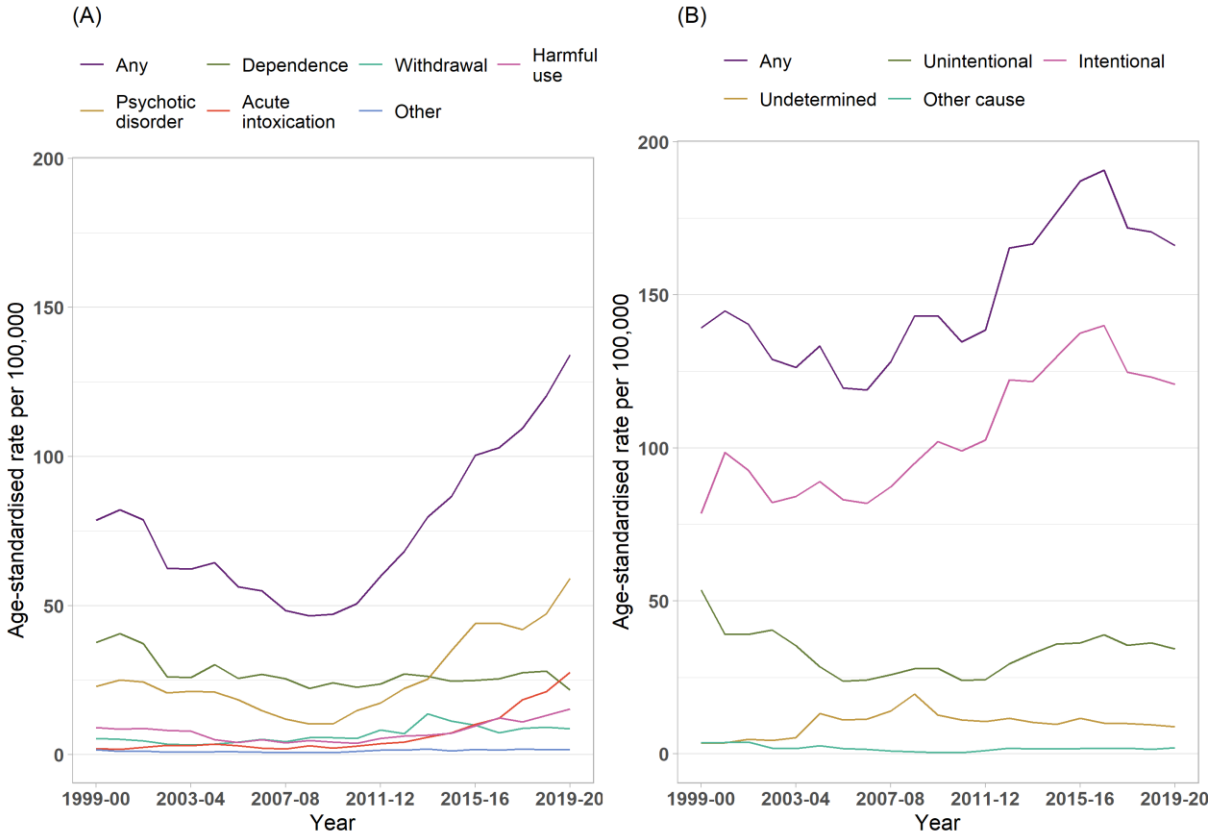
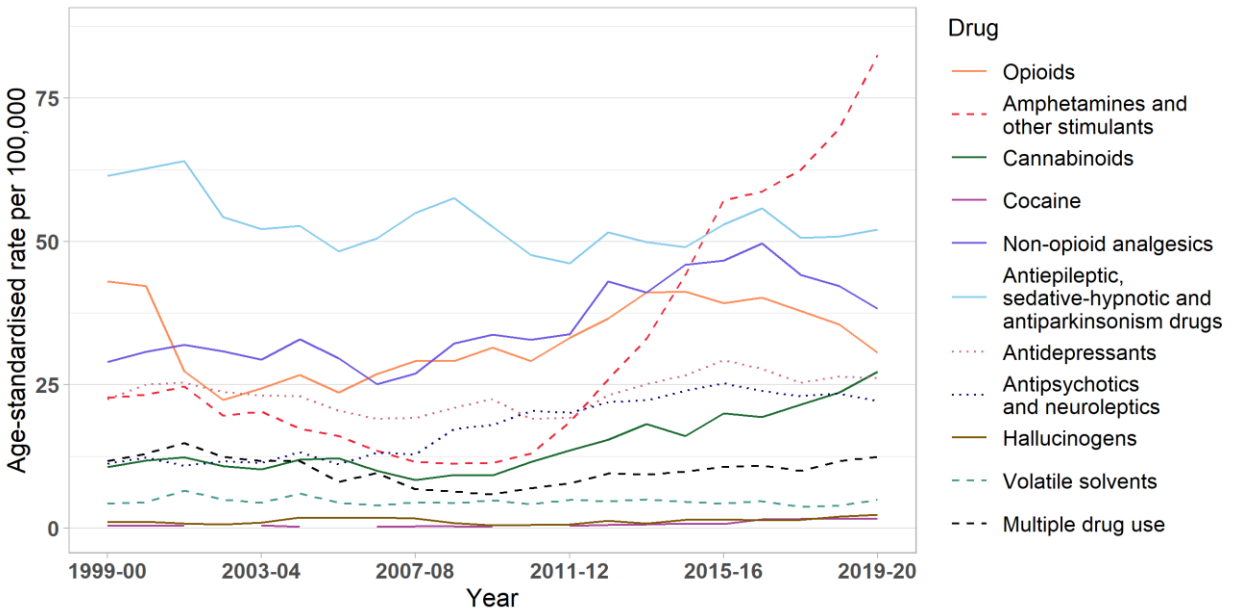


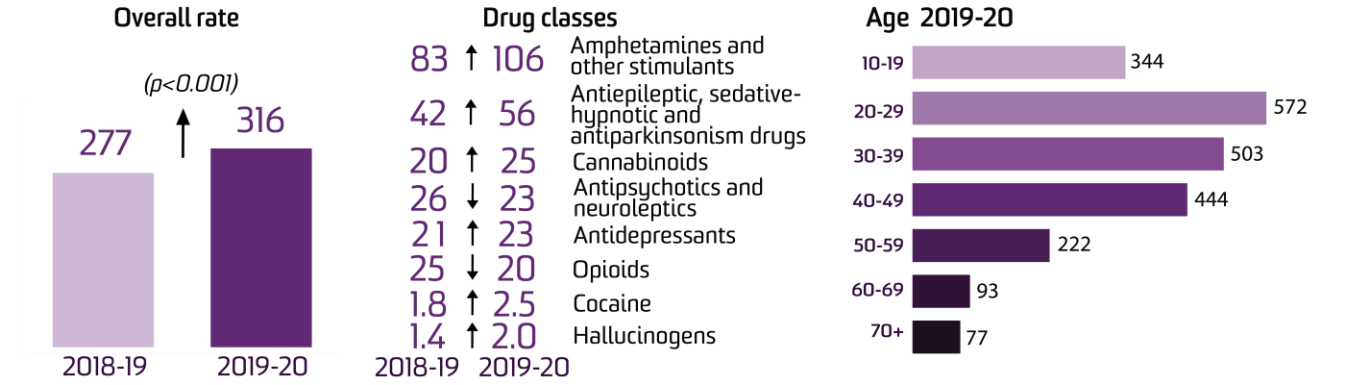
Figure 31. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Queensland, 1999-00 to 2019-20.



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

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 ($p<0.05$)

There were 5,157 hospitalisations with a drug-related principal diagnosis in South Australia in 2019-20, equivalent to 0.66% of all hospitalisations in South Australia.

This is equivalent to 316 hospitalisations per 100,000 people, which was a significant increase from 2018-19 (277 hospitalisations per 100,000 people; $p<0.001$) (Table 21) and higher than reported in 1999-00 (208 hospitalisations per 100,000 people) (Figure 32).

Sex

The rate of hospitalisations was higher among females than males in 2019-20 (323 versus 309 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (572, 503, and 444 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in outer regional South Australia (527 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major cities (3,278 hospitalisations) (Figure 33).

External Cause of Drug Poisoning

In 2019-20, 53% of drug-related hospitalisations in South Australia were due to drug poisoning. Furthermore, 67% of drug poisoning related hospitalisations were intentional (109 hospitalisations per 100,000 people) and 22% were unintentional (35 hospitalisations per 100,000 people) (Figure 34).

Drug Type

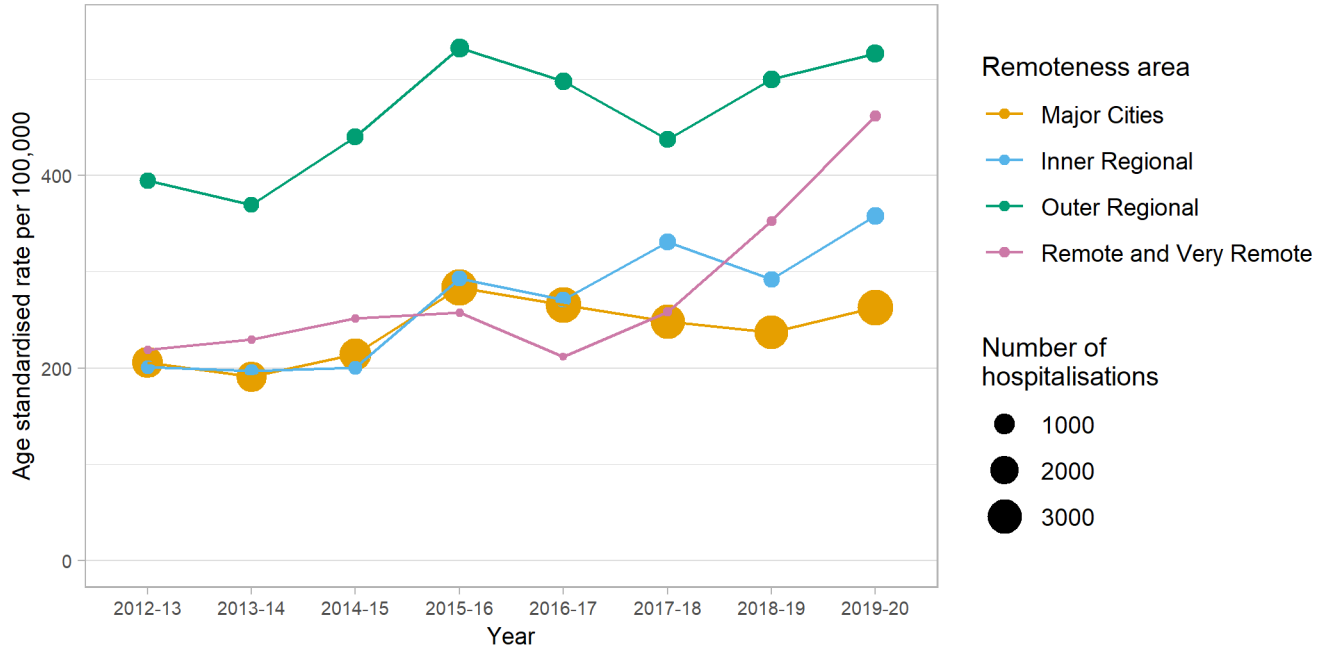
In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (106 hospitalisations per 100,000 people) (Figure 35).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to antipsychotics and neuroleptics; and opioids ($p<0.050$) (Table 21).

In contrast, there were significant increases in the rate of hospitalisations related to amphetamines and other stimulants; antiepileptic, sedative-hypnotic and antiparkinsonism drugs; cannabinoids; antidepressants; multiple drug use; cocaine; and hallucinogens ($p<0.050$) (Table 21).

Figure 32. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, South Australia, 1999-00 to 2019-20.

Figure 33. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, South Australia, 2012-13 to 2019-20.



Note: The size (area) of the bubble is proportional to the number of hospitalisations. 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), South Australia, 1999-00 to 2019-20.

