

NSW Mortality data

NSW Registry of Births, Deaths and Marriages Death Registrations
Australian Coordinating Registry Cause of Death Unit Record File

March 2023

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Background

All deaths for which a coronial inquiry is not required must be certified as to cause and date by a registered medical practitioner and the certificate registered by the Registrar of Births, Deaths and Marriages (RBDM) in each State and Territory. Deaths referred to a coroner are registered by the coroner at the conclusion of an inquiry into the circumstances of the death. The vast majority of non-coronial deaths are registered with the relevant RBDM within four weeks of the date of death; however coronial inquiries can take months or even years to conclude.

Details of all registered deaths are forwarded to the Australian Bureau of Statistics (ABS). The ABS then check and code the information. A single code for an underlying cause of death was applied in the years to 1997. From 1997 multiple cause of death codes (ICD-10) were applied to each death record where more than one cause contributed to the death.

Australian Coordinating Registry Cause of Death Unit Record File

For deaths registered from 2007 onwards, the Centre for Epidemiology and Evidence, NSW Ministry of Health receives coded cause of death data from the Australian Coordinating Registry (ACR) for the Cause of Death Unit Record File (COD URF). Access to the COD URF is in accordance with the ACR terms and conditions of use and disclosure by the NSW Ministry of Health.

The legacy ABS mortality data prior to 2006 have been mapped and combined with the COD URF.

Record linkage of RBDM and ABS / ACR data

Death registrations held by the RBDM contain full personal identifiers and the death registration number. The ABS removes personal identifiers from the ABS mortality data each year once their annual mortality report is published but retains the death registration number. Thus, RBDM death registration data constitute personally identified but uncoded raw data, while the ABS mortality data have coded cause of death but with personal information removed.

The Centre for Health Record Linkage (CHeReL) is able to link ABS death registration data with RBDM death registration data using the death registration number. The death registration number is usually reliable for linkage of these two datasets, however additional passes on other common identifiers, such as the date of birth, sex, and the date of death, are also included to help improve matching on unlinked records. The CHeReL routinely carries out checks of these linkages.

Tips for using mortality data in linkage studies

- Two datasets contain mortality information: RBDM death registration data and the ABS/ACR COD URF.
- The ABS / ACR COD URF is based on year of registration of the death, rather than the year of the death. RBDM Death Registrations and ACR CODURF data from 1985 onwards are available for linkage projects
- RBDM death registration data are provided in raw, uncoded format. For this reason, only date of birth, age at death, date of death, year of death registration and some geographic variables are

available for analysis. While the free text cause of text was previously provided to researchers on an interim basis, new requests for free text cause of text will require a strong justification.

- ABS / ACR COD URF data are available later than the RBDM death registration data due to the time needed for coding and cleaning of the data.
- Death data is coded according to the ICD-10 International Version rather than the Australian Modification ICD-10-AM used in Australian hospitals.
- Death records available for linkage include deaths occurring in NSW and do not include deaths of NSW residents who die interstate. The Australian Institute of Health and Welfare holds the National Death Index, which can be used for research studies that require linkage of death records for NSW residents who die interstate.
- The date of birth is sometimes incorrect as it is reported by relatives to the funeral director at the time when the funeral is being arranged. The funeral director reports the personal details of the deceased to the RBDM. Particularly for older family members who have died, relatives generally report the birth day (day and month) correctly but may inadvertently give an incorrect year of birth. For this reason, age at death may be preferable for analysis purposes.

Coded cause of death

The ACR CODURF dataset includes coded cause of death information produced by the ABS.

The underlying cause is defined as the 'disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury'. The medical certificate of cause of death recommended by World Health Organisation (WHO) for international use, was designed to facilitate the selection of the underlying cause. When more than one condition is entered on the death certificate the underlying cause is selected using the coding rules of the relevant version of the International Classification of Diseases and Health Related Problems (ICD).

Prior to 1997, the ABS had a manual process to code underlying cause of death information according to ICD-9. Since 1997, the ABS have coded multiple causes of death according to ICD-10 using automated processes.

Additional information on underlying and multiple cause of death information and automated coding process are available in the data element information sections for [Underlying Cause of Death Diagnosis Code](#) and [Contributing causes of death \(ICD-10\)](#) below.

COVID-19 Deaths

Coded cause of death information on deaths where COVID-19 was certified on the death certificate are now included in the ACR CODURF. COVID-19 is coded to U07.1 (virus confirmed by laboratory), U07.2 (suspected COVID-19), U08.9 (personal history of COVID-19) and U09.9 (long term effects of COVID-19). Deaths where a negative COVID-19 result was noted have Z03.8 listed in the entities and record axes

Geography variables in ACR COD URF

Usual residence is provided to the ABS by the Registry of Births, Deaths and Marriages in the form of an address. This address is then coded by the ABS in accordance with the geographic classification current at the time of coding. A break in series for geographic classification occurred between 2010 and 2011.

