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Agata Chrzanowska, Nicola Man, Rachel Sutherland, Louisa Degenhardt and Amy Peacock

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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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Data source

We acknowledge all state and territory Registries of Births, Deaths and Marriages, the Coroners and the National Coronial Information System (NCIS) for enabling Cause of Death Unit Record File (COD URF) data to be used for this publication.

Related Links

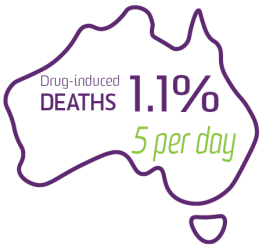
- For interactive data visualisations accompanying this report, go to: https://drugtrends.shinyapps.io/Deaths_2020
- For full details of the methods underpinning this report, go to: https://ndarc.med.unsw.edu.au/resource-analytics/trends-drug-induced-deaths-australia-1997-2020
- For other Drug Trends 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
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- For more research from the Drug Trends program and to subscribe to our newsletter, go to: https://ndarc.med.unsw.edu.au/program/drug-trends
- For details on the collection, organisation and interpretation of NCIS data, go to: https://www.ncis.org.au/about-the-data/explanatory-notes/
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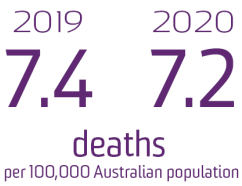
Overdose and Other Drug-Induced Deaths in Australia, 2020



Preliminary estimates indicate that there were 1,842 drug-induced deaths in 2020 (excluding deaths caused by alcohol and tobacco).



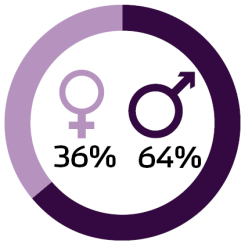
There were five drug-induced deaths per day among Australians, which is 1.1% of all registered deaths in Australia in 2020.



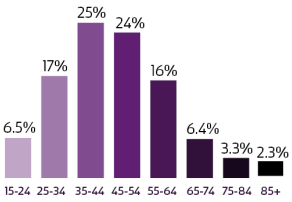
The national preliminary estimated rate of drug-induced deaths in 2020 was 7.2 deaths per 100,000 Australians.



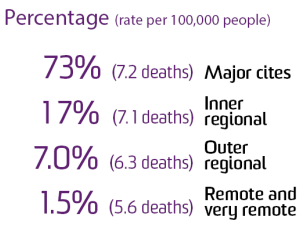
Drug-induced death rate was 16% lower in 3rd quarter 2020 (COVID-19 pandemic) compared with 1st quarter 2020 and 3rd quarter 2019.



Approximately two-in-three deaths occurred among males and one-in-three among females.



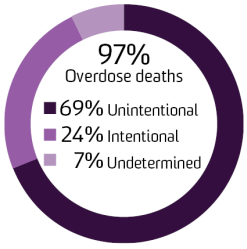
Overdose and other drug-induced deaths were most common among 35-44 and 45-54 year olds.



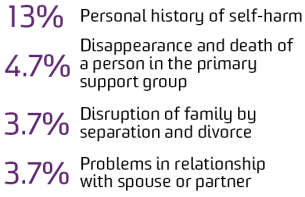
Although the majority of deaths occurred in major cities, the rate of deaths was similar in major cities and inner regional areas.



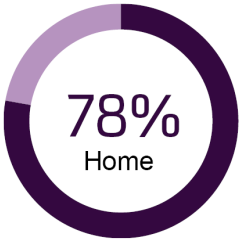
The highest rate of drug-induced deaths was observed in the Australian Capital Territory.



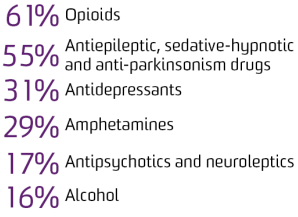
The majority of drug-induced deaths were due to unintentional drug overdose.



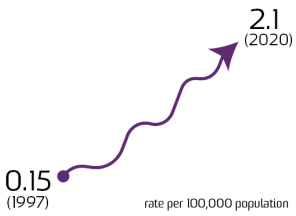
Personal history of self-harm was the most frequently identified psychosocial risk factor.



Home was the place of incidents underlying the majority of drug-induced deaths.



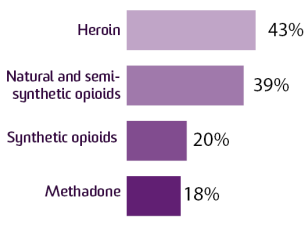
Opioids were the most commonly identified substances involved in drug overdose deaths.



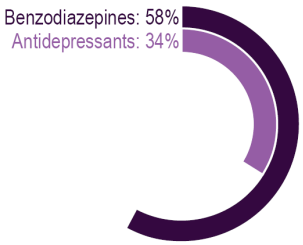
The rate of drug overdose deaths involving amphetamines in 2020 was the highest across the period of monitoring.



Although the absolute numbers remain small, the rate of drug overdose deaths involving cocaine has increased fivefold since 2014.



Heroin was the most commonly identified opioid in opioid-induced deaths in 2020.



In 2020, benzodiazepines and antidepressants remained the most common drug types involved in opioid-induced deaths.

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Executive Summary

This report presents findings on all drug-induced deaths (i.e., overdose and other drug-induced deaths where drugs have been deemed the underlying cause of death) in Australia from 1997 to 2020.

Data are from the Cause of Death Unit Record File (COD URF) collated by the Australian Bureau of Statistics (ABS). **The ABS undertake a revision process for coroner-certified deaths over a 3-year period; accordingly, data for 2018, 2019 and 2020 are not final.** We have not included deaths where conditions related to alcohol or tobacco use comprise the underlying cause of death as they fall outside our monitoring (see **methods**).

Estimates presented here comprise number of deaths and age-standardised mortality rates for Australians of all ages, disaggregated by sex, age, remoteness of usual residence, underlying cause of death and intent, psychosocial risk factors, drug type, and jurisdiction of usual residence. Statistical comparisons are undertaken of preliminary rates for 2019 versus 2020; all other comparisons are descriptive.

Our public online data visualisation allows viewers to disaggregate data in different ways, and to download these images for their own use.

Overall

Preliminary data show that there were 1,842 registered drug-induced deaths among Australians in 2020. This includes deaths from drug overdose, but excludes deaths caused by conditions related to alcohol or tobacco use.

This number of deaths is equivalent to 5 drug-induced deaths per day among Australians in 2020. Drug-induced deaths comprised 1.1% of all registered deaths in Australia.

The preliminary estimated rate of drug-induced deaths in 2020 was 7.2 deaths per 100,000 Australians.

Adjusting for age and changes in population size, the rate of drug-induced deaths peaked in 1999 (9.1 deaths per 100,000 people) and then declined sharply in the early 2000s. The rate has risen subsequently to 8.2 deaths per 100,000 people in 2017. The preliminary estimated rate for 2020 (and 2018-2019) was lower but subject to revision and will likely increase.

Drug-induced deaths and the COVID-19 pandemic (see Panel B). The COVID-19 pandemic and associated restrictions on gathering and movement have impacted drug supply and demand. There has been significant concern about potential changes in drug-related harms since the pandemic onset, warranting study of mortality data. In Australia, most drug-induced deaths are referred to the coroner and can take several years to process. Thus, more recent estimates than 2020 are not yet available and estimates of drug-induced deaths provided for 2018-2020 are subject to revision. However, preliminary data for 2019 and 2020 are at the same stage of revision and thus can be compared. Our initial study of these preliminary data suggests that the rate of drug-induced deaths in the third quarter of 2020 was lower than the rate in the first quarter of 2020 (i.e., immediately prior to the pandemic onset) and in the third quarter of 2019. Preliminary estimates are provided only as a tentative early indication of the pattern of drug-related mortality. There are many factors that may influence count of deaths. Deviations between quarters should be treated with caution, particularly given that estimates are preliminary, reflect a short time period, and will be revised. More detailed and sophisticated temporal analyses with a longer time series are in progress and will be reported on in future outputs.

Sex

In 2020, males accounted for 64% (1,187 deaths) of drug-induced deaths. This profile has been consistent over time.

The rate of drug-induced deaths among males peaked in 1999 before declining sharply in the early 2000s and generally rising subsequently until 2017. The rate for females has followed a similar pattern but within a smaller range.

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Preliminary estimates for 2018-2020 are similar or lower than 2017, and analyses do not suggest a statistically significant change in the rate from 2019 to 2020 for males or females.

Age

In 2020, the greater proportion of drug-induced deaths occurred among those aged 35-44 (25%, 466 deaths) and 45-54 (24%, 437 deaths).

The rate of drug-induced deaths among the 25-34 and 15-24 age group has generally declined until approximately 2017, while a particular increase has been observed in the 45-54 and 55-64 age group. Analyses do not suggest a statistically significant change in the preliminary estimated rates for 2019 to 2020 for any age group.

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred in major city areas (73%, 1,348 deaths), followed by inner regional (17%, 311 deaths), outer regional (7.0%, 128 deaths), and remote/very remote (1.5%, 28 deaths) areas.

After adjusting for population size, the rate of drug-induced deaths in 2020 was highest among people from major city areas and inner regional areas (7.2 and 7.1 deaths per 100,000 people, respectively), and lowest in remote/very remote areas (5.6 deaths per 100,000 people). Analyses do not suggest a statistically significant change in the preliminary estimated rates for 2019 to 2020 for any remoteness area.

Underlying Cause of Death and Intent

In 2020, drug overdose ('poisoning') deaths accounted for 97% of all drug-induced deaths. Intent of death is recorded for drug overdose deaths. In 2020, 69% (1,233 deaths) of drug overdose deaths were coded as unintentional and 24% (428 deaths) as intentional.

The rate of unintentional drug overdose deaths nearly doubled from 2006 to 2017 after an earlier peak and decline in the late 1990s and early 2000s. In contrast, the rate of intentional drug overdose deaths has remained relatively stable. Preliminary estimates for 2018-2020 are stable or lower than 2017, and analyses do not suggest a statistically significant change in rates for 2019 to 2020 for either intent type.

Psychosocial Risk Factors

In 2020, more than one-in-three (37%, 676 deaths) drug-induced deaths had at least one psychosocial risk factor coded. Personal history of self-harm was the most frequently identified psychosocial risk factor in 2020. Identification of these risk factors was more common among deaths involving females than males, and among intentional than unintentional deaths.

Place of Occurrence

In 2020, the most common location of the incident underlying the drug-induced death was home (78%, 1,442 deaths). This has been consistent over time. The location was coded as home for a similar proportion of unintentional (80%) and intentional (82%) deaths.

Drug Involvement

In 2020, the most common drug type involved in drug overdose deaths was opioids (1,091 deaths), followed by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (986 deaths; predominantly benzodiazepines).

The rates of drug overdose deaths for all drug types have increased since the mid-to-late 2000s, generally peaking in 2017. Preliminary rates for 2018-2020 were generally stable or declining relative to 2017. Analyses showed a statistically significant decline in the rate of drug overdose deaths from 2019 to 2020 for antipsychotics and neuroleptics, cannabinoids, and non-opioid analgesics.

Polysubstance use

Between 2016 and 2020, the majority (71%) of drug overdose deaths included two or more drug classes of interest. The most common drug pattern profile in unintentional overdose deaths was heroin only (6.7%) and in intentional overdose deaths hypnosedatives only (9.9%).

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Drug Overdose Deaths Involving Benzodiazepines (see Panel C). The rate of drug-induced deaths involving benzodiazepines has increased four-fold from 2004 to 2018. There is concern about circulation of illicitly manufactured benzodiazepine products, often containing novel benzodiazepines which can carry high risk of harm. Data for the current report cannot distinguish whether pharmaceutical or novel benzodiazepines were consumed. Other work published in 2022 has identified 40 cases of death involving novel benzodiazepines in Australia since 2015. While it is unlikely novel benzodiazepines are the primary driver of overdose deaths involving benzodiazepines in Australia, the risks associated with these drugs and the mortality rates observed in other countries reinforces the need for close monitoring of this situation.

Drug Overdose Deaths Involving Amphetamine

There were 524 drug overdose deaths involving amphetamines among Australians in 2020 (29% of overdose deaths). These deaths typically occurred among males (71%, 370 deaths) and in the 35-44 (31%, 163 deaths), 45-54 (28%, 146 deaths) and 25-34 (23%, 123 deaths) age groups.

The rate of drug overdose deaths involving amphetamine has generally increased from 2011, peaking at 2.1 deaths per 100,000 people in 2020 (noting these rates are likely to increase further with revision of estimates). Analyses do not suggest a statistically significant change in the preliminary estimated rate for 2019 to 2020.

Drug Overdose Deaths Involving Cocaine

There were 86 drug overdose deaths involving cocaine in 2020 (4.8% of overdose deaths).

Although the absolute numbers remain small and the latest estimates are preliminary, the rate of drug overdose deaths involving cocaine has increased fivefold since 2014. Analyses do not suggest a statistically significant change in the preliminary estimated rate for 2019 to 2020.

Opioid-Induced Deaths

In 2020, there were 1,073 opioid-induced deaths among Australians. These deaths typically occurred among males (68%, 728 deaths) and in the 35-44 (29%, 311 deaths) and 45-54 (25%, 271 deaths) age groups. Three-in-four (78%, 840 deaths) were considered unintentional.

The rate of opioid-induced deaths generally increased from 2006 until 2017, although it did not reach the peak observed in the late 1990s. Preliminary estimates for 2018-2020 are lower than 2017, although they are anticipated to increase with revision. Analyses do not suggest a statistically significant change in the preliminary estimated rate for 2019 to 2020.

Looking at the rate disaggregated by opioid type, a similar pattern is observed, with all opioid types showing stable or declining rates in 2018-2020 relative to 2017.

One-third (34%, 360 deaths) of opioid-induced deaths in 2020 were attributed to heroin only, 56% (606 deaths) to opioids other than heroin (e.g., pharmaceutical opioids) and 9% (101 deaths) to both heroin and other opioids.

Rates of opioid-induced deaths involving heroin have been rising since the early-to-mid 2000s, and particularly from 2012, while rates of opioid-induced deaths involving natural and semi-synthetic opioids (e.g., morphine, oxycodone) seem to have stabilised since 2014. While preliminary rates for 2018-2020 suggest stable and declining rates relative to 2017, respectively, it is notable that the rate of opioid-induced deaths involving heroin has exceeded that for deaths involving natural and semi-synthetic opioids for the second year in a row.

Jurisdiction of Usual Residence

The highest number of drug-induced deaths were in Victoria (530 deaths), followed by New South Wales (503 deaths).

However, after adjusting for population size, the highest rate was observed in the Australian Capital Territory (12.3 deaths per 100,000 people) and the lowest rate in the Northern Territory (5.7 deaths per 100,000 people).

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Findings by sex, age, intent, remoteness, and drug type for each jurisdiction are available in Chapter 9.

DOI: 10.26190/ke9y-4731

Background and Methods

This report presents findings on drug-induced deaths (i.e., deaths directly attributable to drug use, excluding those attributable to alcohol or tobacco) in Australia from 1997 to 2020.

Data Source

Data from the Australian Bureau of Statistics (ABS) were accessed from the Cause of Death Unit Record File (COD URF) though the Australian Coordinating Registry (ACR) and analysed in consultation with the ABS. **The ABS undertake a revision process for coroner-certified deaths over a 3-year period; accordingly, data for 2018, 2019 and 2020 are not final.**

Scope of Reporting

We provide estimates of drug-induced deaths directly attributable to use of *illicit drugs* (e.g., heroin), some *prescription medicines* (that may be prescribed to the individual or obtained via other means) and *medicines available over-the-counter*. These figures only include overdose and other drug-induced deaths where drugs have been deemed the underlying cause of death (see **Panel A** for details on terminology). The figures presented here do not include deaths from accidents caused by being under the influence of a drug (e.g., motor vehicle accident). This report includes a particular focus on deaths involving opioids, amphetamine and cocaine.

Panel A. Terminology

- **Underlying cause of death (UCOD)** is the disease or condition which initiated the sequence of events resulting in death. There can be only one underlying cause of death.
- **Associated causes of death (ACOD)** are any other diseases or conditions that contributed to the death and are listed on the death certificate but were not deemed the underlying cause of death.
- **Multiple causes of death (MCOD)** include all causes (both underlying and associated causes), diseases and conditions reported on the death certificate.
- **Drug-induced death** includes all deaths where the UCOD indicates a substance-use disorder or direct harm due to selected substances (excluding alcohol and tobacco). Captured within this category are **drug overdose deaths**, which comprise all deaths where the acute toxic effects of a drug were determined by the coroner, forensic pathologist or forensic toxicologist to be the UCOD, regardless of intent.
- **Opioid-induced death** includes all deaths where the UCOD indicates an opioid use disorder or direct harm specific to opioids.
- **Drug overdose death involving selected drug** is where poisoning by the drug of interest (e.g., benzodiazepines) was indicated in the UCOD or MCOD, noting that there may be other drugs coded to these fields. For example, a ‘drug-induced death involving benzodiazepines’ could comprise an opioid as UCOD and a benzodiazepine and alcohol as MCOD.

We have not included deaths where conditions related to alcohol or tobacco use comprise the underlying cause of death as they fall outside the scope of our monitoring. We did, however, include alcohol involvement in drug-induced deaths, as a substance contributing to a death. We acknowledge the significant loss of life from these substances (see the National Alcohol Indicators Project, ABS reporting and Australian Institute of Health and Welfare reporting for further information).

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The codes applied here to identify cause of death have limited specificity by drug type, often identifying only the broad drug class (e.g., amphetamines). It is important to note that many drug-induced deaths involve more than one drug (including alcohol), and sometimes it is not possible to determine one substance as the underlying cause of death.

Reporting of Results

Estimates presented here comprise number of deaths and age-standardised mortality rates for Australians of all ages. The exception is where we report by age group (e.g., 10-year age groups); in these instances, we present age-specific rates calculated as population crude rates in the given age group. Small numbers and rates of deaths are not presented to protect the confidentiality of individuals.

Our reporting aims to describe the profile of drug-induced deaths (i.e., key sociodemographic, clinical and contextual features of these deaths) and the trend over time in rates of drug-induced deaths adjusting for age and changes in population size. With the latter, we focus on the trend in rates from 1997 to 2017, as annual estimates for these years are final. Annual estimates for 2018-2020 are reported on but treated with caution as they are not final and may be revised upwards.

In saying this, we acknowledge that there is particular interest in whether the new release of (preliminary) estimates for 2020 reflect a change relative to the previous year. Rate ratios (RR) and 95% confidence intervals (95%CI) were computed to determine whether there was a statistically significant change in the preliminary estimated rates from 2019 to 2020 for all such comparisons (see the **methods** for further detail). Data for 2019 and 2020 are at the same stage of revision and thus can be compared, although it is important to note that estimates for both years are anticipated to increase with revision. Ratio ratios for all comparisons of preliminary rates for 2019 and 2020 are available in Appendix A, and significant comparisons are identified in-text. All other comparison of numbers and rates between other years are descriptive.

We align our coding practices with those of the ABS and international organisations. Number of deaths may differ between organisations reporting on drug-induced deaths due to the codes used.

Supporting Resources

An accompanying public online data visualisation allows viewers to disaggregate data in many different ways, and to download these images for their own use. This visualisation allows viewers to look at trends by drug, jurisdiction, sex, age group, remoteness and intent.

Full details of the methods (including the codes used) are available for download; this document and the ABS Explanatory Notes should be read alongside this report.

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1

Overall Trend in Drug-Induced Deaths

2020

1,842
drug-induced deaths

7.2
drug-induced deaths per 100,000 Australians

1.1%
of all recorded and reported deaths in Australia

In 2020, there were 1,842 drug-induced deaths among Australians, equivalent to 1.1% of all recorded and reported deaths in Australia. This equates to 7.2 deaths per 100,000 Australians.

There was a peak in the number and rate of drug-induced deaths in the late 1990s, followed by a decline in the early-mid 2000s (Figure 1).

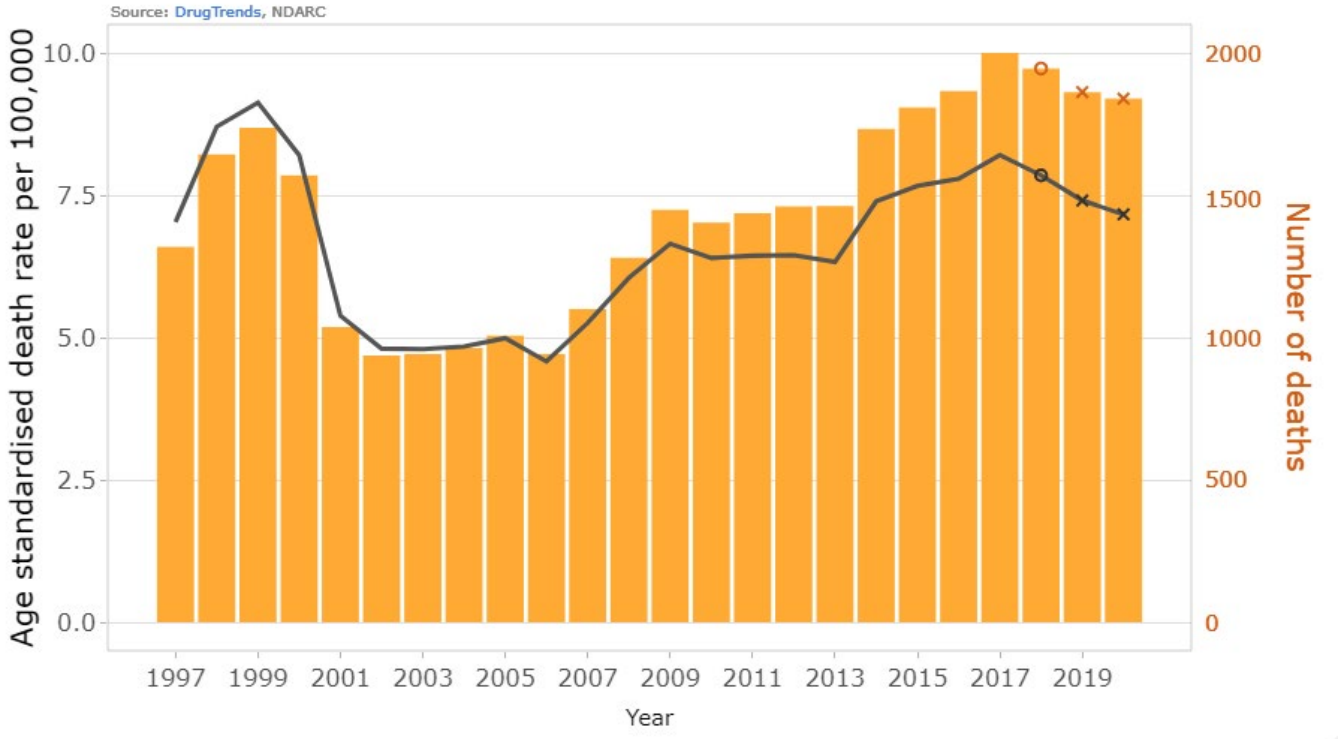
The annual number of drug-induced deaths in Australia has subsequently increased. Indeed, annual estimates for 2015-2020 are higher than those observed in the late 1990s. The highest recorded annual number of drug-induced deaths across the total period of monitoring occurred in 2017 (1,991 deaths). However, estimates for 2018-2020 are likely to increase with further data revisions.

The rate of drug-induced deaths (adjusting for age and changes in population size) also gradually increased from the mid-2000s, rising to 8.2 deaths per 100,000 people in 2017. In contrast with the number of deaths, this rate was lower than that observed in the late 1990s (9.1 deaths per 100,000 people in 1999).

The annual population rates of drug-induced deaths for 2018-2020 are lower than 2017 but are likely to increase with data revisions. Preliminary estimates do not currently suggest a statistically significant change in the rate of deaths between 2019 and 2020 (7.4 versus 7.2, respectively; RR=0.97 [95% CI 0.91, 1.03]; Table A1).

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Figure 1. Number and age-standardised rate per 100,000 people of drug-induced deaths for the Australian population, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.

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Panel B. Drug-induced deaths and the COVID-19 pandemic

The COVID-19 pandemic and associated restrictions on gathering and movement have impacted drug supply and demand. In Australia, wastewater data show reduced population-level exposure to some illicit drugs, particularly methamphetamine, in the first two years of the pandemic. Early survey data also suggested disruption to illicit drug use for some people, typically attributed to restrictions on gathering, limiting opportunities for use in such contexts, and reports of reduced availability and increased price of certain drugs.