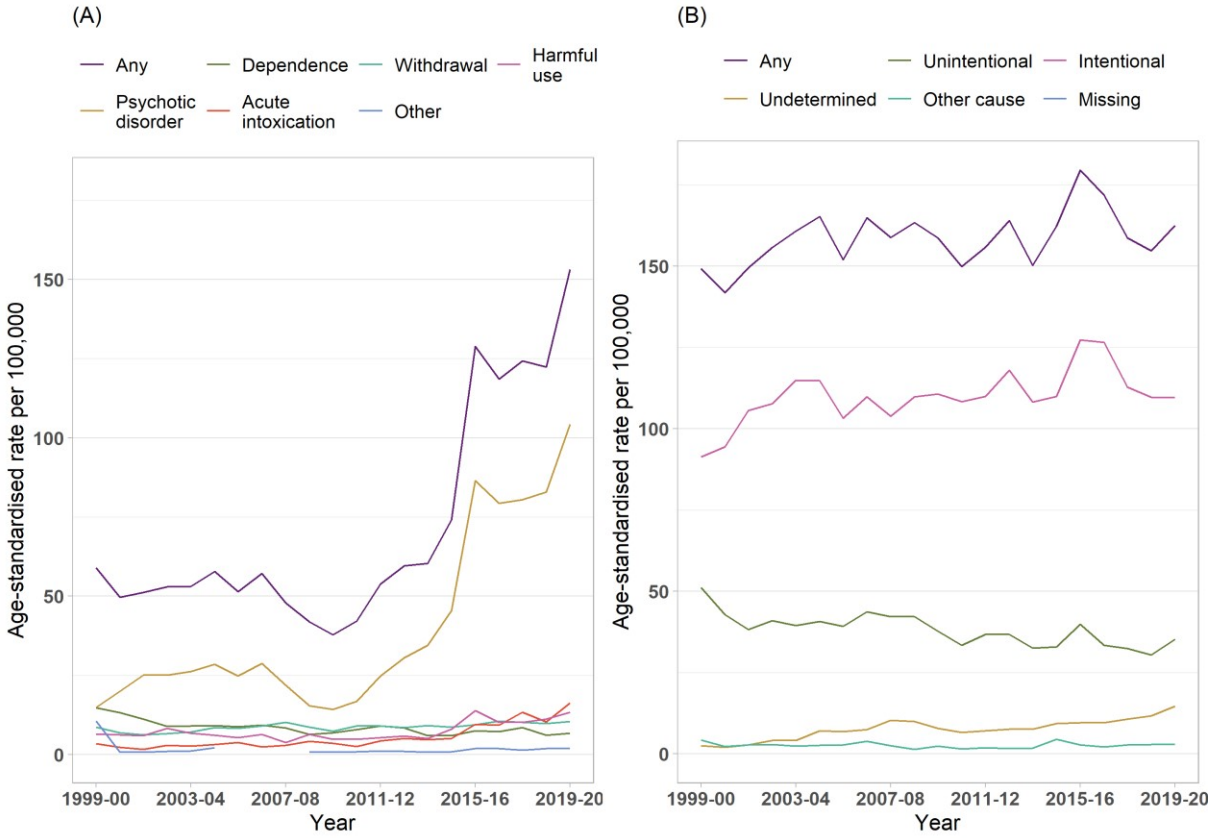
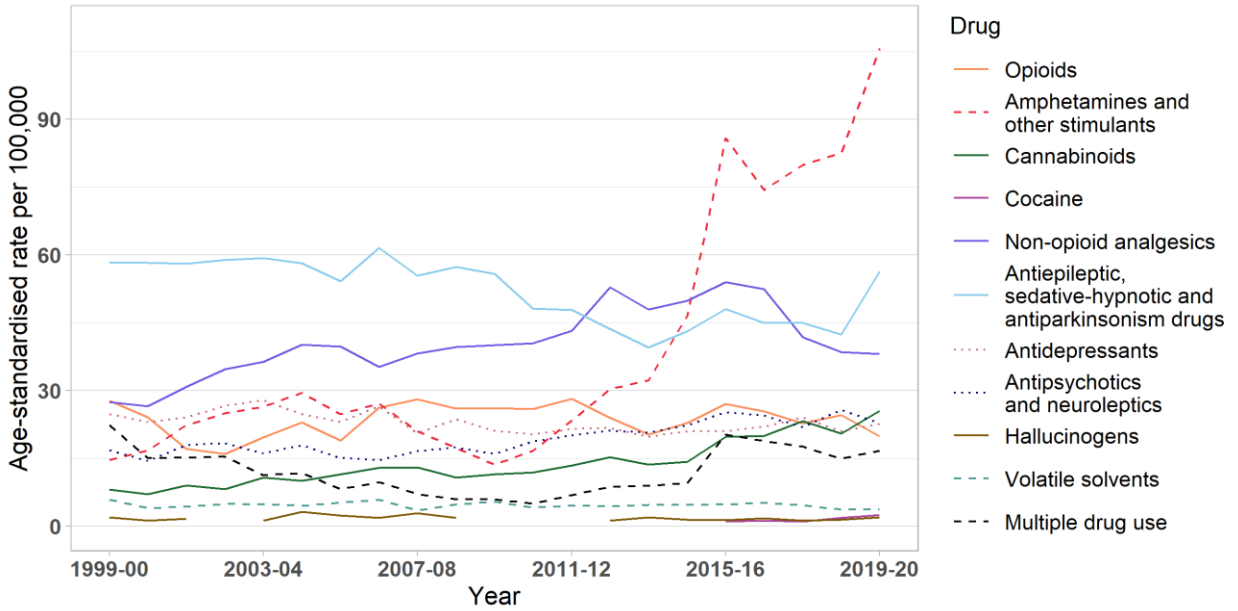
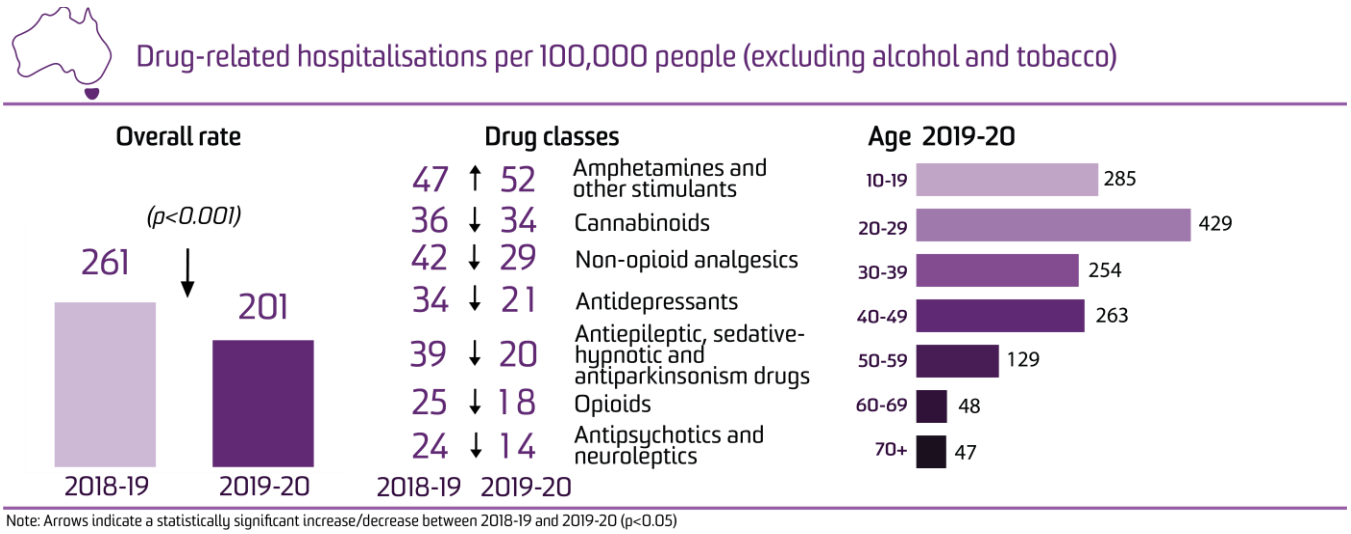


Figure 35. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, South Australia, 1999-00 to 2019-20.



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 2018-19 and 2019-20 (p<0.05)

There were 969 hospitalisations with a drug-related principal diagnosis in Tasmania in 2019-20.

This is equivalent to 201 hospitalisations per 100,000 people, which was a significant decrease from 2018-19 (261 hospitalisations per 100,000 people; p<0.001) (Table 22) but higher than reported in 1999-00 (127 hospitalisations per 100,000 people) (Figure 36).

Sex

The rate of hospitalisations was higher among females than males in 2019-20 (241 versus 163 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 10-19 and 40-49 age groups (429, 285, and 263 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest number and rate of hospitalisations in 2019-20 was observed in inner regional Tasmania (756 hospitalisations, 223 hospitalisations per 100,000 people; noting there are no major cities in Tasmania) (Figure 37).

External Cause of Drug Poisoning

In 2019-20, 48% of drug-related hospitalisations in Tasmania were due to drug poisoning. Furthermore, 82% of drug poisoning related hospitalisations were intentional (78 hospitalisations per 100,000 people) and 11% were unintentional (9.2 hospitalisations per 100,000 people) (Figure 38).

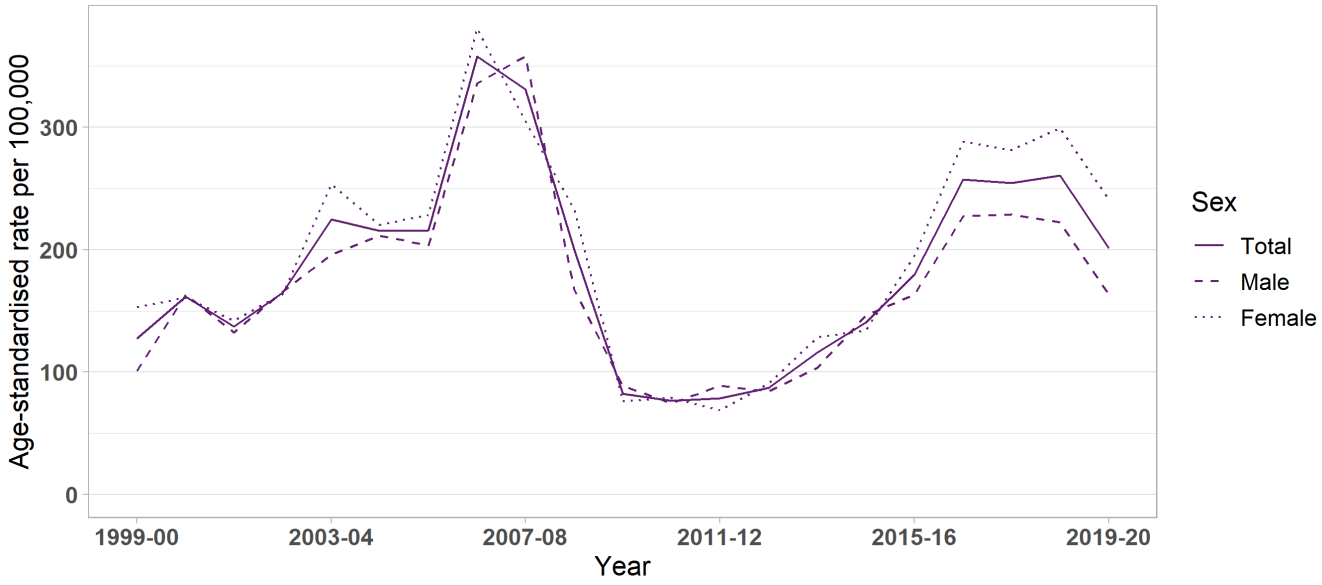
Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (52 hospitalisations per 100,000 people) (Figure 39).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to cannabinoids; non-opioid analgesics; antidepressants; antiepileptic, sedative-hypnotic and antiparkinsonism drugs; opioids; and antipsychotics and neuroleptics (p<0.050) (Table 22).

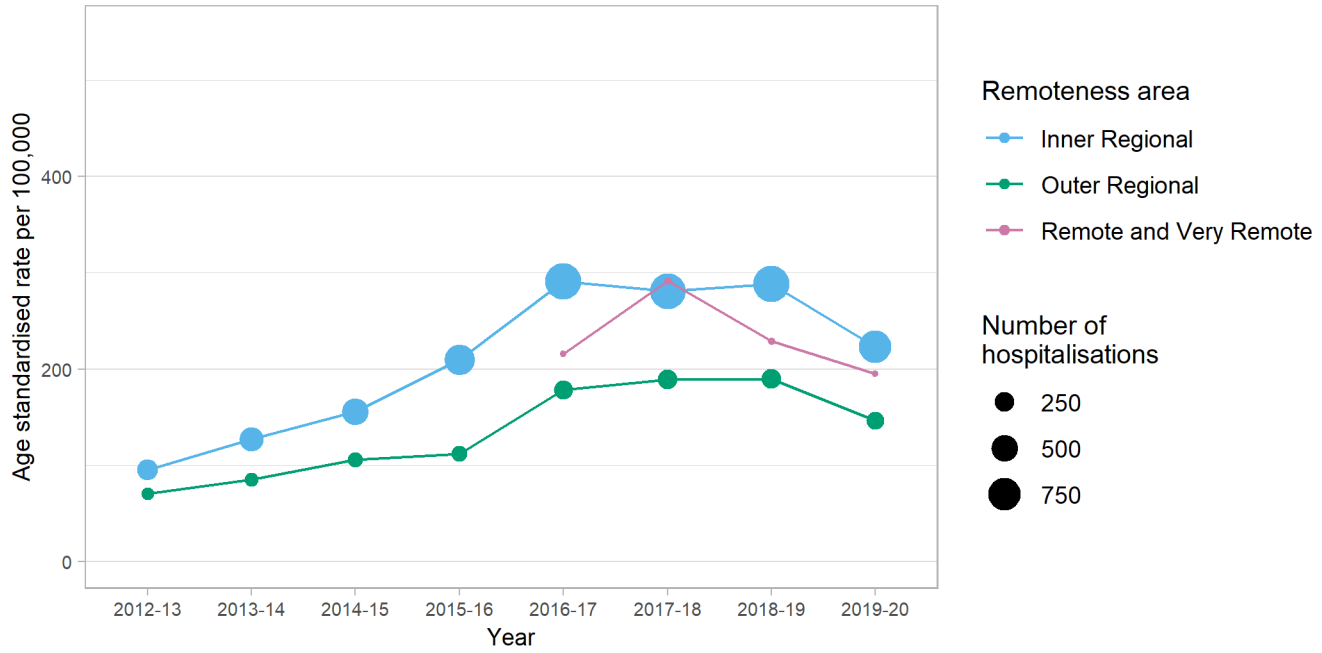
In contrast, there was a significant increase in the rate of hospitalisations related to amphetamines and other stimulants (p<0.050) (Table 22).

Figure 36. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Tasmania, 1999-00 to 2019-20.



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 37. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Tasmania, 2012-13 to 2019-20.



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 cities 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 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), Tasmania, 1999-00 to 2019-20.

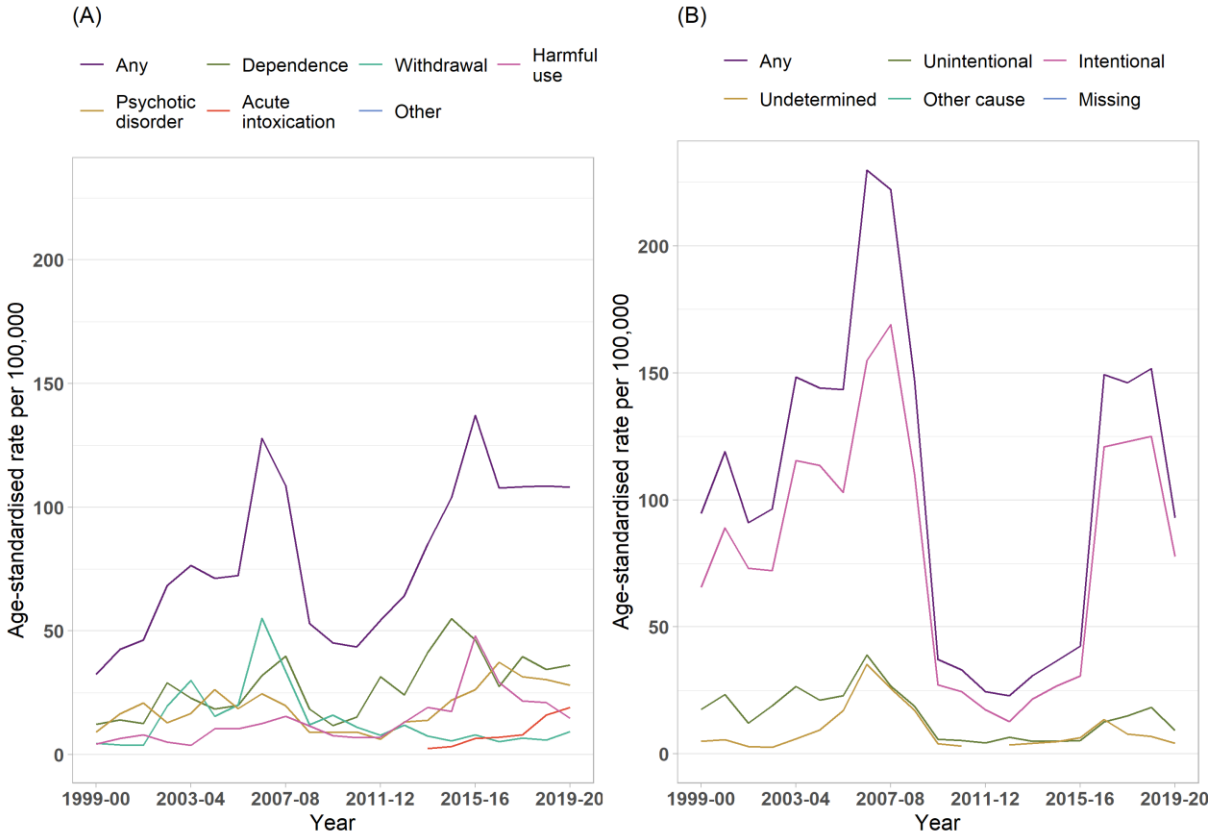
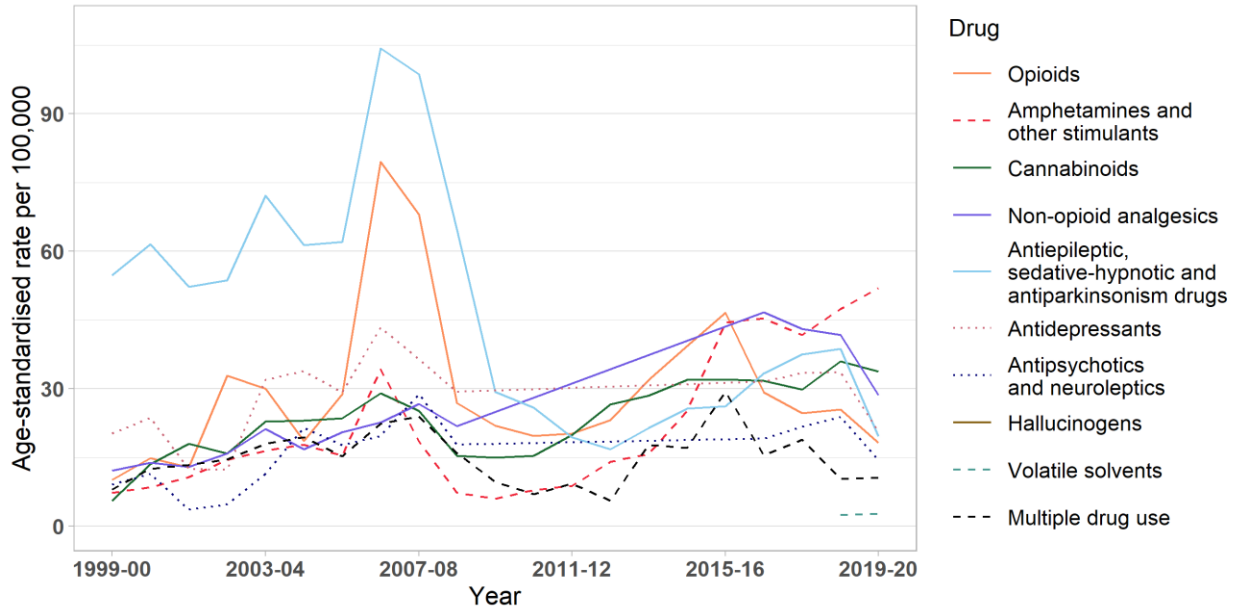


