

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. 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 hypnotosedatives only (9.9%).

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).

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