Given these changes in use and markets, there has been significant concern about potential changes in drug-related harms, disruption to drug treatment and harm reduction services, and overstretched acute emergency health services. Early US emergency department data show increased presentations for opioid overdose in 2020 as compared to 2019. Similarly, preliminary data suggest overdose deaths were elevated in 2020 relative to 2019 in several North American jurisdictions, although the rate was already rising prior to the pandemic. Analyses of mortality data typically compared the period leading up to the pandemic versus the subsequent period (e.g., April to June 2020 versus January to March 2020) or comparative periods from 2019 and 2020 (e.g., April to June 2020 versus April to June 2019).

In studying the rate of drug-induced deaths in Australia until 2020, it is important to consider the evolution of the COVID-19 pandemic and associated restrictions on gathering and movement over this period. The first COVID-19 diagnosis occurred in Australia on 25 January 2020, with an increase in cases throughout March which declined shortly thereafter. There was a resurgence in cases from late June 2020, largely based in Victoria, which subsequently declined from September until the end of 2020. As a nation of federated states and territories, public health policy including restrictions on movement and gatherings varied by jurisdiction. However, by the end of March 2020, Australians could only leave their residence for essential reasons. These restrictions were eased across May-June 2020, again with variation across jurisdictions (notably, significant restrictions being enforced again in Victoria from July-October 2020).

It is also important to note that Australia was one of few countries to record lower than expected mortality in 2020. While this was largely driven by statistically significant decreases in respiratory diseases (namely influenza), there were also decreases in external causes of death including suicide and land transport accidents.

In Australia, most drug-induced deaths are referred to the coroner and subject to forensic pathology and toxicology testing. Deaths referred to the coroner can take several years to process, particularly if an inquest is being held or complex investigations are being undertaken. Thus, more recent estimates than 2020 are not yet available, and estimates of drug-induced deaths provided for 2018-2020 are subject to revision. However, data for 2019 and 2020 are at the same stage of revision and thus can be compared.

In **Table 1**, we present the number and rate of drug-induced deaths per quarter for 2019 and the first quarter of 2020 (i.e., before onset of the COVID-19 pandemic and associated restrictions) and the second and third quarter of 2020 (i.e., after onset of the COVID-19 pandemic and associated restrictions). Data for the fourth quarter of 2020 are not presented following consultation with ABS on the completeness of these data.

We have estimated the percentage difference in the rates (**Table 2**) and rate ratio for comparisons between quarters (**Table 3**; see the **methods** for further detail). These estimates are shown nationally and for New South Wales and Victoria, the two most populous jurisdictions in Australia. Estimates for other jurisdictions are not presented due to smaller numbers of drug-induced deaths when disaggregated by quarter.

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Analyses showed that the national rate of drug-induced deaths in Q2 versus Q1 2020 was similar. There was a 16.0% decrease in the national rate of drug-induced deaths in Q3 2020 as compared to Q1 2020; this decrease was statistically significant (RR=0.84 [95%CI 0.73, 0.96]). This significant decline was also observed in New South Wales.

Looking at comparative periods in 2019 and 2020, the national rate of drug-induced deaths in Q2 2020 versus Q2 2019 was similar (1.0% difference). There was a 15.6% decrease in the national rate of drug-induced deaths in Q3 2020 as compared to Q1 2019; this decrease was statistically significant (RR=0.84 [95%CI 0.74, 0.97]). A similar finding was observed in New South Wales.

Preliminary estimates are provided only as a tentative early indication of the pattern of drug-related mortality. There are many factors that may influence count of deaths. Deviations between quarters should be treated with caution, particularly given that estimates are preliminary, reflect a short time period, and will be revised as coronial investigations are closed and additional deaths registrations are received by the ABS. Deaths occurring in the more recent quarters are more likely to be revised.

More detailed temporal analyses with a longer time series are planned as data undergo revision. This work will draw on sophisticated methodologies (e.g., interrupted time series analyses) to facilitate causal inference regarding the impact of the COVID-19 pandemic and associated restrictions on gathering and movement on rates of drug-induced deaths. Please contact the Drug Trends team (drugtrends@unsw.edu.au) for further information.

Table 1. Number and population rate of drug-induced deaths before and during the novel coronavirus disease (COVID-19) pandemic in Australia

Location	2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Number of drug-induced deaths per quarter							
Australia	452	478	476	462	482	489	405
New South Wales	142	132	148	105	138	147	114
Victoria	111	131	110	145	134	130	101
Rate of drug-induced deaths per 100,000 population per quarter							
Australia	1.79	1.88	1.87	1.81	1.88	1.90	1.58
New South Wales	1.76	1.63	1.82	1.29	1.69	1.80	1.40
Victoria	1.69	1.99	1.66	2.18	2.00	1.94	1.51

Note: Q1: January – March; Q2: April – June; Q3: July – September; Q4: October – December.
Deaths were assigned to a quarter based on the month of death; all other data in this report are based on reference year (see methods for details). Data for Q4 2020 are not presented following consultation with ABS on the completeness of these data. Quarterly rates are based on quarterly estimates of the national, state and territory resident population (released on 16 December 2021). Data is subject to change.

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Table 2. Percentage changes in drug-induced deaths during the novel coronavirus disease (COVID-19) pandemic in Australia

Location	Percentage Change (%)					
	2020			2020 versus 2019		
	Q2 2020 vs. Q1 2020	Q3 2020 vs. Q1 2020	Q3 2020 vs. Q2 2020	Q1 2020 vs. Q1 2019	Q2 2020 vs. Q2 2019	Q3 2020 vs. Q3 2019
Change in number of drug-induced deaths						
Australia	1.5	-16.0	-17.2	6.6	2.3	-14.9
New South Wales	6.5	-17.4	-22.4	-2.8	11.4	-23.0
Victoria	-3.0	-24.6	-22.3	20.7	-0.8	-8.2
Change in population rates of drug-induced deaths						
Australia	1.4	-16.0	-17.1	5.1	1.0	-15.6
New South Wales	6.5	-17.4	-22.4	-3.9	10.3	-23.4
Victoria	-3.0	-24.4	-22.1	18.6	-2.2	-8.8

Note: Q1: January – March; Q2: April – June; Q3: July – September; Q4: October – December. Deaths were assigned to a quarter based on the month of death; all other data in this report are based on reference year (see methods for details). Data for Q4 2020 are not presented following consultation with ABS on the completeness of these data.

Table 3. Rate ratio for change in rate of drug-induced deaths during the novel coronavirus disease (COVID-19) pandemic in Australia

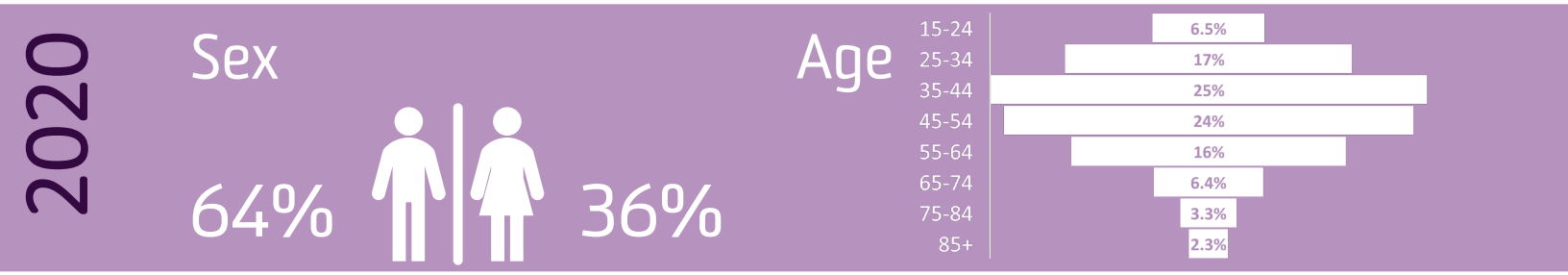
Location	Rate ratio (95% confidence intervals)					
	2020			2020 versus 2019		
	Q2 2020 vs. Q1 2020	Q3 2020 vs. Q1 2020	Q3 2020 vs. Q2 2020	Q1 2020 vs. Q1 2019	Q2 2020 vs. Q2 2019	Q3 2020 vs. Q3 2019
Australia	1.01 (0.89, 1.15)	**0.84 (0.73, 0.96)**	**0.83 (0.72, 0.95)**	1.05 (0.92, 1.20)	1.01 (0.89, 1.15)	**0.84 (0.74, 0.97)**
New South Wales	1.06 (0.84, 1.35)	0.83 (0.64, 1.07)	0.78 (0.60, 1.00)	0.96 (0.75, 1.22)	1.1 (0.87, 1.41)	**0.77 (0.59, 0.98)**
Victoria	0.97 (0.76, 1.24)	**0.76 (0.58, 0.99)**	0.78 (0.59, 1.02)	1.19 (0.92, 1.54)	0.98 (0.76, 1.26)	0.91 (0.69, 1.21)

Note: Q1: January – March; Q2: April – June; Q3: July – September; Q4: October – December. Deaths were assigned to a quarter based on the month of death; all other data in this report are based on reference year (see methods for details). Data for Q4 2020 are not presented following consultation with ABS on the completeness of these data. Values that are statistically significant (i.e., 95% confidence interval does not include 1) are bolded.

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2

Sociodemographic Characteristics of Drug-Induced Deaths



Sex

In 2020, drug-induced deaths were nearly twice as frequent among males than females (64% versus 36%), with 1,187 drug-induced deaths among males and 655 deaths among females. This profile has been consistent over the course of monitoring.

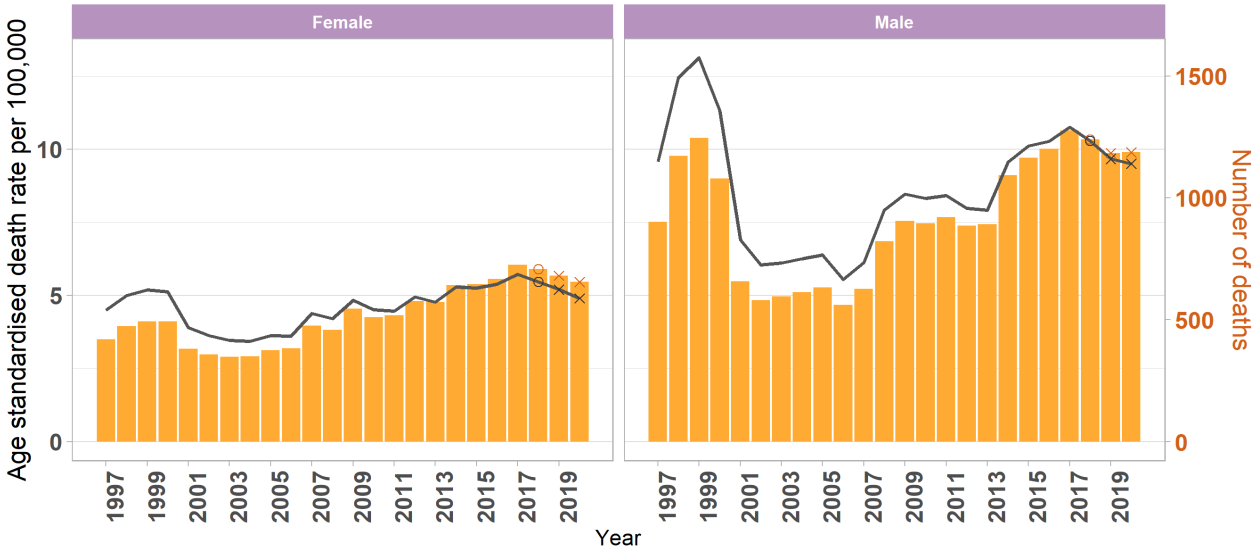
In terms of the trend over time, the rate of drug-induced deaths among males peaked in the late 1990s and then suddenly declined (13.1 to 6.0 deaths per 100,000 people from 1999 to 2002, respectively). Since then, the rate has gradually increased (10.8 deaths per 100,000 people in 2017).

In contrast, the rate of drug-induced deaths among females has remained relatively stable (5.2 versus 5.7 deaths per 100,000 people in 1999 and 2017, respectively) (Figure 2).

Although estimates for 2018-2020 are lower than for 2017 for both sexes, they are likely to increase with data revisions. Comparison of preliminary 2019 and 2020 estimates does not support a statistically significant change in rates for males (9.7 versus 9.5 deaths per 100,000 people, respectively; RR=0.98, [95%CI 0.91, 1.07]) or for females (5.2 versus 4.9 deaths per 100,000 people, respectively; RR=0.94 [95%CI 0.85, 1.05]; Table A1).

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Figure 2. Number and age-standardised rate per 100,000 people of drug-induced deaths for the Australian population, by sex, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.

Age

In 2020, the highest percentage of drug-induced deaths was among people aged 35-44 (25%, 466 deaths) and 45-54 (24%, 437 deaths) and the lowest percentage was among people aged 85 and over (2.3%, 42 deaths) and 75-84 (3.3%, 60 deaths).

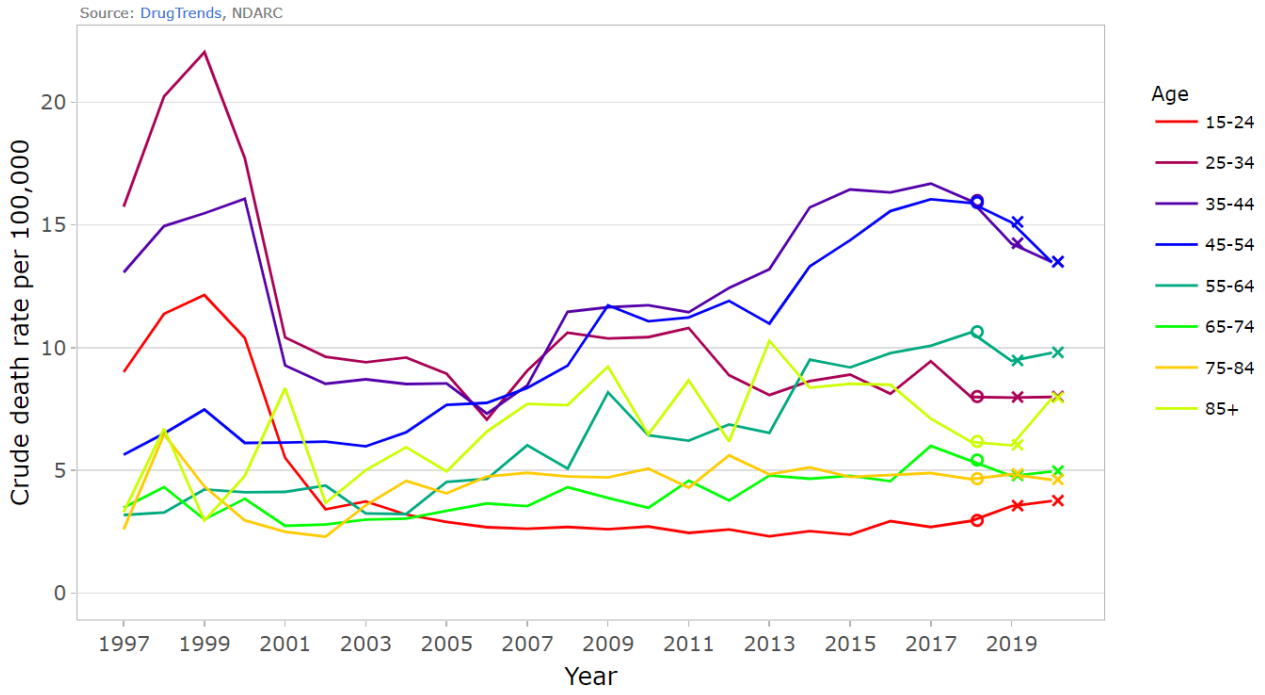
Over the years, the age distribution of deaths has changed. In the late 1990s and early 2000s, the younger age groups (i.e., 25-34 age group, followed by 35-44 and 15-24 age groups) comprised the greater percentage of deaths. The percentage of deaths in the 25-34 and 15-24 age groups has declined over time in favour of an increased percentage of deaths in the 45-54 and 55-64 age groups.

In terms of the trend over time, the rate of drug-induced deaths among the 25-34 and 15-24 age groups has declined. In contrast, the rate in the 45-54 age group has increased (5.6 to 16 deaths per 100,000 people from 1997 to 2017, respectively). Another large increase has been observed in the 55-64 age group (3.2 to 10.0 deaths per 100,000 people in 1997 and 2017, respectively) (Figure 3).

While subject to revision, estimates for 2018-2020 are generally similar to, or lower than, estimates for 2017 for all age groups, except for those aged 15-24 and 85 and over. Comparison of preliminary estimates for 2019 and 2020 shows no statistically significant change in any of the age groups (see Table A2 for rate ratios).

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Figure 3. Crude rate per 100,000 people of drug-induced deaths for the Australian population, by age group, 1997-2020.



Note:
Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here.
Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.

Sex and Age

In 2020, the highest percentage of drug-induced deaths among males were in the 35-44 (28%, 318 deaths) and 45-54 (25%, 292 deaths) age groups. The same age groups were dominant for drug-induced deaths among females (35-44 age group: 23%, 148 deaths; 45-54 age group: 22%, 145 deaths).

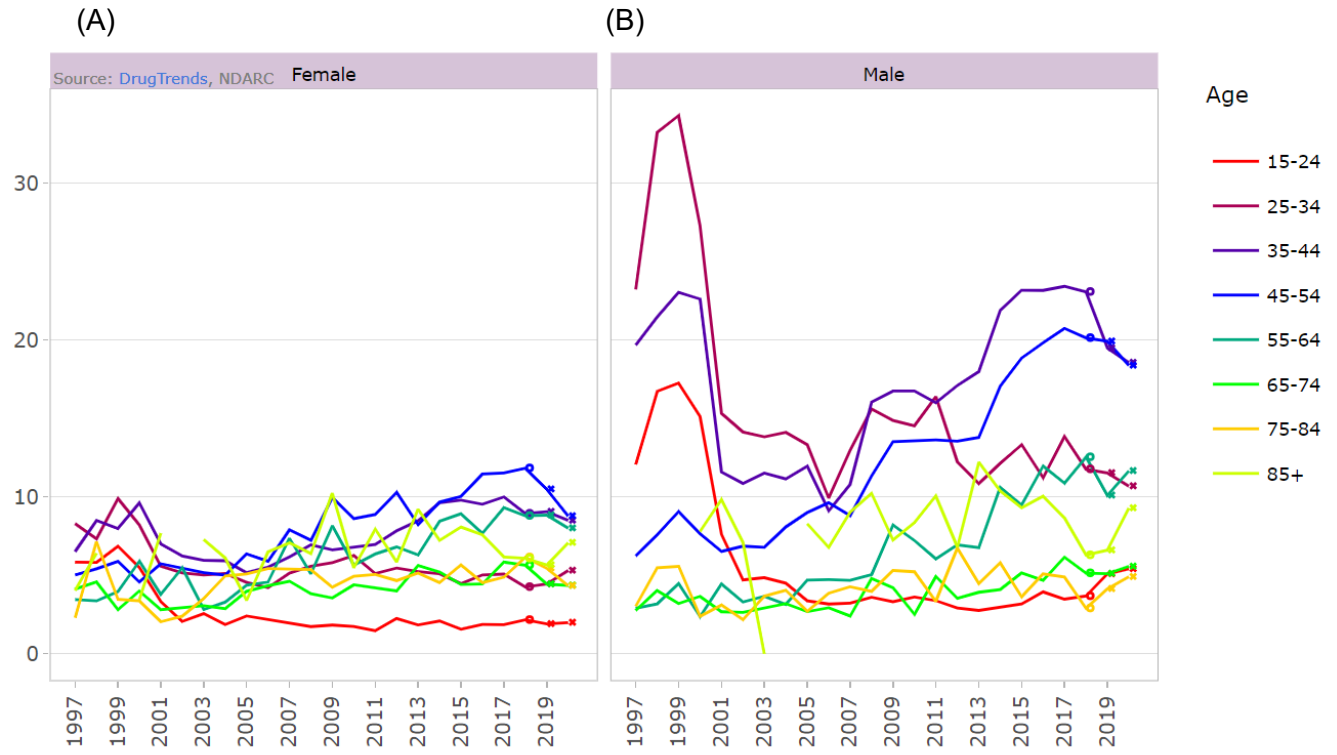
Over the years, the age profile of drug-induced deaths has changed. Specifically, there has been an increase in the percentage of deaths occurring in the 55-64 age group (from 2.5% and 6.4% in 1997 to 12% and 19% in 2017 for males and females respectively) and a decrease in the 15-24 age group (from 18% and 18% in 1997 to 4.9% and 4.8% in 2017 for males and females, respectively)

In terms of the trend over time, the rate of drug-induced deaths among the 15-24 and 25-34 age groups has stayed relatively stable for both males and females since the peak and decline in rate in the late 1990s and early 2000s. In contrast, the rate of drug-induced deaths in the 35-44, 45-54 and 55-64 age groups have increased two- to three-fold for both sexes from 2003 to 2017 (Figure 4).

Generally, preliminary estimates for 2018-2020 are similar to, or lower than, the estimate for 2017 for males and females for those age groups which account for the greatest proportion of deaths (i.e., those aged 35-44 or 45-54). Comparison of preliminary estimates for 2019 and 2020 shows no statistically significant change in any of the age groups for males or females (see Table A2 for rate ratios).

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Figure 4. Crude rate per 100,000 people of drug-induced deaths for the Australian population of females (A) and males (B), by age group, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.

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Remoteness Area of Usual Residence

2020

73%	17%	7.0%	1.5%
Major Cities	Inner Regional	Outer Regional	Remote/ Very Remote

Remoteness area of usual residence (hereafter 'remoteness area', comprising major city, inner regional, outer regional, remote and very remote areas) has been identified for decedents since 2009. Remoteness area was identified in 99% of drug-induced deaths in 2020. Where remoteness area is disaggregated by another variable (e.g., sex), data are presented for major city areas versus regional and remote areas combined (hereafter 'regional and remote areas').

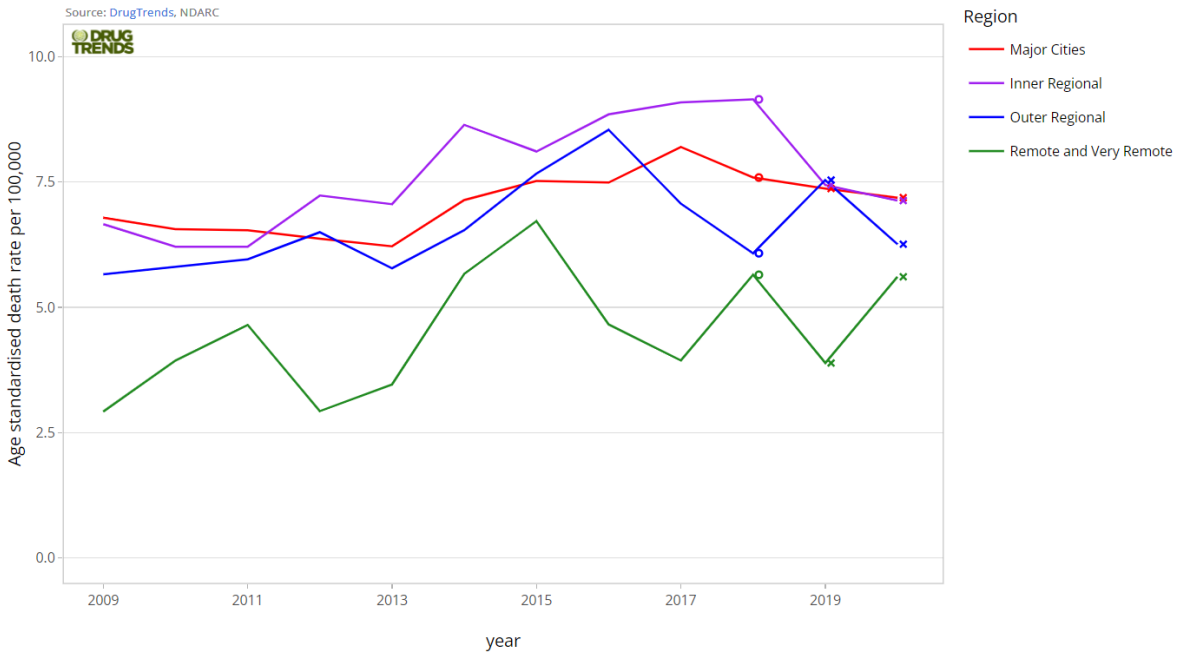
The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (73%, 1,348 deaths), followed by inner regional (17%, 311 deaths), outer regional (7.0%, 128 deaths), and remote/very remote (1.5%, 28 deaths) areas.

This profile of deaths by remoteness area has been relatively consistent over time, with a greater percentage of deaths recorded as occurring among people from major city areas.

Focusing on the trend over time, the rate of drug-induced deaths among people from major city areas increased from 2013 to 2017 following a period of stability (Figure 5). Rates in regional and remote areas have been more variable over time. Estimates for 2018 onwards are subject to revision but comparison between 2019 and 2020 does not suggest any statistically significant change in rates for each remoteness area (see Table A4 for rate ratios).

