

Population Health Services produce the fluTAS Report to provide information about the level of influenza (flu) in Tasmania. Multiple surveillance data sources are used to obtain measures of influenza activity in the community.

This surveillance report describes influenza activity in Tasmania during the period 1 January to 30 June 2018.

June 2018 Update

- The 2018 influenza season has not begun.
- There was low inter-seasonal influenza activity during June.
- Other respiratory pathogens including Rhinovirus and Respiratory Syncytial Virus appear to be the major contributors of influenza-like illness in the community.
- No outbreaks of influenza have been reported in Tasmania.

Influenza Notifications

There were 24 notifications of laboratory-confirmed influenza during June 2018 (Table 1). This was lower than the five-year June average (42 notifications) and consistent with the typically low inter-seasonal influenza activity (Figure 1).

No outbreaks of influenza were notified during January to June 2018.

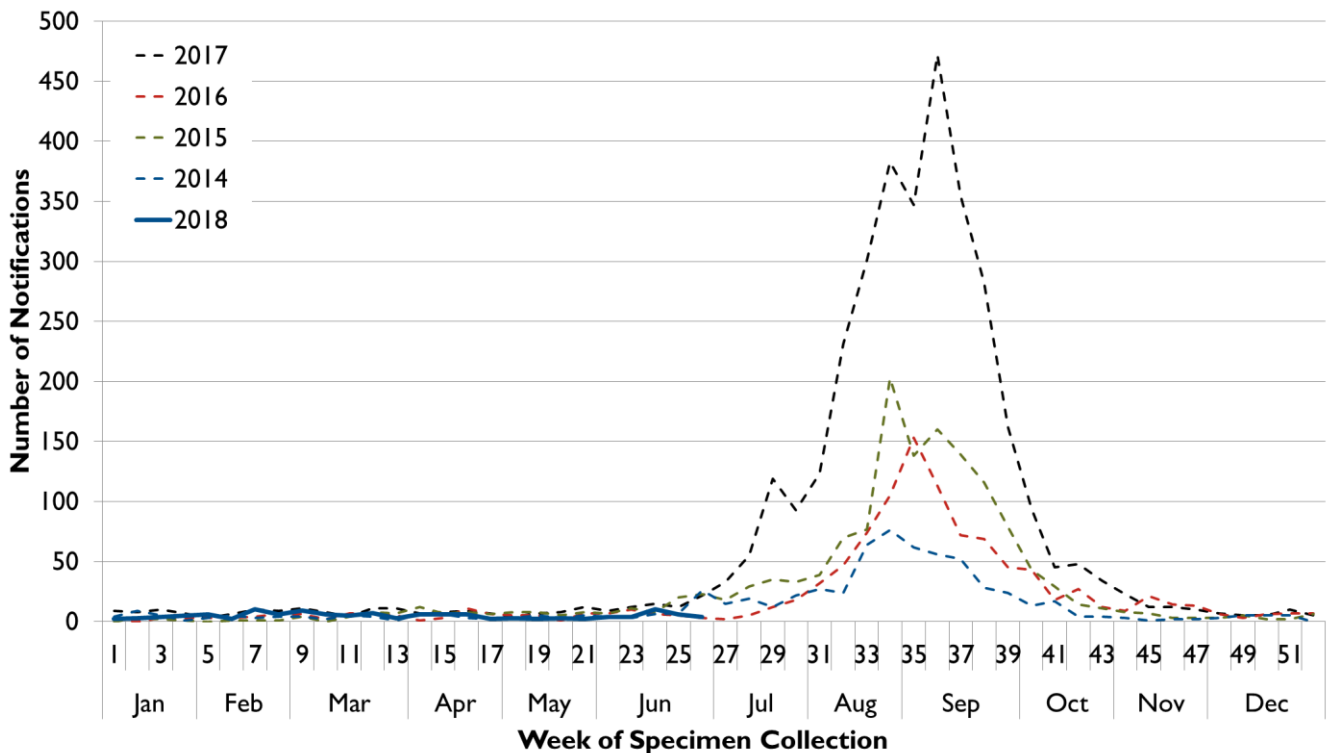


Figure 1: Notifications of influenza in Tasmania, by week, 1 January 2014 to Sunday 1 July 2018

From 1 January to 30 June 2018 there were 126 notifications of laboratory-confirmed influenza. Subtyping was reported for 16 Influenza A results (Table 1). The majority of notifications (71) were in the southern region of Tasmania. There were 33 notifications for residents of the North and 21 for the North-West. One overseas visitor was diagnosed with influenza in Tasmania during this period.

Table 1: Notifications of influenza in Tasmania by subtype and month, 1 January to 30 June 2018

	Jan	Feb	Mar	Apr	May	Jun	2018 YTD
Influenza A	9	15	17	10	7	11	69
A(H1N1)	0	2	0	0	0	1	3
A(H3N2)	2	5	2	3	0	1	13
A (not typed)	7	8	15	7	7	9	53
Influenza B	8	11	8	11	6	13	57
Total Influenza	17	26	25	21	13	24	126

Notifications of influenza are based on positive laboratory tests. Many people with flu-like illness choose not to attend medical care, or are not tested when they attend for a variety of reasons. As a result the notifications only represent a small proportion of influenza illness in the community.

