

# National Notifiable Diseases Surveillance System

## Influenza (laboratory confirmed) Public Data Set 2008 to 2017

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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 2017.
- 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
Australian Capital Territory	Australian Capital Territory data are <b>not</b> included in this data set. <i>See notes below with regard to how access to these data.</i>
New South Wales	Week ending date, State, Age group, Sex and Type/Subtype.
Northern Territory	Week ending date, State, Age group, Sex, Indigenous Status* and Type/Subtype.
Queensland	Week ending date, State, Age group, Sex, Indigenous Status and Type/Subtype.
South Australia	Week ending date, State, Age group, Sex and Type/Subtype.
Tasmania	Week ending date, State, Age group, Sex, Indigenous Status* and Type/Subtype.
Victoria	Week ending date, State, Age group, Sex, Indigenous Status* and Type/Subtype.
Western Australia	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.

- If Influenza data for Australian Capital Territory (ACT) are required, a formal data request should be submitted directly to the Surveillance & Management, Communicable Disease Control, Health Protection Service. Please contact the Surveillance Officer on (02) 6205 2155 or at [cdc@act.gov.au](mailto:cdc@act.gov.au).

## DATA CAVEATS AND INTERPRETATION

It should be noted there are several caveats to the National Notifiable Diseases Surveillance System (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 on 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.

### **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 current surveillance case definition for influenza, including any historical edits, are available at: [http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd\\_flu.htm](http://www.health.gov.au/internet/main/publishing.nsf/Content/cda-surveil-nndss-casedefs-cd_flu.htm).
- In September 2003, new national case definitions for notifications reported to 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.
- The case definition for influenza was last reviewed in 2008.

## **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:

- 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 the 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 Queensland, not included for New South Wales and South Australia and for the remaining jurisdictions, data on Indigenous status are only included where the annual completeness of this field, by jurisdiction, is above 50%, detailed in the table below:

**Table 2. Indigenous status completeness\* of Influenza 2008-2017**

Year	NSW	NT	Qld	SA	Tas	Vic	WA
2008	NA	98%	51%	NA	≤50%	≤50%	77%
2009	NA	94%	61%	NA	≤50%	≤50%	95%
2010	NA	97%	56%	NA	≤50%	≤50%	90%
2011	NA	99%	54%	NA	≤50%	≤50%	93%
2012	NA	98%	52%	NA	≤50%	≤50%	94%
2013	NA	98%	48%	NA	≤50%	≤50%	96%
2014	NA	100%	53%	NA	≤50%	≤50%	93%
2015	NA	98%	55%	NA	≤50%	≤50%	94%
2016	NA	97%	55%	NA	≤50%	≤50%	94%
2017	NA	98%	54%	NA	≤50%	≤50%	94%

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

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 PCR 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:

- *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*, available at: [www.health.gov.au/flureport](http://www.health.gov.au/flureport)

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