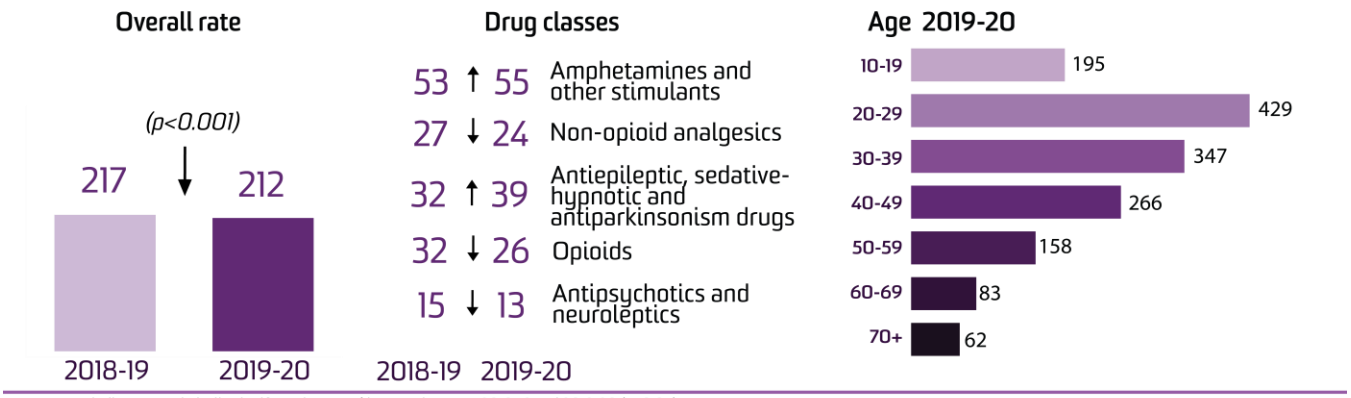
Figure 39. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Tasmania, 1999-00 to 2019-20.



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

Drug-related hospitalisations per 100,000 people (excluding alcohol and tobacco)



Note: Arrows indicate a statistically significant increase/decrease between 2018-19 and 2019-20 (p<0.05)

There were 14,086 hospitalisations with a drug-related principal diagnosis in Victoria in 2019-20, equivalent to 0.49% of all hospitalisations in Victoria.

This is equivalent to 212 hospitalisations per 100,000 people, which was a significant decrease from 2018-19 (217 hospitalisations per 100,000 people; $p<0.001$) (Table 23), but higher than the rate reported in 1999-00 (190 hospitalisations per 100,000 people) (Figure 40).

Sex

The rate of hospitalisations was higher among males than females in 2019-20 (221 versus 203 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (429, 347, and 266 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in outer regional Victoria (222 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major cities (11,029 hospitalisations) (Figure 41).

External Cause of Drug Poisoning

In 2019-20, 47% of drug-related hospitalisations in Victoria were due to drug poisoning. Furthermore, 65% of drug poisoning related hospitalisations were intentional (67 hospitalisations per 100,000 people) and 21% were unintentional (20 hospitalisations per 100,000 people) (Figure 42).

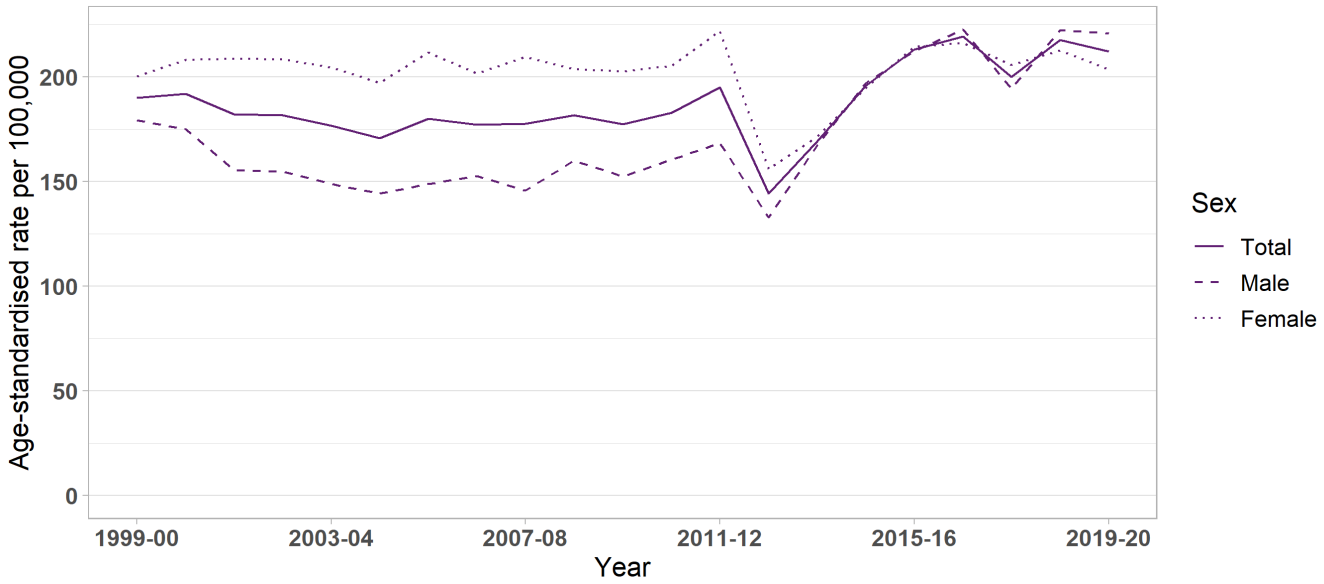
Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (55 hospitalisations per 100,000 people) (Figure 43).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to opioids; non-opioid analgesics; multiple drug use; and antipsychotics and neuroleptics ($p<0.050$) (Table 23).

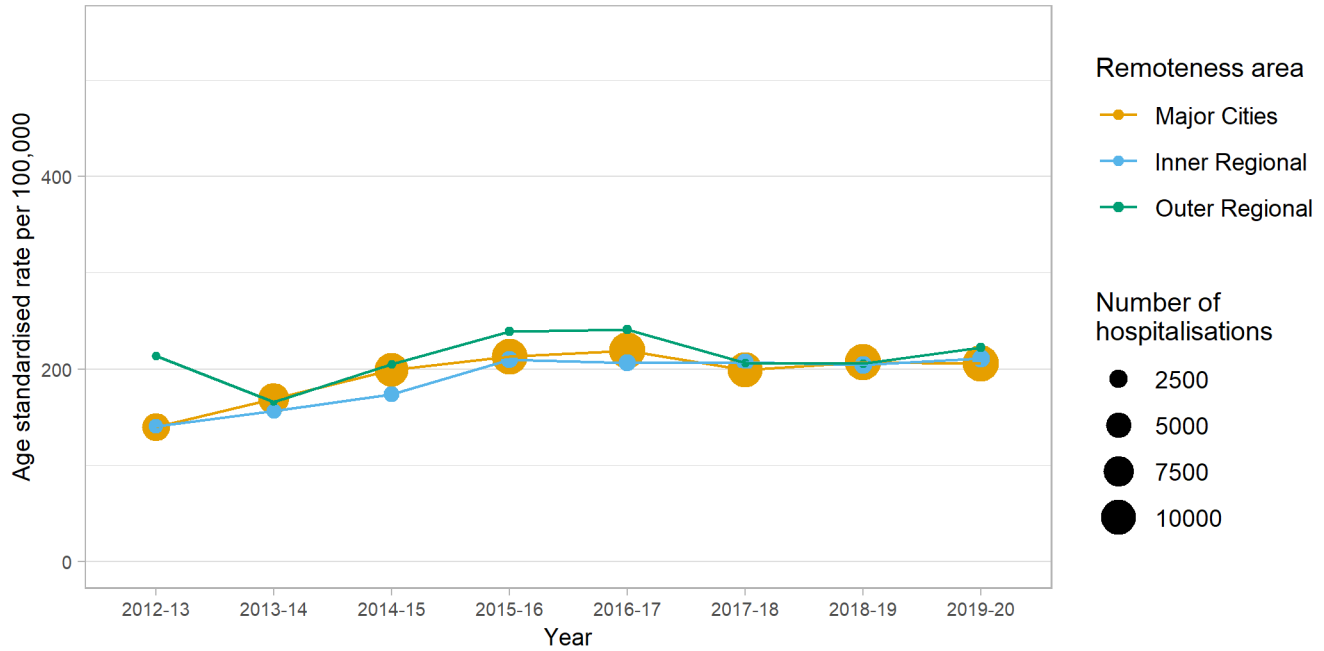
In contrast, there were significant increases in the rate of hospitalisations related to amphetamines and other stimulants; and antiepileptic, sedative-hypnotic and antiparkinsonism drugs ($p<0.050$) (Table 23).

Figure 40. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Victoria, 1999-00 to 2019-20.



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 41. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Victoria, 2012-13 to 2019-20.



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 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), Victoria, 1999-00 to 2019-20.

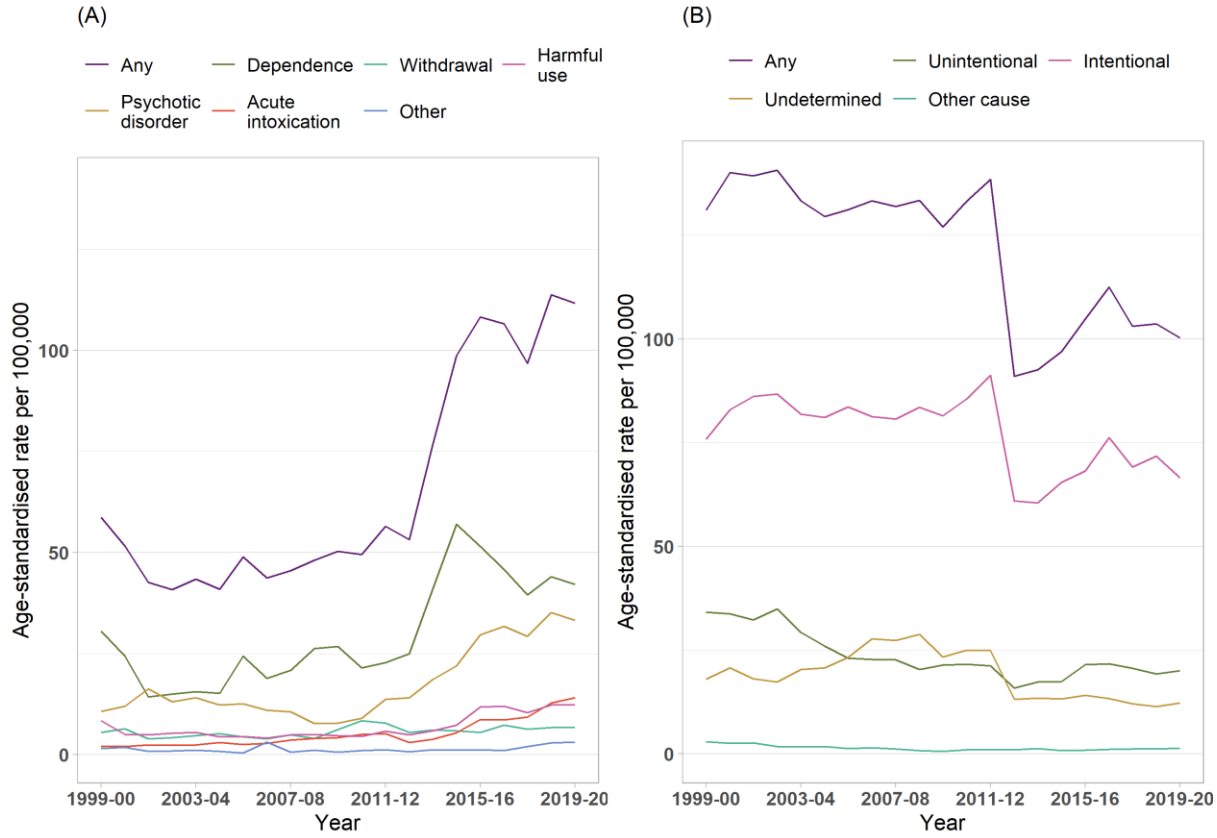
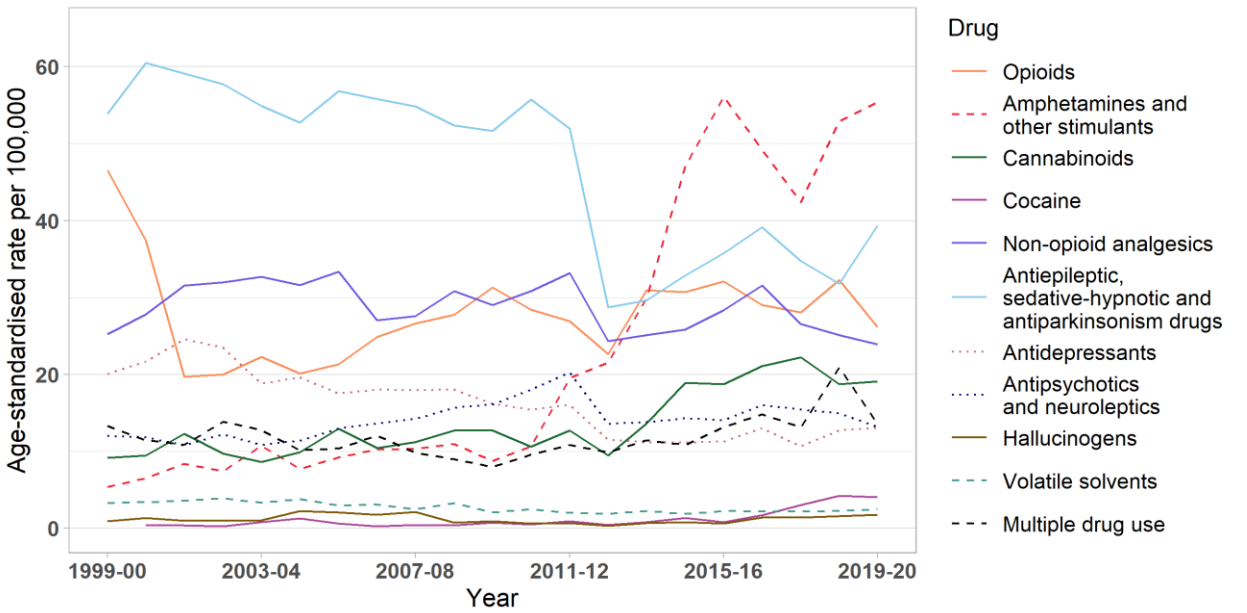
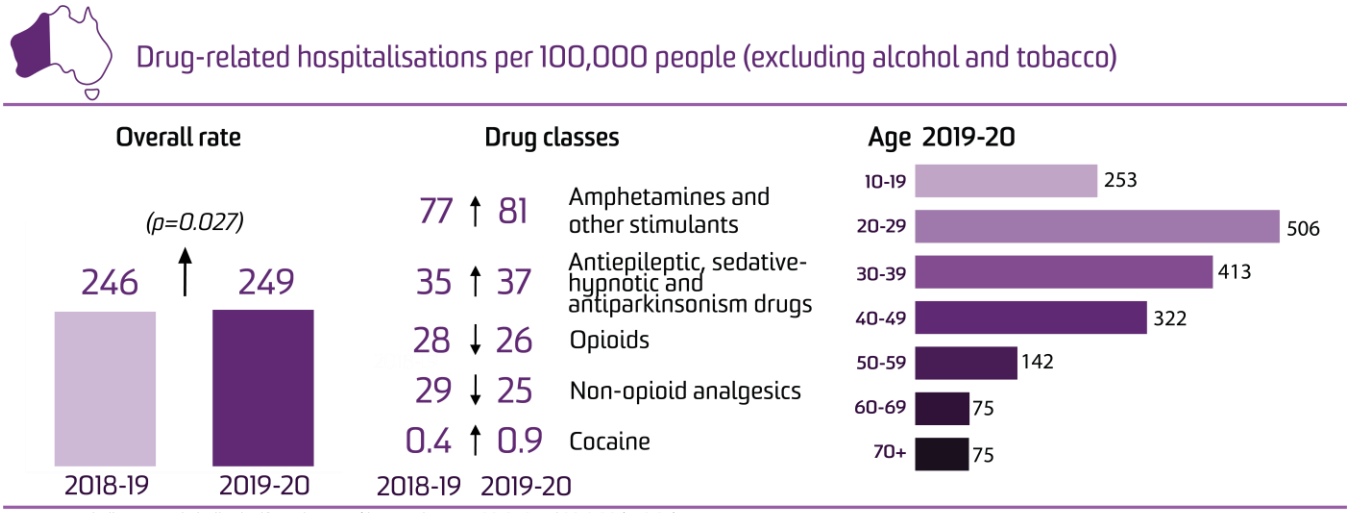