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Figure 5. Age-standardised rate per 100,000 people of drug-induced deaths for the Australian population, by remoteness area, 2009-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.

Remoteness Area and Sex

In 2020, two-in-three (65%, 877 deaths) drug-induced deaths recorded among people from major city areas occurred among males. A similar distribution was recorded for deaths among people from inner regional areas (64%, 199 deaths), decreasing slightly for outer regional areas (60%, 77 deaths) and remote/very remote areas (59%, 16 deaths). This profile of deaths by sex within each remoteness area has been relatively consistent over time.

The increase in rate of drug-induced deaths among males in major city areas (7.7 to 11 deaths per 100,000 people in 2013 to 2017, respectively) and in regional and remote areas (7.4 to 11 deaths per 100,000 people in 2009 to 2017, respectively) has been broadly similar.

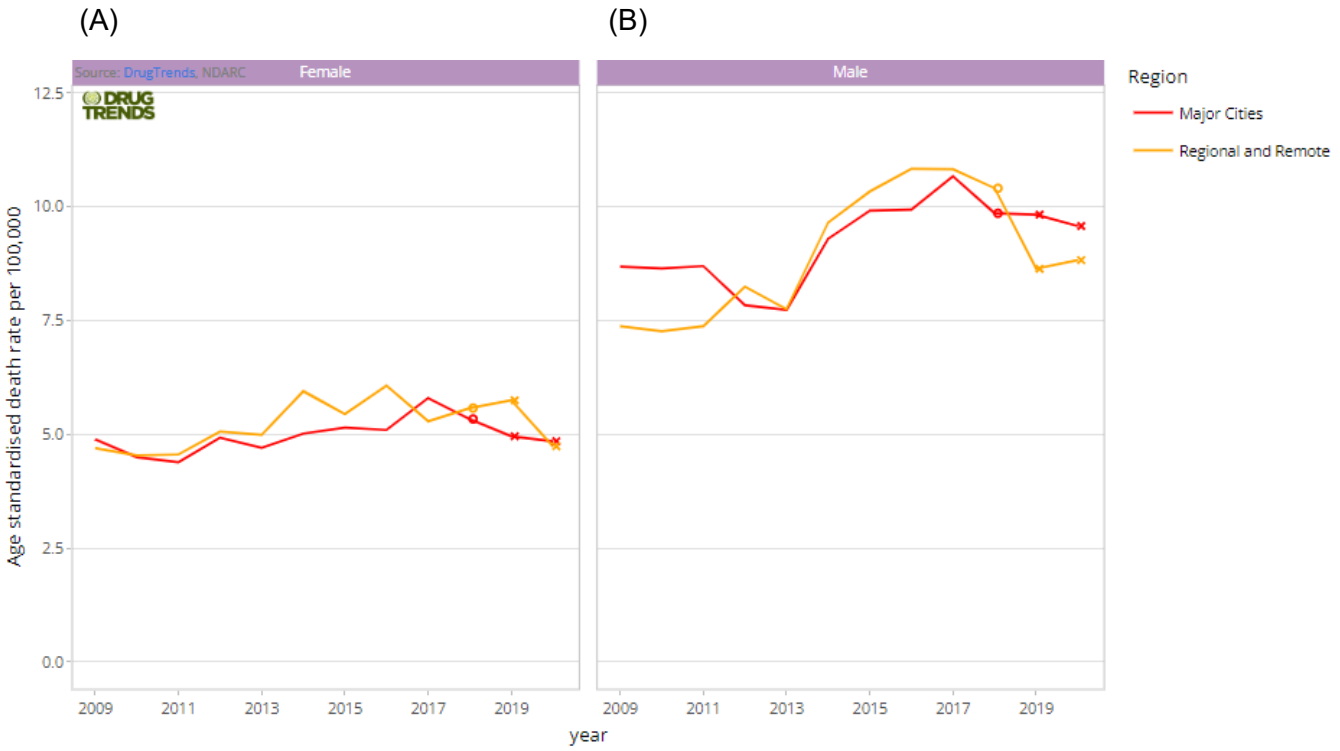
The rate of drug-induced deaths for females increased in major city areas (4.4 to 5.8 deaths per 100,000 people from 2011 to 2017, respectively) but was variable in regional and remote areas (Figure 6).

The rate of drug-induced deaths among males from major city areas and from regional and remote areas were stable or lower in 2018-2020 as compared to 2017. Analyses do not support a statistically significant change in the rate from 2020 to 2019 (major city areas: RR=0.97 [95%CI 0.89, 1.07]; regional and remote areas: RR=1.02 [95%CI 0.86, 1.21]).

Similarly, there was no indication of any significant change in rate from 2019 to 2020 for females in either remoteness area (major city areas: RR=0.98 [95%CI 0.86, 1.11]; regional and remote areas: RR=0.82, [95%CI 0.67, 1.02]; see Table A4 for rate ratios).

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Figure 6. Age-standardised rate per 100,000 people of drug-induced deaths for (A) females and (B) males, by remoteness area, Australia 2009-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Numbers in remote and very remote area were too small to be shown separately hence the regional, remote and very remote areas were collapsed into one category. Rates for small numbers (<=5 deaths) are suppressed.

Remoteness Area and Age

In 2020, the highest proportion of drug-induced deaths reported for those from major city areas occurred among people aged 35-44 (26%, 352 deaths), 45-54 (23%, 308 deaths) and 25-35 (17%, 231 deaths). In regional and remote areas, the highest proportion of deaths occurred among people aged 45-54 (27%, 124 deaths), 35-44 (22%, 102 deaths) and 55-64 (19%, 87 deaths).

The profile of deaths by age and remoteness has been relatively consistent over time.

The rate of drug-induced deaths has been consistently highest in the 35-44 and 45-54 age groups in both major city areas and regional and remote areas, with a noticeable increase in the rates between 2009 and 2017. The 15-24 age group has generally had the lowest rate of drug-induced deaths in both major city areas and regional and remote areas, and this remained relatively stable over the course of monitoring until 2017 (Figure 7).

Preliminary estimates of rates for 2018-2020 are variable compared to 2017. Comparison of the estimates for 2019 and 2020 did not show a statistically significant change for any remoteness area (see Table A6 for rate ratios).

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Figure 7. Rate per 100,000 people of drug-induced deaths in the (A) major city areas and (B) regional and remote areas, by age, Australia 2009-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.
Numbers in remote and very remote area were too small to be shown separately hence the regional, remote and very remote areas were collapsed into one category.

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3

Underlying Cause and Intent of Drug-Induced Deaths

2020

1,793 drug overdose deaths

69% Unintentional

24% Intentional

Underlying Cause of Death

In 2020, drug overdose ('poisoning') deaths accounted for 97% of all drug-induced deaths (1,793 deaths). This has been consistent over the course of monitoring (96-99% of all drug-induced deaths each year). The remaining deaths each year comprise those attributed to: i) mental and behavioural disorders due to psychoactive substance use and ii) drug-induced diseases (see the methods document for more information).

Intent of Drug Overdose Deaths

For drug-induced deaths, only those due to overdose are assigned an intent. In 2020, 69% of drug overdose deaths were coded as unintentional and 24% as intentional (1,233 and 428 deaths, respectively). Drug overdose deaths of undetermined intent comprised the remaining 7% (132 deaths).

The majority of drug overdose deaths have been coded as unintentional over the course of monitoring. This peaked in the late 1990s and early 2000s, with 80% of all drug overdose deaths in 2000 coded as unintentional and 18% as intentional.

Studying the trend over time, the rate of unintentional drug overdose deaths nearly doubled from 2006 to 2017 (3.0 to 5.8 deaths per 100,000 people, respectively) after an earlier peak and decline in the late 1990s and early 2000s.

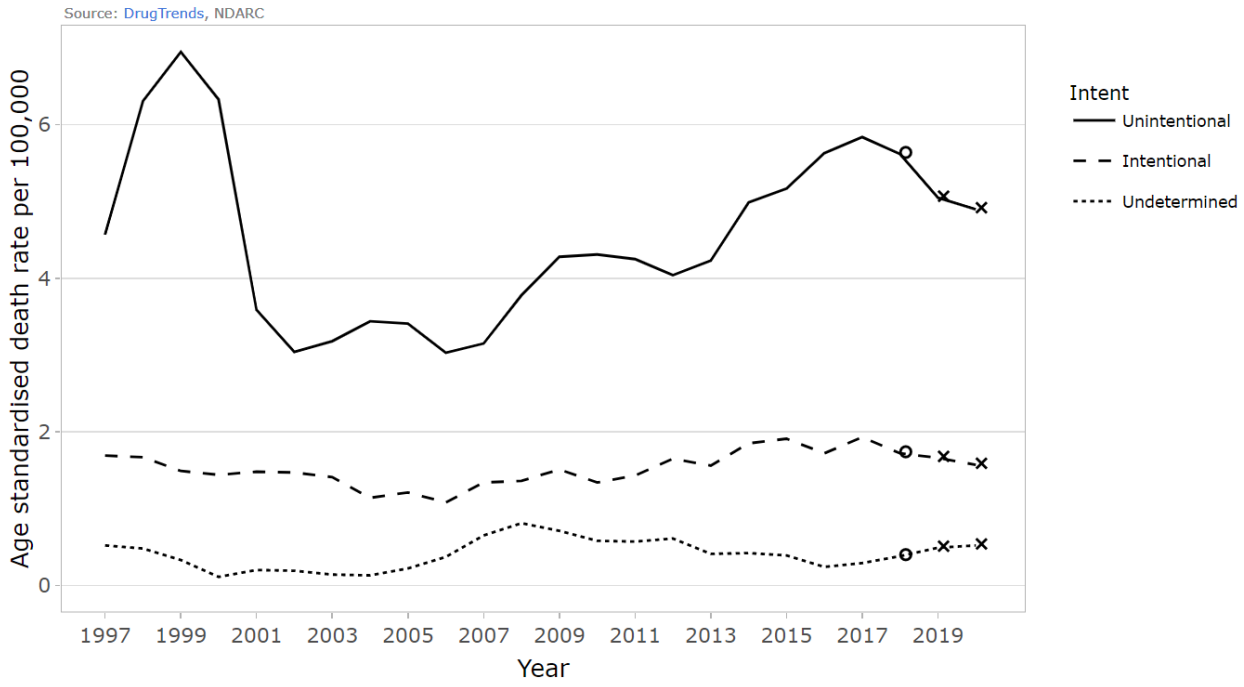
In contrast, the rate of intentional drug overdose deaths remained relatively stable in the late 1990s and early 2000s, with a subsequent gradual increase from 2006 to 2017 (1.1 and 1.9 deaths per 100,000 people, respectively) (Figure 8).

The 2018-2020 annual estimates were lower than those in 2017 for both unintentional and intentional deaths. Comparison of the preliminary estimates does not suggest a statistically significant change in

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rate in 2020 as compared to 2019 (unintentional deaths: RR=0.97 [95%CI 0.90, 1.05]; intentional deaths: RR=0.95 [95%CI 0.83, 1.09]; Table A7).

Figure 8. Age-standardised rate per 100,000 people of drug overdose deaths for the Australian population, by intent, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.

Sex

In 2020, 70% (857 deaths) of unintentional drug overdose deaths occurred among males. In contrast, half (52%, 222 deaths) of intentional drug overdose deaths occurred among males. This distribution has been relatively consistent over time.

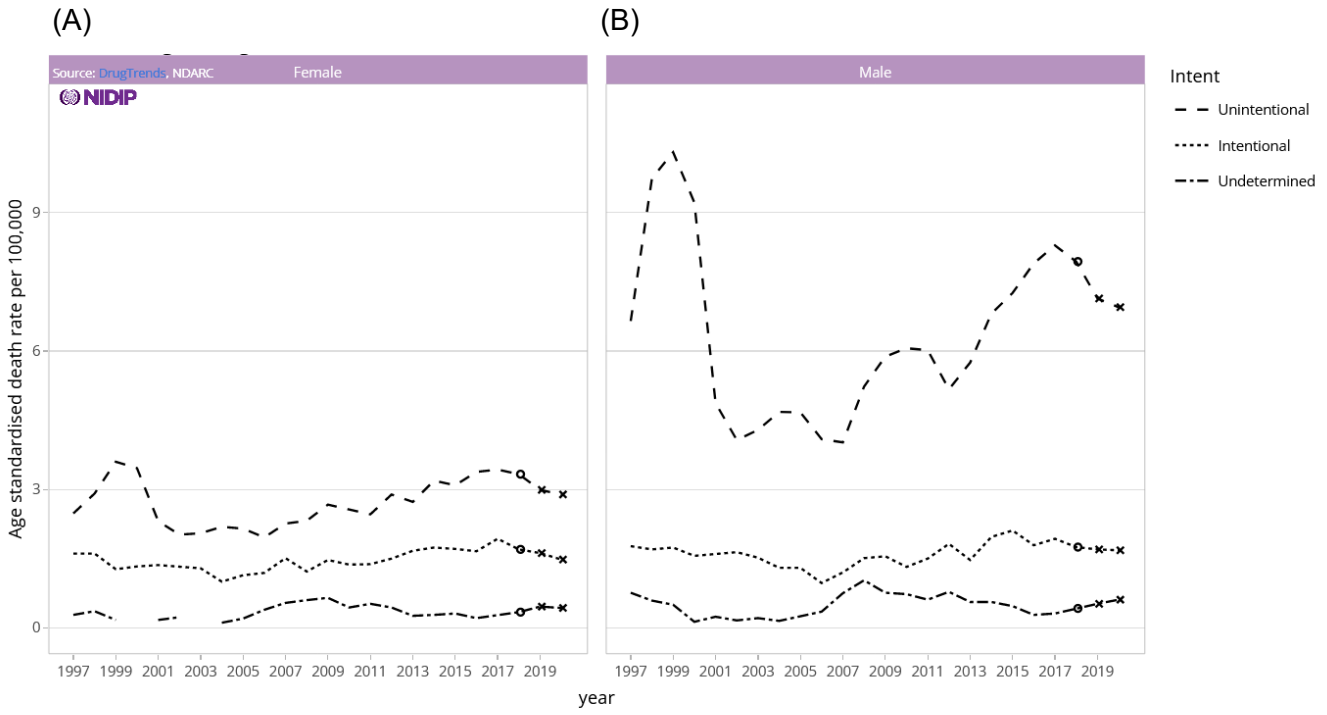
The rate of unintentional drug overdose deaths has been over two times higher in males compared to females over the course of monitoring and has increased in recent years (8.3 and 3.4 deaths per 100,000 people for males and females, respectively, in 2017) (Figure 9). The rates of intentional drug overdose deaths were similar among males and females, ranging between 0.97 and 2.11 deaths per 100,000 people for males and 1.0 to 1.9 deaths per 100,000 people for females over the course of monitoring.

The 2018-2020 estimates in males were lower than the rates in 2017 for both unintentional and intentional deaths. Comparison of the preliminary estimates do not suggest a statistically significant change in the rates in 2020 compared to 2019 (RR=0.97 [95%CI 0.88, 1.07] and RR=0.99 [95%CI 0.82, 1.20], respectively).

Similarly, the 2018-2020 estimated rates were lower than the rate observed in 2017 for females. Comparison of the preliminary rates for females from 2019 to 2020 did not support a statistically significant change (unintentional deaths: RR=0.97 [95%CI 0.84, 1.12]; intentional deaths: RR=0.75 [95%CI 0.82, 1.11]; Table A7).

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Figure 9. Age-standardised rate per 100,000 people of drug overdose deaths for (A) females and (B) males, by intent, Australia 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

Age

In 2020, the highest proportion of unintentional drug overdose deaths occurred in the 35-44 (27%, 339 deaths) and 45-54 (27%, 329 deaths) age groups. In contrast, the most common age groups accounting for intentional drug overdose deaths were the 55-64 (19%, 80 deaths), 35-44 (18%, 77 deaths) and 45-54 (18%, 76 deaths) age groups.

Over the years, the age profile of unintentional drug overdose deaths has shifted from a younger (e.g., 25-34) to a middle-aged (e.g., 35-54) demographic, while intentional drug overdose deaths have generally been more common among older age groups.

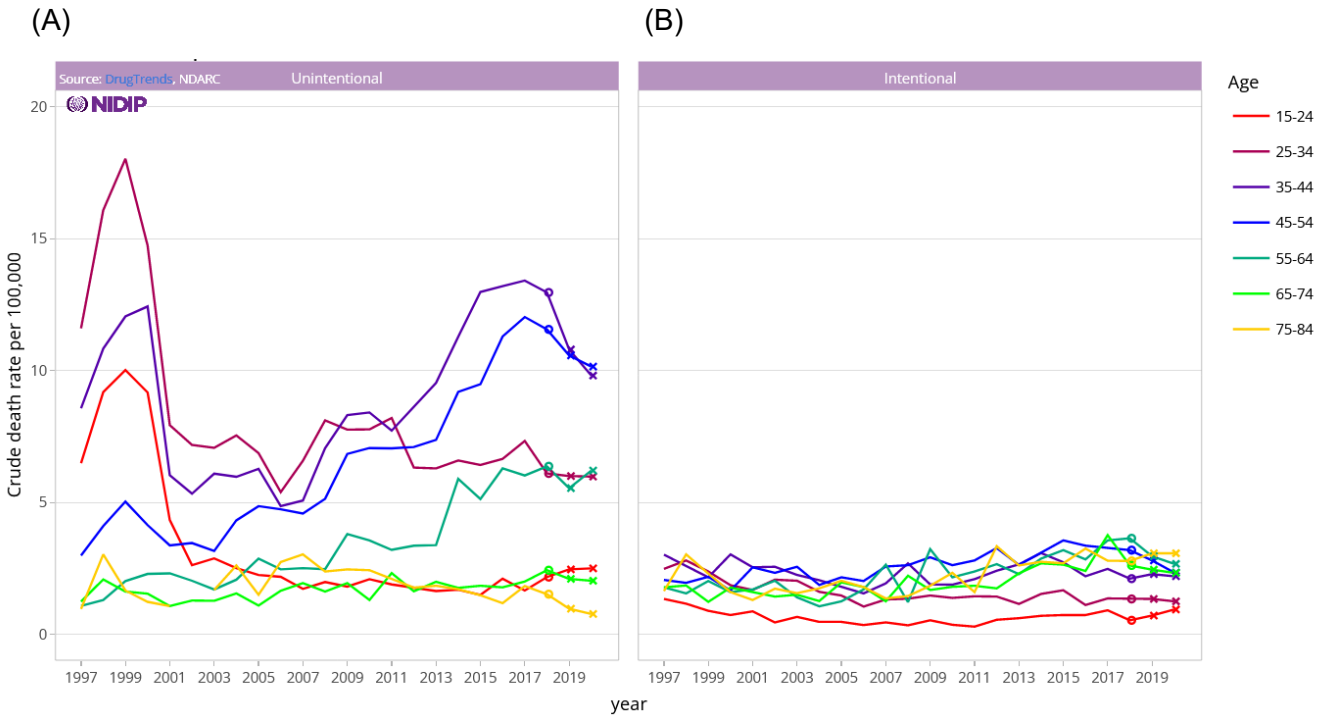
In terms of the trend over time, the overall peak and decline in rate of drug-induced deaths in the late 1990s and early 2000s was particularly evident in the 25-34, 35-44 and 15-24 age groups. Since then, rates have stayed lower for the 15-24 age group, as well as older age groups (e.g., 65-74, 75-84 and 85 and over). In contrast, an increase in the rate of drug-induced deaths has been observed from the early 2000s to 2017 for the 35-44, 45-54 and 55-64 age groups. The increase is particularly striking for the 45-54 age group, which increased nearly 4-fold from 3.2 in 2003 to 12 in 2017 and in the 55-64 age group, which increased 3.5-fold from 1.7 in 2003 to 6.0 in 2017.

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A similar pattern has been observed for intentional drug overdose deaths in terms of a general decline in the rate of deaths among the 15-24 and 25-34 age groups. The rates of intentional deaths have fluctuated over time for older age groups but are suggestive of an increase over time until 2017 for the 65-74, 75-84 and 85 and over age groups (3.8, 3.6, 4.1 deaths per 100,000 people, respectively, in 2017) (Figure 10).

Comparison of preliminary estimates did not suggest a statistically significant change in the rate of unintentional and intentional drug-induced deaths for any of the age groups from 2019 to 2020 (see Table A8 for rate ratios).

Figure 10. Crude rate per 100,000 people of drug-induced deaths for (A) unintentional and (B) intentional, by age, Australia 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here.
Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.
Numbers in remote and very remote area were too small to be shown separately hence the regional, remote and very remote areas were collapsed into one category.

Remoteness Area of Usual Residence

In 2020, major city area was recorded as the place of residence in three-in-four (74%, 912 deaths) unintentional drug overdose deaths. Inner regional areas accounted for 16% (193 deaths), outer regional areas for 6.6% (81 deaths) and remote and very remote areas for 1.9% (24 deaths) of these deaths. Similar findings were observed for intentional drug overdose deaths (70%, 299 deaths in major city areas; 20%, 127 deaths in inner regional areas; 8.8%, 86 deaths in outer regional areas).

The rate of unintentional overdose deaths was comparable in major city areas to the rate in regional and remote areas in 2020. Both area types demonstrated an increase in rate over time (4.3 and 3.9 deaths per 100,000 people in 2009 to 5.8 and 5.7 deaths per 100,000 people in 2017, respectively).

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The rate of intentional drug overdose deaths was also similar in major city and regional and remote areas in 2020, with an increase over the years (1.6 and 1.1 in 2009 to 1.9 and 1.9 deaths per 100,000 people in 2017 for major city areas and regional and remote areas, respectively).

The preliminary rates for intentional and unintentional deaths for major city areas and regional and remote areas for 2018-2020 were lower than the 2017 estimates. The comparison of the preliminary estimate rate of unintentional and intentional overdose deaths within each remoteness grouping did not indicate any statistically significant change in rates from 2019 to 2020 (see Table A9 for rate ratios).

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4

Psychosocial Risk Factors and Place of Occurrence in Drug-Induced Deaths

Psychosocial Risk Factors

2020

13%	Personal history of self-harm
4.7%	Disappearance and death of a person in the primary support group
3.7%	Disruption of family by separation and divorce
3.7%	Problems in relationship with spouse or partner

Psychosocial factors such as employment, housing, social and family support are not collected systematically on death certificates in Australia but might be important contributors to health outcomes and mortality patterns (CSDH 2008, Psychosocial risk factors for suicide). As such, psychosocial risk factors identified in coronial, police and pathology reports on coroner-certified drug-induced deaths were coded and added to the 2017, 2018, 2019 and 2020 COD URF datasets by ABS. Interpretation of these data should be treated with caution (see ABS notes and our methods document for further discussion of caveats to these data). In particular, it should be noted that drug-induced deaths are likely to have various risk factors for mortality (generally, no one risk factor will ultimately cause death) and that risk factors could only be identified based on information available in the aforementioned reports.

Common Psychosocial Risk Factors

In 2020, almost two-in-five (37%, 676 deaths) drug-induced deaths had at least one psychosocial risk factor coded (40%, 801 deaths in 2017, 39%, 769 deaths in 2018 and 33%, 615 deaths in 2019).

The most frequently identified psychosocial risk factor in deaths occurring in 2020 was personal history of self-harm (13%) (Figure 11). Other frequently identified psychosocial factors were disappearance and death of a person in the primary support group (4.7%), disruption of family by separation and divorce (3.7%), problems in relationship with spouse or partner (3.7%), limitation of activities due to disability (2.8%), problems related to release from prison (2.7%) and problems related to other legal circumstances (2.2%).

These findings are relatively consistent with those observed from 2017 through to 2019.

