



**Australian Government**

**Department of Health and Aged Care**

**National Notifiable Diseases Surveillance System**

Influenza (laboratory confirmed) Public Data Set

2008 to 2023

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## INTRODUCTION

- The Influenza Public Data Set includes notification data collected on laboratory-confirmed influenza via the National Notifiable Diseases Surveillance System (NNDSS) from 1 January 2008 to 31 December 2023.
- See Table 1 for a description of the NNDSS data available in the Influenza Public Data Set.

**Table 1: NNDSS data available in the Influenza Public Data Set**

State or Territory	NNDSS Data
<b>Australian Capital Territory</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>New South Wales</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>Northern Territory</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>Queensland</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>South Australia</b>	Week ending date, State, Age group, Sex, and Type/Subtype.
<b>Tasmania</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>Victoria</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.
<b>Western Australia</b>	Week ending date, State, Age group, Sex, Indigenous Status,* and Type/Subtype.

\* Inclusion of Indigenous status is subject to completeness assessment on a yearly basis. Refer to field definitions notes below for further details.

## DATA CAVEATS AND INTERPRETATION

It should be noted there are several caveats to the NNDSS data for Influenza (laboratory-confirmed) notifications in this public dataset release:

### General

- These Influenza notification data are based on data extracted from the NNDSS on the date specified in the downloaded MS Excel Influenza public dataset. Due to the dynamic nature of the NNDSS, data in this extract is subject to retrospective revision and may vary from data reported in published NNDSS reports and reports of notification data by states and territories.
- These notification data represent only a proportion of the total cases occurring in the community; that is, only those cases for which health care was sought, a test conducted, and a diagnosis made, followed by a notification to health authorities. The degree of under-representation of all cases is unknown and is most likely variable by disease and jurisdiction.
- In interpreting these data, it is important to note that changes in notifications over time may not solely reflect changes in disease prevalence or incidence. Changes in testing policies; screening programs (including the preferential testing of high-risk populations); the use of less invasive and more sensitive diagnostic tests; and periodic awareness campaigns, may influence the number of notifications that occur annually.
- Due to the COVID-19 pandemic in Australia, interpretation of NNDSS laboratory-confirmed influenza notification data from April 2020 onwards should take into account, but are not limited to: the impact of social distancing measures; likely changes in health seeking behaviour of the community, including access to alternative streams of acute respiratory infection-specific health services; and focussed testing for COVID-19 response activities. Data should be interpreted with caution, especially where comparisons of data from 2020, 2021, 2022 and 2023 are made to previous years.

### Cross-border NNDSS Notification Protocol

- From 1 January 2009 the Communicable Diseases Network Australia (CDNA) implemented the Cross-border NNDSS Notification Protocol. The Protocol establishes that notifications are reported by

the jurisdiction of residence, regardless of the jurisdiction of diagnosis. In the instance that a case is usually resident overseas, the notification is reported to the NNDSS by the jurisdiction of diagnosis.

## Case definition and notification to the NNDSS

- The national surveillance case definition for influenza applicable to this public dataset, including any historical edits, is available at: <https://www.health.gov.au/resources/publications/influenza-laboratory-confirmed-surveillance-case-definition>.
- In September 2003, new national surveillance case definitions for notifications reported to the NNDSS were endorsed by the CDNA, with nearly all jurisdictions implementing the new definitions in January 2004 (New South Wales commenced in August 2004). Prior to the adoption of the national definitions, some jurisdictions used the 1994 NHMRC case definitions, some jurisdictions used modified definitions that were based on the NHMRC case definitions, and some others used definitions specific to the state for some diseases.

## FIELD DEFINITIONS

### Week Ending (Friday)

The date of the Friday, following the day that the notified case was diagnosed with influenza.

Notes on interpretation:

- “Diagnosis date” is a derived field representing the disease onset date or when the date of onset is not known, the earliest of the specimen collection, the notification, or the notification received dates.

### State

The State or Territory which sends the notification. Additionally, this field represents the jurisdiction of residence of the notified case. Where the case usually resides overseas, State is the jurisdiction where the diagnosis took place.

Note: information on Influenza cases from the Australian Capital Territory are not available in this public dataset. Please contact the Surveillance & Management, Communicable Disease Control, Health Protection Service.

Data domain:

- ACT = Australian Capital Territory
- NSW = New South Wales
- NT = Northern Territory
- Qld = Queensland
- SA = South Australia
- Tas = Tasmania
- Vic = Victoria
- WA = Western Australia

### Age Group

Age in years of the notified case at onset of disease presented in 5-year age groups. Age is based on the age of the individual as reported to the health authority or the calculated age at onset, using the difference between date of birth and diagnosis date. The age at onset is always rounded down to the age at last birthday, for example a case aged 3 years and 10 months at disease onset is reported as being 3 years. Age groups are presented according to a notified case’s age in completed years, for example the 00-04 years age group includes cases from birth to 4 full years of age, but less than 5 years of age.

Where age at onset is not reported by the jurisdiction, it is calculated by determining the age at the date of diagnosis.

Data domain:

- Five-year age groups: 0 to 84 years
- 85+: 85 years and over

**Sex**

These data represent the sex of the individual at the time of notification.