Figure 43. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Victoria, 1999-00 to 2019-20.



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 2018-19 and 2019-20 (p<0.05)

There were 6,389 hospitalisations with a drug-related principal diagnosis in Western Australia in 2019-20, equivalent to 0.57% of all hospitalisations in Western Australia.

This is equivalent to 249 hospitalisations per 100,000 people, which was a significant increase from 2018-19 (246 hospitalisations per 100,000 people; p=0.027) (Table 24) and higher than reported in 1999-00 (209 hospitalisations per 100,000 people) (Figure 44).

Sex

The rate of hospitalisations was higher among females than males in 2019-20 (258 versus 242 hospitalisations per 100,000 people).

Age

In 2019-20, the rate of hospitalisations was highest among the 20-29 age group, followed by the 30-39 and 40-49 age groups (506, 413, and 322 hospitalisations per 100,000 people, respectively).

Remoteness Area of Usual Residence

The highest rate of hospitalisations in 2019-20 was observed in outer regional Western Australia (359 hospitalisations per 100,000 people), while the number of hospitalisations was highest in major cities (4,603 hospitalisations) (Figure 45).

External Cause of Drug Poisoning

In 2019-20, 49% of drug-related hospitalisations in Western Australia were due to drug poisoning. Furthermore, 66% of drug poisoning related hospitalisations were intentional (80 hospitalisations per 100,000 people) and 28% were unintentional (33 hospitalisations per 100,000 people) (Figure 46).

Drug Type

In 2019-20, the rate of hospitalisations was highest where there was a principal diagnosis indicating amphetamines and other stimulants (81 hospitalisations per 100,000 people) (Figure 47).

Compared to 2018-19, there were significant decreases in 2019-20 in the rates of hospitalisations related to opioids; and non-opioid analgesics (p<0.050) (Table 24).

In contrast, there were significant increases in the rates of hospitalisations related to amphetamines and other stimulants; antiepileptic, sedative-hypnotic and antiparkinsonism drugs; antidepressants; and cocaine (p<0.050) (Table 24).

Figure 44. Age-standardised rate per 100,000 people of drug-related hospitalisations, by sex, Western Australia, 1999-00 to 2019-20.

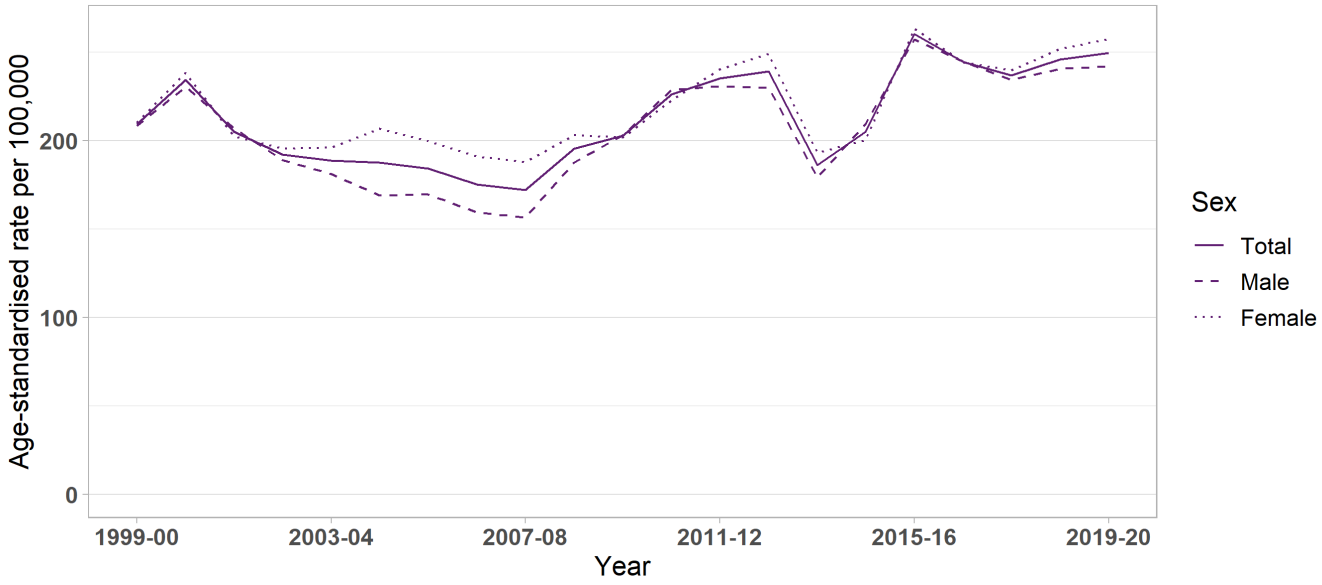
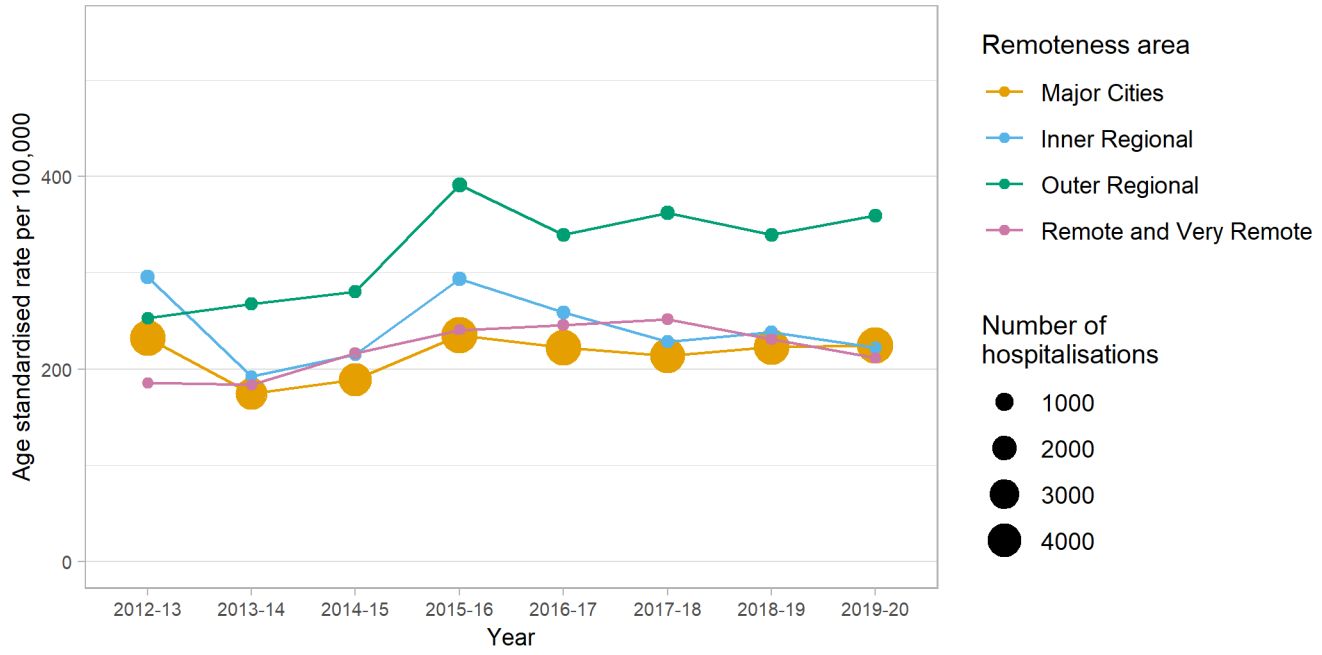


Figure 45. Age-standardised rate per 100,000 people of drug-related hospitalisations, by remoteness, Western Australia, 2012-13 to 2019-20.



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

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), Western Australia, 1999-00 to 2019-20.

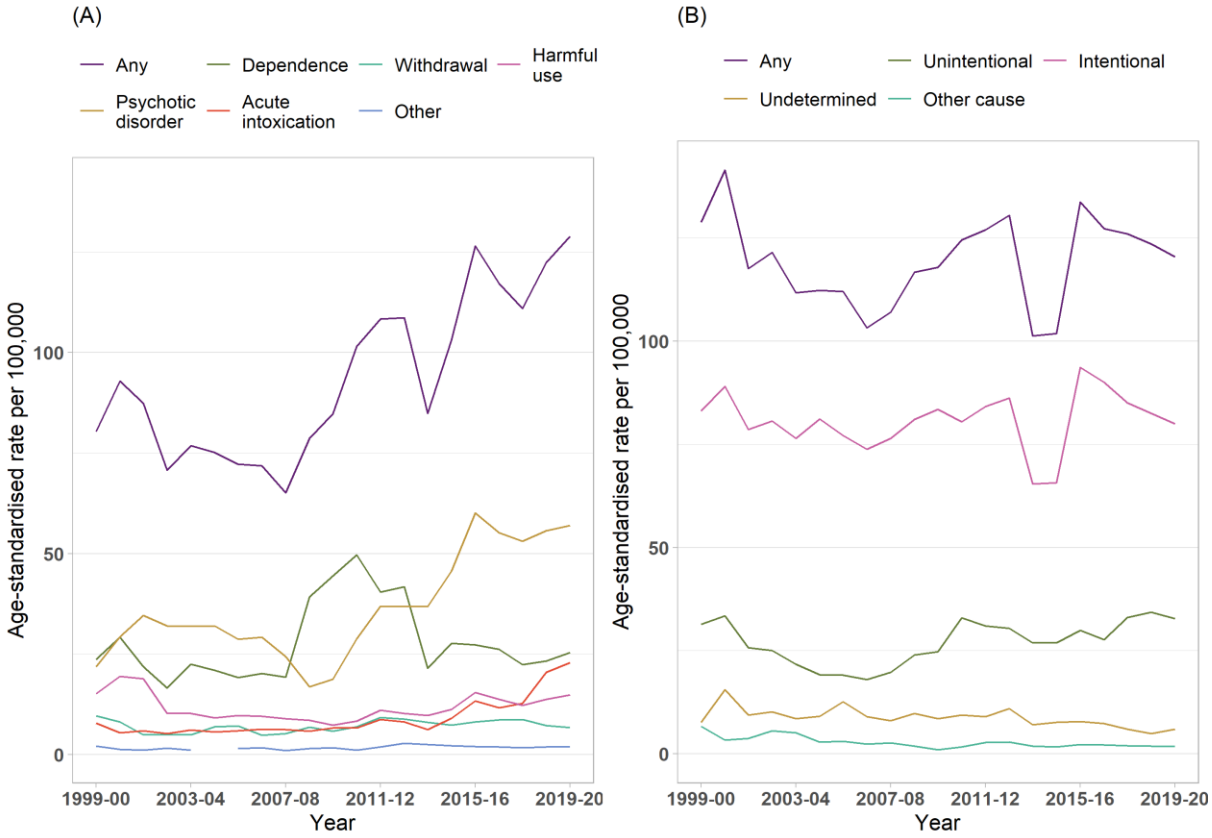
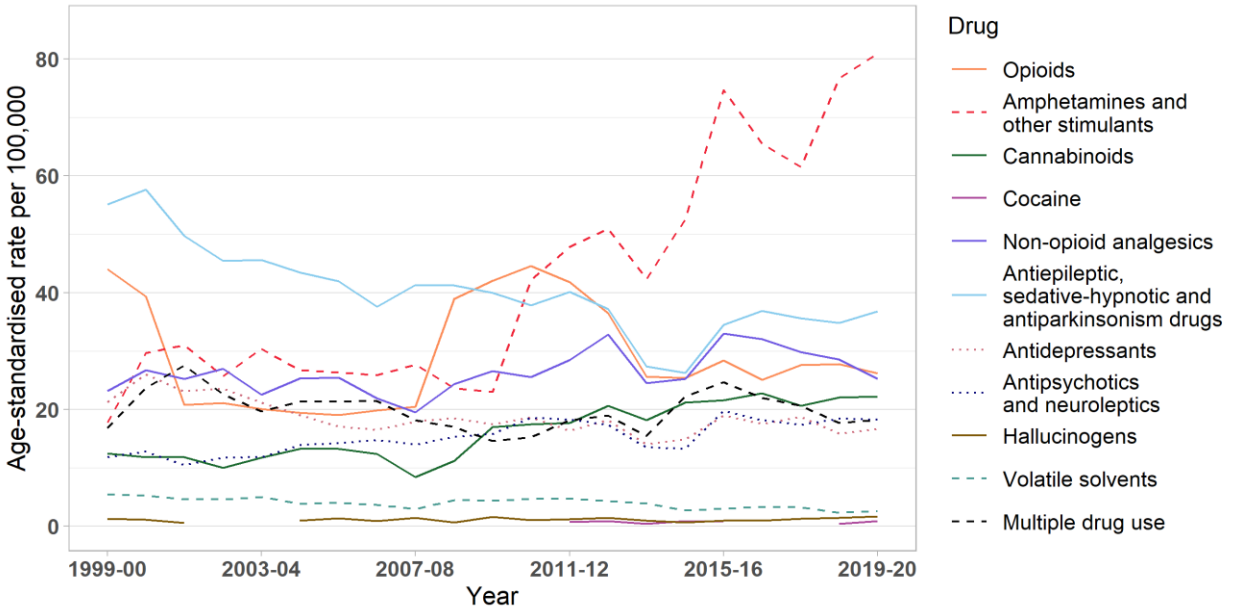


Figure 47. Age-standardised rate per 100,000 people of drug-related hospitalisations, by drug identified in the principal diagnosis, Western Australia, 1999-00 to 2019-20.



