METHODS FOR
"Trends in Overdose and Other Drug-Induced Deaths in Australia, 1997-2020"

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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.

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Data Source

This report and the corresponding online interactive visualisation contain statistics on drug related causes of death for Australia between 1997 and 2020. The data from the Australian Bureau of Statistics (ABS) were accessed from the Cause of Death Unit Record File (COD URF) datasets through the Australian Bureau of Statistics (ABS) before 2006 (1997 to 2005 dataset) and from the Queensland Registry of Births, Deaths and Marriages as the Australian Coordinating Registry (ACR) from 2006 onwards (2006 to 2020 dataset). The COD URF is a compilation of death records from each of the State and Territory Registries of Births, Deaths and Marriages (RBDMs) and from State and Chief Coroners through the National Coronial Information System (NCIS). Changes in data coding and collection have occurred over the time period reported.

To account for the length of time that it can take for the coronial process to be finalised and the coroner case closed, the ABS undertake a revision process for coroner-certified deaths over a 3-year period. Accordingly, Causes of Death data for 2019 and 2020 are preliminary and subject to two further revisions; data for 2018 are revised and subject to another revision; data for 2017

Presentation of Results

In line with ABS recommendations on presenting annual time series, we report the number of deaths by reference year. The reference year assigned to a death is determined by when the death was registered with jurisdictional RBDMs, as well as when it was received by the ABS. It is important to note that there can be lags in the registration of deaths with jurisdictional RBDMs (i.e., not all deaths are registered in the year that they occur), and there may also be delays in the ABS receiving notification of the death from the registries due to processing or data transfer lags. Thus, the reference year assigned to a death includes:

- deaths registered in Australia during the reference year and received by the ABS in the reference year;
- deaths registered in Australia during the reference year and received by the ABS in the first quarter of the subsequent year; and
- deaths registered in the years prior to the reference year but not received by ABS until the reference year or the first quarter of the subsequent year, provided that these records have not been included in any statistics from earlier periods.

For more information on scope and coverage of death statistics, see the ABS Causes of Death methodology document.

In this report, analyses are based on the reference year. The only exception is analysis of change in quarterly mortality numbers and rates where we use the year and month of death. Data for the fourth quarter of 2020 was not included in the analysis due to lack of robustness. When data is received each month by the ABS, the lag between the date of death and the date of registration means that approximately 40-50% of reported registrations are of deaths that occurred in the month being reported. The remainder are deaths that occurred in earlier months. For more information see the ABS Provisional Mortality Statistics methodology.

In the report, we report on number of deaths, percentage and age-standardised death rate per 100,000 population. The exception comprises where we report quarterly rates or by age group (e.g., in 10-year age groups)[per 1.5961.36001 Te wyeEEMC ERd ( )Ty

description of change in

A Tabulation list of ICD-codes to identify causes of death attributable to drug-induced mortality was developed by the ABS based on a drug-induced death tabulation created by the United States Centre for Disease Control and Prevention (CDC). We have adopted these codes for our definition of all drug-induced deaths. This list excluded causes of deaths attributed to tobacco or alcohol (see below).

Underlying Cause of Death

'Drug overdose deaths' are all deaths where the acute toxic effect of a drug was determined by the coroner, forensic pathologist or forensic toxicologist to be the UCOD (i.e., accidental poisoning X40-X44, intentional poisoning X60-X64, undetermined intent of poisoning Y10-Y14 and assault by drugs X85). The remaining drug-induced deaths are those where the UCOD was related to mental and

Coding of Deaths

Drug-Induced Deaths

The following list of codes for UCOD defines drug-induced deaths in our reporting. This list of ICD-10 codes to identify causes of death attributable to drug-induced mortality was developed by the ABS based on a drug-induced death tabulation created by United States Centre for Disease Control and Prevention (CDC). In accordance with ABS reporting, causes of drug-induced death presented in this report exclude accidents, homicides, and other causes indirectly related to drug use. We have also excluded newborn deaths associated with mother's drug use, and deaths related to tobacco (e.g., F17) or alcohol (e.g., F10).