- 1988 to 2010 data was coded using the Australian Standard Geographic Classification (ASGC) . For a given reference year, the previous year's version of the ASGC was used (e.g., for 2008 reference year, the ASGC 2007 was used). Researchers may request Statistical Local Area (SLA), Statistical Subdivision (SD) or Statistical Subdivision (SSD) information.
- 2011 to 2015 data is coded using the Australian Statistical Geography Standard (ASGS) 2011. Researchers may request Statistical Area levels 2 (SA2), 3 (SA3) or 4 (SA3)
- 2016 data onwards is coded to ASGS 2016. Researchers may request SA2, SA3 or SA4 level information.
- State of residence is available from 1985 onwards
- From 2006 onwards, ASGS 2021 Local Government Area 2021 code is available.

Further details are available in the [Data element details](#) below.

Access to information on Aboriginal and Torres Strait Islander peoples

An application to the Aboriginal Health and Medical Research Council (AH&MRC) ethics committee should be made for research projects for which one or more of the following apply:

- The experience of Aboriginal people is an explicit focus of all or part of the research
- Data collection is explicitly directed at Aboriginal peoples
- Aboriginal peoples, as a group, are to be examined in the results
- The information has an impact on one or more Aboriginal communities
- Aboriginal health funds are a source of funding

Research that is not specifically directed at Aboriginal people or communities, such as for the total population or a sub-population (e.g., rural NSW, people over 50 years old) can still potentially impact on Aboriginal people.

However, an application for such research need only be made to the Committee if any one of the following applies:

- Any of the five factors listed above are present: or
- Aboriginal people are known, or are likely, to be significantly over-represented in the group being studied (e.g., compared to the 2.1% of the total NSW population as shown in the 2006 Census); or
- The Aboriginal experience of the medical condition being studied is known, or is likely, to be different from the overall population; or
- There are Aboriginal people who use the services being studied in distinctive ways, or who have distinctive barriers that limit their access to the services; or
- It is proposed to separately identify data relating to Aboriginal people in the results.

The AH&MRC ethics committee have some specific requirements, including evidence of community engagement in the research. Relevant documents can be found on the AH&MRC website at: <http://www.ahmrc.org.au>. If you are unsure whether an application to the AH&MRC Ethics Committee is required, please seek the advice of the Ethics Committee secretariat (T: 02 9212 4777)

Data Custodian

The Registrar of Births, Deaths and Marriages is the data custodian of death registration data. The CHeReL organises data custodian sign-off for RBDM and COD URF data on behalf of the researcher. To arrange sign-off, please contact:

Research Project Manager

Centre for Health Record Linkage

NSW Ministry of Health

1 Reserve Road

ST LEONARDS NSW 2065

Post: Locked Mail Bag 961

North Sydney NSW 2059

Phone: 02 9391 9924

Fax: 02 9391 9686

Email: MOH-CHeReL@health.nsw.gov.au

Data Elements

RBDM Death registrations

Data element summary

Data Element	Name[s] in dataset	Page
Date of birth	birth_date	5
Date of death	death_date	5
Age at death in years	age_recode	5
Year of Registration	registration_year	6
State of residence	state_of_residence_recode	6

Data element details

Date of birth

Data element	Date of birth
Name[s] in dataset	birth_date
Description	The date of birth of the individual. Full date of birth is rarely released for data linkage projects; please ensure that you include detailed justification if you require full date of birth.

Date of death

Data element	Date of death
Name[s] in dataset	death_date
Description	The date of death of the individual. Full date of death is rarely released for data linkage projects; please ensure that you include detailed justification if you require full date of death.

Age at death in years

Data element	Age at death in years
Name[s] in dataset	age_recode
Description	Age at death of the individual in years

Year of Registration

Data element	Year of Registration
Name[s] in dataset	registration_year
Description	The year in which death was registered

State of residence

Data element	State of residence
Name[s] in dataset	state_of_residence_recode
Description	Indicates the Australian state of residence

ACR CODURF

The information below is derived from the Australian Coordinating Registry and Australian Bureau of Statistics Cause of Death Unit Record File User Guide (May 2022).

Data element summary

Data Element	Name[s] in dataset	Page
ABS revision status	revision_status	8
Date of birth	birth_date	8
Date of death	death_date	9
Year of registration	reg_year	11
Indigenous status	indigenous_status	12
Age at death in years	age_years	13
Fractional Age	dth_age	14
Place of birth	birth_place	15
Period of residence in Australia	period_residence	17
Sex	sex	18
Place of Occurrence of External Cause of Death	place_occurrence	19
ICD version	ucod_codeset	20
Underlying Cause of Death Diagnosis Code	ucod_recode	21
Contributing causes of death (ICD-10)	RACS1-RACS20	23
State /Territory of usual residence	URES_state	24
Australian Standard Geographic Classification (ASGC) Statistical Local Area	URES_9DIGIT	25
Australian Statistical Geography Standard (ASGS) Statistical Area level 2	URES9_SA2	26
ASGS 2021 Local Government Area 2021 code	lga_2021_code_acr	27

