

# National Healthcare Agreement: PI 08—Major causes of death, 2022

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# National Healthcare Agreement: PI 08—Major causes of death, 2022

## Identifying and definitional attributes

<b>Metadata item type:</b>	Indicator
<b>Indicator type:</b>	Progress measure
<b>Short name:</b>	PI 08—Major causes of death, 2022
<b>METEOR identifier:</b>	740880
<b>Registration status:</b>	<a href="#">Health!</a> , Standard 24/09/2021
<b>Description:</b>	Age-standardised mortality rate by major cause of death, and rate ratios for Indigenous people and people living in remote or low socioeconomic areas.
<b>Indicator set:</b>	<a href="#">National Healthcare Agreement (2022)</a> <a href="#">Health!</a> , Standard 24/09/2021
<b>Outcome area:</b>	<a href="#">Prevention</a> <a href="#">Health!</a> , Standard 07/07/2010

## Collection and usage attributes

**Computation description:** For tables disaggregated by Indigenous status:

Selected International Classification of Diseases (ICD-10) chapters for underlying causes of death plus major cause of Kidney diseases (N00–N29):

- Circulatory diseases (I00–I99)
- Neoplasms (including cancer) (C00–D48)
- External causes of morbidity and mortality (V01–Y98)
- Endocrine, nutritional and metabolic diseases (E00–E90)
- Respiratory diseases (J00–J99)
- Digestive diseases (K00–K93)
- Certain conditions originating in the perinatal period (P00–P96)
- Infectious and parasitic diseases (A00–B99)
- Nervous system diseases (G00–G99)
- Other causes
- All causes.

For disaggregations by all persons:

Each International Classification of Diseases (ICD-10) chapter for underlying cause of death:

- Certain infectious and parasitic diseases (A00–B99)
- Neoplasms (including cancer) (C00–D48)
- Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)
- Endocrine, nutritional and metabolic diseases (E00–E90)
- Mental and behavioural disorders (F00–F99)
- Nervous system diseases (G00–G99)
- Diseases of the eye and adnexa (H00–H59)
- Diseases of the ear and mastoid process (H60–H95)
- Circulatory diseases (I00–I99)
- Respiratory diseases (J00–J99)
- Digestive diseases (K00–K93)
- Diseases of the skin and subcutaneous tissue (L00–L99)
- Diseases of the musculoskeletal system and connective tissue (M00–M99)
- Diseases of the genitourinary system (N00–N99)
- Pregnancy, childbirth and the puerperium (O00–O99)
- Certain conditions originating in the perinatal period (P00–P96)
- Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)
- Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)
- External causes of morbidity and mortality (V01–Y98)
- All causes.

Rates are directly age-standardised to the 2001 Australian population.

Variability bands are to be calculated for single-year rates using the method below.

Presented per 100,000 population.

**Computation:**

Crude rate:  $100,000 \times (\text{Numerator} \div \text{Denominator})$

Variability bands are to be calculated for single-year rates using the following method for estimating 95% confidence intervals:

*Age-standardised rate:*

$$CI(ASR)_{95\%} = ASR \pm 1.96 \times \sqrt{\sum_{i=1}^i \frac{w_i^2 d_i}{n_i^2}}$$

Where  $w_i$  = the proportion of the standard population in age group  $i$

$d_i$  = the number of deaths in age group  $i$

$n_i$  = the number of people in the population in age group  $i$

**Numerator:**

Number of deaths

**Numerator data elements:****Data Element / Data Set**

[Person—underlying cause of death, code \(ICD-10 2016 version\) ANN{.N}](#)

**Data Source**

[ABS Causes of Death Collection](#)

**Guide for use**

Data source type: Administrative by-product data

**Denominator:**

Total population

**Denominator data elements:****Data Element / Data Set**

Person—projected Indigenous population, population of Australia, total people N[N(7)]

**Data Source**

[ABS Indigenous estimates and projections \(2016 Census-based\)](#)

**Guide for use**

Data source type: Census-based data plus administrative by-product data

**Data Element / Data Set**

[Person—estimated resident population of Australia, total people N\[N\(7\)\]](#)

**Data Source**

[ABS Estimated resident population \(2016 Census-based\)](#)

**Guide for use**

Data source type: Census-based data plus administrative by-product data

**Disaggregation:**

2017, 2018 (updated for revision to Australian Bureau of Statistics (ABS) causes of death data), 2019, 2020—State and territory (total deaths—all causes only).