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Sex

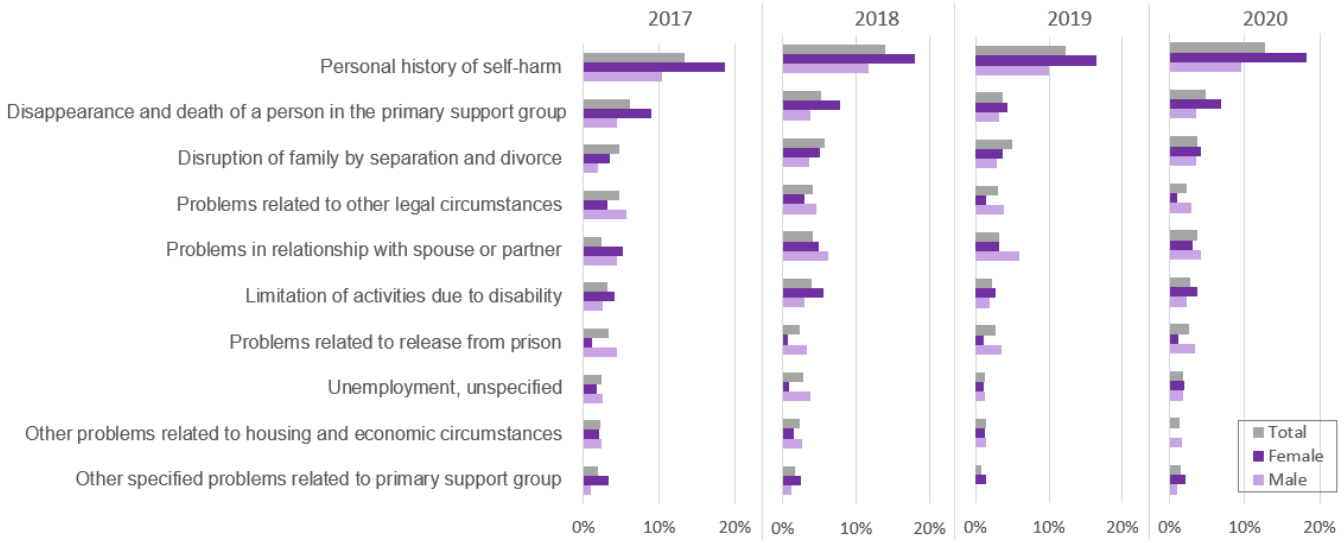
In 2020, psychosocial risk factors were more commonly identified in drug-induced deaths occurring among females than males (41%, 266 deaths versus 35%, 410 deaths).

Whilst personal history of self-harm was more commonly identified among females than among males, it was the leading risk factor identified for both sexes (18% versus 9.6%) (Figure 11).

Disappearance and death of a person in the primary support group was the second most common risk factor identified for female decedents (7%). In contrast, the second most common risk factor for male decedents was problems in relationship with spouse or partner (4.1%).

This pattern of risk factors by sex has been consistent historically since monitoring of these characteristics began in 2017.

Figure 11. Ten most frequently identified psychosocial risk factors in drug-induced deaths, by sex, Australia, 2017-2020.



Note: The percentage axis has been rescaled to improve presentation of the results.
Causes of death data for 2018, 2019 and 2020 are not final and subject to further revision
Percentages for small numbers (<=5 deaths) are suppressed.

Age

In 2020, the percentage of deaths for which at least one psychosocial risk factor was identified ranged from 33% (97 deaths) in the 55-65 age group to 45% 27 deaths) in the 75-84 age group (Table 4).

Across the majority of age groups (i.e., 15-24, 25-34, 35-44, 45-54, 55-64 and 65-74 age groups), personal history of self-harm was the most common risk factor identified. The exceptions were the: i) 75-84 age group, where limitation of activities due to disability was identified as the most frequent psychoactive risk factor (17%) and ii) 85 and over age group, where disappearance and death of a person in the primary support group was the most frequent psychoactive risk factor (17%).

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Table 4. Percentage of drug-induced deaths with one or more psychosocial risk factor by age group, Australia, 2017-2020.

Age group	Percentage			
	2017	2018	2019	2020
15-24	45	41	37	41
25-34	42	47	34	36
35-44	39	35	35	36
45-54	35	37	31	35
55-64	38	39	31	33
65-74	53	47	30	43
75-84	48	58	35	45
85+	49	35	32	38

Intent of Drug Overdose Deaths

Almost two-fifths (38%, 676 deaths) of drug overdose deaths had a psychosocial risk factor coded in 2020. Psychosocial risk factors were more commonly identified in intentional than unintentional drug overdose deaths (68%, 293 deaths versus 27%, 332 deaths in 2020).

The most common risk factor in both intentional and unintentional overdose deaths in 2020 was personal history of self-harm (33% and 5.8%, respectively) (Figure 12).

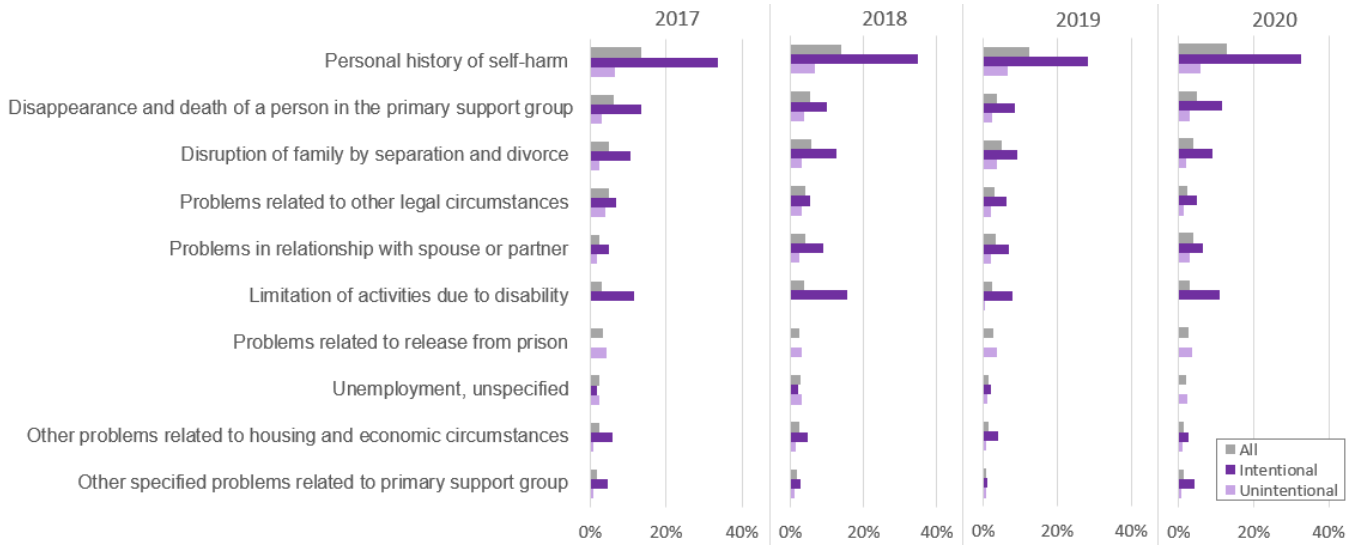
Among intentional deaths, the next most common risk factors comprised: disappearance and death of a person in the primary support group (12% versus 2.8% in unintentional deaths) and limitation of activities due to disability (11% versus 0.2% in unintentional deaths).

The next most common risk factors identified for unintentional deaths comprised problems related to release from prison (3.5% versus 0.7% of intentional deaths) and problems in relationship with spouse or partner (3.0% versus 6.3% in intentional deaths).

The most common risk factors for intentional and unintentional drug overdose deaths have been relatively consistent since monitoring of psychosocial risk factors began in 2017.

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Figure 12. Ten most frequently identified psychosocial risk factors in drug-induced deaths, by intent, Australia, 2017-2020.



Note: The percentage axis has been rescaled to improve presentation of the results.
Causes of death data for 2018, 2019 and 2020 are not final and subject to further revision.
Percentages for small numbers (less than or equal to 5 deaths) are suppressed.

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Place of Occurrence

2020

78% Home
9.9% Unspecified place
4.9% Trade and services
3.5% Other specified places

Unintentional overdose
80%
at home

Intentional overdose
82%
at home

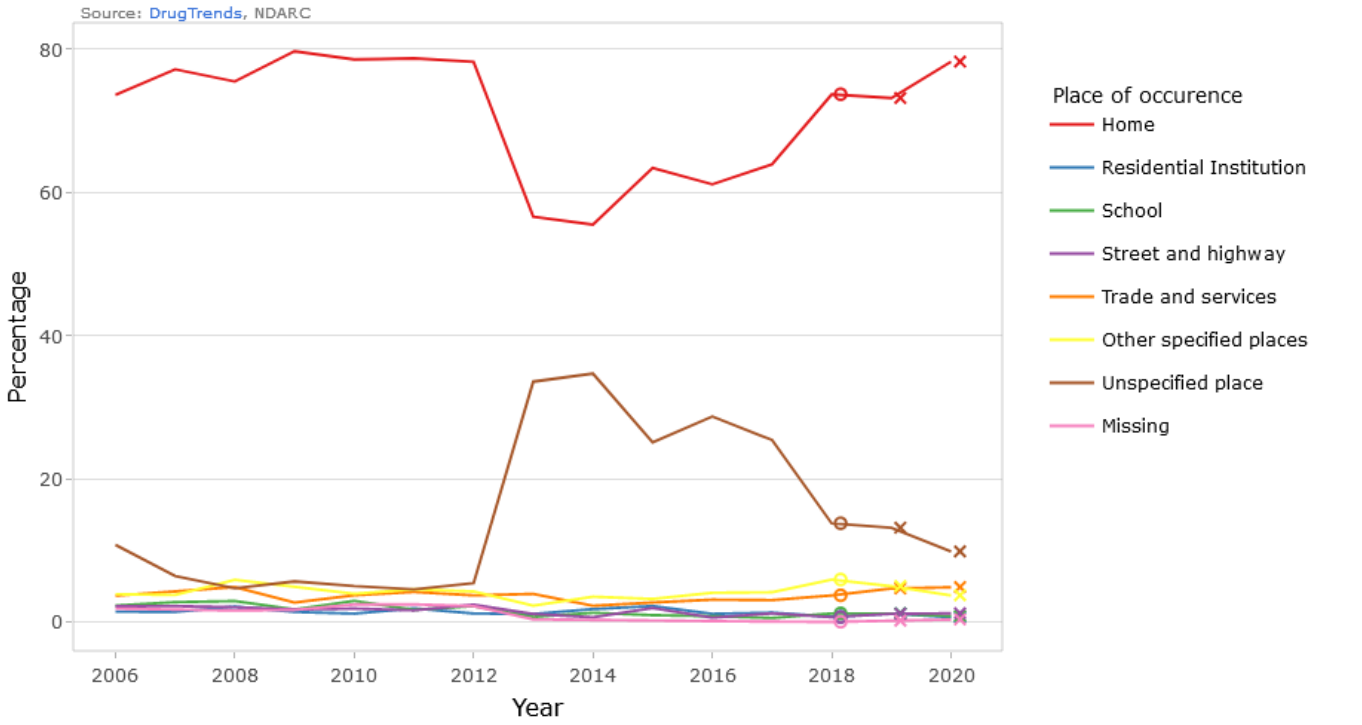
Place of occurrence refers to a physical location where the event leading to death (e.g., injury, poisoning or adverse effect), occurred. This information has been coded for all deaths in Australia from 2006 onwards. See the methods for details on change in coding practices.

For the majority (78%, 1,442 deaths) of drug-induced deaths in 2020, the location of the incident underlying the drug-induced death was coded as home. Trade and services locations (e.g., gas stations, hotels, shopping malls, warehouses, train stations or bus stops) were identified for 4.9% (90 deaths); street and highway for 1.2% (23 deaths), school, other institution and public administrative area (e.g., hospital) for 0.87% (16 deaths); and residential institution in 0.71% of deaths (13 deaths). Other specified places (e.g., sports and athletics area, industrial and construction area, railway line and other public places) were identified in 3.7% of deaths (69 deaths). The place of occurrence could not be specified in 9.9% of drug-induced deaths (182 deaths).

The majority of drug-induced deaths have occurred at home over the course of monitoring (Figure 13). All other places of occurrence have consistently comprised less than 5% of cases each year. The exception is the percentage of deaths where place of occurrence could not be specified, which has been elevated from 2013, and likely reflects a change in coding practice, reinforcing the need for caution when interpreting these data.

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Figure 13. Most frequently identified places of occurence in drug-induced deaths, Australia, 2006-2020.



Note: Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision.
For data from 2006 to 2012, place of occurrence was derived from the 4th digit of the ICD-10 code assigned to deaths due to external causes, for matched coroner records. For 2013 data onwards, place of occurrence was coded directly from comments in the reports relating to the coroners' investigation.

Intent of Drug Overdose Deaths

In 2020, 80% (989 deaths) of unintentional overdose deaths and 82% (351 deaths) of intentional overdose deaths occurred at home. Since monitoring of this information began in 2006, the proportion of unintentional drug overdose deaths where the incident leading to death occurred at home has varied between 55% and 81%. A broadly similar range is evident for intentional deaths (between 59% and 87% per year).

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5

Drug Involvement in Drug Overdose Deaths

2020

Rate of drug overdose deaths per 100,000 people

4.3	3.2	2.1	0.44	0.35
Opioids	Benzodiazepines	Amphetamines	Cannabinoids	Cocaine

The findings in this chapter and in Chapters 5 and 7 are concentrated on drug overdose deaths; these deaths comprise 96-99% of all drug-induced deaths each year. The reason we focus on these cases is that if a specific drug is identified in toxicology reports as being present in the person's system and deemed to be contributory to that death then this case will be identified as drug overdose death.

Drug types are not mutually exclusive; there may be multiple drugs that contribute to a drug-induced death. Therefore, the individual numbers cannot be used to calculate a total.

Drug Involvement

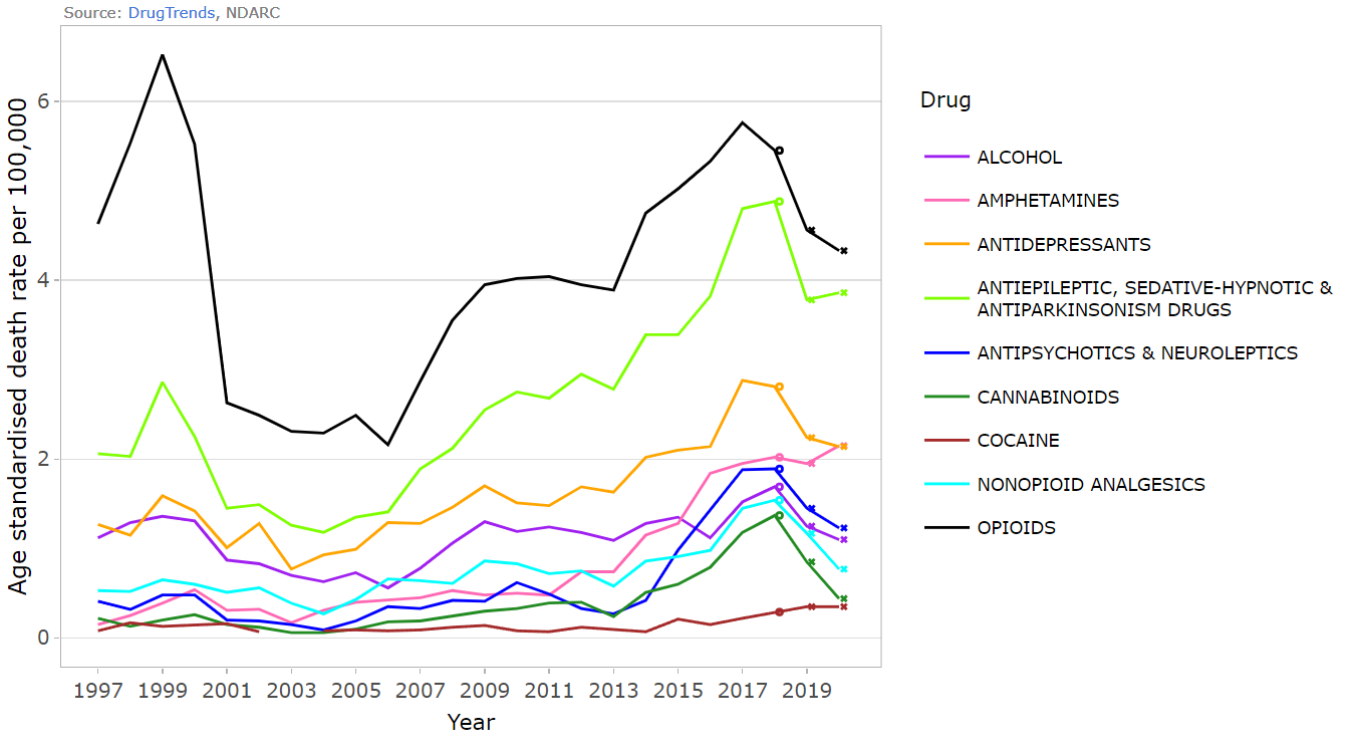
In 2020 in Australia, the most common drug type involved in drug overdose deaths was opioids (61%, 1,091 deaths, 4.3 deaths per 100,000 people) (Figure 14). This was followed by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (55%, 986 deaths, 3.9 deaths per 100,00 people), which predominantly comprised benzodiazepines (46%, 817 deaths, 3.2 deaths per 100,00 people; see **Panel C** for a discussion on drug overdose deaths involving benzodiazepines).

Other drug types involved in drug overdose deaths studied in this report comprise:

- Amphetamines (29%, 524 deaths, 2.1 deaths per 100,000 people);
- Antidepressants (31%, 551 deaths, 2.1 deaths per 100,000 people);
- Antipsychotics and neuroleptics (17%, 310 deaths, 1.2 deaths per 100,000 people);
- Alcohol (16%, 280 deaths, 1.1 deaths per 100,000 people);
- Non-opioid analgesics, antipyretics and antirheumatics (11%, 204 deaths, 0.77 deaths per 100,000 people);
- Cannabinoids (6.1%, 109 deaths, 0.44 deaths per 100,000 people); and
- Cocaine (4.8%, 86 deaths, 0.35 deaths per 100,000 people).

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Figure 14. Age-standardised rate per 100,000 people of drug overdose deaths for the Australian population, by drug class, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

The rates of drug overdose deaths for all drug types have increased since the mid-to-late 2000s to 2017. Indeed, nearly all drug classes show a peak in the rate of drug overdose deaths in 2017 (i.e., the most recent year of finalised data); the exception is the rate of drug overdose deaths involving opioids in 2017, which is only exceeded by the rate observed in 1999.

The rates of drug overdose deaths by drug involvement in 2018 were generally stable as compared to 2017, and declining thereafter, although this may change with revision to these estimates. Comparison between 2019 and 2020 preliminary estimates showed a statistically significant decline in the rates of drug overdose deaths involving:

- Antipsychotics and neuroleptics (1.4 versus 1.2 deaths per 100,000 people, respectively; RR=0.84 [95%CI 0.72, 0.98]);
- Cannabinoids (0.85 versus 0.44 deaths per 100,000 people, respectively; RR=0.52 [0.41, 0.66]); and
- Non-opioid analgesics (1.2 versus 0.77 deaths per 100,000 people, respectively; RR=0.65 [95%CI 0.55, 0.78]).

For other drug types there was no statistically significant difference identified in the preliminary rates for 2019 and 2020 (see Table A10).

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Panel C. Drug overdose deaths involving benzodiazepines

'Antiepileptic, sedative-hypnotic, and anti-parkinsonism drugs' has been the second most common drug class involved in drug overdose deaths over the course of monitoring. These cases predominantly relate to use of benzodiazepines (83% in 2020).

The rate of drug overdose deaths involving benzodiazepines has increased four-fold from 1.0 to 4.4 deaths per 100,000 people from 2004 to 2018, respectively. These deaths commonly involve other drugs. Indeed, 96% of drug overdose deaths involving benzodiazepines in 2020 also had other drugs identified.

More recently, there has been concern about circulation of counterfeit illicitly manufactured benzodiazepine products, often containing novel benzodiazepines. These drugs can be of higher potency and have more unpredictable and harmful effects as compared to pharmaceutically manufactured benzodiazepines. Health agencies in New South Wales and in Victoria have released urgent public health notices advising of circulation of these substances.

Some countries have seen deaths involving these novel benzodiazepines drive significant increases in the overall rate of drug overdose mortality. The data used for the current report do not provide any further detail on the specific type of benzodiazepine consumed. However, we have elsewhere published findings from a study of all deaths in Australia in which novel benzodiazepines were present in blood toxicology, retrieved from the National Coronial Information System. This research identified 40 cases of death involving novel benzodiazepines from 2015-2021 in Australia, predominantly comprising young males who had died from unintentional overdose following consumption of the novel benzodiazepine etizolam with other drugs.

While more cases may be identified as coronial cases are closed, these findings do not suggest that novel benzodiazepines are driving current rates of drug overdose deaths involving benzodiazepines in Australia (preliminary estimate of 817 drug overdose deaths involving any benzodiazepine in 2020). However, these findings reinforce the importance of continued surveillance of availability, extra-medical use and harms associated with benzodiazepines, and particularly the novel benzodiazepines. Inclusion of novel benzodiazepines in standard toxicology screening of forensic and clinical cases will be critical to elucidate the health burden associated with these drugs. Education about the potential risks of consuming illicitly obtained benzodiazepines is also necessary, particularly given circulation of products resembling pharmaceutically manufactured products which people may expect to have a mild effect but have caused serious harms at a low dose.

Sex

In 2020, opioids was the most commonly identified drug type in drug overdose deaths among males (6.0 deaths per 100,000 people), followed by antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (4.8 deaths per 100,000 people).

The reverse was observed for drug overdose deaths among females, with antiepileptic, sedative-hypnotic and anti-parkinsonism drugs the most commonly identified drug type in drug overdose deaths (2.9 deaths per 100,000 people), followed by opioids (2.7 deaths per 100,000 people).

Age

In 2020, opioids was the drug type with highest rate of death in most age groups except the youngest (i.e., 15-24) and the oldest (i.e., 75-84 and 85 and over) age groups, where the rate was higher for antiepileptic, sedative-hypnotic and anti-parkinsonism drugs.

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Intent of Drug Overdose Deaths

The pattern of involvement of drugs in the overdose deaths was largely consistent when examining unintentional drug overdose deaths in 2020, apart from amphetamines, which had a higher rate than antidepressants (1.8 versus 1.3 per 100,000 people).

A different pattern was observed for intentional drug overdose deaths. The most common drug class involved in intentional overdose deaths in 2020 was antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (244 deaths, 0.90 deaths per 100,00 people), followed by antidepressants (178 deaths, 0.67 deaths per 100,00 people) and opioids (154 deaths, 0.58 deaths per 100,00 people).

When looking at the trend over time, the rates of unintentional drug overdose deaths involving nearly all drug types have been increasing since the mid-to-late 2000s to 2017. Estimates for 2018 to 2020 typically are stable or declining as compared to 2017. Comparison of preliminary 2019 and 2020 estimates showed only a statistically significant decrease in the rate of unintentional drug overdose deaths involving cannabinoids (0.72 versus 0.38 deaths per 100,000 people, respectively; RR=0.53 [95%CI 0.42, 0.69]) and non-opioid analgesics (0.66 versus 0.48 deaths per 100,000 people, respectively; RR=0.72 [95%CI 0.57, 0.91]; Table A11).

Similarly, the rates of intentional drug overdose deaths generally increased from the early-to-mid 2000s to 2017 for all drug types. Estimates for 2018 to 2020 are stable or declining as compared to 2017. Comparison of preliminary 2019 and 2020 estimates showed only a statistically significant decrease in the rate of intentional drug overdose deaths involving non-opioid analgesics (0.41 versus 0.24 deaths per 100,000 people, respectively; RR=0.59 [95%CI 0.43, 0.80]; Table A11).

Polysubstance use

Our previous research showed that the majority of drug overdose deaths from 2012-2016 included more than one drug class, and that the demographic and drug involvement profile of intentional and unintentional deaths were distinct.

In this section, we therefore describe the common drug pattern profiles in unintentional and intentional overdose deaths separately for specific drug classes of interest: heroin, other opioids (excluding heroin), amphetamines, cocaine, antidepressants, antipsychotics and neuroleptics, hynosedatives, non-opioid analgesics, alcohol, and cannabinoids. Numbers will not sum to the total of drug overdose deaths as a small number of overdose deaths did not involve any of these classes.

Further, due to the large number of possible drug pattern profiles in drug overdose deaths (and subsequent small numbers), data from 2016-2020 have been combined for this section.

There were 9,303 drug overdose deaths between 2016 and 2020, of which 71% were unintentional and 24% intentional (6,562 and 2,257, respectively). Two or more drug classes of interest (range 0-10 classes) were identified in 71% of the overdose deaths. Specifically, 21% of drug overdose deaths involve two of these drug classes, 23% involved three of these drug classes, and 27% involved four or more of these drug classes.