Data element details

ABS revision status

Identifying and definitional attributes

Start Date	1985
Definition	ABS revision status
Context	All cause of death data from 2006 onwards are subject to a <u>revisions process</u> . Variable included in all data releases

Representational attributes

Field Name revision_status

Data Domain

Code	Description
Final	
Revised	
Preliminary	

Guide for Use

Administrative Attributes

Source document Australian Bureau Statistics

Source Organisation Australian Bureau Statistics

Notes

For coroner certified deaths, the specificity of cause of death coding can be affected by the length of time for the coronial process to be finalised and the coroner case closed. To improve the quality of ICD coding, all coroner certified deaths registered after 1 January 2006 are subject to a revisions process.

Up to and including deaths registered in 2005, ABS Causes of Death processing was finalised at a point in time. At this point, not all coroners' cases had been investigated, the case closed, and relevant information loaded into the National Coronial Information System (NCIS). The coronial process can take several years if an inquest is being held or complex investigations are being undertaken. In these instances, the cases remain open on the NCIS, and relevant reports may be unavailable. Coroners' cases that have not been closed or had all information made available can impact on data quality as less specific ICD codes often need to be applied.

The revisions process to date has focused on cases that remain open on the NCIS database. ABS coders investigate and use additional information from police reports, toxicology reports, autopsy reports and coroners' findings to assign more specific causes of death. The use of this additional information occurs at either 12 or 24 months after initial processing and the specificity of the assigned ICD-10 codes increase over time. As 12 or 24 months pass after initial processing, many coronial cases are closed, with the coroner having dispensed a cause of death and relevant reports have been made available. This allows ABS coders to assign a more specific cause of death.

Date of birth

Identifying and definitional attributes

Start Date	1985
Definition	Day of birth of the deceased person.
Context	May be used to derive age at death and for demographic analysis and analysis by age.

Representational attributes

Field Name	birth_date
Data Domain	
Guide for Use	<p>If Birth date is not known or cannot be obtained, it is imputed from age if available.</p> <p>If age is also unknown up to and including reference year 2009, Birth Year is assigned as 9999 Not stated, Birth Month is assigned as 99 Not stated Birth Day is assigned as 99 Not stated.</p> <p>From 2010 reference year and onwards, not stated may be shown as 9999 or as 2099. From 2012 reference year, if age is also unknown, birth year is assigned only as 2099 Not stated.</p> <p>For 2010 and 2011 reference years, Birth Month can be assigned to either 00 Not Stated/Unknown or 9 in cases where the value of the birth year is 2099. From 2012 reference year, if age is also unknown, only a value of 9 is used to represent Not Stated/Unknown for cases where the value of the birth year is 2099</p> <p>For 2009, 2010 and 2011 reference years, Birth Day can be assigned to either 00 Not Stated/Unknown or 9 in cases where the value of the birth year is 2099. From 2012 reference year, if age is also unknown, only a value of 9 is used for those cases where the value of the birth year is 2099.</p>

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages
Notes	Full date of birth is rarely released for data linkage projects; please ensure that you include detailed justification if you require full date of birth.

Date of death

Identifying and definitional attributes

Start Date	1985
Definition	Date in which a death occurred
Context	Provides a time reference to allow analysis of change over time

Representational attributes

Field Name death_date

Data Domain

Guide for Use

For some records, a date of death may be unknown (e.g., skeletal remains).

Up to and including reference year 2009 these records are assigned a Year of Death of 9999 Not stated, a Month of Death of 99 Not stated and a Day of Death of 99 Not stated. If Death Day is not known or cannot be obtained, up to and including reference year 2009, Death Day is assigned as 99 Not stated.

From 2010 reference year and onwards, not stated may be shown as 9999 or as 2099. From 2012 reference year, Year of Death is assigned only as 2099 to represent Not stated.

For 2010 and 2011 reference years, Death Month can be assigned to either 00 Not Stated/Unknown or 9 in cases where the value of the Death Year is 2099. From 2012 reference year, only a value of 9 is used to represent Not Stated for those cases where the value of the Death Year is 2099.

For 2010 and 2011 reference years, Death Day can be assigned to either 00 Not Stated/Unknown or 09 in cases where the value of the birth year is 2099. From 2012 reference year, if age is also unknown, only a value of 09 is used for those cases where the value of the Death Year is 2099.

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages
Notes	Full date of death is rarely released for data linkage projects; please ensure that you include detailed justification if you require full date of death.

Year of registration

Identifying and definitional attributes

Start Date	1985
Definition	Year in which a death is registered by Registry of Births, Deaths and Marriages
Context	Provides a measure of when a death was registered with the relevant Registry of Births, Deaths and Marriages. May be used in conjunction with date of death to measure registration lag.