2017, 2018 (updated for revision to ABS causes of death data), 2019, 2020—State and territory, by ICD-10 chapter for underlying cause of death (and total).

2016–2020—State and territory, by major cause of death by Indigenous status.

2020—Nationally, by remoteness (total deaths—all causes only) (not reported).

Some disaggregation may result in numbers too small for publication. Disaggregation by Indigenous status will be based on data only from jurisdictions for which the quality of Indigenous identification is considered acceptable—New South Wales, Queensland, South Australia, Western Australia and Northern Territory.

**Disaggregation data elements:****Data Element / Data Set**

[Person—Indigenous status, code N](#)

**Data Source**

[ABS Causes of Death Collection](#)

**Guide for use**

Data source type: Administrative by-product data

**Data Element / Data Set**

[Person—area of usual residence, statistical area level 2 \(SA2\) code \(ASGS 2016\) N\(9\)](#)

**Data Source**

[ABS Causes of Death Collection](#)

**Guide for use**

Data source type: Administrative by-product data  
Used for disaggregation by state/territory and remoteness

**Data Element / Data Set**

[Person—underlying cause of death, code \(ICD-10 2016 version\) ANN{.N}](#)

**Data Source**

[ABS Causes of Death Collection](#)

**Guide for use**

Data source type: Administrative by-product data

**Comments:**

Most recent data available for 2022 National Healthcare Agreement performance reporting:

- 2020 (total deaths)
- 2020 (cause of death)
- Aggregated data 2016–2020 (Indigenous status).

Cause of death data are final (2016–2017), revised (2018) and preliminary (2019, 2020).

A number of updates to the ICD-10 were applied to the 2013 causes of death data.

Details of the impact of these changes on the mortality data are described in [ABS Implementation of the Iris Software: Understanding Coding and Process Improvements](#).

Data from 2018 onwards was coded using an updated version of Iris, the automated cause of death coding software. Coding updates as a result of this process are described in [Update to Iris coding software: Implementing WHO updates and improvement in coding processes](#).

2012 data are coded using ICD-10 (2006 version). 2013 data are coded using ICD-10 (2013 version). 2014, 2015, 2016 and 2017 data are coded using ICD-10 (2015 version). 2018 data are coded using ICD-10 (2016 version). 2019 and 2020 data are coded using ICD-10 (2019 version).

Single year data will be reported for time series analysis.

Denominators used in the calculation of rates for the Indigenous population are ABS estimates (Series B, 2016 Census-based). Non-Indigenous estimates are only available for Census years; in the intervening years the population is calculated by subtracting the estimated Indigenous population from the total population Estimated Resident Population (ERP).

A system error affected the reporting of Western Australia (WA) Aboriginal and Torres Strait Islander death registrations for 2007, 2008 and 2009 which affected the WA and national death rates reported for the 2011 and 2012 Council of Australian Governments' (COAG) Reform Council (CRC) reports. These data were revised for 2013 reporting.

Indigenous and non-Indigenous analysis excludes records where Indigenous status was 'not stated'.

Due to the small number of Indigenous deaths reported each year, 5-year combined data will be reported for the current reporting period. For rate calculations, the average of the numerator is divided by the mid-point Indigenous population for the time period.

Data by remoteness and Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-Economic Disadvantage (IRSD) may be available, pending assessment of data quality.

Data are based on the state or territory of usual residence of the deceased, regardless of where in Australia the death occurred and was registered.

Registrars of Births, Deaths and Marriages in New South Wales, Queensland and the Northern Territory took a number of initiatives in recent years to improve processing systems and timeliness of registrations of births. These issues affected the birth counts of these jurisdictions. Care should therefore be taken when interpreting changes in mortality rates for these jurisdictions and national totals.