Data domain:

- Male
- Female
- X
- Unknown.

Notes on interpretation:

- In accordance with the Australian Government Guidelines on Recognition of Sex and Gender 'X' can equal indeterminate, intersex or unspecified.
- 'Unknown' is reserved for where no information on sex is provided.

**Indigenous status**

The determination of Indigenous status is by descent, self-identification and community acceptance. Only the Indigenous status text descriptor field has been provided.

Data domain:

- Indigenous (Aboriginal and/or Torres Strait Islander origin)
- Non-Indigenous (Not of Aboriginal or Torres Strait Islander origin)
- Unknown (Not stated, unknown or blank)
- Not available

Notes on interpretation:

- Indigenous status is usually obtained from notification by a medical practitioner but may also be determined during case follow-up or from cross-reference to other sources. Completeness varies by disease and by state and territory.
- This reflects differences in notification requirements (i.e. depending on the jurisdiction, some diseases are primarily or completely notified by pathology laboratories rather than clinicians) and case follow up practices across jurisdictions.
- Influenza notification data by Indigenous status should be interpreted with caution where completeness is low. Data on Indigenous status are included for most years from Queensland, Western Australia, South Australia and Northern Territory; and not included for most years for Victoria and Tasmania.; and for the remaining jurisdictions, data on Indigenous status are only included where the annual completeness of this field, by jurisdiction, is above 50% as detailed in the table below.

**Table 2. Indigenous status completeness\* of Influenza 2008-2022 as a percentage(%)**

Year	% ACT	% NSW	% NT	% QLD	% SA	% TAS	% VIC	% WA
2008	≤50	≤50	98	51	69	≤50	54	77
2009	≤50	53	94	61	74	≤50	≤50	95
2010	≤50	≤50	97	57	79	≤50	≤50	90
2011	≤50	≤50	99	54	80	≤50	≤50	93
2012	≤50	≤50	98	52	90	≤50	≤50	94
2013	≤50	≤50	98	≤50	87	≤50	≤50	96
2014	≤50	≤50	100	53	88	≤50	≤50	93

Year	% ACT	% NSW	% NT	% QLD	% SA	% TAS	% VIC	% WA
2015	72	≤50	98	55	84	≤50	≤50	94
2016	87	≤50	97	56	84	≤50	≤50	94
2017	89	≤50	98	54	67	≤50	≤50	94
2018	89	≤50	100	61	66	≤50	≤50	95
2019	≤50	≤50	100	69	64	≤50	≤50	81
2020	89	53	95	65	75	≤50	≤50	93
2021	100	62	≤50	≤50	53	≤50	≤50	100
2022	67	58	98	65	73	≤50	≤50	92
2023	≤50	58	99	83	71	≤50	≤50	89

\* Complete = where values in Indigenous field are either Indigenous or Non-Indigenous. ≤50

NA = Not available.

- The standard methodology used in the NNDSS annual report series when calculating notification rates by Indigenous status is to include states and territories where annual completeness of Indigenous status is more than 50%. Within these jurisdictions, where the Indigenous status of a notification was not completed, these notifications are counted as non-Indigenous in the analyses. Direct age-standardised notifications are calculated using the method described by the Australian Institute of Health and Welfare (Available from <http://meteor.aihw.gov.au/content/index.phtml/itemId/327276>).

## Type/Subtype

The type or subtype of the influenza virus causing disease in the notified case.

Data domain:

- A(H3N2)
- A(H1N1)pmd09
- A(H1N1)
- A(unsubtyped)
- B
- C
- A and B
- Untyped

Notes on interpretation:

- A(H3N2) are largely derived from polymerase chain reaction (PCR) test results reported as A(H3). Based on nationally available subtyping and characterisation data, these cases are assumed to be A(H3N2).
- A and B denotes a co-infection of both influenza A and influenza B viruses.

## RESOURCES

It is recommended that the following resources are used in interpreting the data provided:

- Australian Respiratory Surveillance Reports and associated Technical Supplement – Australian Respiratory Surveillance Report, available at: <https://www.health.gov.au/resources/collections/arsr>
- Australia's notifiable diseases status: Annual report of the National Notifiable Diseases Surveillance System Annual report series published in Communicable Diseases Intelligence, available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-annlrpt-nndssar.htm>

- National Influenza Surveillance Scheme Annual report series published in Communicable Diseases Intelligence, available at: <http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-annlrpt-fluannrep.htm>
- Australian Influenza Surveillance Report and inter-seasonal Activity Updates up to 2023, available at: [www.health.gov.au/flureport](http://www.health.gov.au/flureport)

## ACKNOWLEDGEMENTS

The Department of Health acknowledges the Communicable Diseases Network Australia, the work of public health officers involved in the collection of surveillance data; State and territory public health communicable disease surveillance managers and data managers; and public and private laboratories that support influenza laboratory surveillance in Australia.

## ACRONYMS

CDNA	Communicable Diseases Network Australia
NHMRC	National Health and Medical Research Council
NNDSS	National Notifiable Diseases Surveillance System
NA	Not available
PCR	Polymerase chain reaction