Representational attributes

Field Name	REG_YEAR
Data Domain	Valid year
Guide for Use	For some deaths, there may be considerable lag between when the death occurred and when it is registered. These 'late registrations' predominantly occur during the month of December.

Administrative Attributes

Source document	Derived during Registry of Births, Deaths and Marriages processes.
Source Organisation	Registry of Births, Deaths and Marriages
Notes	Year of Registration is assigned by the Registry of Births, Deaths and Marriages during processing. If Year of Registration is missing from the data received by the ABS, Year of Registration is imputed as the year in which the record is received by the ABS. All records are assigned a Year of Registration.

Indigenous status

Identifying and definitional attributes

Start Date 1985

Definition Indigenous Status is a measure of whether the deceased person has been identified as being of Aboriginal or Torres Strait Islander origin.

Context

Representational attributes

Field Name indigenous_status

Data Domain	Code	Description
	1	Aboriginal
	2	Torres Strait Islander
	3	Both Aboriginal and Torres Strait Islander origin
	4	Neither Aboriginal nor Torres Strait Islander
	9	Not stated

Guide for Use

Administrative Attributes

Source document Death Notification Form and Medical Certificate of Cause of Death, where available.

Source Organisation Registry of Births, Deaths and Marriages

Notes Information on a deceased person's Indigenous Status as collected on the Death Notification Form and Medical Certificate of Cause of Death is of varying quality and completeness. Presently, due to quality issues, the ABS only produces statistical analysis such as age-standardised death rates on deaths of Aboriginal and Torres Strait Islander people for selected states/territories, namely New South Wales, Queensland, South Australia, Western Australia and Northern Territory. Rates for other states/territories are not published due to a combination of comparatively small numbers and relatively low coverage of reported Indigenous deaths.

For some records, there may be inconsistency in Indigenous status as collected on the Death Notification form and the Medical Certificate of Cause of Death. The ABS considers both sources and will take any identification as Aboriginal or Torres Strait Islander as being more accurate than identification of Non-Indigenous or Not stated. Similarly, identification as Both Aboriginal and Torres Strait Islander is taken over any other response.

Age at death in years

Identifying and definitional attributes

Start Date	1985
Definition	Age of the deceased person in years
Context	Used for demographic analysis and analysis of cause of death by age

Representational attributes

Field Name	age_years
Data Domain	Age in complete years (integer)

Guide for Use

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages
Notes	If age at death is not provided, ABS will impute from date of birth and date of death where possible.

Fractional Age

Identifying and definitional attributes

Start Date	1985
Definition	Age of the deceased person
Context	Used for demographic analysis and analysis of cause of death by age

Representational attributes

Field Name dth_age

Data Domain	Value	Description
	1-120	Age in years
	201-211	Age in months with prefix of 2
	299	Unknown months
	301-327	Age in days with a prefix of 3
	398	Unknown days
	401-423	Age in hours with a prefix of 4
	499	Unknown hours
	500-559	Age in minutes with a prefix of 5
	599	Unknown minutes
	601-659	Age in seconds with a prefix of 6
	699	Unknown seconds
	999	Not stated

Guide for Use Age at death during the first year of life (0 years) is recorded in completed months, days, hours or minutes. If aged between 1 and 11 months, Age at Death is recorded in months. If aged between 1 and 28 days, Age at Death is recorded in days. If aged between 1 and 23 hours, Age at Death is recorded in hours. If aged less than an hour, Age at Death is recorded in minutes. If age is less than one minute, Age at Death is recorded in seconds.

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages
Notes	If age at death is not provided, ABS will impute from date of birth and date of death where possible.

Place of birth

Identifying and definitional attributes

Start Date	1985
Definition	The country or state/territory (if born in Australia) in which the deceased person was born.
Context	Place of birth is important in studying the access to services and health outcomes by different population sub-groups. Place of birth is the most easily collected and consistently reported of possible data items. The item provides a link between the ABS Census of Population and Housing, and other statistical collections. Place of birth may be used in conjunction with other data elements such as Period of residence in Australia to derive more sophisticated measures of access to services by different population sub-groups and may help in identifying population sub-group(s) that may be at increased risk of particular causes of death.

Representational attributes

Field Name	birth_place
Data Domain	The country or state/territory (if born in Australia) in which the deceased person was born. In 2009 the classification changed from Standard Australian Classification of Countries (SACC) 1998 (Revision 2.03) to the 2008 version of the SACC. From 2012-2016 the 2011 version of SACC has been used, from 2017 onwards the Standard Australian Classification of Countries (SACC), 2016 (cat. no. 1269.0) has been used
Guide for Use	Coding has changed many times and is inconsistent. Use with care.