Care needs to be taken when interpreting data derived from deaths registered in Victoria. As a result of joint investigations between the ABS and the Victorian Registry 2,739 death registrations from 2017 and 2018 were identified that had not previously been provided to the ABS, and which were in scope of the 2019 reference year. An issue associated with the Registry's previous processing system (replaced in 2019) resulted in delays to the provision of some death registrations to the ABS. A time series adjustment has been applied to deaths due to suicide, assault and accidental drug overdose, which is reflected in the total for External causes of morbidity and mortality (V01-Y98), to enable a more accurate comparison of mortality over time for these causes. When the time series adjustment is applied, affected deaths are presented in the year in which they were registered (i.e. removed from 2019 and added to 2017 or 2018). This adjustment is consistent with that made in [Causes of Death, Australia, 2019](#). Deaths with a usual residence outside Victoria are not affected. The adjustment has been applied to the Victorian and Australian total for the 2017–2019 data. See [Technical note: Victorian additional registrations and time series adjustments](#) in ABS 2019b.

Rates derived from administrative data counts are not subject to sampling error but might be subject to natural random variation, especially for small counts. Variability bands associated with each estimate are reported to account for this (for example,  $80.0 \pm 2.7$ ). Variability bands can be used for comparisons within jurisdictions or

over time, but not between jurisdictions or between jurisdictions and national totals.

Further details about major causes of death among Indigenous Australians are available from the Aboriginal and Torres Strait Islander Health Performance Framework ([measure 1.22: All causes age-standardised death rates](#) and [measure 1.23: Leading causes of mortality](#)).

## Representational attributes

**Representation class:** Rate  
**Data type:** Real  
**Unit of measure:** Person  
**Format:** N[NN].N

## Indicator conceptual framework

**Framework and dimensions:** [Deaths](#)

## Data source attributes

**Data sources:**

### Data Source

[ABS Indigenous estimates and projections \(2016 Census-based\)](#)

#### Frequency

Periodic

#### Data custodian

Australian Bureau of Statistics

### Data Source

[ABS Causes of Death Collection](#)

#### Frequency

Annual

#### Data quality statement

[ABS causes of death collection, QS](#)

#### Data custodian

Australian Bureau of Statistics

### Data Source

[ABS Estimated resident population \(2016 Census-based\)](#)

#### Frequency

Quarterly

#### Data custodian

Australian Bureau of Statistics

## Accountability attributes

**Reporting requirements:** National Healthcare Agreement

**Organisation responsible for providing data:** Australian Bureau of Statistics

**Further data development / collection required:** Specification: Final, the measure meets the intention of the indicator.

## Source and reference attributes

**Reference documents:** Australian Bureau of Statistics (ABS) 2015. *Causes of Death, Australia, 2013*, ABS cat. no. 3303.0. Canberra: ABS. Viewed 14 May 2020, <https://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/3303.0>Main+Features12013?OpenDocument>

ABS (Reference period: 2019a). *Causes of Death, Australia*. ABS Website. Viewed 22 February 2021, <https://www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release>

ABS (Reference period: 2019b). *Causes of Death, Australia methodology*. ABS Website. Viewed 25 February 2021, <https://www.abs.gov.au/methodologies/causes-death-australia-methodology/2019>

Australian Health Ministers' Advisory Council (AHMAC), 2017. *Aboriginal and Torres Strait Islander Health Performance Framework 2017 Report*. Canberra: AHMAC. Viewed 13 May 2020, <https://www.niaa.gov.au/resource-centre/indigenous-affairs/health-performance-framework-2017-report>

Australian Institute of Health and Welfare (AIHW) 2020. *Aboriginal and Torres Strait Islander Health Performance Framework*. Canberra: AIHW. Viewed 19 February 2021, <https://indigenoushpf.gov.au/>

## Relational attributes

**Related metadata references:** Supersedes [National Healthcare Agreement: PI 08–Major causes of death, 2021 Health!](#), Standard 03/07/2020

See also [Australian Health Performance Framework: PI 2.1.6–Potentially avoidable deaths, 2020 Health!](#), Standard 01/12/2020

See also [Australian Health Performance Framework: PI 3.4.3–Major causes of death, 2020 Health!](#), Standard 13/10/2021

See also [National Healthcare Agreement: PI 06–Life expectancy, 2022 Health!](#), Standard 24/09/2021

See also [National Healthcare Agreement: PI 07–Infant and young child mortality rate, 2022 Health!](#), Standard 24/09/2021

See also [National Healthcare Agreement: PI 16–Potentially avoidable deaths, 2022 Health!](#), Standard 24/09/2021

See also [National Indigenous Reform Agreement: PI 06–Under five mortality rate by leading cause, 2020 Indigenous](#), Standard 17/11/2019