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.

Appendix

Table 1. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and 2018-19, and rate ratio and p-value for difference between 2019-20 and 2018-19, by main drugs (all drugs; opioids; amphetamines and other stimulants; cannabinoids; and, cocaine) and sex

Drug	Sex	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
All drugs	Female	242 (239,245)	243 (240,246)	0.99 (0.98, 1.01)	0.419
All drugs	Male	264 (261,267)	259 (256,262)	1.02 (1.01, 1.03)	<0.001
All drugs	Total	253 (251,255)	251 (249,253)	1.01 (1.00, 1.02)	0.181
Opioids	Female	23 (23,24)	29 (28,30)	0.81 (0.78, 0.84)	<0.001
Opioids	Male	34 (33,35)	38 (36,39)	0.90 (0.87, 0.93)	<0.001
Opioids	Total	28 (28,29)	33 (33,34)	0.86 (0.83, 0.89)	<0.001
Amphetamines and other stimulants	Female	51 (49,52)	44 (43,45)	1.15 (1.11, 1.18)	<0.001
Amphetamines and other stimulants	Male	89 (87,90)	81 (80,83)	1.09 (1.07, 1.11)	<0.001
Amphetamines and other stimulants	Total	70 (69,71)	63 (62,64)	1.11 (1.08, 1.14)	<0.001
Cannabinoids	Female	21 (20,22)	19 (18,20)	1.11 (1.06, 1.16)	<0.001
Cannabinoids	Male	31 (30,32)	29 (28,30)	1.07 (1.03, 1.11)	<0.001
Cannabinoids	Total	26 (25,27)	24 (23,25)	1.08 (1.04, 1.13)	<0.001
Cocaine	Female	1.9 (1.7, 2.2)	1.6 (1.3, 1.8)	1.25 (1.07, 1.45)	0.004
Cocaine	Male	8.1 (7.6, 8.7)	7.8 (7.3, 8.3)	1.04 (0.97, 1.12)	0.268
Cocaine	Total	5.0 (4.8, 5.3)	4.7 (4.4, 5.0)	1.08 (0.98, 1.18)	0.114

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 2. Crude rate per 100,000 people of drug-related hospitalisations in 2019-20 and 2018-19, and rate ratio and p-value for difference between 2019-20 and 2018-19, by main drugs (all drugs; opioids; amphetamines and other stimulants; cannabinoids; and, cocaine) and age group

Drug	Age	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
All drugs	10-19	251 (246,257)	240 (234,245)	1.05 (1.01, 1.08)	0.005
All drugs	20-29	491 (484,498)	466 (459,473)	1.05 (1.03, 1.07)	<0.001
All drugs	30-39	412 (405,418)	411 (405,418)	1.00 (0.98, 1.02)	0.908
All drugs	40-49	334 (328,340)	344 (337,350)	0.97 (0.95, 1.00)	0.032
All drugs	50-59	180 (175,185)	184 (179,189)	0.98 (0.94, 1.02)	0.250
All drugs	60-69	86 (83,90)	98 (94,102)	0.88 (0.83, 0.93)	<0.001
All drugs	70 and over	70 (67,73)	73 (70,77)	0.95 (0.90, 1.01)	0.126
Opioids	10-19	6.9 (6.0, 7.9)	7.7 (6.7, 8.7)	0.91 (0.75, 1.09)	0.292
Opioids	20-29	32 (31,34)	37 (35,39)	0.88 (0.82, 0.95)	0.002
Opioids	30-39	48 (46,50)	56 (53,58)	0.86 (0.81, 0.92)	<0.001
Opioids	40-49	51 (49,54)	66 (64,69)	0.77 (0.72, 0.82)	<0.001
Opioids	50-59	37 (35,39)	36 (34,39)	1.02 (0.94, 1.11)	0.654
Opioids	60-69	24 (22,26)	31 (29,33)	0.77 (0.70, 0.85)	<0.001
Opioids	70 and over	19 (18,21)	20 (19,22)	0.94 (0.84, 1.06)	0.306
Amphetamines and other stimulants	10-19	34 (32,36)	30 (28,32)	1.13 (1.04, 1.24)	0.006
Amphetamines and other stimulants	20-29	146 (142,150)	133 (129,137)	1.10 (1.06, 1.14)	<0.001

Amphetamines and other stimulants	30-39	162 (158,166)	148 (144,152)	1.09 (1.06, 1.14)	<0.001
Amphetamines and other stimulants	40-49	108 (105,112)	96 (92,99)	1.13 (1.08, 1.19)	<0.001
Amphetamines and other stimulants	50-59	29 (27,31)	25 (24,27)	1.13 (1.03, 1.24)	0.012
Amphetamines and other stimulants	60-69	3.7 (3.0, 4.5)	3.0 (2.4, 3.7)	1.25 (0.93, 1.67)	0.146
Amphetamines and other stimulants	70 and over	0.6 (0.4, 1.0)	0.5 (0.3, 0.9)	1.15 (0.58, 2.28)	0.691
Cannabinoids	10-19	31 (30,34)	28 (26,30)	1.12 (1.02, 1.23)	0.016
Cannabinoids	20-29	75 (72,77)	71 (68,74)	1.05 (1.00, 1.11)	0.071
Cannabinoids	30-39	38 (36,40)	36 (34,38)	1.07 (0.99, 1.15)	0.096
Cannabinoids	40-49	22 (20,23)	20 (19,22)	1.08 (0.97, 1.20)	0.154
Cannabinoids	50-59	15 (14,16)	12 (11,13)	1.28 (1.11, 1.47)	<0.001
Cannabinoids	60-69	3.3 (2.7, 4.1)	3.0 (2.4, 3.7)	1.11 (0.82, 1.50)	0.507
Cannabinoids	70 and over	1.0 (0.6, 1.4)	0.9 (0.6, 1.4)	1.03 (0.60, 1.76)	0.910
Cocaine	10-19	1.6 (1.2, 2.1)	1.4 (1.0, 1.9)	1.12 (0.75, 1.69)	0.569
Cocaine	20-29	12 (11,14)	10 (9,11)	1.22 (1.07, 1.40)	0.004
Cocaine	30-39	11 (10,12)	12 (11,13)	0.92 (0.80, 1.05)	0.224
Cocaine	40-49	7.0 (6.1, 8.0)	7.4 (6.5, 8.3)	0.95 (0.80, 1.14)	0.597
Cocaine	50-59	3.0 (2.4, 3.7)	1.4 (1.0, 1.9)	2.14 (1.49, 3.07)	<0.001

Note: 95% confidence intervals for the crude rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for the 0-9 years age group are not presented due to 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.

Table 3. Crude rate per 100,000 people of drug-related hospitalisations in 2019-20 and 2018-19, and rate ratio and p-value for difference between 2019-20 and 2018-19, by sex and age group

Sex, Age	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Female, 10-19	332 (322,341)	330 (320,339)	1.01 (0.97, 1.05)	0.767
Female, 20-29	472 (462,482)	444 (434,453)	1.06 (1.03, 1.10)	<0.001
Female, 30-39	327 (319,335)	332 (324,340)	0.98 (0.95, 1.02)	0.397
Female, 40-49	289 (281,297)	299 (290,307)	0.97 (0.93, 1.01)	0.099
Female, 50-59	171 (164,177)	185 (178,192)	0.92 (0.88, 0.97)	0.003
Female, 60-69	93 (88,98)	112 (106,118)	0.83 (0.77, 0.89)	<0.001
Female, 70 and over	79 (74,83)	83 (79,88)	0.94 (0.87, 1.02)	0.137
Male, 10-19	175 (168,181)	154 (148,161)	1.13 (1.07, 1.20)	<0.001
Male, 20-29	508 (498,519)	488 (478,498)	1.04 (1.01, 1.07)	0.006
Male, 30-39	498 (488,508)	491 (481,502)	1.01 (0.98, 1.04)	0.356
Male, 40-49	380 (371,390)	390 (380,399)	0.97 (0.94, 1.01)	0.156
Male, 50-59	189 (182,196)	183 (176,190)	1.04 (0.98, 1.09)	0.182
Male, 60-69	79 (74,84)	83 (78,88)	0.95 (0.87, 1.03)	0.223
Male, 70 and over	60 (56,64)	62 (58,66)	0.97 (0.88, 1.07)	0.567

Note: 95% confidence intervals for the crude rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for the 0-9 years age group are not presented due to 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.

Table 4. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and 2018-19, and rate ratio and p-value for difference between 2019-20 and 2018-19, by remoteness area of usual residence and sex

Remoteness	Sex	Rate in 2019-20	Rate in 2018-19	Rate ratio	P-value

		(95% CI)	(95% CI)	(95% CI)	
Major Cities	Female	225 (222,229)	227 (224,230)	0.99 (0.98, 1.01)	0.258
Major Cities	Male	256 (253,259)	250 (247,253)	1.02 (1.01, 1.04)	<0.001
Major Cities	Total	240 (238,243)	238 (236,241)	1.01 (1.00, 1.02)	0.201
Inner Regional	Female	246 (239,253)	249 (242,256)	0.99 (0.97, 1.00)	0.049
Inner Regional	Male	239 (232,246)	226 (219,232)	1.06 (1.04, 1.07)	<0.001
Inner Regional	Total	242 (237,247)	237 (232,242)	1.02 (1.01, 1.03)	0.002
Outer Regional	Female	314 (303,326)	315 (303,327)	1.00 (0.99, 1.01)	0.901
Outer Regional	Male	277 (266,288)	270 (259,281)	1.02 (1.01, 1.04)	<0.001
Outer Regional	Total	295 (287,303)	292 (284,300)	1.01 (1.00, 1.02)	0.047
Remote and Very Remote	Female	291 (268,314)	274 (252,296)	1.06 (1.05, 1.07)	<0.001
Remote and Very Remote	Male	311 (289,334)	289 (268,312)	1.08 (1.06, 1.09)	<0.001
Remote and Very Remote	Total	301 (285,317)	282 (267,297)	1.07 (1.06, 1.08)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 5. Crude rate per 100,000 people of drug-related hospitalisations in 2019-20 and 2018-19, and rate ratio and p-value for difference compared to 2018-19, by remoteness area of usual residence and age group

Remoteness	Age	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Major Cities	10-19	229 (223, 236)	216 (210, 222)	1.06 (1.02, 1.10)	0.004
Major Cities	20-29	460 (452, 468)	432 (424, 439)	1.07 (1.04, 1.09)	<0.001
Major Cities	30-39	385 (378, 392)	387 (380, 394)	0.99 (0.97, 1.02)	0.700
Major Cities	40-49	322 (315, 329)	338 (331, 346)	0.95 (0.92, 0.98)	0.002
Major Cities	50-59	182 (177, 188)	183 (177, 189)	1.00 (0.95, 1.04)	0.864
Major Cities	60-69	91 (87, 96)	105 (100, 110)	0.87 (0.82, 0.93)	<0.001
Major Cities	70 and over	76 (72, 80)	79 (75, 83)	0.96 (0.90, 1.04)	0.321
Inner Regional	10-19	266 (252, 279)	253 (241, 267)	1.05 (0.98, 1.13)	0.202
Inner Regional	20-29	501 (481, 521)	475 (456, 495)	1.05 (1.00, 1.11)	0.065
Inner Regional	30-39	404 (387, 422)	382 (365, 399)	1.06 (1.00, 1.13)	0.070
Inner Regional	40-49	282 (268, 297)	283 (269, 297)	1.00 (0.93, 1.07)	0.954
Inner Regional	50-59	144 (134, 154)	166 (156, 177)	0.86 (0.79, 0.95)	0.002
Inner Regional	60-69	73 (66, 80)	85 (78, 93)	0.86 (0.75, 0.98)	0.019
Inner Regional	70 and over	59 (54, 65)	57 (51, 63)	1.04 (0.90, 1.20)	0.558
Outer Regional	10-19	340 (318, 363)	335 (313, 358)	1.01 (0.92, 1.11)	0.781
Outer Regional	20-29	582 (551, 614)	596 (565, 628)	0.98 (0.91, 1.05)	0.533
Outer Regional	30-39	476 (449, 504)	461 (435, 489)	1.03 (0.95, 1.12)	0.467
Outer Regional	40-49	365 (342, 390)	355 (332, 379)	1.03 (0.94, 1.13)	0.524
Outer Regional	50-59	200 (184, 217)	189 (173, 206)	1.06 (0.94, 1.19)	0.370
Outer Regional	60-69	83 (72, 94)	83 (72, 95)	1.00 (0.83, 1.20)	0.968
Outer Regional	70 and over	58 (50, 68)	74 (64, 85)	0.79 (0.64, 0.97)	0.025
Remote and Very Remote	10-19	394 (346, 447)	417 (368, 472)	0.94 (0.79, 1.13)	0.521
Remote and Very Remote	20-29	703 (638, 773)	614 (554, 678)	1.15 (1.00, 1.32)	0.053
Remote and Very Remote	30-39	411 (368, 459)	380 (337, 426)	1.08 (0.92, 1.27)	0.324
Remote and Very Remote	40-49	351 (307, 401)	313 (271, 359)	1.12 (0.93, 1.36)	0.232
Remote and Very Remote	50-59	150 (121, 183)	157 (128, 190)	0.96 (0.72, 1.27)	0.762
Remote and Very Remote	60-69	64 (44, 89)	84 (60, 113)	0.76 (0.48, 1.20)	0.240
Remote and Very Remote	70 and over	53 (33, 82)	43 (25, 70)	1.24 (0.65, 2.38)	0.516

Note: 95% confidence intervals for the crude rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for the 0-9 years age group are not presented due to 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.