Intent of Drug Overdose Deaths

The five most common drug pattern profiles which cumulatively accounted for 25% of all unintentional overdose deaths in 2016-2020 (Figure 15A) comprised:

- Heroin only (6.7%, 437 deaths);

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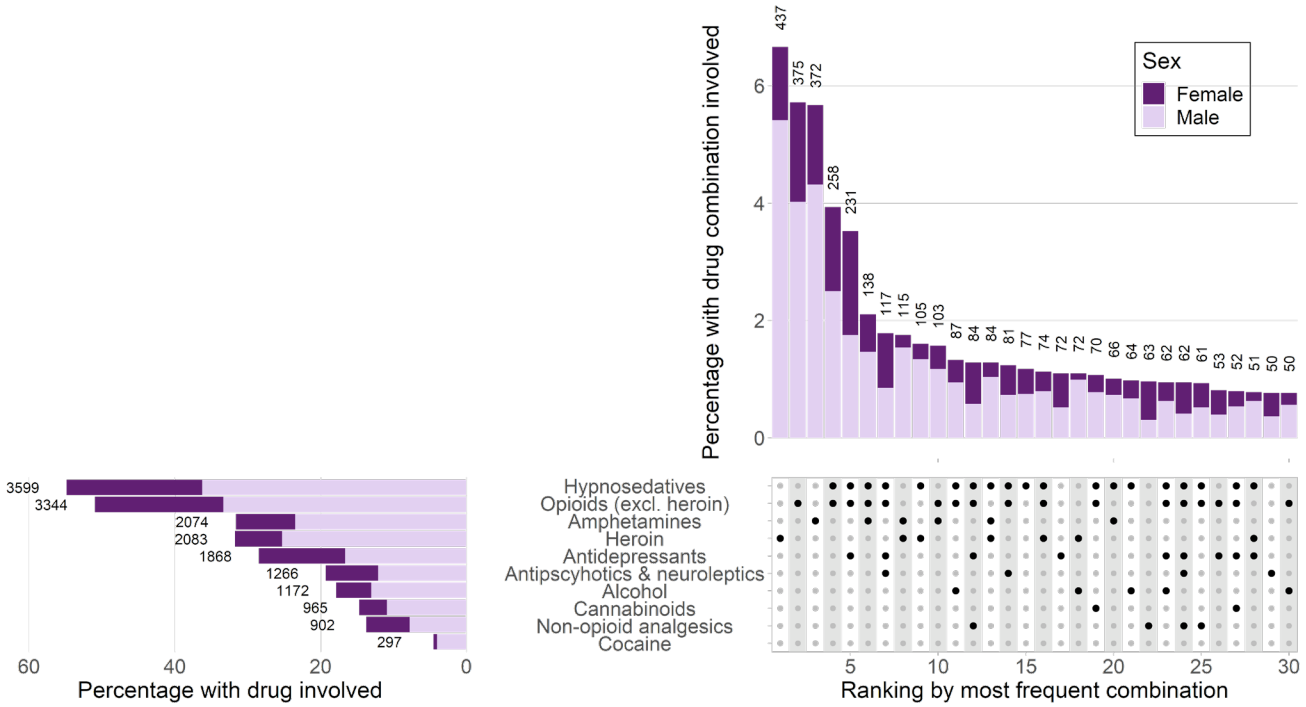
- Opioids (excluding heroin) only (5.7%, 375 deaths);
- Amphetamines only (5.7%; 372 deaths);
- Opioids (excluding heroin) with hypnosedatives (3.9%, 258 deaths); and
- Opioids (excluding heroin) with hypnosedatives and antidepressants (3.5%, 231 deaths).

The five most common drug pattern profiles which cumulatively accounted for 28% of the intentional overdose deaths in 2016-2020 (Figure 15B) comprised:

- Hypnosedatives only (9.9%, 223 deaths);
- Opioids (excluding heroin) with hypnosedatives (4.8%, 109 deaths)
- Hypnosedatives with antidepressants (4.7%, 107 deaths);
- Antidepressants only (4.4%, 100 deaths); and
- Opioids (excluding heroin) only (4.0%, 91 deaths).

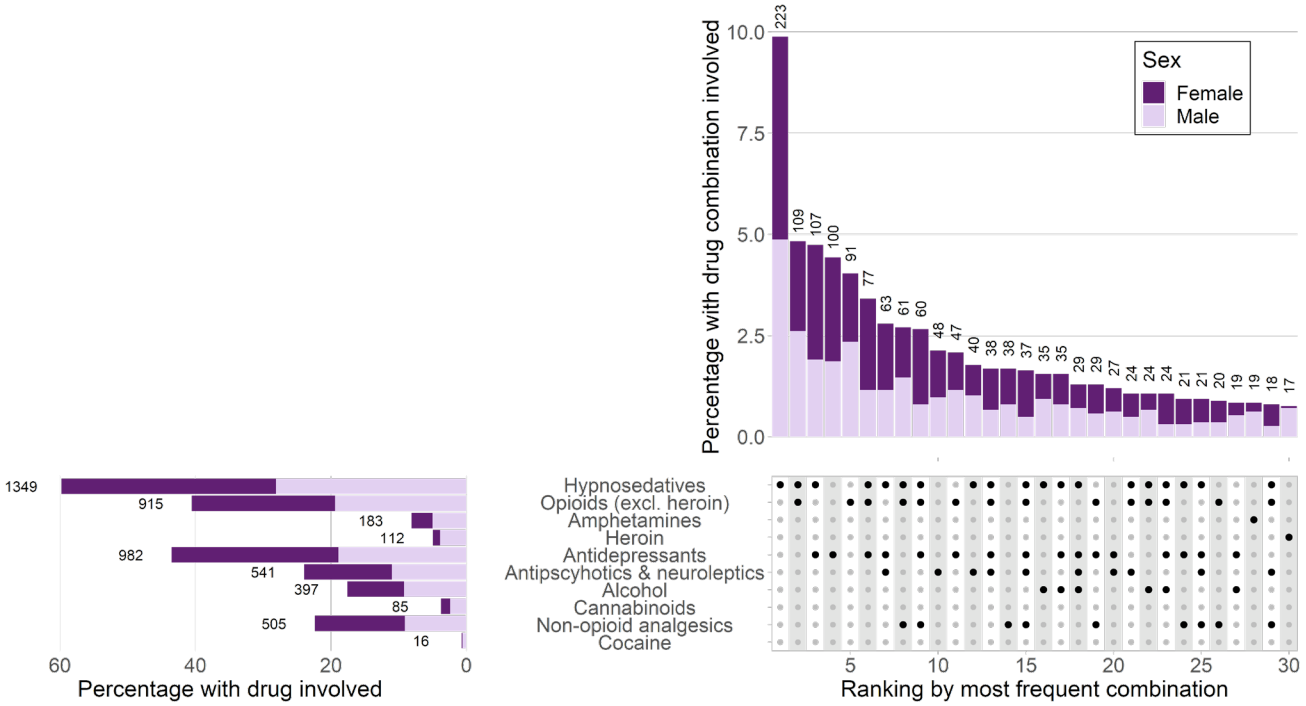
Figure 15. Thirty most common drug pattern profiles in unintentional (A) and intentional (B) drug overdose deaths, by sex, Australia, 2016-2020

(A) Unintentional



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(B) Intentional

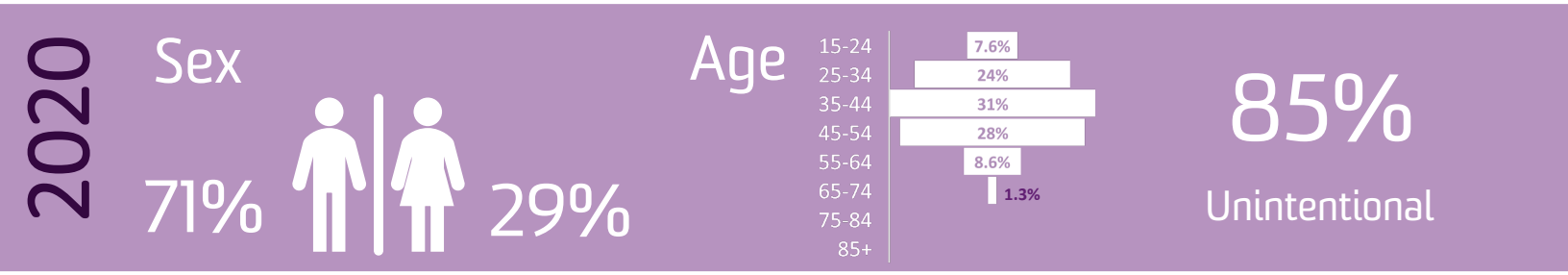


Note. Figures present the number of deaths by drug pattern profile for males and females. Dots represent intersection of drug classes involved in the drug pattern profile. Note the axis depicts the percentage of deaths, and data labels show the number of deaths. The percentage axes have been rescaled to improve presentation of the results.

DOI: 10.26190/ke9y-4731

6

Drug Overdose Deaths Involving Amphetamines



There were 524 drug overdose deaths involving amphetamines among Australians in 2020 (2.1 deaths per 100,000 people).

Following a period of relative stability, the rate of drug overdose deaths involving amphetamines increased substantially from 2011 (0.48 deaths per 100,000 people, 104 deaths) to 2017 (2.0 deaths per 100,000 people, 465 deaths).

The preliminary rate of drug overdose deaths involving amphetamines in 2020 (2.1 deaths per 100,000 people) was the highest recorded across the period of monitoring. Analyses did not suggest that this estimate represented a statistically significant increase on the preliminary rate for 2019 (2.0 deaths per 100,000 people). It should be noted that the rates reported for 2018-2020 are expected to increase when data are revised and finalised.

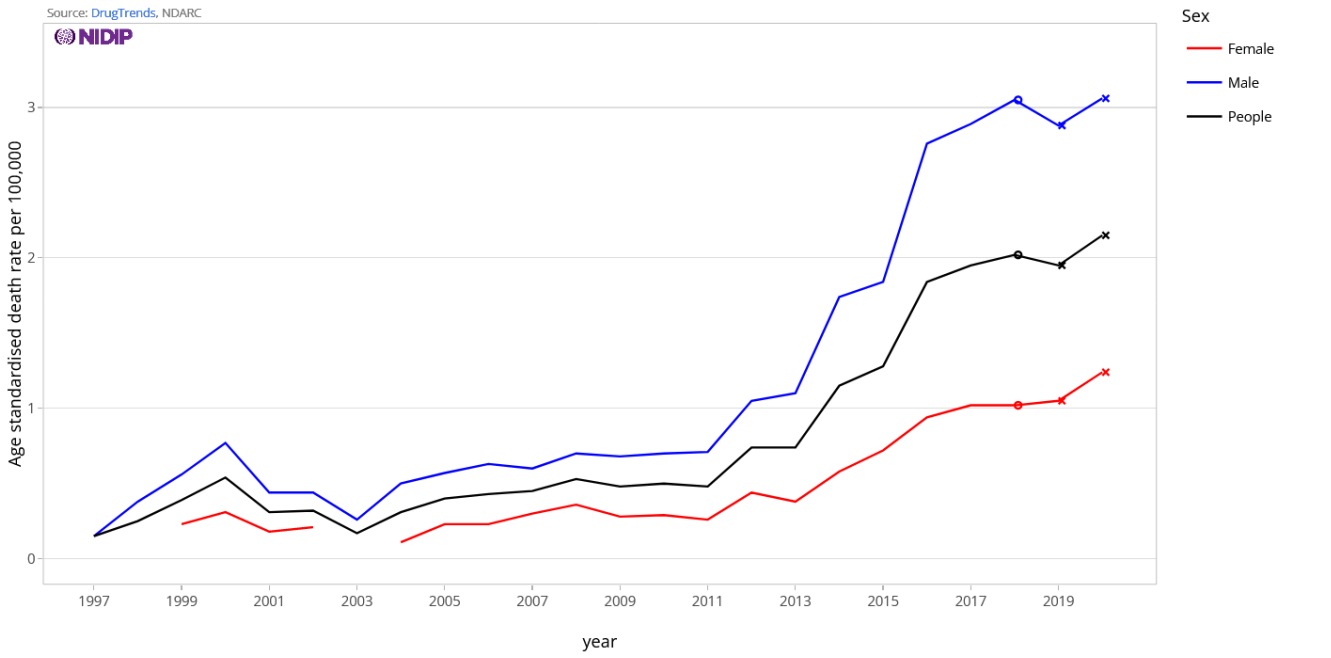
Sex

In 2020, the majority of drug overdose deaths involving amphetamines occurred among males (71%, 370 deaths). This is consistent with historical data.

The rate of drug overdose deaths involving amphetamines for males and females followed a similar pattern of relative stability between 1997 and 2011, followed by an increase between 2011 and 2017 (0.71 and 0.26 in 2011 to 2.3 and 1.0 deaths per 100,000 people in 2017, respectively) (Figure 16). Estimates for 2018-2020 are broadly similar to, or higher than, the rate in 2017 for both males and females. Comparison of preliminary estimates do not suggest a statistically significant difference in the rates for 2019 and 2020 for males or females (see Table A12).

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Figure 16. Age-standardised rate per 100,000 people of drug-induced overdose deaths involving amphetamine for the Australian population, by sex, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

Age

In 2020, the highest proportion of drug overdose deaths involving amphetamine occurred in the 35-44 age group (31%, 163 deaths), followed by the 45-54 (28%, 146 deaths) and 25-34 (23%, 123 deaths) age groups.

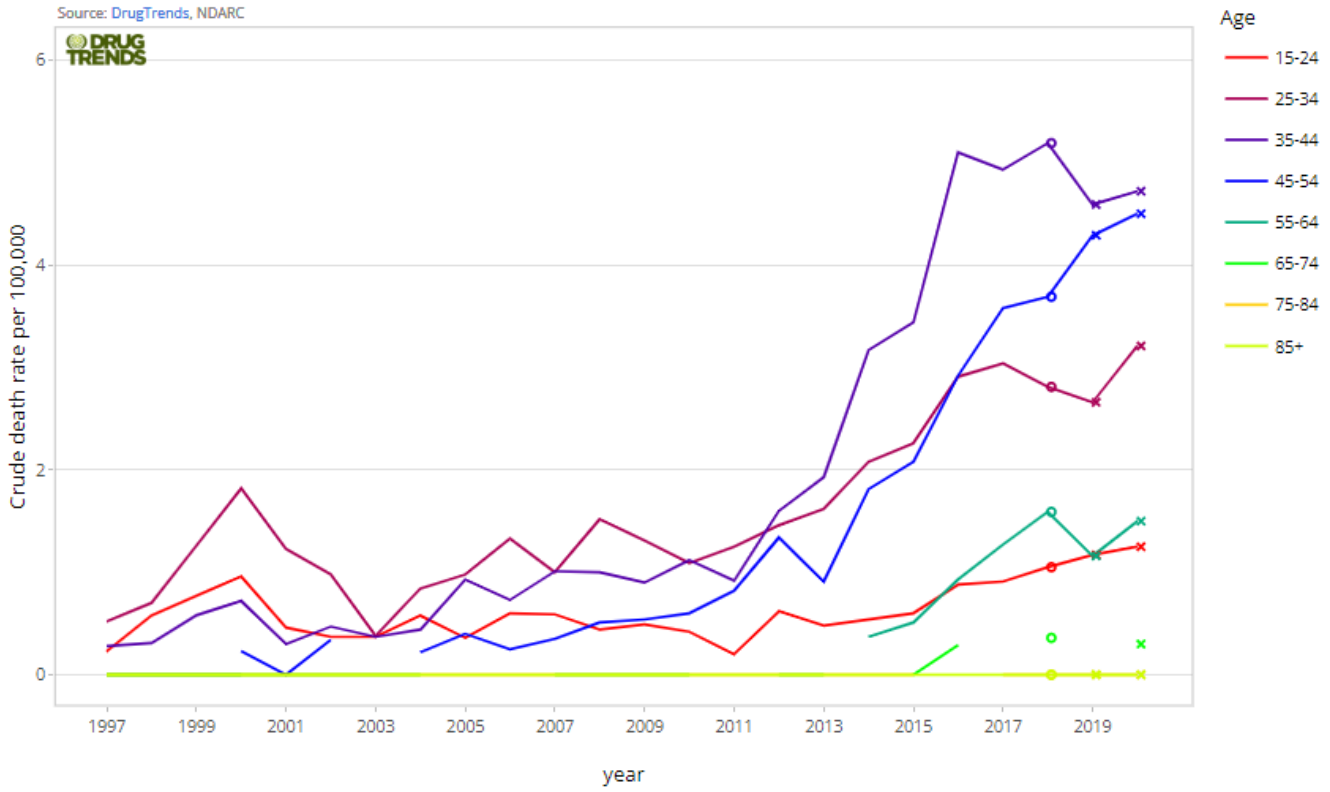
Amphetamines are rarely identified in drug overdose deaths among older people (i.e., 65 and over). However, there has been shift in the age distribution of drug overdose deaths involving amphetamine over time from younger to older age groups. Specifically, 72% of drug overdose deaths involving amphetamine occurred among people aged 15-34 in 1997 as compared to 31% in 2017.

In terms of the trend over time, an increase in the rate of drug overdose deaths involving amphetamine has been observed in most age groups except for older age groups, namely those 65 and over. This increase is most striking in two age groups: the 35-44 age group (0.28 to 4.9 deaths per 100,000 people from 1997 versus 2017, respectively) and the 45-54 age group (0.23 to 3.58 deaths per 100,000 people from 2000 to 2017, respectively) (Figure 17).

Notably, the preliminary rates of drug overdose deaths involving amphetamines in 2018-2020 have increased again for the 45-54 age group, peaking in 2020. However, comparison of the preliminary rates does not suggest a statistically significant difference between 2019 and 2020 for this age group (RR=1.05 [95%CI 0.83, 1.33]), nor for any other age group (see Table A13 for rate ratios). It is important to note that this finding may change with increases in the 2018-2020 estimates following revision.

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Figure 17. Crude rate per 100,000 people of drug overdose deaths involving amphetamine for the Australian population, by age, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Rates for small numbers (less than or equal to 5 deaths) are suppressed.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.

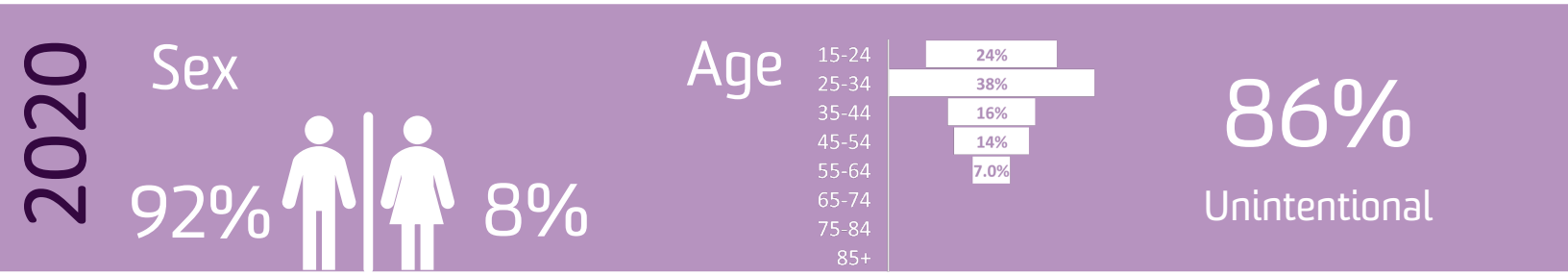
Intent of Drug Overdose Deaths

In 2020, 85% (443 deaths) of drug overdose deaths involving amphetamine were unintentional overdoses (intentional: 9.7%, 51 deaths; undetermined intent: 5.7%, 30 deaths). This has varied across years between 77% and 98%.

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7

Drug Overdose Deaths Involving Cocaine



There were 86 drug overdose deaths involving cocaine in 2020. This is equivalent to 0.35 deaths per 100,000 people (Figure 14).

Although the absolute numbers remain small and the latest estimates are preliminary, the rate of drug overdose deaths involving cocaine has increased fivefold since 2014 (0.07 deaths to 0.35 deaths per 100,000 people from 2014 to 2020, respectively). Comparison of the rates for 2019 and 2020 did not suggest a statistically significant change (RR=0.99 [95% 0.73, 1.34]; Table A10).

Sex

In 2020, males accounted for 92% of all cases of drug overdose deaths involving cocaine (79 deaths). This pattern has been consistent over the course of monitoring.

Although the annual number of drug overdose deaths involving cocaine has remained low and the latest estimates are preliminary, the greatest increase in rates for males was also observed between 2014 and 2020 (from 0.12 to 0.63 deaths per 100,000 people, respectively). For females, the numbers have remained low, and rates cannot be calculated for reasons of confidentiality.

Age

Deaths occurring in the 15-24 and 25-34 age groups together accounted for 62% (54 deaths) of the drug overdose deaths involving cocaine in 2020. There were no deaths involving cocaine recorded in age groups 65 and over.

Small numbers in each age group precluded study of change over time in age specific rates.

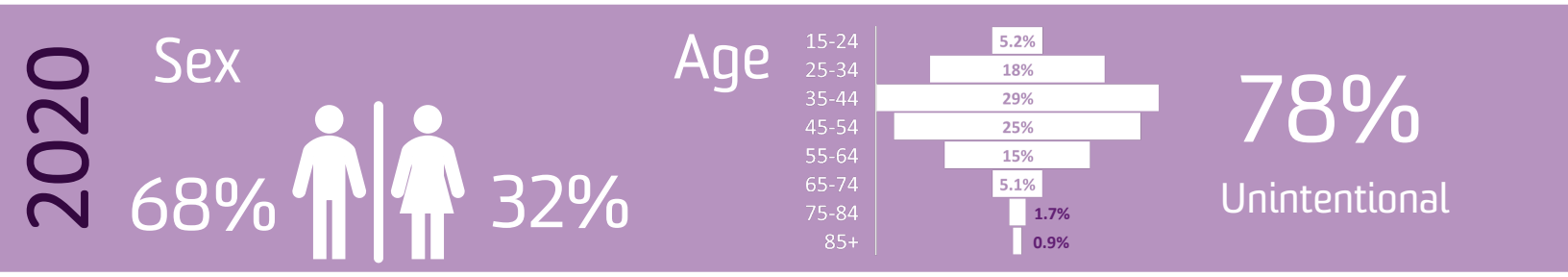
Intent of Drug Overdose Deaths

The majority of drug overdose deaths involving cocaine in 2020 were unintentional (86%, 74 deaths; intentional: 8.1%, 7 deaths). This profile has been consistent over the course of monitoring.

DOI: 10.26190/ke9y-4731

8

Opioid-Induced Deaths



Opioid-induced mortality is a serious public health issue in Australia and internationally. Due to high opioid toxicity, opioid poisoning will, for the most part, be the underlying cause of death where other drugs are present. For this reason, we name these deaths 'opioid-induced'.

Further, although overdose deaths accounts for the majority of opioid-induced deaths in Australia, other related underlying causes of death, such as mental and behavioural disorder due to use of opioids, are an important contributor to this harm. For this reason, the following findings relate to 'opioid-induced deaths'; that is, those deaths directly attributable to use of opioids (including from overdose).

Overall Characteristics

In 2020, there were 1,073 opioid-induced deaths among Australians (4.3 deaths per 100,000 people).

After the peak in the rate of opioid-induced deaths in 1999 (6.7 deaths per 100,000 people), the rate decreased to 2.6 deaths per 100,000 people in 2001. This rate remained relatively stable until 2006, after which it increased, rising to 5.7 per 100,000 people in 2017.

While estimates for 2018-2020 are subject to revision and anticipated to increase as coronial cases are closed, they do not currently suggest a further increase in rate. Comparison of preliminary estimates for 2019 and 2020 did not yield a statistically significant difference between the two (4.5 and 4.3 deaths per 100,000 people, respectively; RR=0.94 [95%CI 0.86, 1.02]; Table A14).

Sex

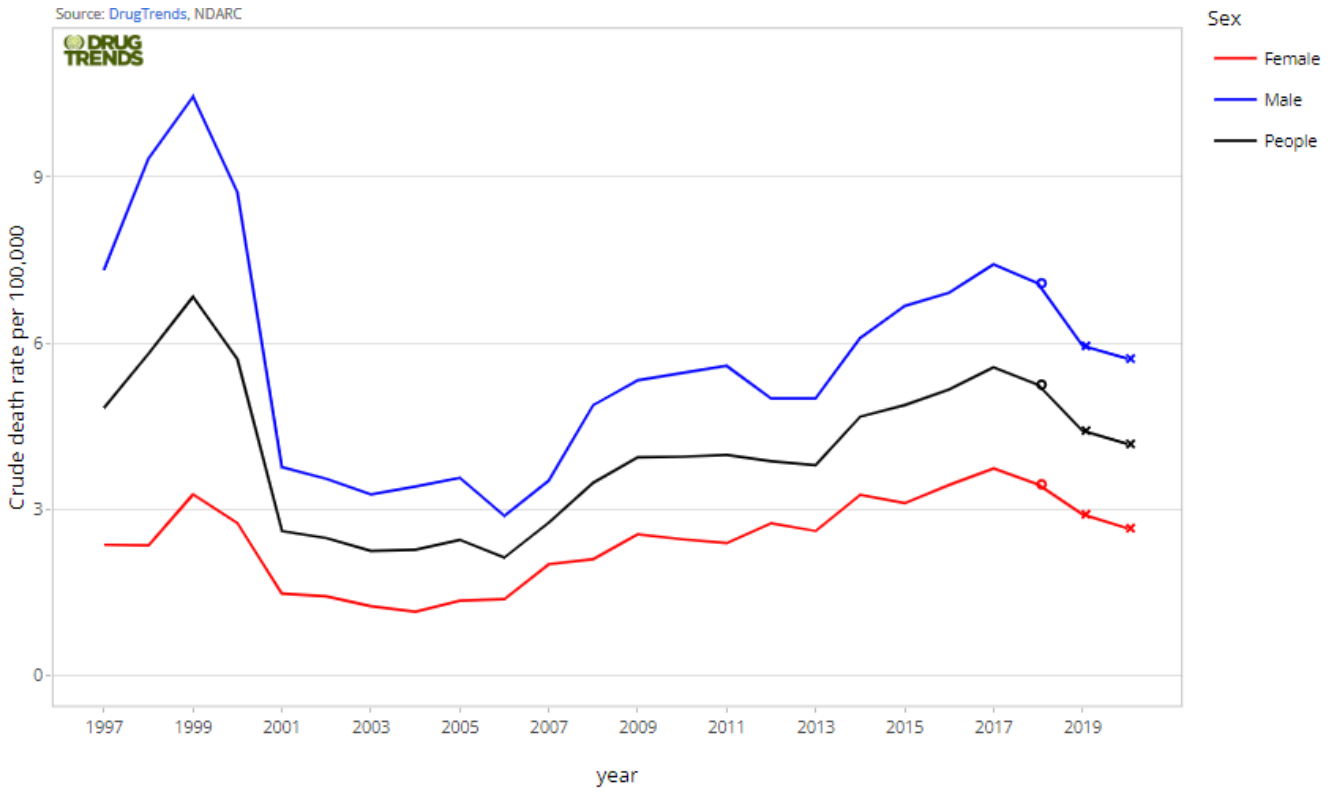
In 2020, 68% (728 deaths) of opioid-induced deaths occurred among males. This sex disparity has been consistent over time, with the number of deaths for males typically being three times the number of deaths for females.