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages, standard classification codes are added by the ABS
Notes	In 2009 the classification changed from Standard Australian Classification of Countries (SACC) 1998 (Revision 2.03) to the 2008 version of the SACC. In 2012 the 2011 version of the SACC was implemented. In the 2008 version of the SACC, supplementary codes used to identify the state or territory of birth for persons born in Australia were included in the classification. These codes ranged from 0901-0909. These codes were not retained in the 2011 version of SACC. To capture this level of detail, the ABS retained these codes with the move to SACC 2011. The correspondence for these codes can be found below:

Code	Value
0901	New South Wales
0902	Victoria
0903	Queensland
0904	South Australia
0905	Western Australia

0906	Tasmania
0907	Northern Territory
0908	Australian Capital Territory
0909	Other territories of Australia

SACC was revised in 2016, but the only changes were to country names. Codes remain unchanged from the 2011 version.

SACC 2011, Version 2.3	SACC 2016
3206 Former Yugoslav Republic of Macedonia (FYROM)	3206 North Macedonia
3302 Czech Republic	3302 Czechia
5101 Myanmar, The Republic of the Union of	5101 Myanmar
8202 Bolivia, Plurinational State of	8202 Bolivia
8216 Venezuela, Bolivarian Republic of	8216 Venezuela
9226 Swaziland	9226 Eswatini

Period of residence in Australia

Identifying and definitional attributes

Start Date	1985
Definition	Period of residence in Australia, in years
Context	Used in conjunction with data element Place of birth, this data item may be used for analysis relating to changes in mortality patterns of sub-populations over time.

Representational attributes

Field Name period_residence

Data Domain

Code	Value
00-96	Years of residence in Australia
97	97 or more years of residence in Australia
98	Born in Australia (not applicable)
99	Not stated

Guide for Use

Administrative Attributes

Source document	Death notification form
Source Organisation	Registry of Births, Deaths and Marriages
Notes	Queensland Registry of Births, Deaths and Marriages provide the ABS with Year of Arrival rather than Period of Residence. The ABS derives Period of Residence from Year of Arrival and Year of Death.

Sex

Identifying and definitional attributes

Start Date	1985
Definition	The sex of a deceased person.
Context	Used for demographic analysis and analysis of cause of death by sex.

Representational attributes

Field Name sex

Data Domain	Code	Value
	1	Male
	2	Female

Guide for Use

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages

Notes Where sex is not stated, efforts are made to find other information provided by the Registry, which offers a strong indication of sex, such as the cause of death of the deceased. Failing this, sex is assigned during processing based on the last digit of the death registration number for that death.

Place of Occurrence of External Cause of Death

Identifying and definitional attributes

Start Date	2007
Definition	The place where the external mechanism leading to death occurred.
Context	Enables categorisation of injury and poisoning according to factors important for injury control. Necessary for defining and monitoring injury control targets, injury costs and identifying cases for in-depth research. Potential data quality and consistency issues may exist.

Representational attributes

Field Name place_occurrence

Data Domain

Code	Value
0	Home
1	Residential Institution
2	School
3	Sports and athletics area
4	Street and highway
5	Trade and services
6	Industrial and construction area
7	Farm
8	Other specified places
9	Unspecified place
#	Place of occurrence not applicable

Guide for Use

Administrative Attributes

Source document	Doctor Certified Deaths – Medical Certificate of Cause of Death Coroner Certified Deaths – Reports relating to the coroners' investigation
Source Organisation	Registry of Births, Deaths and Marriages (Doctor Certified Deaths and Unmatched Coroner Certified Deaths) National Coronial Information System (NCIS) (Matched Coroner Certified Deaths)
Notes	For data from 2007 to 2012, Place of Occurrence of External Cause of Death is 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 of External Cause of Death is coded directly from comments in the reports relating to the coroners' investigation.

ICD version

Identifying and definitional attributes

Start Date	1985
Definition	Codeset used to classify Cause of death information
Context	This variable should be used in conjunction with the underlying and contributing cause of death data elements

Representational attributes

Field Name UCOD_CODESET

Data Domain

Code	Value
ICD9	International Statistical Classification of Diseases and Related Health Problems, 9th Revision
ICD10	International Statistical Classification of Diseases and Related Health Problems, 10th Revision

Guide for Use

Administrative Attributes

Source document	Derived by NSW Ministry of Health
Source Organisation	Derived by NSW Ministry of Health
Notes	Derived based on ABS reference year.

Underlying Cause of Death Diagnosis Code

Identifying and definitional attributes

Start Date	1985
Definition	The disease or injury which initiated the train of morbid events leading directly to death. Accidental and violent deaths are classified according to the external cause, that is, to the circumstances of the accident or violence which produced the fatal injury rather than to the nature of the injury.
Context	Enables categorisation and classification of deaths according to cause. This information is necessary for epidemiological research and monitoring public health

Representational attributes

Field Name	ucod_recode
Data Domain	1985-1996 International Statistical Classification of Diseases and Related Health Problems, 9th Revision (ICD-9) 1997- International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).
Guide for Use	Use the ICD Version code to determine the codeset in use for a given record.