Table 6. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by mental and behavioural disorder due to substance use identified in the principal diagnosis and sex

Principal diagnosis	Sex	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any mental and behavioural disorder due to substance use	Female	100 (99,102)	94 (93,96)	1.06 (1.04, 1.08)	<0.001
Any mental and behavioural disorder due to substance use	Male	171 (169,173)	167 (164,169)	1.03 (1.01, 1.04)	<0.001
Any mental and behavioural disorder due to substance use	Total	136 (134,137)	131 (129,132)	1.04 (1.02, 1.06)	<0.001
Acute intoxication	Female	12 (11,12)	9.2 (8.7, 9.7)	1.29 (1.21, 1.37)	<0.001
Acute intoxication	Male	20 (19,20)	17 (17,18)	1.14 (1.09, 1.19)	<0.001
Acute intoxication	Total	16 (15,16)	13 (13,14)	1.19 (1.13, 1.25)	<0.001
Harmful use	Female	13 (12,13)	14 (14,15)	0.89 (0.85, 0.94)	<0.001
Harmful use	Male	21 (20,21)	25 (25,26)	0.81 (0.78, 0.85)	<0.001
Harmful use	Total	17 (16,17)	20 (19,20)	0.84 (0.80, 0.88)	<0.001
Dependence	Female	31 (30,32)	31 (30,32)	0.99 (0.96, 1.03)	0.726
Dependence	Male	53 (52,54)	51 (50,52)	1.04 (1.01, 1.07)	0.004
Dependence	Total	42 (41,43)	41 (40,42)	1.02 (0.99, 1.05)	0.164
Withdrawal	Female	7.3 (6.8, 7.8)	7.8 (7.3, 8.3)	0.93 (0.87, 1.00)	0.054
Withdrawal	Male	9.3 (8.7, 9.8)	11 (10,11)	0.87 (0.82, 0.93)	<0.001
Withdrawal	Total	8.3 (7.9, 8.6)	9.2 (8.8, 9.6)	0.90 (0.84, 0.96)	0.002
Psychosis	Female	36 (35,37)	30 (29,31)	1.19 (1.15, 1.24)	<0.001
Psychosis	Male	66 (64,67)	60 (59,61)	1.10 (1.07, 1.12)	<0.001
Psychosis	Total	51 (50,52)	45 (44,46)	1.13 (1.10, 1.16)	<0.001
Other mental and behavioural disorder due to substance use	Female	1.2 (1.0, 1.4)	1.5 (1.3, 1.7)	0.77 (0.65, 0.92)	0.004
Other mental and behavioural disorder due to substance use	Male	2.5 (2.2, 2.8)	2.2 (2.0, 2.5)	1.13 (0.99, 1.29)	0.064
Other mental and behavioural disorder due to substance use	**Total**	1.8 (1.7, 2.0)	1.9 (1.7, 2.0)	0.99 (0.85, 1.14)	0.846

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other mental and behavioural disorder due to substance use identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 7. Crude rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by mental and behavioural disorder due to substance use identified in the principal diagnosis and age

Principal diagnosis	Age	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any mental and behavioural disorder due to substance use	10-19	75 (72,78)	63 (60,66)	1.18 (1.11, 1.25)	<0.001

Any mental and behavioural disorder due to substance use	20-29	297 (291,302)	277 (272,283)	1.07 (1.04, 1.10)	<0.001
Any mental and behavioural disorder due to substance use	30-39	279 (274,285)	273 (268,278)	1.02 (1.00, 1.05)	0.090
Any mental and behavioural disorder due to substance use	40-49	198 (193,203)	198 (193,203)	1.00 (0.97, 1.04)	0.963
Any mental and behavioural disorder due to substance use	50-59	76 (73,79)	73 (70,76)	1.04 (0.99, 1.11)	0.144
Any mental and behavioural disorder due to substance use	60-69	26 (24,28)	32 (30,34)	0.81 (0.73, 0.89)	<0.001
Any mental and behavioural disorder due to substance use	70 and over	14 (12,15)	15 (13,16)	0.92 (0.80, 1.05)	0.225
Acute intoxication	10-19	14 (12,15)	9.8 (8.7, 10.9)	1.40 (1.21, 1.63)	<0.001
Acute intoxication	20-29	33 (31,35)	28 (26,30)	1.17 (1.07, 1.27)	<0.001
Acute intoxication	30-39	31 (29,33)	27 (25,29)	1.15 (1.06, 1.25)	0.001
Acute intoxication	40-49	23 (22,25)	20 (19,22)	1.16 (1.04, 1.28)	0.006
Acute intoxication	50-59	7.0 (6.1, 8.0)	5.4 (4.6, 6.2)	1.31 (1.07, 1.60)	0.010
Acute intoxication	60-69	1.7 (1.2, 2.3)	1.5 (1.1, 2.1)	1.12 (0.73, 1.71)	0.609
Acute intoxication	70 and over	1.4 (1.0, 1.9)	1.4 (1.0, 1.9)	1.03 (0.66, 1.61)	0.884
Harmful use	10-19	12 (11,14)	10 (9,11)	1.21 (1.04, 1.40)	0.013
Harmful use	20-29	38 (36,40)	35 (33,37)	1.08 (1.00, 1.17)	0.046
Harmful use	30-39	29 (28,31)	39 (37,41)	0.76 (0.71, 0.83)	<0.001
Harmful use	40-49	25 (23,27)	35 (33,37)	0.71 (0.65, 0.78)	<0.001
Harmful use	50-59	9.0 (8.0, 10.1)	17 (15,18)	0.54 (0.47, 0.63)	<0.001
Harmful use	60-69	4.8 (4.0, 5.7)	4.8 (4.0, 5.7)	0.99 (0.78, 1.27)	0.965
Harmful use	70 and over	1.2 (0.9, 1.7)	1.8 (1.3, 2.3)	0.69 (0.45, 1.06)	0.089
Dependence	10-19	11 (9,12)	10 (9,11)	1.03 (0.88, 1.20)	0.700
Dependence	20-29	89 (86,92)	88 (85,92)	1.01 (0.96, 1.06)	0.798
Dependence	30-39	91 (88,94)	86 (83,89)	1.05 (1.00, 1.11)	0.036
Dependence	40-49	63 (60,65)	65 (62,67)	0.97 (0.91, 1.03)	0.329
Dependence	50-59	32 (30,34)	25 (23,27)	1.28 (1.16, 1.40)	<0.001
Dependence	60-69	12 (10,13)	18 (17,20)	0.65 (0.56, 0.75)	<0.001
Dependence	70 and over	6.0 (5.2, 7.0)	5.7 (4.8, 6.6)	1.07 (0.86, 1.32)	0.558
Withdrawal	10-19	4.8 (4.0, 5.6)	4.3 (3.6, 5.1)	1.12 (0.88, 1.42)	0.349
Withdrawal	20-29	14 (13,16)	16 (15,18)	0.88 (0.79, 0.99)	0.040
Withdrawal	30-39	15 (14,17)	18 (17,19)	0.85 (0.76, 0.95)	0.004
Withdrawal	40-49	12 (11,14)	13 (12,15)	0.93 (0.82, 1.07)	0.323
Withdrawal	50-59	6.8 (5.9, 7.8)	7.6 (6.7, 8.7)	0.90 (0.74, 1.08)	0.244
Withdrawal	60-69	3.6 (2.9, 4.4)	4.5 (3.8, 5.4)	0.79 (0.61, 1.04)	0.088
Withdrawal	70 and over	3.7 (3.1, 4.5)	4.4 (3.7, 5.3)	0.85 (0.66, 1.10)	0.213
Psychosis	10-19	31 (30,34)	27 (25,29)	1.16 (1.05, 1.27)	0.002
Psychosis	20-29	119 (115,122)	105 (102,109)	1.13 (1.08, 1.18)	<0.001
Psychosis	30-39	110 (106,113)	99 (96,103)	1.10 (1.06, 1.15)	<0.001
Psychosis	40-49	72 (69,75)	62 (60,65)	1.16 (1.09, 1.23)	<0.001
Psychosis	50-59	21 (19,22)	18 (16,19)	1.15 (1.03, 1.29)	0.014
Psychosis	60-69	3.8 (3.1, 4.6)	3.1 (2.5, 3.9)	1.22 (0.91, 1.63)	0.179
Psychosis	70 and over	1.0 (0.7, 1.4)	1.5 (1.0, 2.0)	0.68 (0.42, 1.09)	0.108

Note: 95% confidence intervals for the crude rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. 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 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.

Table 8. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by mental and behavioural disorder due to substance use identified in the principal diagnosis and remoteness area of usual residence

Principal diagnosis	Remoteness	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any mental and behavioural disorder due to substance use	Major Cities	132 (130,134)	130 (128, 132)	1.02 (1.00, 1.03)	0.066
Any mental and behavioural disorder due to substance use	Inner Regional	114 (110,117)	98 (95, 101)	1.16 (1.13, 1.18)	<0.001
Any mental and behavioural disorder due to substance use	Outer Regional	140 (135,146)	125 (120, 130)	1.12 (1.10, 1.14)	<0.001
Any mental and behavioural disorder due to substance use	Remote and Very Remote	170 (158,182)	148 (137, 160)	1.15 (1.13, 1.16)	<0.001
Acute intoxication	Major Cities	15 (15, 16)	13 (12, 13)	1.21 (1.15, 1.28)	<0.001
Acute intoxication	Inner Regional	11 (10, 12)	8.69 (7.8, 9.7)	1.24 (1.16, 1.32)	<0.001
Acute intoxication	Outer Regional	16 (14, 18)	14 (12, 16)	1.12 (1.07, 1.18)	<0.001
Acute intoxication	Remote and Very Remote	17 (14, 22)	16 (13, 21)	1.05 (1.00, 1.10)	0.056
Harmful use	Major Cities	16 (16, 17)	21 (20, 21)	0.79 (0.76, 0.83)	<0.001
Harmful use	Inner Regional	13 (12, 14)	12 (11, 14)	1.06 (1.00, 1.12)	0.041
Harmful use	Outer Regional	18 (16, 20)	17 (15, 19)	1.06 (1.01, 1.11)	0.017
Harmful use	Remote and Very Remote	21 (17, 25)	19 (15, 23)	1.09 (1.04, 1.14)	<0.001
Dependence	Major Cities	48 (47, 49)	48 (47, 49)	1.01 (0.98, 1.04)	0.599
Dependence	Inner Regional	27 (25, 28)	23 (21, 25)	1.17 (1.12, 1.22)	<0.001
Dependence	Outer Regional	16 (14, 18)	14 (12, 16)	1.17 (1.11, 1.23)	<0.001
Dependence	Remote and Very Remote	9.18 (6.6, 12.4)	14 (11, 18)	0.66 (0.62, 0.70)	<0.001
Withdrawal	Major Cities	7.15 (6.8, 7.5)	8.18 (7.8, 8.6)	0.87 (0.81, 0.94)	<0.001
Withdrawal	Inner Regional	8.46 (7.6, 9.4)	9.44 (8.5, 10.5)	0.90 (0.84, 0.96)	0.001
Withdrawal	Outer Regional	14 (12, 16)	13 (11, 15)	1.10 (1.04, 1.16)	<0.001
Withdrawal	Remote and Very Remote	19 (15, 23)	18 (15, 23)	1.04 (0.99, 1.09)	0.106
Psychosis	Major Cities	44 (43, 45)	39 (38, 40)	1.11 (1.08, 1.15)	<0.001
Psychosis	Inner Regional	52 (50, 55)	43 (41, 45)	1.21 (1.18, 1.25)	<0.001
Psychosis	Outer Regional	74 (70, 78)	65 (62, 69)	1.13 (1.11, 1.16)	<0.001
Psychosis	Remote and Very Remote	100 (91,110)	78 (70, 87)	1.28 (1.26, 1.31)	<0.001
Other mental and behavioural disorder due to substance use	Major Cities	1.58 (1.4, 1.8)	1.68 (1.5, 1.9)	0.94 (0.81, 1.10)	0.455
Other mental and behavioural disorder due to substance use	Inner Regional	2.07 (1.6, 2.6)	1.58 (1.2, 2.0)	1.31 (1.13, 1.52)	<0.001
Other mental and behavioural disorder due to substance use	Outer Regional	2.31 (1.6, 3.2)	1.94 (1.3, 2.7)	1.19 (1.03, 1.36)	0.015
Other mental and behavioural disorder due to substance use	Remote and Very Remote	3.43 (2.0, 5.6)	2.33 (1.2, 4.2)	1.47 (1.31, 1.66)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other mental and behavioural disorder due to substance use identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 9. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by external cause of poisoning and sex

External cause	Sex	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any drug poisoning	Female	141 (139,143)	149 (146,151)	0.95 (0.94, 0.97)	<0.001
Any drug poisoning	Male	93 (91,95)	92 (90,94)	1.01 (0.99, 1.04)	0.176
Any drug poisoning	Total	117 (116,118)	120 (119,121)	0.98 (0.96, 0.99)	0.007
Unintentional	Female	23 (22,23)	23 (22,24)	0.97 (0.93, 1.02)	0.216
Unintentional	Male	28 (27,28)	26 (25,27)	1.05 (1.01, 1.09)	0.019
Unintentional	Total	25 (24,26)	25 (24,25)	1.01 (0.97, 1.05)	0.541
Intentional	Female	109 (107,111)	116 (114,118)	0.94 (0.92, 0.96)	<0.001
Intentional	Male	53 (52,55)	54 (53,56)	0.98 (0.95, 1.01)	0.165
Intentional	Total	81 (80,82)	85 (84,86)	0.95 (0.93, 0.97)	<0.001
Undetermined	Female	8.2 (7.7, 8.7)	7.9 (7.5, 8.5)	1.03 (0.96, 1.11)	0.370
Undetermined	Male	10 (10,11)	9.6 (9.1, 10.2)	1.09 (1.02, 1.16)	0.009
Undetermined	Total	9.3 (9.0, 9.7)	8.8 (8.4, 9.2)	1.06 (1.00, 1.14)	0.069

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other external causes of drug poisoning identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 10. Crude rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by external cause of poisoning, and age

External cause	Age	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any drug poisoning	10-19	177 (172,181)	177 (172,181)	1.00 (0.96, 1.04)	0.974
Any drug poisoning	20-29	194 (189,199)	189 (185,194)	1.03 (0.99, 1.06)	0.139
Any drug poisoning	30-39	132 (129,136)	138 (134,142)	0.96 (0.92, 1.00)	0.028
Any drug poisoning	40-49	136 (132,140)	146 (141,150)	0.93 (0.89, 0.97)	<0.001
Any drug poisoning	50-59	103 (100,107)	111 (107,115)	0.93 (0.89, 0.98)	0.006
Any drug poisoning	60-69	60 (57,63)	66 (63,69)	0.91 (0.85, 0.98)	0.009
Any drug poisoning	70 and over	56 (53,59)	58 (56,61)	0.96 (0.90, 1.03)	0.264
Unintentional	10-19	16 (15,18)	16 (15,17)	1.02 (0.90, 1.15)	0.800
Unintentional	20-29	34 (32,36)	31 (29,33)	1.09 (1.01, 1.19)	0.027
Unintentional	30-39	29 (27,30)	27 (25,29)	1.06 (0.97, 1.15)	0.188
Unintentional	40-49	29 (27,31)	30 (29,32)	0.94 (0.86, 1.03)	0.204
Unintentional	50-59	23 (21,25)	23 (22,25)	0.98 (0.89, 1.09)	0.741
Unintentional	60-69	18 (17,20)	20 (18,21)	0.93 (0.82, 1.05)	0.261
Unintentional	70 and over	25 (23,27)	27 (25,29)	0.93 (0.84, 1.03)	0.153
Intentional	10-19	150 (146,154)	152 (148,156)	0.99 (0.95, 1.03)	0.550
Intentional	20-29	142 (139,146)	142 (138,146)	1.00 (0.96, 1.04)	0.918
Intentional	30-39	88 (85,91)	95 (92,99)	0.92 (0.88, 0.97)	<0.001
Intentional	40-49	91 (87,94)	101 (97,104)	0.90 (0.86, 0.94)	<0.001
Intentional	50-59	70 (67,73)	77 (74,80)	0.91 (0.86, 0.96)	0.001
Intentional	60-69	35 (33,38)	40 (38,42)	0.88 (0.81, 0.97)	0.006
Intentional	70 and over	26 (24,28)	26 (24,28)	1.02 (0.92, 1.13)	0.746
Undetermined	10-19	9.6 (8.5, 10.7)	7.9 (6.9, 8.9)	1.22 (1.03, 1.44)	0.024
Undetermined	20-29	16 (14,17)	14 (13,15)	1.13 (1.00, 1.27)	0.048

Undetermined	30-39	14 (13,15)	14 (13,15)	1.00 (0.88, 1.12)	0.936
Undetermined	40-49	14 (13,15)	13 (12,14)	1.09 (0.96, 1.25)	0.195
Undetermined	50-59	8.8 (7.8, 10.0)	8.6 (7.6, 9.7)	1.03 (0.87, 1.21)	0.771
Undetermined	60-69	4.3 (3.5, 5.1)	4.6 (3.8, 5.5)	0.93 (0.72, 1.20)	0.583
Undetermined	70 and over	2.2 (1.7, 2.8)	3.3 (2.7, 4.1)	0.67 (0.49, 0.92)	0.013

Note: 95% confidence intervals for the crude rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other external causes of drug poisoning 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 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.