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The rate of opioid-induced deaths in males and females followed a similar pattern over the years. Rates for both males and females peaked in 1999 and then declined sharply by 2001. Following a period of relative stability until 2006, the rates then increased for both males and female, reaching 7.2 deaths and 3.7 deaths per 100,000 people for males and females, respectively, in 2017 (Figure 18).

Preliminary rates for 2018-2020 are generally stable or lower than the rates observed for 2017 for both males and females. Comparison of preliminary estimates for 2019 and 2020 did not yield a statistically significant difference for males (6.2 and 5.9 deaths per 100,000 people, respectively; RR=0.96 [95%CI 0.86, 1.06]) or females (2.9 and 2.6 deaths per 100,000 people, respectively; RR=0.90 [95%CI 0.78, 1.05]; Table A14).

Figure 18. Age standardised rate per 100,000 people of opioid-induced deaths for the Australian population, by sex, 1997-2020.



Note: Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.

Age

In 2020, the highest proportion of opioid-induced deaths occurred among Australians aged 35-44 years (29%, 311 deaths), followed by the 45-54 age group (25%, 271 deaths).

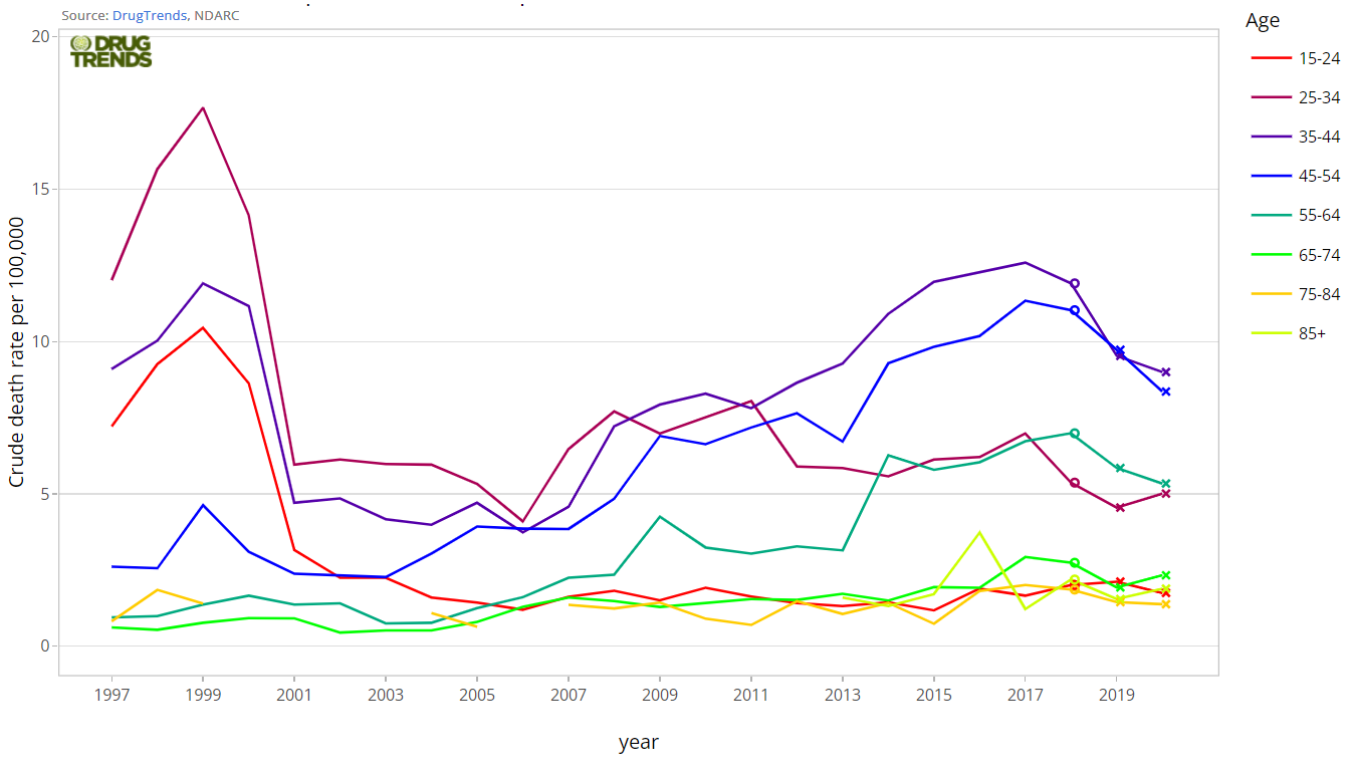
Over the years, the age distribution of opioid-induced deaths has changed. In the late 1990s and early 2000s, the younger age groups (i.e., 25-34 age group, followed by 35-44 and 15-24 age groups) comprised the greater proportion of deaths. The percentage of deaths in the 25-34 and 15-24 age groups has declined over time in favour of an increased proportion of deaths in the 45-54 and 55-64 age groups.

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When looking at the trend over time, the rate of opioid-induced deaths among the 25-34 and 15-24 age groups has declined. In contrast, the rate in the 45-54 age group has increased from 2.6 to 11 deaths per 100,000 people from 1997 to 2017, respectively. Another large increase has been observed in the 55-64 age group (0.95 to 6.7 deaths per 100,000 people in 1997 and 2017, respectively) (Figure 19).

While subject to revision, estimates for 2018-2020 are generally similar to, or lower than, estimates for 2017 for all age groups. Indeed, comparison of preliminary estimates for 2019 and 2020 showed no statistically significant change in any of the age groups (see Table A15 for rate ratios).

Figure 19. Crude rate per 100,000 people of opioid-induced deaths for the Australian population, by age, 1997-2020.



Note: Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Rates for small numbers (less than or equal to 5 deaths) are suppressed.
The rates for the 0-14 years age group are not presented due to sensitivity of the data.

Intent of Drug Overdose Deaths

In 2020, three-in-four (78%, 840 deaths) opioid-induced deaths were considered unintentional overdose; 14% (152 deaths) were due to intentional overdose, and a minority (7.2%, 77 deaths) of undetermined intent. This pattern has been relatively consistent in recent years.

Opioid Type

In 2020, 34% (360 deaths) of opioid-induced deaths were attributed to heroin only, 56% (606 deaths) to opioids other than heroin (e.g., pharmaceutical opioids) and 9% (101 deaths) to both heroin and other

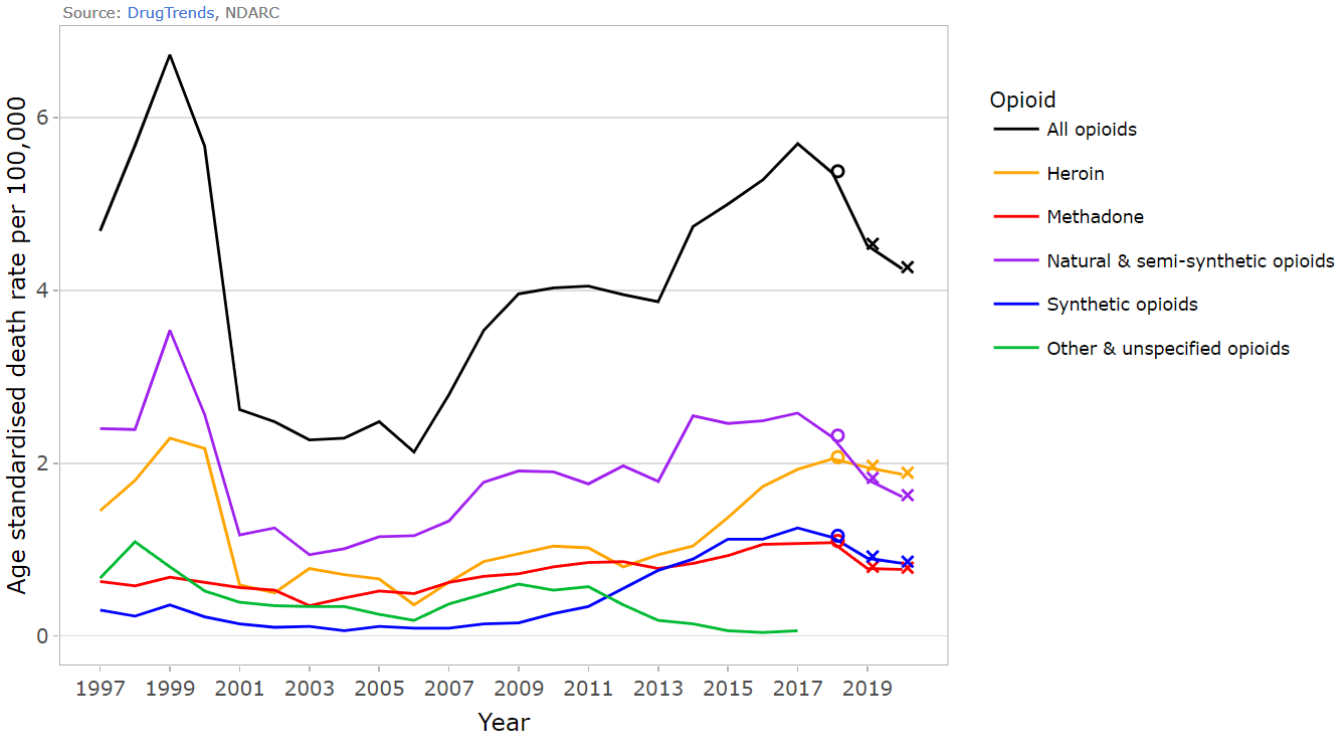
DOI: 10.26190/ke9y-4731

opioids. The number of opioid-induced deaths attributed to opium or unspecified opioids was too small to present.

This profile in 2020 represents a shift over time in opioid involvement; specifically, it represents an increase in the percentage of opioid-induced deaths attributed to heroin only since 2012 (14% in 2012) and a decrease in the percentage of other opioids only (71%) and opium or unspecified opioids (8.9%).

Overall, in 2020, there were 461 opioid-induced deaths involving heroin (43%), 415 deaths involving natural and semi-synthetic opioids (e.g., morphine, codeine, and oxycodone) (39%), 215 deaths involving synthetic opioid opioids (e.g., fentanyl, tramadol, pethidine) (20%), and 191 deaths involving methadone (18%). These numbers are not additive as multiple opioids may be involved in a single death. This is the second consecutive year in which the number of opioid-induced deaths involving heroin has surpassed that of natural and semi-synthetic opioids (e.g., morphine, codeine, oxycodone) (Figure 20).

Figure 20. Age-standardised rate per 100,000 people of opioid-induced deaths for the Australian population, by opioid type, 1997-2020.



Note: Causes of death data for 2018, 2019 and 2020 are not final and subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
One opioid-induced death may involve multiple opioids types and that findings here reflect the number of opioid-induced deaths involving each opioid type (not necessarily attributed primarily to that opioid). Opioid type was identified if the following ICD-10 code was recorded: heroin (T40.1), methadone (T40.3), natural and semi-synthetic opioids (T40.2), synthetic opioids (T40.4), other and unspecified opioids (T40.0, T40.6).
Age-standardised rates were not calculated if the number of deaths 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.

DOI: 10.26190/ke9y-4731

When we consider the trend over time, the rate of opioid-induced deaths involving heroin decreased between 1999 and 2003, subsequently gradually increasing until 2017 (5.7 deaths per 100,000 people). Preliminary estimates for 2018-2020 appear similar to the rate for 2017, and statistical comparison did not show a significant difference in rate between 2019 and 2020 (1.9 and 1.9 deaths per 100,000 people, respectively; RR=0.96 [95%CI 0.84, 1.09]; Table A16). There is the potential for a further increase in rates with revision of estimates.

While the rates of opioid-induced deaths involving natural and semi-synthetic opioids, synthetic opioids, and methadone have generally increased since the early-to-mid 2000s until around 2015, estimates appear to have plateaued or decreased subsequently. Statistical comparison of the preliminary estimates does not suggest a significant change in rates for these opioid types between 2019 and 2020 (see Table A16 for rate ratios). These conclusions should be treated with caution until revised data are released.

Indeed, findings by opioid type more broadly should be treated with caution, particularly for earlier years where coding practices meant that deaths involving heroin may have been at greater risk of being misclassified as involving morphine.

Other Drug Involvement

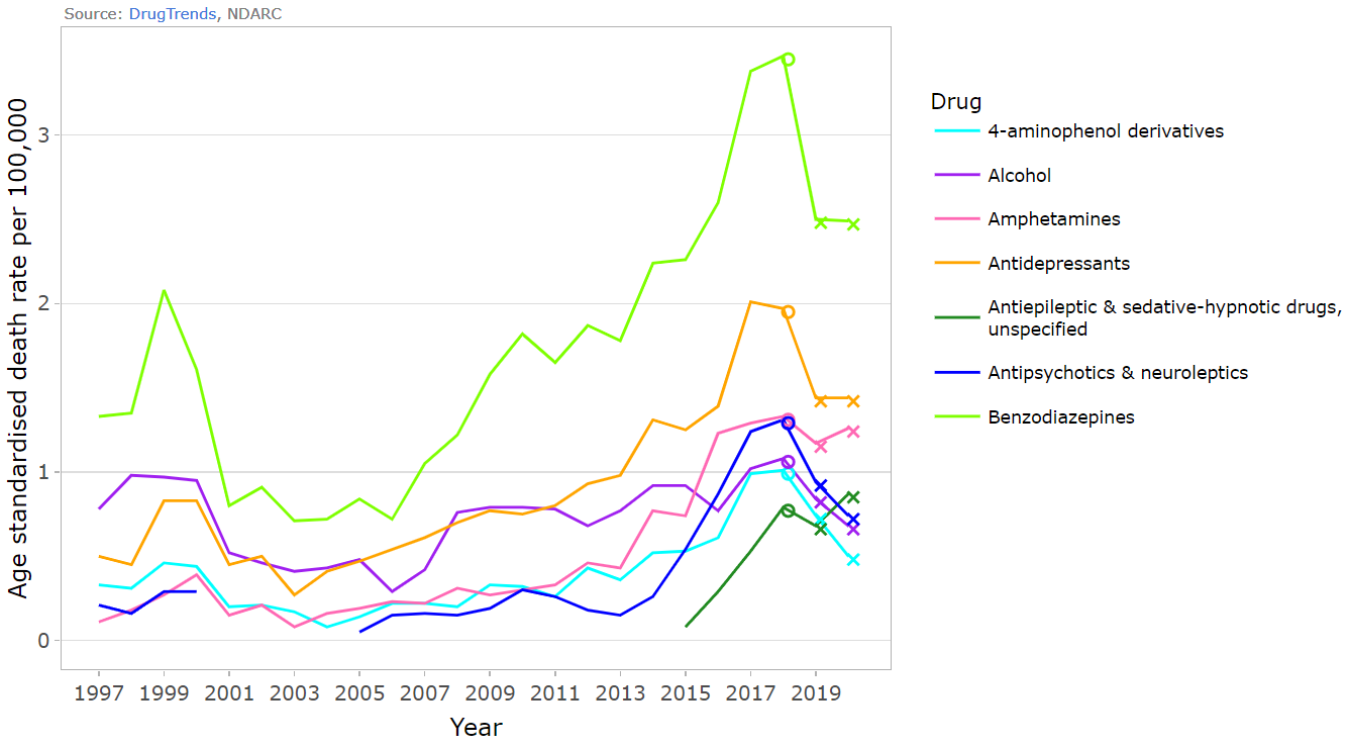
In 2020, benzodiazepines and antidepressants remained the most common drug types involved in opioid-induced deaths, with benzodiazepines being involved in 58% (624 deaths) and antidepressants in 34% (364 deaths) of opioid-induced deaths. Other drugs involved in opioid-induced deaths in 2020 were amphetamines (29%, 308 deaths), antiepileptic and sedative-hypnotic drugs, unspecified (predominantly comprising pregabalin; 20%, 217 deaths), antipsychotics and neuroleptics (17%, 181 deaths) and 4-aminophenol derivatives (12%, 132 deaths) (Figure 21). Alcohol was found to be a contributory to death in 16% (170 death) opioid-induced deaths.

These percentages are likely to be underestimates as some substances are not always included in routine toxicological screening at death.

As per the overall trend of increasing rates of drug overdose deaths involving these substances, the rate of involvement of these substances in opioid overdose deaths has increased over time, particularly from the early-to-mid 2010s (Figure 21). Rates typically peak in 2017-2018 and decline subsequent. Statistical comparison of the preliminary estimates does not suggest a significant change in rates of opioid overdose deaths involving these drugs between 2019 and 2020 (see Table A17 for rate ratios).

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Figure 21. Age-standardised rate per 100,000 people of opioid-induced deaths for the Australian population, by other drugs involved, 1997-2020.



Note: Causes of death data for 2018, 2019 and 2020 are not final and subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
One opioid-induced death may involve multiple drug types and findings here reflect the number of opioid-induced deaths involving each opioid type.
Age-standardised rates were not calculated if the number of deaths 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.

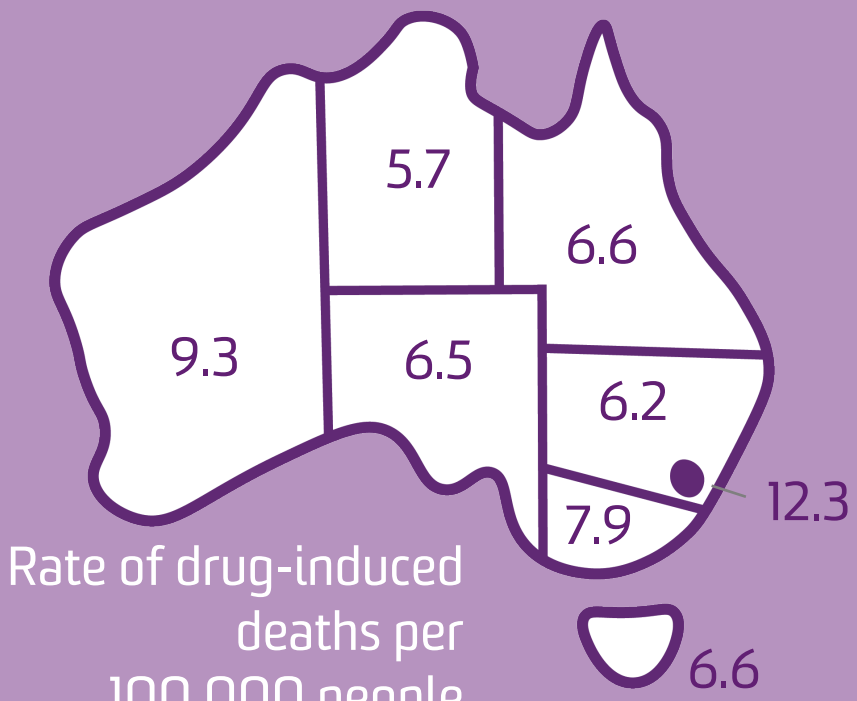
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9

Drug Induced Deaths by Jurisdiction of Usual Residence

The below sections describe the profile of drug-induced deaths for each jurisdiction in 2020 and the trend in drug-induced deaths from 2009 to 2020. We encourage caution when interpreting some of these figures given the small number of deaths 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 deaths by sex, age group and drug type for each jurisdiction can be obtained from the publicly accessible online interactive data visualisation. Data by remoteness area are not reported for the Australian Capital Territory as over 99.8% of the population reside in major city areas.

2020



DOI: 10.26190/ke9y-4731

Australian Capital Territory



2020

54
Drug-induced deaths

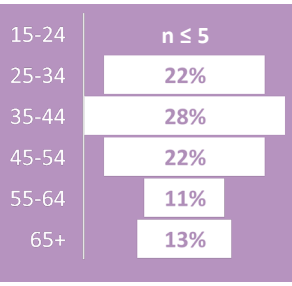
12
deaths per 100,000 population

Sex



52% 48%

Age



There were 54 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in the Australian Capital Territory in 2020, which is equivalent to 2.5% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths in the Australian Capital Territory has varied over time (Figure 22). The rate in 2020 was 12 deaths per 100,000 people, as compared to 8.9 deaths per 100,000 people in 2019 (RR=1.37 [95%CI 0.90, 2.80]). Estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 52% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (13 versus 12 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 35-44 (28%, 15 deaths), 25-34 (22%, 12 deaths) and 45-54 (22%, 12 deaths). The remaining 28% (15 deaths) were distributed between 15-24 and 55 and over age groups.

Remoteness Area of Usual Residence

Over 99.8% of the population in the Australian Capital Territory resided in major city areas and the remaining resided in inner regional areas in 2020. For this reason, data on deaths by remoteness area are not presented.

Intent of Drug Overdose Deaths

In 2020, 98% of drug-induced deaths were due to overdose. Unintentional drug overdose accounted for 45% and intentional drug overdose for 42% of these deaths in 2020.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (76%) of drug-induced deaths.

Drug Involvement

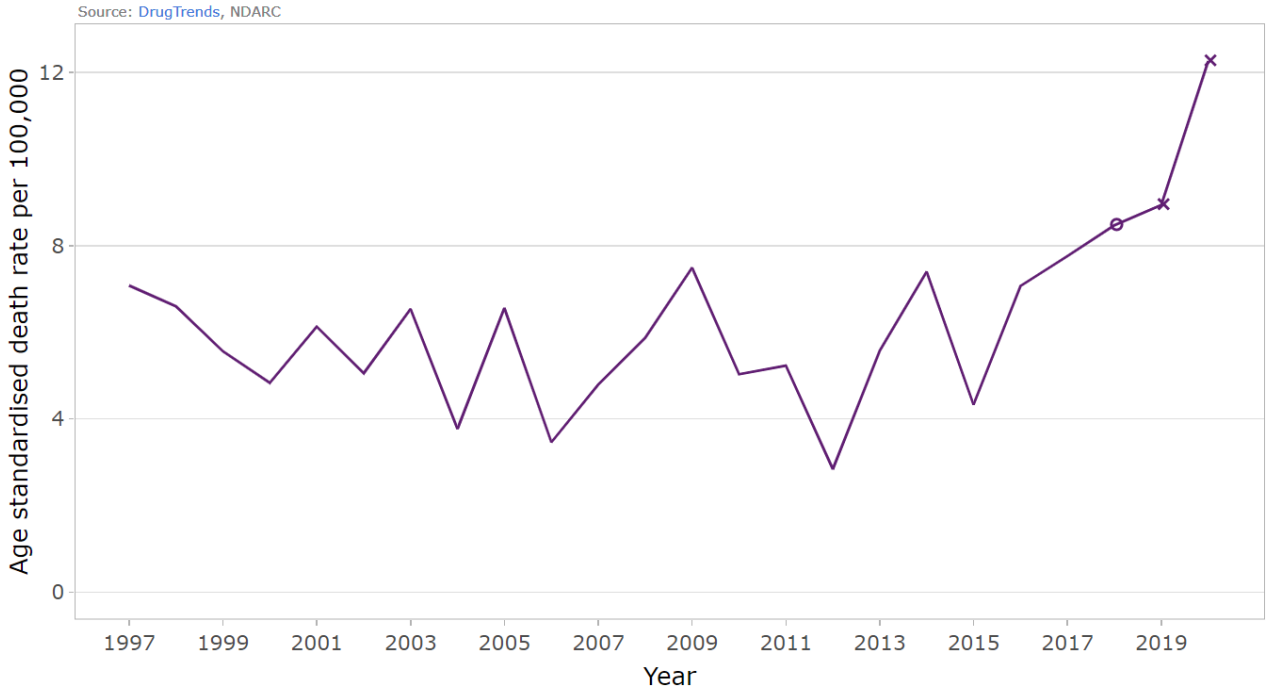
In the Australian Capital Territory, the three most common drug types involved in drug overdose deaths in 2020 were:

- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (7.2 deaths per 100,000 people, 32 deaths);
- opioids (6.8 deaths per 100,000 people, 30 deaths); and
- antidepressants (4.1 deaths per 100,000 people, 18 deaths).