Underlying Cause of Death (UCOD):

- D52.1 – Drug-induced folate deficiency anaemia;
- D59.0 – Drug-induced haemolytic anaemia;
- D59.2 – Drug-induced nonautoimmune haemolytic anaemia;
- D61.1 – Drug-induced aplastic anaemia;
- D64.2 – Secondary sideroblastic anaemia due to drugs and toxins;
- E06.4 – Drug-induced thyroiditis;
- E16.0 – Drug-induced hypoglycaemia without coma;
- E23.1 – Drug-induced hypopituitarism;
- E24.2 – Drug-induced Cushing's syndrome;
- E27.3 – Drug-induced adrenocortical insufficiency;
- E66.1 – Drug-induced obesity;
- F11.0-F11.5 – Use of opioids causing intoxication, harmful use (abuse), dependence, withdrawal or psychosis
- F11.7-F11.9 – Use of opioid causing late onset psychosis, other mental and behavioural disorders and unspecified behavioural disorders.
- F12.0-F12.5 – Use F 1 2 . 0

- F19.0-F19.5 – Use of multiple drugs and other psychoactive substances causing intoxication, harmful use (abuse), dependence, withdrawal or psychosis
- F19.7-F19.9 – Use of multiple drugs and other psychoactive substances causing late onset psychosis, other mental and behavioural disorders and unspecified behavioural disorders.
- G21.1 – Other drug-induced secondary Parkinsonism;
- G24.0 – Drug-induced dystonia;
- G25.1 – Drug-induced tremor;
- G25.4 – Drug-induced chorea;
- G25.6 – Drug-induced tics and other tics of organic origin;
- G44.4 – Drug-induced headache, not elsewhere classified;
- G62.0 – Drug-induced polyneuropathy;
- G72.0 – Drug-induced myopathy;
- I95.2 – Hypotension due to drugs;
- J70.2 – Acute drug-induced interstitial lung disorders;
- J70.3 – Chronic drug-induced interstitial lung disorders;
- J70.4 – Drug-induced interstitial lung disorder, unspecified;
- L10.5 – Drug-induced pemphigus;
- L27.0 – Generalized skin eruption due to drugs and medicaments;
- L27.1 – Localized skin eruption due to drugs and medicaments;
- M10.2 – Drug-induced gout;
- M32.0 – Drug-induced systemic lupus erythematosus;
- M80.4 – Drug-induced osteoporosis with pathological fracture;
- M81.4 – Drug-induced osteoporosis;
- M83.5 – Other drug-induced osteomalacia in adults;
- M87.1 – Osteonecrosis due to drugs;
- R78.1 – Finding of opiate drug in blood;
- R78.2 – Finding of cocaine in blood;
- R78.3 – Finding of hallucinogen in blood;
- R78.4 – Finding of other drugs of addictive potential in blood;
- R78.5 – Finding of psychotropic drug in blood;
- X40-X44 – Accidental poisoning by and exposure to drugs, medicaments and biological substances;
- X60-X64 – Intentional self-poisoning (suicide) by and exposure to drugs, medicaments and biological substances;
- X85 – Assault (homicide) by drugs, medicaments and biological substances; and
- Y10-Y14 – Poisoning by and exposure to drugs, medicaments and biological substances, undetermined intent.

Drug Overdose Deaths by Drug Class and Drug Type

Tricyclic and tetracyclic antidepressants   Imipramine, amitriptyline, mianserin
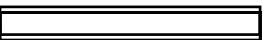
originally coded using the Australian Standard Geographic Classification (ASGC) (cat no 1216.0), while data from 2011 to 2015 were coded using ASGS 2011 and from 2016 onwards, ASGS 2016 was used. Correspondence was applied to the 2009 and 2010 ASGC codes by ABS to obtain corresponding ASGS 2011 codes, which could have introduced some inaccuracies and should be considered when interpreting the data.

To reassign data from ASGS to Remoteness Areas (RA), we applied appropriate correspondences (SA2 2011 to RA 2016 for data between 2009 and 2015, and SA2 2016 to RA 2016 for data from 2016 onwards). Five classes of remoteness area are defined nationally for Australia – Major cities, Inner regional, Outer regional, Remote and Very remote. We have disaggregated by Major cities versus Regional and Remote for reporting by jurisdiction for New South Wales, Victoria, Queensland, South Australia and Western Australia. There are no Major cities in Tasmania and Northern Territory, and numbers in Regional and Remote areas are too small for reporting in Australian Capital Territory.

Overdose and Other Drug-