Table 11. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by external cause of poisoning, and remoteness area of usual residence

Principal diagnosis	Remoteness	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Any drug poisoning	Inner Regional	128 (125,132)	22 (21, 23)	0.92 (0.91, 0.94)	<0.001
Any drug poisoning	Major Cities	108 (107,110)	24 (23, 25)	1.00 (0.98, 1.02)	0.920
Any drug poisoning	Outer Regional	155 (149,160)	28 (25, 30)	0.93 (0.91, 0.94)	<0.001
Any drug poisoning	Remote and Very Remote	131 (121,142)	33 (28, 39)	0.98 (0.96, 1.00)	0.026
Intentional	Inner Regional	95 (92, 98)	128 (125,132)	0.89 (0.87, 0.91)	<0.001
Intentional	Major Cities	73 (72, 74)	108 (107,110)	0.98 (0.96, 1.00)	0.105
Intentional	Outer Regional	116 (111,121)	155 (149,160)	0.91 (0.89, 0.93)	<0.001
Intentional	Remote and Very Remote	87 (78, 96)	131 (121,142)	0.97 (0.95, 0.99)	0.001
Undetermined	Inner Regional	9.66 (8.7, 10.7)	2.27 (1.8, 2.8)	1.19 (1.11, 1.27)	<0.001
Undetermined	Major Cities	9.08 (8.7, 9.5)	1.50 (1.3, 1.7)	1.09 (1.02, 1.16)	0.015
Undetermined	Outer Regional	8.49 (7.2, 9.9)	2.36 (1.7, 3.1)	0.88 (0.82, 0.93)	<0.001
Undetermined	Remote and Very Remote	8.89 (6.4, 12.1)	NA	1.15 (1.07, 1.23)	<0.001
Unintentional	Inner Regional	21 (20, 23)	9.66 (8.7, 10.7)	0.97 (0.93, 1.01)	0.114
Unintentional	Major Cities	25 (24, 25)	9.08 (8.7, 9.5)	1.02 (0.98, 1.06)	0.365
Unintentional	Outer Regional	28 (26, 30)	8.49 (7.2, 9.9)	1.01 (0.97, 1.05)	0.522
Unintentional	Remote and Very Remote	34 (29, 39)	8.89 (6.4, 12.1)	1.03 (0.99, 1.06)	0.144

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other external causes of drug poisoning identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 12. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by main drugs (all drugs; opioids; amphetamines and other stimulants; cannabinoids; and, cocaine), and mental and behavioural disorder due to substance use identified in the principal diagnosis

Drug	Principal diagnosis	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Opioids	Any mental and behavioural disorder due to substance use	15 (14,15)	18 (17,18)	0.84 (0.80, 0.88)	<0.001
Opioids	Acute intoxication	1.3 (1.1, 1.4)	1.1 (1.0, 1.3)	1.10 (0.92, 1.32)	0.296
Opioids	Harmful use	0.9 (0.8, 1.0)	0.9 (0.8, 1.0)	1.04 (0.85, 1.29)	0.684
Opioids	Dependence	9.5 (9.1, 9.9)	12 (11,12)	0.80 (0.75, 0.85)	<0.001

Opioids	Withdrawal	2.3 (2.1, 2.5)	2.9 (2.7, 3.1)	0.82 (0.72, 0.92)	0.001
Opioids	Psychosis	0.7 (0.6, 0.8)	0.7 (0.6, 0.8)	1.01 (0.79, 1.28)	0.946
Amphetamines and other stimulants	Any mental and behavioural disorder due to substance use	64 (63,65)	57 (56,58)	1.11 (1.09, 1.14)	<0.001
Amphetamines and other stimulants	Acute intoxication	9.8 (9.4, 10.2)	8.4 (8.1, 8.8)	1.16 (1.08, 1.24)	<0.001
Amphetamines and other stimulants	Harmful use	5.9 (5.6, 6.2)	6.2 (5.9, 6.6)	0.95 (0.87, 1.03)	0.180
Amphetamines and other stimulants	Dependence	13 (12,13)	11 (10,11)	1.17 (1.10, 1.24)	<0.001
Amphetamines and other stimulants	Withdrawal	2.3 (2.1, 2.5)	2.6 (2.4, 2.8)	0.87 (0.77, 0.99)	0.035
Amphetamines and other stimulants	Psychosis	32 (31,33)	28 (27,29)	1.15 (1.10, 1.19)	<0.001
Cannabinoids	Any mental and behavioural disorder due to substance use	24 (23,25)	22 (22,23)	1.07 (1.02, 1.11)	0.002
Cannabinoids	Acute intoxication	1.4 (1.2, 1.5)	1.1 (1.0, 1.3)	1.21 (1.01, 1.45)	0.036
Cannabinoids	Harmful use	2.8 (2.5, 3.0)	2.6 (2.4, 2.8)	1.05 (0.93, 1.18)	0.445
Cannabinoids	Dependence	7.6 (7.3, 8.0)	8.0 (7.7, 8.4)	0.95 (0.89, 1.02)	0.166
Cannabinoids	Withdrawal	1.7 (1.5, 1.9)	1.7 (1.6, 1.9)	1.00 (0.85, 1.16)	0.950
Cannabinoids	Psychosis	10 (10,11)	8.5 (8.2, 8.9)	1.19 (1.12, 1.27)	<0.001
Cocaine	Any mental and behavioural disorder due to substance use	4.3 (4.1, 4.6)	4.0 (3.8, 4.3)	1.08 (0.98, 1.19)	0.122
Cocaine	Acute intoxication	0.4 (0.4, 0.5)	0.4 (0.3, 0.5)	1.16 (0.85, 1.59)	0.349
Cocaine	Harmful use	0.5 (0.4, 0.6)	0.7 (0.6, 0.8)	0.67 (0.52, 0.87)	0.003
Cocaine	Dependence	2.8 (2.6, 3.0)	2.3 (2.2, 2.5)	1.19 (1.05, 1.34)	0.007
Cocaine	Withdrawal	0.1 (0.0, 0.1)	0.0 (0.0, 0.1)	1.39 (0.57, 3.37)	0.469
Cocaine	Psychosis	0.5 (0.5, 0.6)	0.5 (0.4, 0.6)	1.12 (0.85, 1.49)	0.410

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Data on other mental and behavioural disorder due to substance use identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 13. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by main drugs (all drugs; opioids; amphetamines and other stimulants; cannabinoids; and, cocaine), and external cause of poisoning

Drug	External cause	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Opioids	Any drug poisoning	14 (13,14)	16 (15,16)	0.87 (0.83, 0.92)	<0.001
Opioids	Unintentional	5.4 (5.1, 5.7)	6.2 (5.9, 6.5)	0.87 (0.80, 0.94)	<0.001
Opioids	Intentional	6.0 (5.7, 6.4)	7.2 (6.8, 7.5)	0.84 (0.78, 0.91)	<0.001
Opioids	Undetermined	2.3 (2.1, 2.5)	2.3 (2.1, 2.5)	0.99 (0.87, 1.13)	0.889
Amphetamines and other stimulants	Any drug poisoning	5.8 (5.5, 6.1)	5.5 (5.2, 5.8)	1.05 (0.97, 1.14)	0.255
Amphetamines and other stimulants	Unintentional	2.3 (2.1, 2.5)	2.4 (2.2, 2.6)	0.95 (0.84, 1.09)	0.487
Amphetamines and other stimulants	Intentional	2.1 (1.9, 2.3)	1.9 (1.7, 2.1)	1.08 (0.93, 1.24)	0.308
Amphetamines and other stimulants	Undetermined	1.4 (1.2, 1.5)	1.2 (1.0, 1.3)	1.20 (1.00, 1.43)	0.046
Cannabinoids	Any drug poisoning	2.1 (1.9, 2.3)	1.6 (1.5, 1.8)	1.30 (1.13, 1.51)	<0.001

Cannabinoids	Unintentional	1.1 (1.0, 1.2)	0.9 (0.8, 1.1)	1.19 (0.97, 1.44)	0.091
Cannabinoids	Intentional	0.2 (0.2, 0.3)	0.2 (0.1, 0.3)	1.29 (0.84, 1.98)	0.246
Cannabinoids	Undetermined	0.7 (0.6, 0.9)	0.5 (0.4, 0.6)	1.52 (1.18, 1.97)	0.001
Cocaine	Any drug poisoning	0.7 (0.6, 0.8)	0.7 (0.6, 0.8)	1.05 (0.83, 1.33)	0.695
Cocaine	Unintentional	0.4 (0.3, 0.4)	0.3 (0.2, 0.4)	1.17 (0.83, 1.65)	0.376
Cocaine	Intentional	0.2 (0.1, 0.2)	0.1 (0.1, 0.2)	1.17 (0.70, 1.95)	0.561
Cocaine	Undetermined	0.2 (0.1, 0.2)	0.2 (0.2, 0.3)	0.81 (0.52, 1.27)	0.355

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. The estimates for other external causes of drug poisoning identified in the principal diagnosis are not presented due to small numbers. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 14. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Opioids	28 (28,29)	33 (33,34)	0.86 (0.83, 0.89)	<0.001
Amphetamines and other stimulants	70 (69,71)	63 (62,64)	1.11 (1.08, 1.14)	<0.001
Cannabinoids	26 (25,27)	24 (23,25)	1.08 (1.04, 1.13)	<0.001
Cocaine	5.0 (4.8, 5.3)	4.7 (4.4, 5.0)	1.08 (0.98, 1.18)	0.114
Non-opioid analgesics	27 (27,28)	29 (29,30)	0.93 (0.90, 0.97)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	41 (40,41)	37 (36,37)	1.11 (1.08, 1.15)	<0.001
Antidepressants	16 (16,17)	17 (16,17)	1.00 (0.95, 1.05)	0.895
Antipsychotics and neuroleptics	16 (16,17)	18 (17,18)	0.92 (0.88, 0.97)	0.001
Hallucinogens	1.7 (1.6, 1.9)	1.5 (1.3, 1.6)	1.18 (1.01, 1.39)	0.037
Volatile solvents	3.1 (2.9, 3.4)	3.0 (2.8, 3.2)	1.05 (0.94, 1.18)	0.369
Multiple drug use	18 (18,19)	22 (21,22)	0.84 (0.80, 0.88)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 15. Age-standardised rate per 100,000 people of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by drug type identified in the principal diagnosis and remoteness area of usual residence

Drug	Remoteness	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
All drugs	Major Cities	240 (238,243)	238 (236,241)	1.01 (1.00, 1.02)	0.201
All drugs	Inner Regional	242 (237,247)	237 (232,242)	1.02 (1.01, 1.03)	0.002
All drugs	Outer Regional	295 (287,303)	292 (284,300)	1.01 (1.00, 1.02)	0.047
All drugs	Remote and Very Remote	301 (285,317)	282 (267,297)	1.07 (1.06, 1.08)	<0.001
Opioids	Major Cities	29 (28, 30)	34 (33, 35)	0.85 (0.82, 0.88)	<0.001
Opioids	Inner Regional	24 (22, 25)	27 (25, 28)	0.89 (0.86, 0.93)	<0.001
Opioids	Outer Regional	24 (22, 27)	25 (22, 27)	0.99 (0.95, 1.03)	0.751
Opioids	Remote and Very Remote	18 (15, 23)	22 (18, 27)	0.83 (0.80, 0.87)	<0.001
Amphetamines and other stimulants	Major Cities	65 (64, 66)	59 (58, 60)	1.11 (1.08, 1.14)	<0.001