Small number of cases involving other drugs of interest did not allow for further disaggregation and cannot be reported to protect confidentiality.

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Figure 22. Age-standardised rate per 100,000 people of drug-induced deaths, Australian Capital Territory, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol ‘o’ indicates revised estimates and ‘x’ preliminary estimates.

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New South Wales



2020

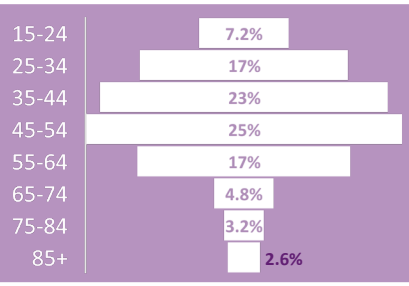
503
Drug-induced deaths

6.2
deaths per 100,000 population

Sex



Age



There were 503 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in New South Wales in 2020, which is equivalent to 0.96% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 6.2 deaths per 100,000 people in 2020 (Figure 23). This rate was not statistically different from the estimated rate in 2019 (6.8 deaths per 100,000 people; RR=0.91 [95%CI 0.80, 1.02]), noting that estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 67% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (8.6 versus 3.8 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 45-54 (25%) and 35-44 (23%) and least common among those aged 75-84 (3.2%) and 85 and over (2.6%). The rate of drug-induced deaths was also highest in the 45-54 age group (13 deaths per 100,000 people), however lowest in the 65-74 age group (3.2 deaths per 100,000 people).

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (74%, 374 deaths), however the highest rate was observed among people in outer regional areas (7.8 deaths per 100,000 people). The rate of drug-induced deaths in New South Wales has been consistently higher for people residing in regional and remote areas as compared to major city areas since 2012 (7.1 versus 5.9 deaths per 100,000 people, respectively, in 2020).

Intent of Drug Overdose Deaths

In 2020, 98% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 74% and intentional overdose for 22% of drug overdose deaths.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (78%) of drug-induced deaths.

Drug Involvement

In New South Wales, the three most common drug types involved in drug overdose deaths in 2020 were:

- opioids (3.8 deaths per 100,000 people, 301 deaths);
- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (3.0 deaths per 100,000 people, 241 deaths); and
- amphetamines (2.1 deaths per 100,000 people, 164 deaths) (Figure 24).

DOI: 10.26190/ke9y-4731

Figure 23. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, New South Wales, 1997-2020.

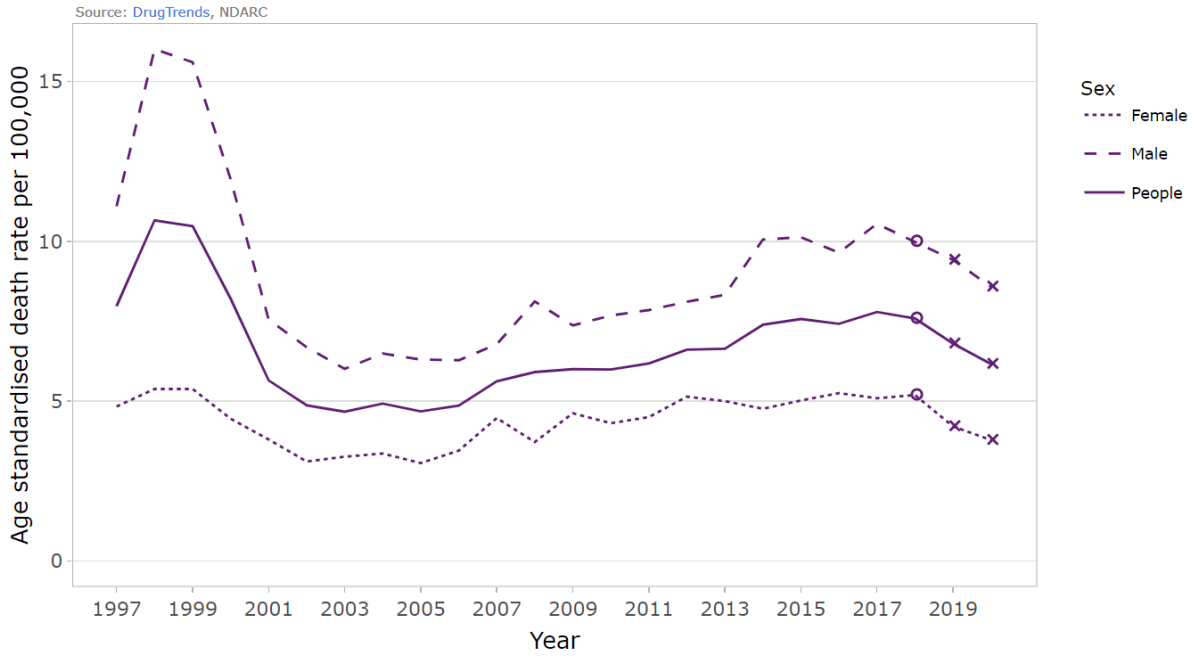
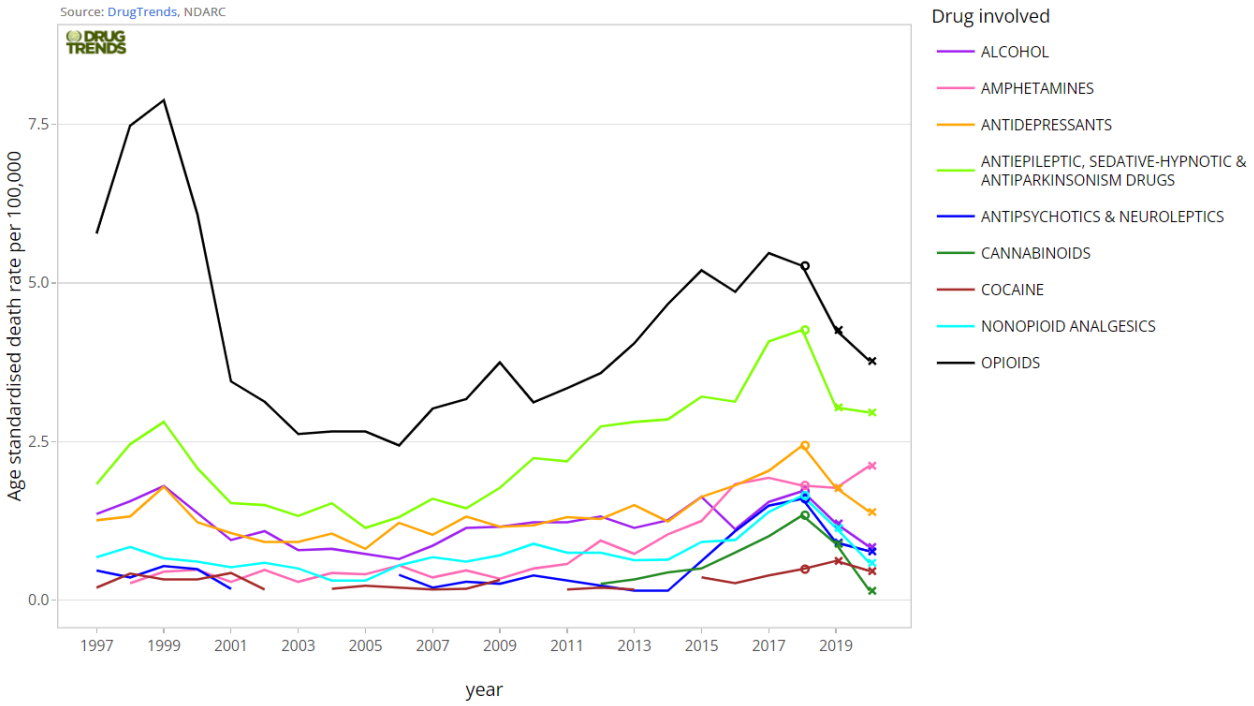


Figure 24. Age-standardised rate per 100,000 people of drug-induced deaths, by drug class, New South Wales, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol ‘o’ indicates revised estimates and ‘x’ preliminary estimates. Age-standardised rates were not calculated if the number of deaths 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.

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Northern Territory

2020

14
Drug-induced deaths

5.7
deaths per 100,000 population

Sex

43% 57%

There were 14 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in the Northern Territory in 2020, which is equivalent to 1.2% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 5.7 deaths per 100,000 people in 2020 (Figure 25).

Estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 43% of drug-induced deaths.

Age

Due to the small number of drug-induced deaths in the Northern Territory, data on age could not be reported.

Remoteness Area of Usual Residence

There are no major city or inner regional areas in the Northern Territory. This factor coupled with the small number of deaths, precluded disaggregation because of issues of confidentiality.

Intent of Drug Overdose Deaths

In 2020, all drug-induced deaths in the Northern Territory were due to overdose, of which 79% were unintentional.

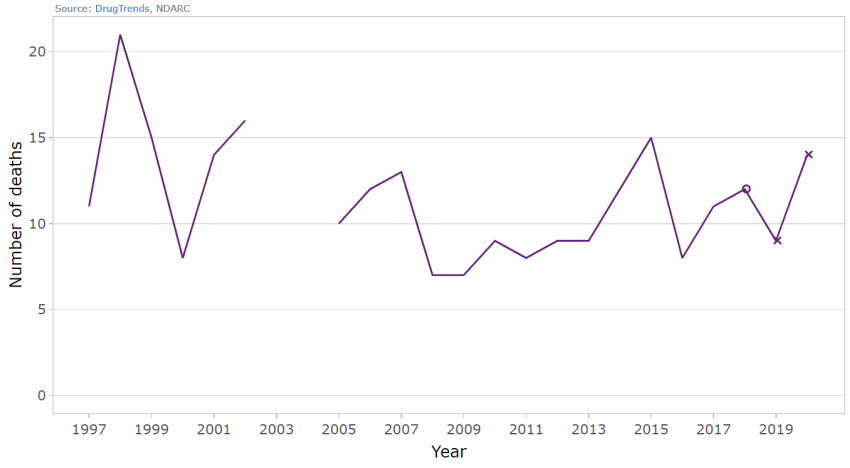
Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (74%) of drug-induced deaths.

Drug Involvement

In the Northern Territory, the small number of drug-induced death did not allow for further disaggregation by drug involvement.

Figure 25. Numer of drug-induced deaths, Northern Territory, 1997-2020



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol ‘o’ indicates revised estimates and ‘x’ preliminary estimates. Numbers less of equal to 5 are not shown.

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Queensland



2020

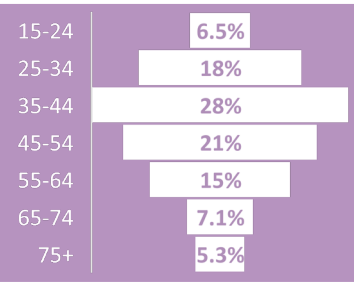
337
Drug-induced deaths

6.6
deaths per 100,000 population

Sex



Age



There were 337 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in Queensland in 2020, which is equivalent to 1.1% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 6.6 deaths per 100,000 people in 2020 (Figure 26). This rate was not statistically different to the estimated rate in 2019 (7.2 deaths per 100,000 people; RR=0.92 [95%CI 0.79, 1.06]), noting that estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 65% of drug-induced deaths. The rate of drug-induced deaths was higher among males than females (8.8 versus 4.5 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 35-44 (28%) and 45-54 (21%), and least common among those aged 75 and over (5.3%). The rate was also highest in the 35-44 age group (14 deaths per 100,000 people) but lowest in the 15-24 age group (3.3 deaths per 100,000 people). The rate for the age group 85 and over could not be calculated due to small number of deaths.

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (67%, 226 deaths). There was no clear historical trend observed in the rate of drug-induced deaths for major city versus regional and remote areas for Queensland. In 2020, the rate was higher in major city areas as compared to regional and remote areas (6.8 versus 6.1 deaths per 100,000 people, respectively).

Intent of Drug Overdose Deaths

In 2020, 96% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 63% and intentional overdose for 29% of drug overdose deaths.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (74%) of drug-induced deaths.

Drug Involvement

In Queensland, the three most common drug types involved in drug overdose deaths in 2020 were:

- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (3.6 deaths per 100,000 people, 183 deaths);
- opioids (3.6 deaths per 100,000 people, 181 deaths); and
- antidepressants (2.3 deaths per 100,000 people, 117 deaths) (Figure 27).

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Figure 26. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, Queensland, 1997-2020.

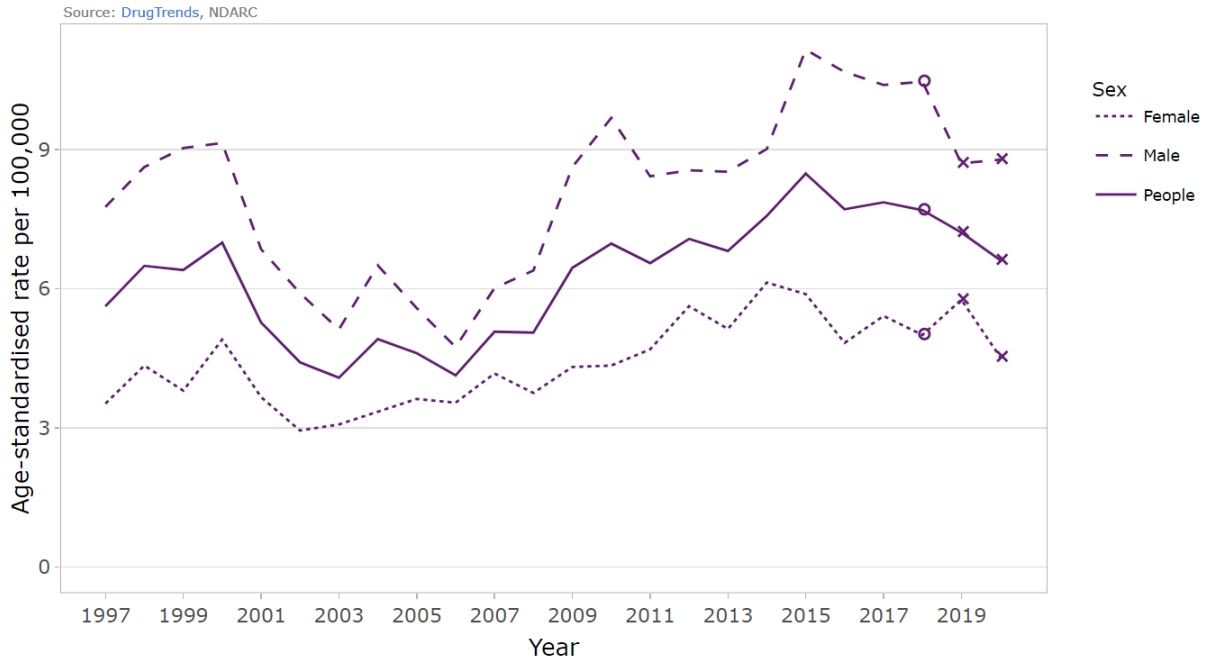
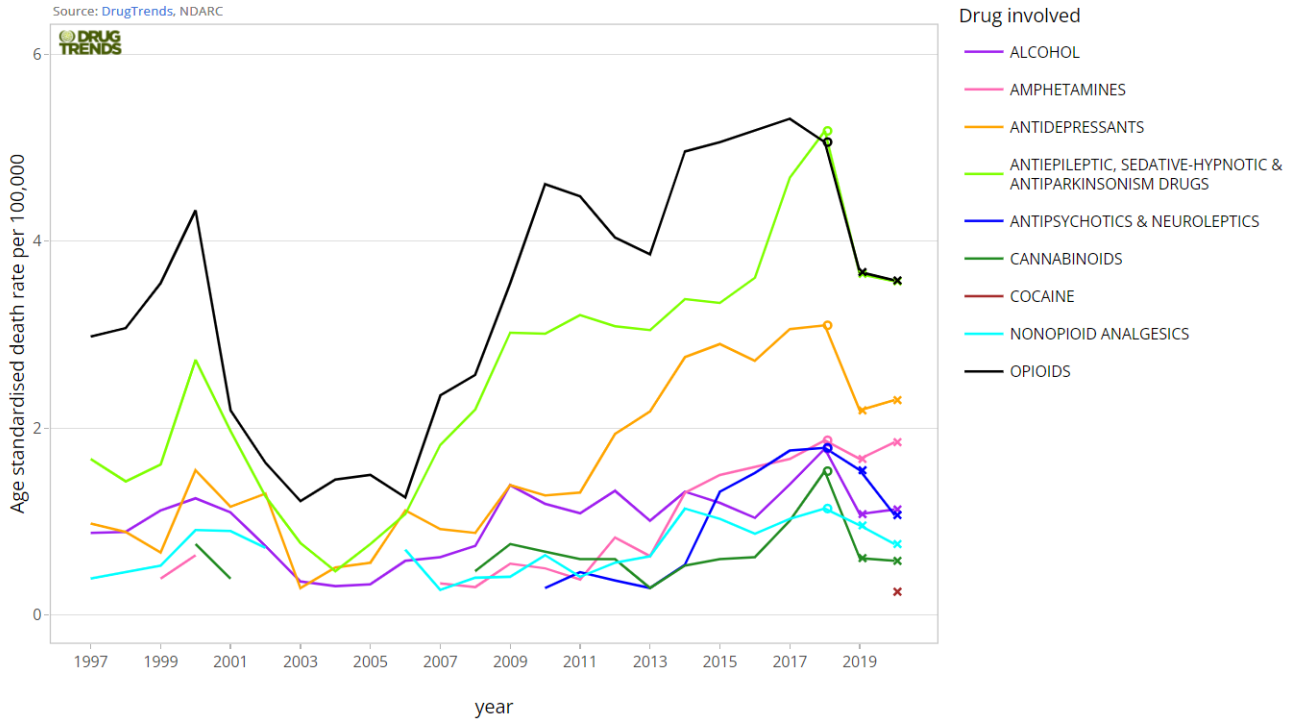


Figure 27. Age-standardised (rate per 100,000 people) of drug-induced deaths, by drug class, Queensland, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

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South Australia



2020

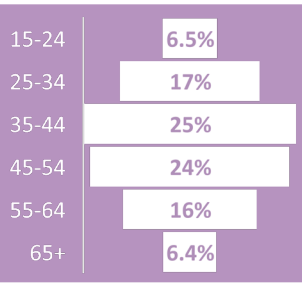
116
Drug-induced deaths

6.5
deaths per 100,000 population

Sex



Age



There were 116 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in South Australia in 2020, which is equivalent to 0.85% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 6.5 deaths per 100,000 people in 2020 (Figure 28). This rate was similar to the estimated rate in 2019 (6.3 deaths per 100,000 people; RR=1.04 [95%CI 0.79, 1.35]).

Sex

In 2020, males accounted for 55% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (7.4 versus 5.4 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 35-44 (25%) and 45-54 (24%) and least common among those aged 65 and over (6.4%) and 15-24 (6.5%). The age specific population rate was highest in the 45-54 age group (14 deaths per 100,000 people) and lowest in the 15-24 age group (3.2 deaths per 100,000 people). Rates for the age groups 75-84 and 85 and over could not be calculated due to small number of deaths.

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (77%, 90 deaths). The rate of drug-induced deaths in South Australia has been higher among people in major city versus regional and remote areas in most years of monitoring (6.8 versus 5.3 deaths per 100,000 people, respectively, in 2020).

Intent of Drug Overdose Deaths

In 2020, 97% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 40% and intentional overdose for 35% of drug overdose deaths.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (78%) of drug-induced deaths.

Drug Involvement

In South Australia, the number of drug-induced deaths was small, thus caution is required in interpretation of the findings. The three most common drug types involved in drug overdose deaths in 2020 were:

- opioids (2.6 deaths per 100,000 people, 46 deaths);
- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (1.6 deaths per 100,000 people, 30 deaths); and
- amphetamines (1.2 deaths per 100,000 people, 19 deaths) (Figure 29).

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Figure 28. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, South Australia, 1997-2020.

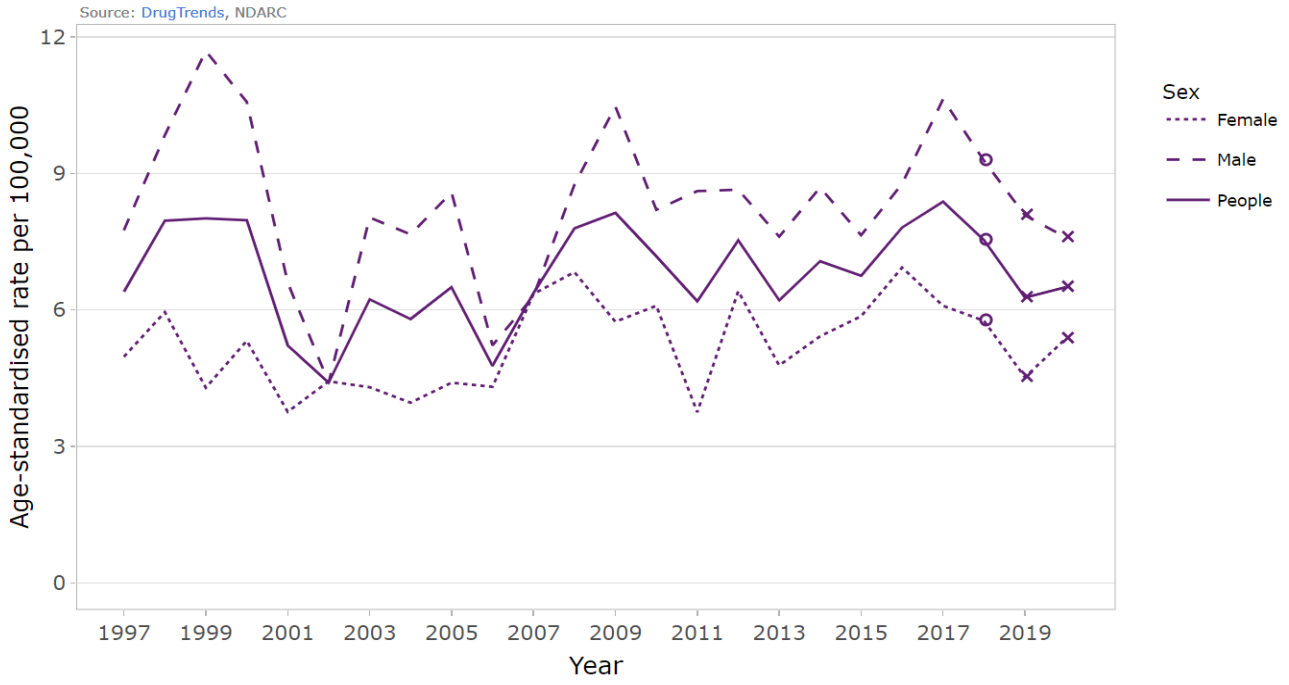
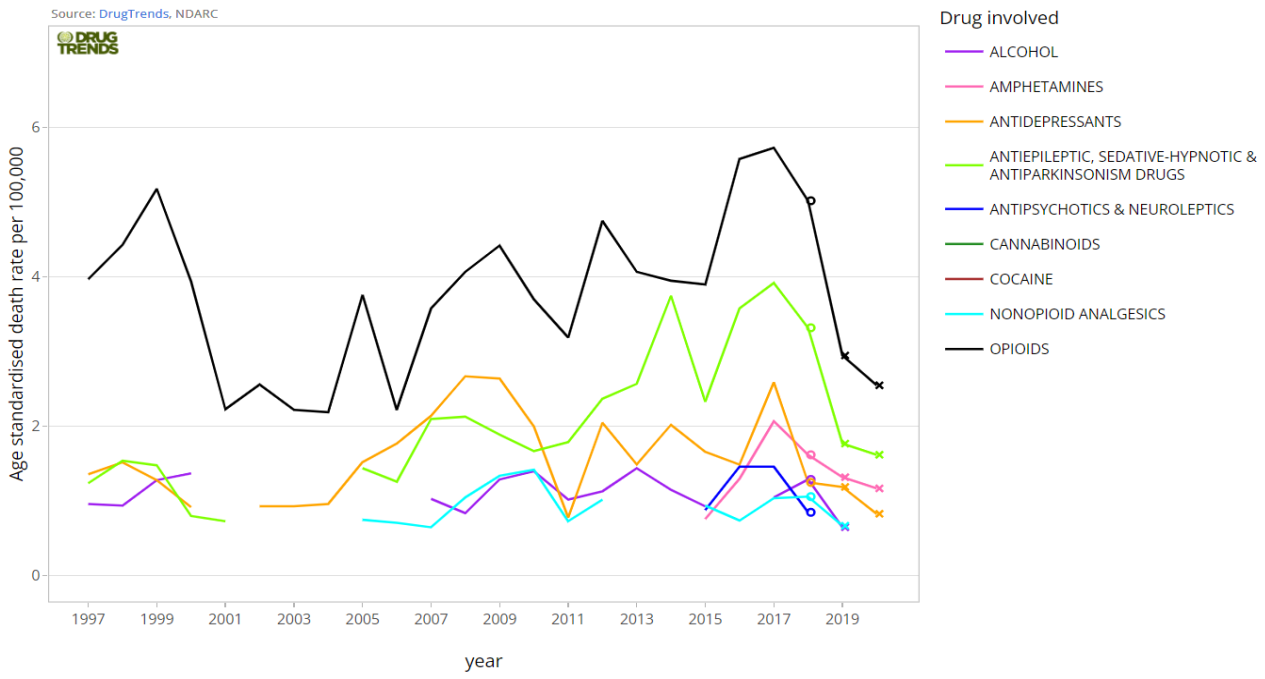


Figure 29. Age-standardised (rate per 100,000 people) of drug-induced deaths, by drug class, South Australia, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

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Tasmania



2020

39
Drug-induced deaths

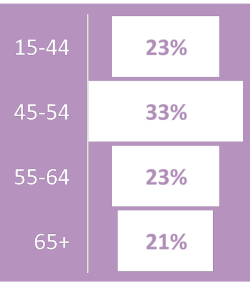
6.6
deaths per 100,000 population

Sex



64% 36%

Age



There were 39 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in Tasmania in 2020, which is equivalent to 0.85% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 6.6 deaths per 100,000 people in 2020 (Figure 30). This rate was not statistically different from the estimated rate in 2019 (8.5 per 100,000 people; RR=0.78 [95%CI 0.50, 1.21]), noting that estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 64% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (8.6 versus 4.8 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 45-54 (33%, 13 deaths). The age specific population rate was also highest in this age group (19 deaths per 100,000 people).