Administrative Attributes

Source document	Doctor Certified Deaths – Medical Certificate of Cause of Death Coroner Certified Deaths – Medical certificate of cause of death, information available on the National Coronial Information System including police, toxicology, forensic pathology and coronial finding reports.
Source Organisation	Registry of Births, Deaths and Marriages in each state and territory (Doctor Certified Deaths and Unmatched Coroner Certified Deaths) National Coronial Information System (NCIS) (Matched Coroner Certified Deaths)
Notes	<p>From 1998, the ABS codes and classifies the underlying cause of death according to the International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) rules and guidelines for mortality coding.</p> <p>From the 2013 reference year the ABS used Iris automated coding software managed by the German Institute of Medical Documentation and Information (DIMDI). The coding software directly interprets text and classifies all conditions reported on the death certificate to the corresponding ICD-10 code. The software also selects the underlying cause of death by application of the ICD rules and guidelines for mortality coding.</p> <p>Should a record fail automatic coding due to incorrect spelling, use of unfamiliar terms, illogical sequence of conditions or other reasons, it is coded clerically using the ICD rules and guidelines for mortality coding.</p> <p>Up until the 2012 reference year the ABS used automated coding software, developed by the United States' National Centre for Health Statistics (NCCH) to process and code mortality data.</p> <p>Updates to ICD-10 codes</p> <p>The Update and Revision Committee (URC), a WHO advisory group on updates to ICD-10, maintains the cumulative and annual lists of approved updates to the ICD-10 classification. The updates to ICD-10 are of numerous types including the</p>

addition and deletion of codes, changes to coding instructions and modification and clarification of terms.

From the 2013 reference year, the ABS implemented a new automated coding system called Iris. The 2013-2019 data coded in the Iris system applied an updated version of the ICD-10 (2013 version for 2013 data, 2015 version for 2014-2017 data, 2016 version for 2018 data and 2019 version for 2019 and 2020 data) when coding multiple causes of death, and when selecting the underlying cause of death.

Prior to the 2013 reference year, the 2006 version of the ICD-10 was the most recent version used for coding deaths, except for two updates that were applied after the 2006 reference year. The first update was implemented in 2007 and related to the use of mental and behavioural disorders due to psychoactive substance use, acute intoxication (F10.0, F11.0, F19.0) as an underlying cause of death. If the acute intoxication initiated the train of morbid events, it is now assigned an external accidental poisoning code (X40-X49) corresponding to the type of drug used. For example, if the death had been due to alcohol intoxication, the underlying cause before the update was F10.0, and after the update the underlying cause is X45, with poisoning code T51.9. The second update implemented from the 2009 reference year was the addition of Influenza due to certain identified virus (J09) to the Influenza and Pneumonia block. This addition was implemented to capture deaths due to Swine flu and Avian flu, which were reaching health epidemic status worldwide.

Deaths where COVID-19 was certified on the death certificate are now included in the dataset. COVID-19 is coded to U07.1 (virus confirmed by laboratory), U07.2 (suspected COVID-19), U08.9 (personal history of COVID-19) and U09.9 (long term effects of COVID-19). Deaths where a negative COVID-19 result was noted have Z03.8 listed in the entities and record axes.

The cumulative list of ICD-10 updates can be found [online](#).

Contributing causes of death (ICD-10)

Identifying and definitional attributes

Start Date	1997
Definition	The ICD-10 coded data representing all morbid conditions, diseases and injuries associated with the death as they are recorded after application of the ICD-10 coding rules and procedures for the selection of underlying and associated causes of death for mortality tabulation. Part of the process applies modification rules, improbable sequence rules and in addition duplicate codes and noise codes are removed.
Context	Inclusion of all causes associated with a death enables more detailed analysis of mortality and public health than analysis of underlying cause alone.

Representational attributes

Field Name	RACS1 – RACS20
Data Domain	International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).
Guide for Use	Each condition is listed in the form of the ICD-10 code. ICD Code format without ‘.’ Between third and fourth digit. If a particular cause does not have a four-digit code, the fourth character is filled as #

Administrative Attributes

Source document	Doctor Certified Deaths – Medical Certificate of Cause of Death Coroner Certified Deaths– Medical certificate of cause of death, information available on the National Coronial Information System including police, toxicology, forensic pathology and coronial finding reports
Source Organisation	Registry of Births, Deaths and Marriages in each state and territory (Doctor Certified Deaths and Unmatched Coroner Certified Deaths) National Coronial Information System (NCIS) (Matched Coroner Certified Deaths)
Notes	<p>Users should be aware that there is a quality issue with record axis codes for reference year 2009 and some record axis codes for 2011 where the number of codes is one less than the record axis count for that record. This occurs where the record axis count is 10 or greater.</p> <p>In 2017, the ABS undertook a pilot study to extend the range of information captured using the ICD. The main focus of this study was to incorporate codes relating to psychosocial risk factors in the coding of coroner-referred deaths. This work has since been extended through a collaboration between the ABS, the Australian Institute of Health and Welfare and the Department of Health as part of the Suicide and Self-Harm Monitoring Project. Data is now available for 2017-2019 reference years in the form of ICD-10 codes beginning with Z. Interpretation of psychosocial data should be considered carefully in context with framework developed by the ABS based on ICD-10, available here.</p>