Amphetamines and other stimulants	Inner Regional	62 (60, 65)	53 (51, 56)	1.16 (1.13, 1.20)	<0.001
Amphetamines and other stimulants	Outer Regional	80 (76, 84)	70 (66, 74)	1.14 (1.11, 1.16)	<0.001
Amphetamines and other stimulants	Remote and Very Remote	73 (65, 81)	59 (52, 67)	1.23 (1.20, 1.26)	<0.001
Cannabinoids	Major Cities	22 (22, 23)	21 (21, 22)	1.04 (1.00, 1.08)	0.073
Cannabinoids	Inner Regional	29 (27, 31)	25 (23, 27)	1.16 (1.12, 1.21)	<0.001
Cannabinoids	Outer Regional	38 (35, 41)	32 (30, 35)	1.19 (1.15, 1.23)	<0.001
Cannabinoids	Remote and Very Remote	79 (71, 88)	59 (52, 66)	1.35 (1.31, 1.38)	<0.001
Cocaine	Major Cities	5.98 (5.6, 6.3)	5.78 (5.4, 6.1)	1.03 (0.95, 1.12)	0.424
Cocaine	Inner Regional	2.67 (2.2, 3.3)	0.91 (0.6, 1.3)	2.93 (2.47, 3.47)	<0.001
Cocaine	Outer Regional	1.01 (0.6, 1.6)	0.87 (0.5, 1.4)	1.16 (0.94, 1.43)	0.155
Non-opioid analgesics	Major Cities	24 (23, 25)	26 (25, 27)	0.93 (0.89, 0.97)	<0.001
Non-opioid analgesics	Inner Regional	32 (30, 34)	34 (32, 35)	0.95 (0.92, 0.99)	0.008
Non-opioid analgesics	Outer Regional	42 (39, 45)	43 (40, 47)	0.96 (0.93, 0.99)	0.012
Non-opioid analgesics	Remote and Very Remote	40 (34, 46)	47 (41, 54)	0.85 (0.83, 0.88)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	Major Cities	42 (41, 43)	36 (35, 37)	1.16 (1.13, 1.20)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	Inner Regional	33 (32, 35)	35 (33, 37)	0.95 (0.92, 0.98)	0.002
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	Outer Regional	36 (34, 39)	39 (36, 42)	0.94 (0.91, 0.97)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	Remote and Very Remote	22 (18, 26)	22 (18, 27)	0.97 (0.93, 1.01)	0.177
Antidepressants	Major Cities	14 (13, 15)	13 (13, 14)	1.05 (0.99, 1.11)	0.078
Antidepressants	Inner Regional	21 (20, 23)	23 (22, 25)	0.92 (0.89, 0.96)	<0.001
Antidepressants	Outer Regional	28 (25, 30)	32 (29, 35)	0.87 (0.83, 0.90)	<0.001
Antidepressants	Remote and Very Remote	22 (18, 26)	21 (17, 25)	1.05 (1.00, 1.09)	0.031
Antipsychotics and neuroleptics	Major Cities	15 (14, 15)	16 (15, 16)	0.95 (0.90, 1.00)	0.041
Antipsychotics and neuroleptics	Inner Regional	19 (18, 21)	23 (21, 25)	0.85 (0.81, 0.88)	<0.001
Antipsychotics and neuroleptics	Outer Regional	23 (20, 25)	25 (23, 27)	0.91 (0.87, 0.94)	<0.001
Antipsychotics and neuroleptics	Remote and Very Remote	19 (15, 23)	17 (13, 21)	1.12 (1.07, 1.17)	<0.001
Hallucinogens	Major Cities	1.82 (1.6, 2.0)	1.48 (1.3, 1.7)	1.23 (1.05, 1.44)	0.009
Hallucinogens	Inner Regional	1.54 (1.2, 2.0)	0.73 (0.5, 1.1)	2.11 (1.73, 2.57)	<0.001
Hallucinogens	Outer Regional	1.02 (0.6, 1.6)	1.94 (1.3, 2.7)	0.53 (0.44, 0.63)	<0.001
Volatile solvents	Major Cities	2.55 (2.3, 2.8)	2.33 (2.1, 2.6)	1.10 (0.97, 1.25)	0.150
Volatile solvents	Inner Regional	3.60 (3.0, 4.2)	3.08 (2.6, 3.7)	1.17 (1.05, 1.30)	0.006
Volatile solvents	Outer Regional	5.30 (4.3, 6.4)	5.05 (4.1, 6.2)	1.05 (0.96, 1.14)	0.293
Volatile solvents	Remote and Very Remote	11 (9, 15)	18 (14, 22)	0.64 (0.61, 0.68)	<0.001
Multiple drug use	Major Cities	18 (18, 19)	23 (22, 24)	0.80 (0.76, 0.83)	<0.001
Multiple drug use	Inner Regional	13 (12, 14)	13 (12, 14)	1.03 (0.98, 1.09)	0.232
Multiple drug use	Outer Regional	17 (15, 19)	18 (16, 20)	0.96 (0.92, 1.01)	0.096
Multiple drug use	Remote and Very Remote	15 (12, 19)	13 (10, 17)	1.15 (1.09, 1.21)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 16. Age-standardised rate per 100,000 people of opioid poisoning-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, by opioid type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio (95% CI)	P-value
Natural and semi-synthetic opioids	6.0 (5.8, 6.4)	7.0 (6.7, 7.3)	0.87 (0.80, 0.94)	<0.001
Heroin	3.8 (3.5, 4.0)	4.1 (3.8, 4.3)	0.93 (0.84, 1.03)	0.175
Synthetic opioids	2.2 (2.0, 2.4)	2.6 (2.4, 2.8)	0.85 (0.75, 0.96)	0.012
Methadone	1.0 (0.8, 1.1)	1.1 (0.9, 1.2)	0.90 (0.74, 1.10)	0.291
Other and unspecified opioids	0.8 (0.7, 0.9)	1.0 (0.9, 1.1)	0.75 (0.61, 0.93)	0.008

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 17. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in the Australian Capital Territory by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	207 (193.9,221.6)	179 (166,192)	1.16 (1.14,1.18)	<0.001
Amphetamines and other stimulants	40 (34.4, 46.6)	36 (30,42)	1.13 (1.09,1.17)	<0.001
Non-opioid analgesics	39 (32.9, 45.3)	37 (32,44)	1.04 (1.00,1.07)	0.027
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	33 (27.6, 38.5)	24 (20,29)	1.37 (1.32,1.42)	<0.001
Opioids	26 (21.6, 31.5)	25 (20,30)	1.07 (1.03,1.11)	<0.001
Antidepressants	23 (19.0, 28.6)	17 (13,21)	1.41 (1.35,1.48)	<0.001
Antipsychotics and neuroleptics	18 (14.4, 22.7)	21 (17,25)	0.88 (0.84,0.92)	<0.001
Cannabinoids	14 (10.5, 17.7)	12 (9,16)	1.11 (1.05,1.18)	<0.001
Multiple drug use	6.9 (4.65, 9.88)	2.8 (1.4, 4.9)	2.47 (2.24,2.73)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 18. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in New South Wales by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	247 (243.6,250.6)	250 (247,254)	0.99 (0.98,1.00)	0.056
Amphetamines and other stimulants	65 (63.2, 66.8)	61 (59,63)	1.07 (1.04,1.09)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	35 (33.3, 35.9)	32 (31,33)	1.08 (1.05,1.12)	<0.001
Opioids	33 (31.3, 33.8)	38 (36,39)	0.86 (0.83,0.89)	<0.001
Cannabinoids	29 (28.3, 30.7)	28 (27,29)	1.06 (1.02,1.10)	0.002
Multiple drug use	28 (26.4, 28.7)	33 (32,35)	0.82 (0.79,0.85)	<0.001
Non-opioid analgesics	20 (18.9, 20.9)	20 (19,21)	0.98 (0.93,1.02)	0.302
Antipsychotics and neuroleptics	13 (12.5, 14.1)	14 (13,15)	0.96 (0.91,1.01)	0.138

Antidepressants	11 (10.1, 11.6)	11 (11,12)	0.96 (0.90,1.02)	0.167
Cocaine	10 (9.7, 11.2)	9.5 (8.8, 10.2)	1.10 (1.03,1.17)	0.004
Volatile solvents	2.3 (1.96, 2.62)	2.3 (2.0, 2.7)	0.98 (0.86,1.12)	0.774
Hallucinogens	1.3 (1.05, 1.57)	0.9 (0.7, 1.2)	1.36 (1.13,1.65)	0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 19. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in the Northern Territory by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	359 (336.2,383.6)	318 (296,341)	1.13 (1.12,1.14)	<0.001
Cannabinoids	120 (106.7,133.7)	87 (76,99)	1.38 (1.35,1.41)	<0.001
Amphetamines and other stimulants	74 (64.4, 85.7)	56 (47,65)	1.34 (1.30,1.37)	<0.001
Non-opioid analgesics	49 (41.0, 59.1)	56 (47,66)	0.88 (0.86,0.90)	<0.001
Opioids	29 (22.0, 36.6)	18 (13,25)	1.57 (1.51,1.64)	<0.001
Antidepressants	23 (17.3, 29.8)	27 (21,34)	0.84 (0.81,0.88)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	22 (16.4, 28.5)	21 (16,28)	1.02 (0.98,1.07)	0.300
Antipsychotics and neuroleptics	16 (11.1, 21.3)	17 (13,23)	0.90 (0.86,0.94)	<0.001
Multiple drug use	12 (8.3, 17.6)	5.6 (3.2, 9.0)	2.22 (2.06,2.38)	<0.001
Volatile solvents	12 (7.7, 16.8)	25 (19,32)	0.47 (0.45,0.49)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 20. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in Queensland by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	300 (295.4,305.1)	291 (286,296)	1.03 (1.02,1.04)	<0.001
Amphetamines and other stimulants	82 (79.9, 85.0)	70 (67,72)	1.18 (1.16,1.21)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	52 (50.0, 54.1)	51 (49,53)	1.02 (1.00,1.05)	0.099
Non-opioid analgesics	38 (36.5, 40.0)	42 (40,44)	0.91 (0.88,0.94)	<0.001
Opioids	31 (29.1, 32.1)	36 (34,37)	0.86 (0.83,0.89)	<0.001
Cannabinoids	27 (25.8, 28.8)	24 (22,25)	1.15 (1.11,1.20)	<0.001
Antidepressants	26 (24.7, 27.6)	26 (25,28)	0.99 (0.95,1.03)	0.622
Antipsychotics and neuroleptics	22 (20.9, 23.5)	23 (22,25)	0.95 (0.91,0.99)	0.010
Multiple drug use	12 (11.5, 13.4)	12 (11,13)	1.06 (1.00,1.12)	0.049
Volatile solvents	4.9 (4.33, 5.58)	4.0 (3.4, 4.6)	1.24 (1.13,1.36)	<0.001
Hallucinogens	2.3 (1.94, 2.82)	2.0 (1.6, 2.4)	1.17 (1.03,1.34)	0.020
Cocaine	1.7 (1.34, 2.09)	1.7 (1.3, 2.1)	1.01 (0.87,1.18)	0.891

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 21. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in South Australia by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	316 (307.1,324.6)	277 (269,285)	1.14 (1.13,1.15)	<0.001
Amphetamines and other stimulants	106 (100.7,110.9)	83 (78,87)	1.28 (1.25,1.31)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	56 (52.8, 60.1)	42 (39,46)	1.33 (1.29,1.37)	<0.001
Non-opioid analgesics	38 (35.1, 41.2)	39 (36,42)	0.99 (0.96,1.02)	0.478
Cannabinoids	25 (23.1, 28.1)	20 (18,23)	1.25 (1.20,1.30)	<0.001
Antipsychotics and neuroleptics	23 (20.5, 25.3)	26 (23,28)	0.89 (0.85,0.92)	<0.001
Antidepressants	23 (20.3, 25.0)	21 (19,23)	1.07 (1.03,1.12)	0.001
Opioids	20 (17.8, 22.1)	25 (22,27)	0.81 (0.77,0.84)	<0.001
Multiple drug use	17 (14.7, 18.8)	15 (13,17)	1.11 (1.06,1.17)	<0.001
Volatile solvents	3.7 (2.87, 4.79)	3.7 (2.8, 4.7)	1.02 (0.92,1.13)	0.762
Cocaine	2.5 (1.76, 3.36)	1.8 (1.2, 2.6)	1.35 (1.17,1.54)	<0.001
Hallucinogens	2.0 (1.32, 2.80)	1.4 (0.9, 2.1)	1.38 (1.18,1.61)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 22. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in Tasmania by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	201 (188.7,214.5)	261 (246,276)	0.77 (0.76,0.78)	<0.001
Amphetamines and other stimulants	52 (45.5, 59.1)	47 (41,54)	1.10 (1.07,1.13)	<0.001
Cannabinoids	34 (28.7, 39.5)	36 (31,42)	0.94 (0.91,0.97)	<0.001
Non-opioid analgesics	29 (24.0, 33.8)	42 (36,48)	0.68 (0.66,0.71)	<0.001
Antidepressants	21 (16.8, 25.3)	34 (29,39)	0.62 (0.59,0.64)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	20 (16.0, 23.8)	39 (33,45)	0.51 (0.49,0.53)	<0.001
Opioids	18 (14.7, 22.4)	25 (21,30)	0.72 (0.69,0.75)	<0.001
Antipsychotics and neuroleptics	14 (11.2, 18.4)	24 (20,29)	0.61 (0.58,0.64)	<0.001
Multiple drug use	11 (7.8, 14.0)	10 (8,14)	1.03 (0.97,1.10)	0.352
Volatile solvents	2.7 (1.41, 4.61)	2.4 (1.2, 4.1)	1.12 (0.99,1.27)	0.081

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 23. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in Victoria by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	212 (208.5,215.5)	217 (214,221)	0.97 (0.96,0.99)	<0.001
Amphetamines and other stimulants	55 (53.6, 57.2)	53 (51,55)	1.05 (1.02,1.08)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	39 (37.9, 40.9)	32 (30,33)	1.24 (1.20,1.28)	<0.001
Opioids	26 (24.9, 27.4)	32 (31,34)	0.81 (0.78,0.84)	<0.001
Non-opioid analgesics	24 (22.7, 25.1)	25 (24,26)	0.95 (0.91,0.99)	0.015
Cannabinoids	19 (18.0, 20.2)	19 (18,20)	1.02 (0.97,1.07)	0.446
Multiple drug use	14 (12.7, 14.5)	21 (20,22)	0.65 (0.62,0.68)	<0.001
Antipsychotics and neuroleptics	13 (12.3, 14.1)	15 (14,16)	0.88 (0.84,0.93)	<0.001
Antidepressants	13 (12.2, 14.0)	13 (12,14)	1.03 (0.97,1.09)	0.302
Cocaine	4.1 (3.58, 4.57)	4.2 (3.8, 4.8)	0.95 (0.87,1.05)	0.354
Volatile solvents	2.5 (2.12, 2.90)	2.2 (1.9, 2.6)	1.12 (0.98,1.27)	0.089
Hallucinogens	1.8 (1.44, 2.11)	1.6 (1.3, 1.9)	1.12 (0.96,1.31)	0.150

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.

Table 24. Age-standardised rate (per 100,000 people) of drug-related hospitalisations in 2019-20 and rate ratio and p-value for difference compared to 2018-19, in Western Australia by drug type identified in the principal diagnosis

Drug	Rate in 2019-20 (95% CI)	Rate in 2018-19 (95% CI)	Rate ratio	P-value
All drugs	249 (243.4,255.7)	246 (240,252)	1.01 (1.00,1.03)	0.027
Amphetamines and other stimulants	81 (77.5, 84.5)	77 (73,80)	1.06 (1.03,1.08)	<0.001
Antiepileptic, sedative-hypnotic and antiparkinsonism drugs	37 (34.5, 39.2)	35 (33,37)	1.06 (1.02,1.09)	<0.001
Opioids	26 (24.2, 28.2)	28 (26,30)	0.94 (0.91,0.98)	0.002
Non-opioid analgesics	25 (23.3, 27.3)	29 (26,31)	0.88 (0.85,0.92)	<0.001
Cannabinoids	22 (20.4, 24.1)	22 (20,24)	1.00 (0.96,1.05)	0.824
Antipsychotics and neuroleptics	18 (16.6, 20.0)	18 (17,20)	0.99 (0.95,1.04)	0.677
Multiple drug use	18 (16.5, 19.9)	18 (16,19)	1.03 (0.98,1.08)	0.239
Antidepressants	17 (15.1, 18.4)	16 (14,17)	1.05 (1.00,1.11)	0.036
Volatile solvents	2.5 (1.97, 3.23)	2.3 (1.8, 3.0)	1.10 (0.97,1.25)	0.133
Hallucinogens	1.7 (1.23, 2.31)	1.5 (1.0, 2.0)	1.17 (1.00,1.37)	0.055
Cocaine	0.9 (0.54, 1.32)	0.4 (0.2, 0.8)	2.01 (1.55,2.62)	<0.001

Note: 95% confidence intervals for the age-standardised rate and rate ratio are shown in brackets. Please refer to our methods document on 'Presentation of results' for interpretation of rate ratios. Please also refer to our methods document on 'Scope of the data' and 'Coding of hospitalisations' for specifications of data selected and all exclusions.