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in inner regional areas (71%, 28 deaths). The rate was also highest in this area (7.3 deaths per 100,000 people), noting there are no major city areas in Tasmania.

Intent of Drug Overdose Deaths

In 2020, 95% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 59% and intentional overdose for 41% of drug overdoses cases.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (90%) of drug-induced deaths.

Drug Involvement

Tasmania recorded a small number of drug induced deaths in 2020. The three most common drug types involved in drug overdose deaths in 2020 were:

- opioids (3.6 deaths per 100,000 people, 19 deaths);
- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (3.4 deaths per 100,000 people, 19 deaths); and
- antidepressants (2.7 deaths per 100,000 people, 15 deaths) (Figure 31).

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Figure 30. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, Tasmania, 1997-2020.

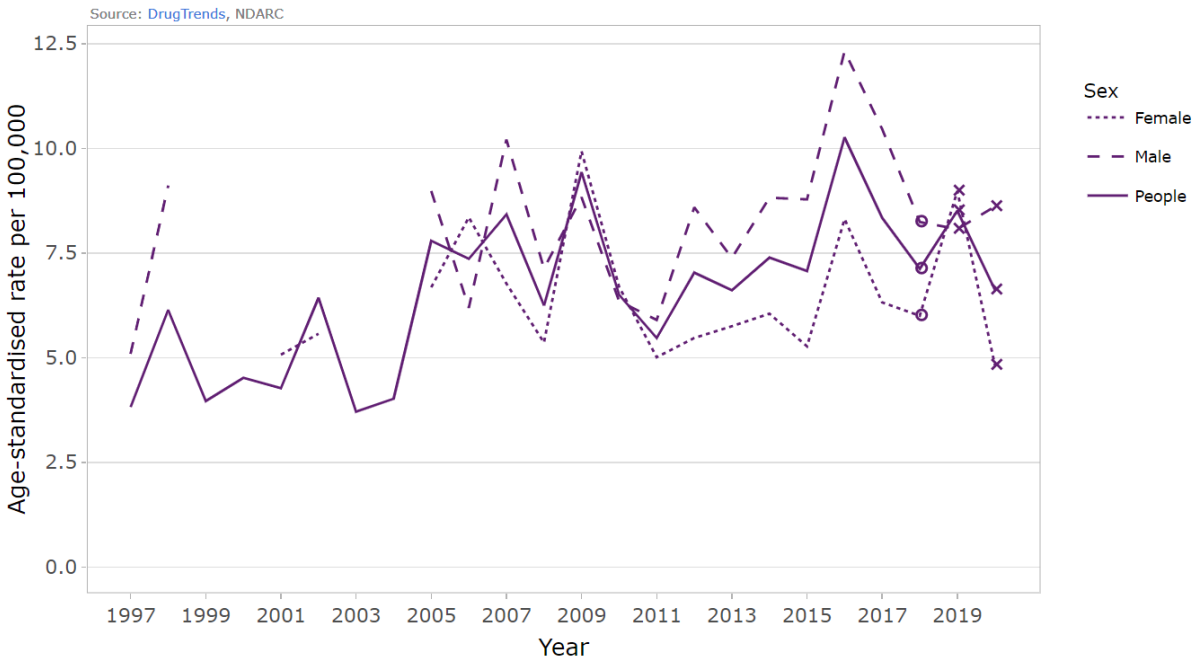
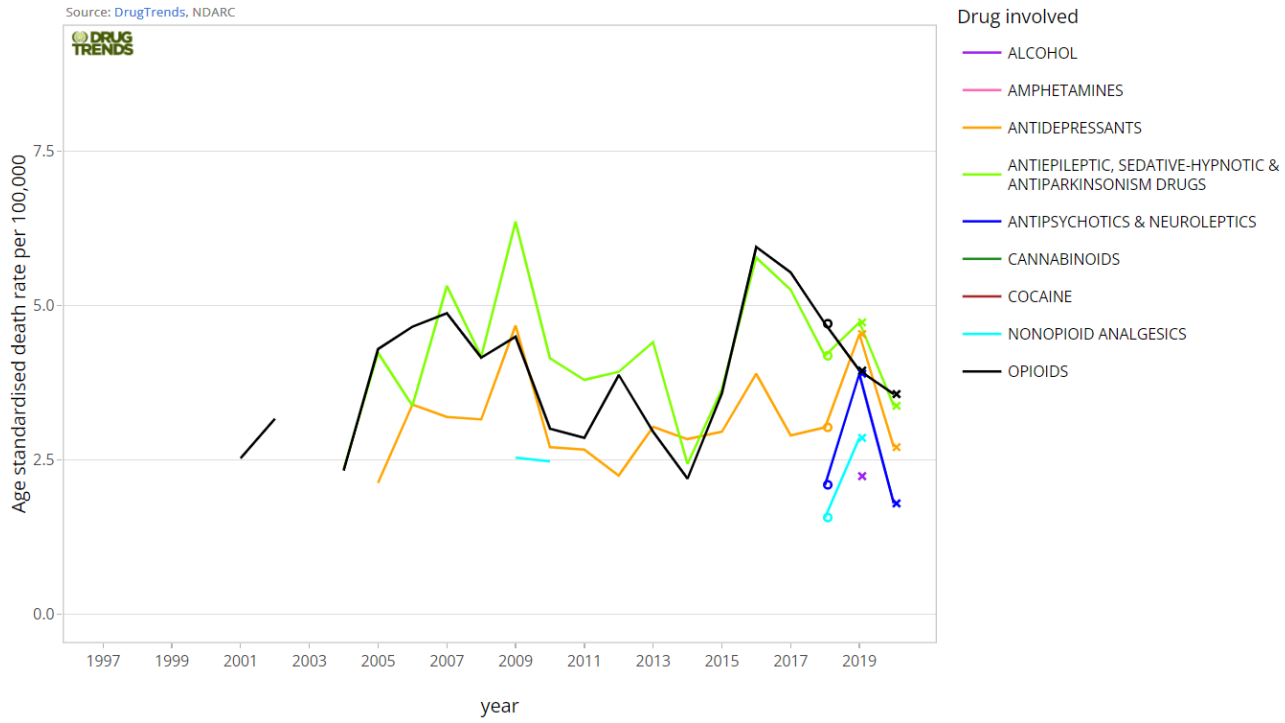


Figure 31. Age-standardised rate per 100,000 people of drug-induced deaths, by drug class, Tasmania, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.

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Victoria



2020

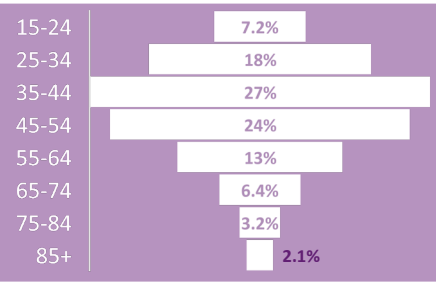
530
Drug-induced deaths

7.9
deaths per 100,000 population

Sex



Age



There were 530 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in Victoria in 2020, which is equivalent to 1.3% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 7.9 deaths per 100,000 people in 2020 (Figure 32). This rate was not statistically different to the estimated rate in 2019 (7.5 deaths per 100,000 people; RR=1.05 [95%CI 0.93, 1.19]), noting that estimates for 2018-2020 are subject to revision and may increase.

Sex

In 2020, males accounted for 64% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (10 versus 5.6 deaths per 100,000 people, respectively).

Age

In 2020, drug-induced deaths were most common among those aged 35-44 (27%) and 45-55 (24%), and least common among those aged 85 and over (2.1%) and 75-84 (3.2%). The rate was also highest in the 35-44 and 45-55 age groups (15 and 15 deaths per 100,000 people, respectively), however lowest in the 15-24 age group (4.5 deaths per 100,000 people).

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (76%, 402 deaths), however the highest rates were observed in outer regional areas (8.4 deaths per 100,000 people, respectively). Victoria has shown a pattern of consistently higher rates in regional and remote versus major city areas since 2009 (8.2 versus 7.6 deaths per 100,000 people, respectively, in 2020).

Intent of Drug Overdose Deaths

In 2020, 98% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 74% and intentional overdose for 21% of drug overdose deaths.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (79%) of drug-induced deaths.

Drug Involvement

In Victoria, the three most common drug types involved in drug overdose deaths in 2020 were:

- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (7.2 deaths per 100,000 people, 32 deaths);
- opioids (6.8 deaths per 100,000 people, 30 deaths); and
- antidepressants (4.1 deaths per 100,000 people; 18 deaths) (Figure 33).

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Figure 32. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, Victoria, 1997-2020.

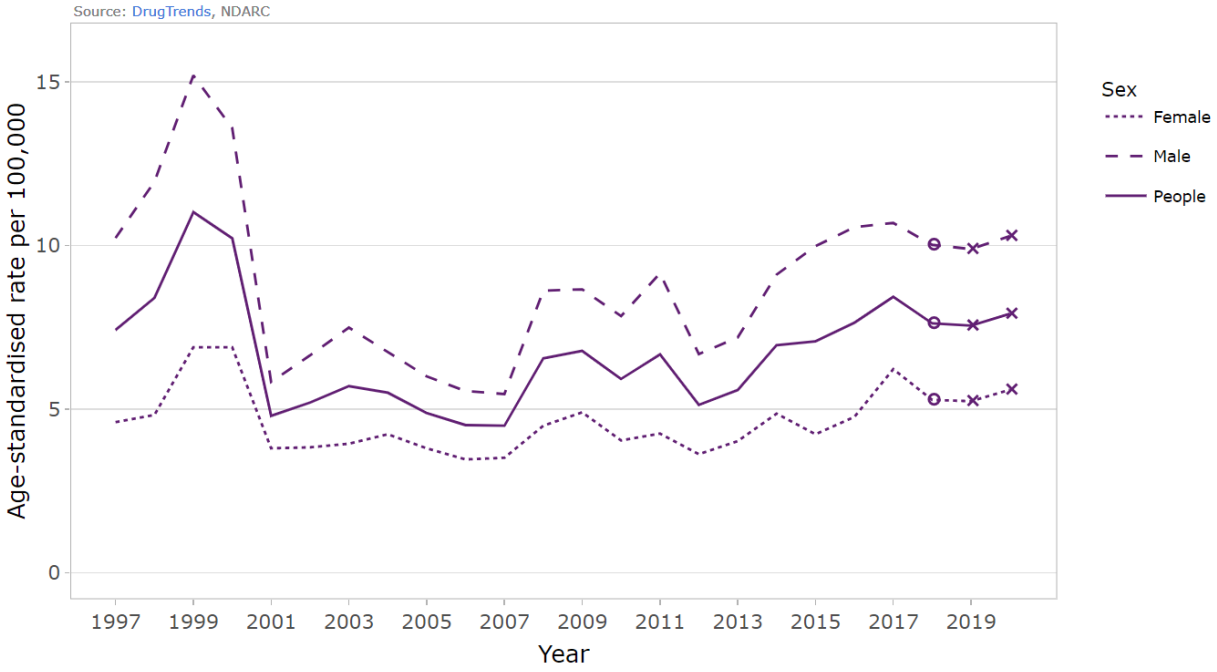
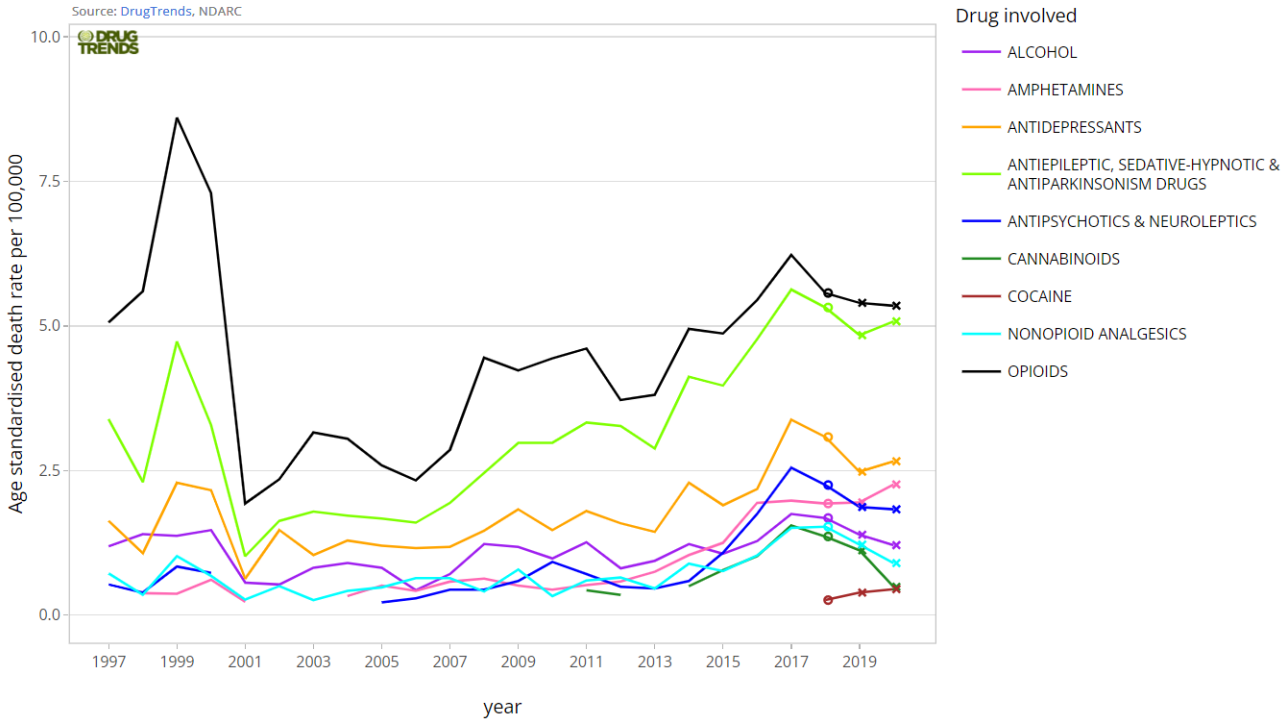


Figure 33. Age-standardised rate per 100,000 people of drug-induced deaths, by drug class, Victoria, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates. Age-standardised rates were not calculated if the number of deaths 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.

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Western Australia



2020

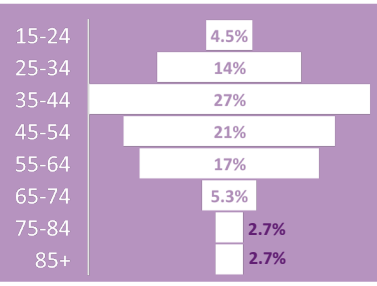
264
Drug-induced deaths

9.3
deaths per 100,000 population

Sex



Age



There were 264 registered overdose and other drug-induced deaths (excluding alcohol and tobacco) in Western Australia in 2020, which is equivalent to 1.8% of all registered deaths in this jurisdiction.

The preliminary age-standardised rate of drug-induced deaths was 9.3 deaths per 100,000 people in 2020 (Figure 34). This rate was not statistically different to the estimated rate in 2019 (9.9 deaths per 100,000 people; RR=0.93 [95%CI 0.78, 1.11]).

Sex

In 2020, males accounted for 61% of drug-induced deaths. The rate of drug-induced deaths was also higher among males than females (13 versus 5.7 deaths per 100,000 people).

Age

In 2020, drug-induced deaths were most common among those aged 35-44 (27%) and 44-54 (20%) and least common among those aged 75-84 (2.7%) and 85 and over (2.7%). The age specific population rate was also highest in the 35-44 (19 deaths per 100,000 people) and 45-54 (16 deaths per 100,000 people) age groups, however closely followed by the 55-64 and 85 and over age groups (15 and 15 deaths per 100,000 people, respectively).

Remoteness Area of Usual Residence

The greatest proportion of drug-induced deaths in 2020 occurred among people residing in major city areas (77%, 204 deaths). In Western Australia, the rate of drug-induced deaths has been higher in major city versus regional and remote areas in most years of monitoring (9.7 versus 6.6 deaths per 100,000 people, respectively).

Intent of Drug Overdose Deaths

In 2020, 93% of drug-induced deaths were due to overdose. Unintentional overdose accounted for 74% and intentional overdose for 17% of drug overdose deaths.

Place of Occurrence

In 2020, the location of the incident underlying death was coded as home for the majority (80%) of drug-induced deaths.

Drug Involvement

In Western Australia, the three most common drug types involved in drug overdose deaths in 2020 were:

- opioids (5.8 deaths per 100,000 people, 156 deaths);
- antiepileptic, sedative-hypnotic and anti-parkinsonism drugs (5.1 deaths per 100,000 people, 138 deaths); and
- antidepressants (3.3 deaths per 100,000 people, 92 deaths) (Figure 35).

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Figure 34. Age-standardised rate per 100,000 people of drug-induced deaths, by sex, Western Australia, 1997-2020.

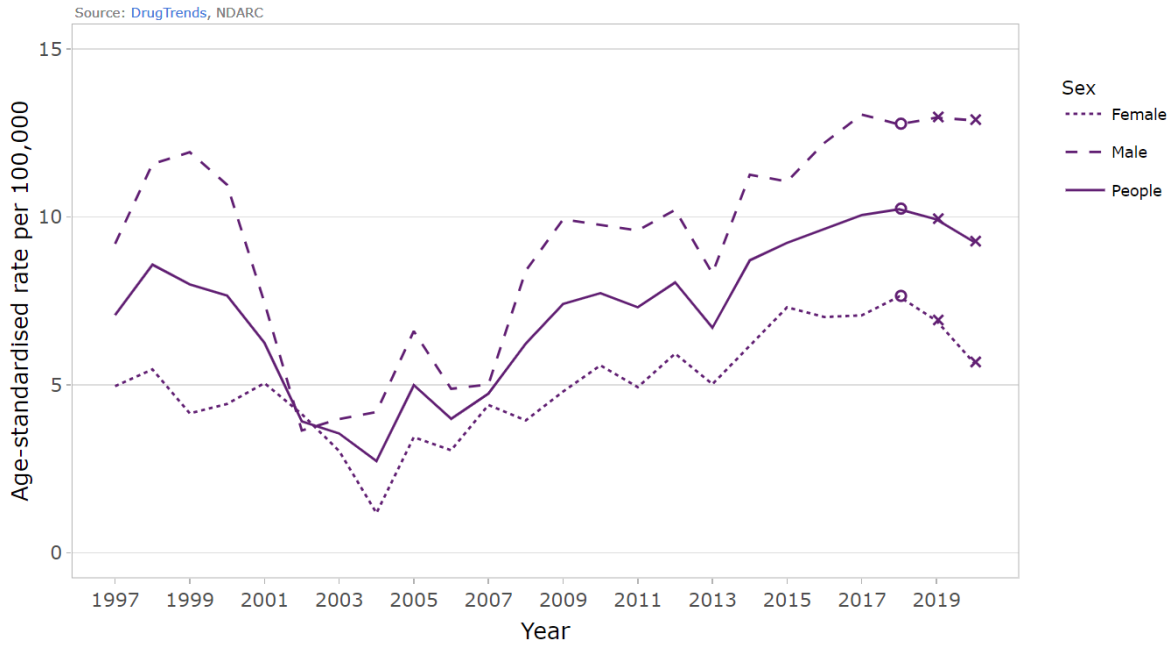
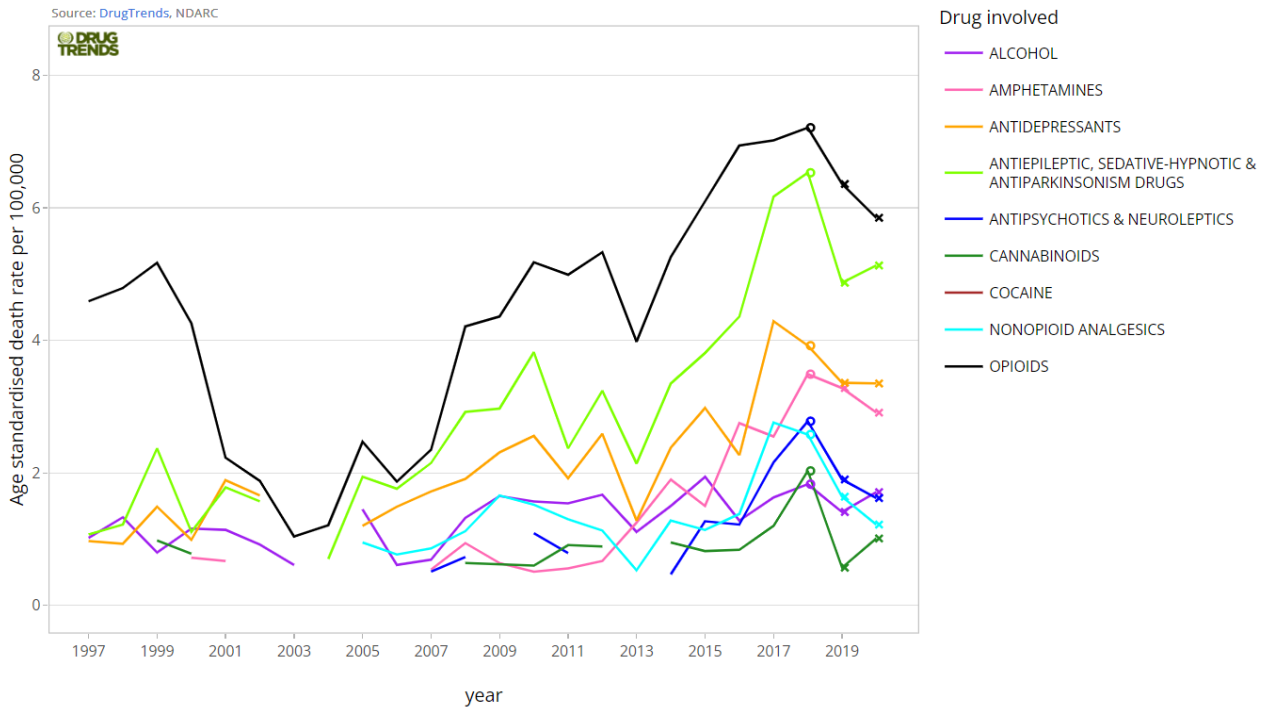


Figure 35. Age-standardised rate per 100,000 people of drug-induced deaths, by drug class, Western Australia, 1997-2020.



Note: Deaths where conditions related to alcohol or tobacco comprised the underlying cause of death are not captured here. Causes of death data for 2018, 2019 and 2020 are not final and thus are subject to further revision. The symbol 'o' indicates revised estimates and 'x' preliminary estimates.
Age-standardised rates were not calculated if the number of deaths 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.