State /Territory of usual residence

Identifying and definitional attributes

Start Date	1985
Definition	Australian state/territory in which the deceased usually resided. Usual residence within Australia refers to that address at which the deceased has lived or intended to live for a total of six months or more in a given reference year.
Context	Analyses facilitated by the inclusion of geographical information include comparison of patterns of mortality and health outcomes of persons residing in different geographical areas.

Representational attributes

Field Name URES_STATE

Data Domain	<table border="1"><thead><tr><th>Code</th><th>Description</th></tr></thead><tbody><tr><td>1</td><td>New South Wales</td></tr><tr><td>2</td><td>Victoria</td></tr><tr><td>3</td><td>Queensland</td></tr><tr><td>4</td><td>South Australia</td></tr><tr><td>5</td><td>Western Australia</td></tr><tr><td>6</td><td>Tasmania</td></tr><tr><td>7</td><td>Northern Territory</td></tr><tr><td>8</td><td>Australian Capital Territory</td></tr><tr><td>9</td><td>Other Territories (Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory)</td></tr></tbody></table>	Code	Description	1	New South Wales	2	Victoria	3	Queensland	4	South Australia	5	Western Australia	6	Tasmania	7	Northern Territory	8	Australian Capital Territory	9	Other Territories (Cocos (Keeling) Islands, Christmas Island, Jervis Bay Territory)
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Guide for Use Deaths registered in Australia of persons usually resident overseas have been classified according to the state or territory in which the death was registered.

Administrative Attributes

Source document Death notification form

Source Organisation Registry of Births, Deaths and Marriages, coded by ABS

Notes Usual residence is provided to the ABS by the Registry of Births, Deaths and Marriages in the form of an address. This address is then coded by the ABS in accordance with the Australian Standard Geographic Classification (ASGC) (cat no 1216.0) up to and including 2010 and with the Australian Statistical Geography Standard (ASGS) from 2009 onwards. From 2011 to 2015, ASGS 2011 was used. From 2016 onwards, ASGS 2016 is used.

For a given reference year, the previous year's version of the ASGC was used. E.g., For 2008 reference year, the 2007 version of the ASGC was used.

If usual residence is not provided, state/territory of usual residence is imputed as the state/territory in which the death is registered

Australian Standard Geographic Classification (ASGC) Statistical Local Area

Identifying and definitional attributes

Start Date	1988
End Date	2010
Definition	9-digit ASGC code denoting where the deceased usually resided. Usual residence refers to that address at which the deceased has lived or intends to live for a total of six months or more in a given reference year.
Context	Analyses facilitated by the inclusion of geographical information include comparison of patterns of mortality and health outcomes of persons residing in different geographical areas.

Representational attributes

Field Name	URES_9DIGIT
Data Domain	<u>Australian Standard Geographic Classification (ASGC, 2011 (Cat. no. 1216.0))</u> For a given reference year, the previous year's version of the ASGC was used (e.g., for 2008 reference year, the 2007 version of the ASGC was used).
Guide for Use	The geographic location is reported using a nine-digit numeric code. This code is hierarchical and comprises a series of sub-codes indicating various levels of geography. The first digit of this code indicates the state or territory (S/T) of usual residence. Digits 2-3 show the Statistical Division (SD), digits 4-5 the Statistical Subdivision (SSD), and digits 6-9 show the Statistical Local Area (SLA)

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages, coded by ABS
Notes	<p>Usual residence is provided to the ABS by the Registry of Births, Deaths and Marriages in the form of an address. This address is then coded by the ABS in accordance with the geographic classification current at the time of coding</p> <p>A break in series for geographic classification occurred between 2010 and 2011.</p> <p>2001 to 2010 data was coded using the Australian Standard Geographic Classification (ASGC) (cat no 1216.0).</p> <p>2011 data onwards is coded using the Australian Statistical Geography Standard (ASGS) (cat. no. 1270.0.55.001) to Statistical Area 2 (SA2) level.</p> <p>To assist users better understand the impact of this change in geography data for 2009 and 2010 has also been provided with a corresponding ASGS 9-digit numeric code.</p> <p>If usual residence is not provided, state/territory of usual residence is imputed as the state/territory in which the death is registered, with no further detail.</p> <p>Special purpose SLAs exist for certain circumstances: when a person has a usual address overseas (SA2s 188889299 – 888889299), when a person does not have a usual address, such as in the cases of long-term travellers or homeless people (SA2s 188889499 – 888889499), and when a person's usual address is unknown (SA2s 188889899 – 888889899). A further migratory – offshore – shipping SLA (185019799 – 985019799) is used when the person died whilst in transit to Australia or whilst on board vessels, oil rigs or other structures in Australian waters</p>

Australian Statistical Geography Standard (ASGS) Statistical Area level 2

Identifying and definitional attributes

Start Date	2011
Definition	9-digit ASGS code denoting where the deceased usually resided. Usual residence refers to that address at which the deceased has lived or intends to live for a total of six months or more in a given reference year.
Context	Analyses facilitated by the inclusion of geographical information include comparison of patterns of mortality and health outcomes of persons residing in different geographical areas.

Representational attributes

Field Name	URES9_SA2
Data Domain	2011-2015 ASGS 2011 2016-2021 ASGS 2016
Guide for Use	The geographic location is reported using a nine-digit numeric code (SA2). This code is hierarchical and comprises a series of sub-codes indicating various levels of geography. The first digit of this code indicates the state or territory (S/T) of usual residence. Digits 2-3 show the SA4, digits 4-5 show the SA3, and digits 6-9 show the SA2. The SA2 identifier is a 4-digit code, assigned in alphabetical order within an SA3 and numerically within an SA4. An SA2 code is only unique within an S/T if it is preceded by the S/T identifier.

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages, coded by ABS
Notes	<p>Usual residence is provided to the ABS by the Registry of Births, Deaths and Marriages in the form of an address. This address is then coded by the ABS in accordance with the geographic classification current at the time of coding. A break in series for geographic classification occurred between 2010 and 2011.</p> <p>2001 to 2010 data was coded using the Australian Standard Geographic Classification (ASGC) (cat no 1216.0).</p> <p>2011 to 2015 data is coded using the Australian Statistical Geography Standard (ASGS) 2011 to Statistical Area 2 (SA2) level.</p> <p>2016 data onwards is coded to ASGS 2016 SA2.</p> <p>To assist users better understand the impact of this change in geography data for 2009 and 2010 has also been provided with a corresponding ASGS 9-digit numeric code.</p> <p>If usual residence is not provided, state/territory of usual residence is imputed as the state/territory in which the death is registered, with no further detail.</p> <p>Special purpose SA2s exist for certain circumstances: when a person has a usual address overseas (SA2s 199999299 – 999999299), when a person does not have a usual address, such as in the cases of long-term travellers or homeless people (SA2s 199999499 – 999999499), and when a person’s usual address is unknown (SA2s 199999899 – 899999899). A further migratory – offshore – shipping SA2 (197979799 – 997979799) is used when the person died whilst in transit to Australia or whilst on board vessels, oil rigs or other structures in Australian waters.</p>

ASGS 2021 Local Government Area 2021 code

Identifying and definitional attributes

Start Date	2006
Definition	ASGS 2021 Local Government Area 2021 Code

Context

Representational attributes

Field Name	LGA_2021_CODE_ACR
Data Domain	<u>ASGS 2021 Local Government Area 2021</u>
Guide for Use	The geographic location is reported using a five-digit numeric code identifying an LGA. The first digit of this code indicates the state or territory (S/T) of usual residence. The remaining four digits identify the LGA within the S/T. An LGA code is only unique if it is preceded by the S/T identifier.

Administrative Attributes

Source document	Death Notification Form
Source Organisation	Registry of Births, Deaths and Marriages, coded by ABS

Notes	<p>Usual residence is provided to the ABS by the Registry of Births, Deaths and Marriages in the form of an address. This address is then coded by the ABS in accordance with the geographic classification current at the time of coding.</p> <p>LGAs are an ABS approximation of officially gazetted LGAs as defined by each State and Territory Local Government Department. Data for LGAs are produced by allocating whole meshblocks to LGAs based on correspondences available from the ABS Geography Portal. To determine, ASGS 2021 Local Government Area 2021, all historical meshblocks and SA2s were concorded to ASGS 2021 and the LGA 2021 concordance applied.</p> <p>Where records have sufficient address information provided to have an SA2 accurately determined, but not enough information to determine the appropriate meshblock the LGA code has been derived from the SA2.</p> <p>Mortality records where the deceased was listed as having no fixed address (i.e., homeless) have been assigned an LGA to reflect this. However, for some records the SA2 highlights the general region in which the person with no fixed address resided. These regions are not reflected in the LGA, however as the SA2 is provided on the URF, users are able to apply the geography standard to derive LGA if region is more pertinent than homelessness status.</p> <p>Where meshblock level data is not available, dump LGA codes have been input, using SA2 special purpose code format. These codes are not available in the formal correspondence available on the ABS website but have been input to assist data users in interpretation. As per LGA format, special purpose LGA codes begin with the state code, followed by 4 digits. Special purpose LGA codes not found in formal correspondence are as follows:</p>
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LGA Codes	Description
19299-99299	Overseas usual residence
19899-99899	Unknown usual residence