Laboratory testing

Influenza testing

A wide range of pathogens (mostly viruses) commonly cause winter coughs, colds and influenza-like illnesses. The best test for influenza is a PCR test, which detects influenza virus genetic material (RNA). The number of influenza PCR tests being performed by Tasmanian laboratories can indicate the level of respiratory illness in the community.

Of the 126 notifications of influenza between January and June 2018, 44 (35 per cent) were tested using a serology test and 82 (65 per cent) were tested using a PCR test.

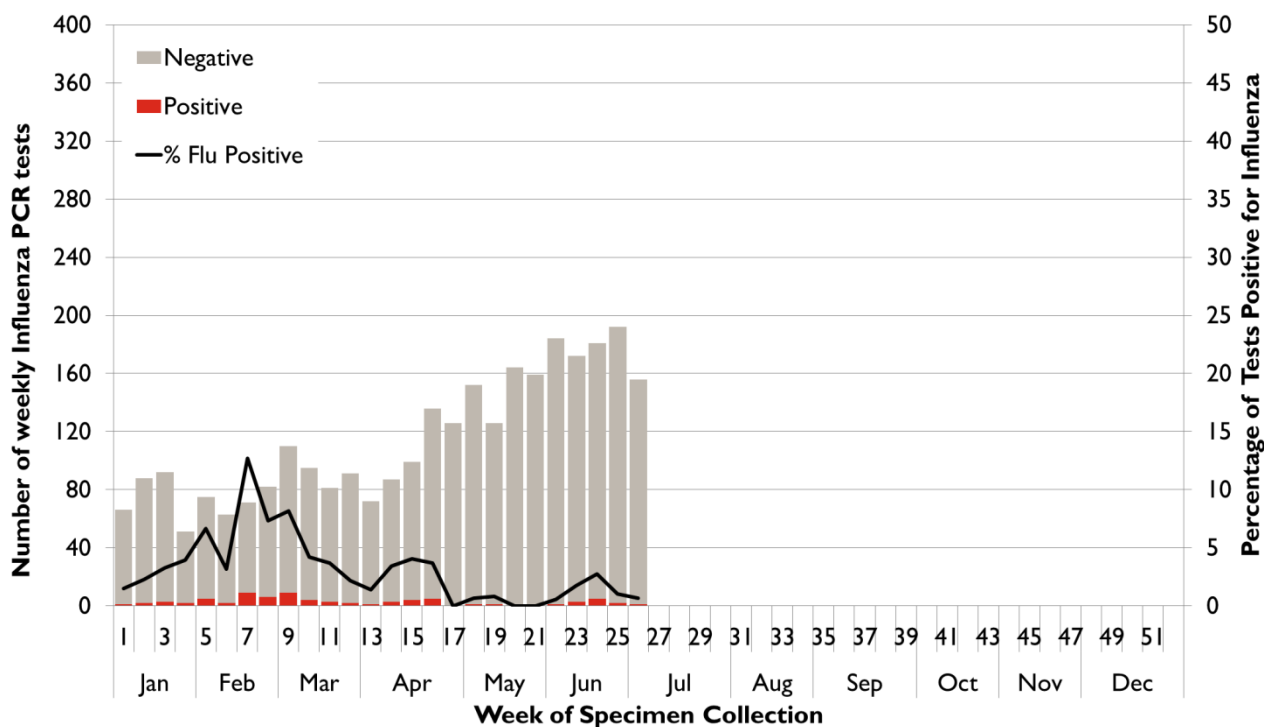


Figure 2: Statewide Influenza PCR testing, 1 January to Sunday 1 July 2018

During June, 701 PCR tests for influenza were conducted. This represented a 27 per cent increase on the testing conducted during June 2017 (553 tests). The weekly proportion of tests positive for influenza ranged from one to three per cent per week (Figure 2). This was consistent with expected low inter-seasonal influenza activity.

Other respiratory pathogens

The monitoring of non-influenza respiratory pathogen activity provides an indication of the proportion of respiratory infections caused by influenza. This proportion can give us some information about the timing of the season, as generally a larger proportion of respiratory illness is caused by influenza during the influenza season.

The Royal Hobart Hospital (RHH) performs a PCR test on samples from patients presenting with a respiratory illness that detects influenza and multiple other pathogens that cause similar symptoms. These data are only available from the RHH, which is a public laboratory and the majority of specimens collected and tested are from emergency department presentations and hospitalised patients. FluTAS reports on Influenza A, Influenza B, and seven other respiratory viruses most commonly reported in Tasmania.

There were 381 tests performed during June 2018, which represented a 23 per cent increase on testing during June 2017 (310 tests).

The most commonly detected pathogens were Rhinovirus (42 per cent), Respiratory Syncytial Virus (RSV) (34 per cent) and Metapneumovirus (8 per cent) (Figure 3). Three people (one per cent) had an Influenza virus detected; two with Influenza A and one with Influenza B.

The proportion of June 2018 tests with one or more pathogens detected (58 per cent) was lower than tests during June 2017 (62 per cent).

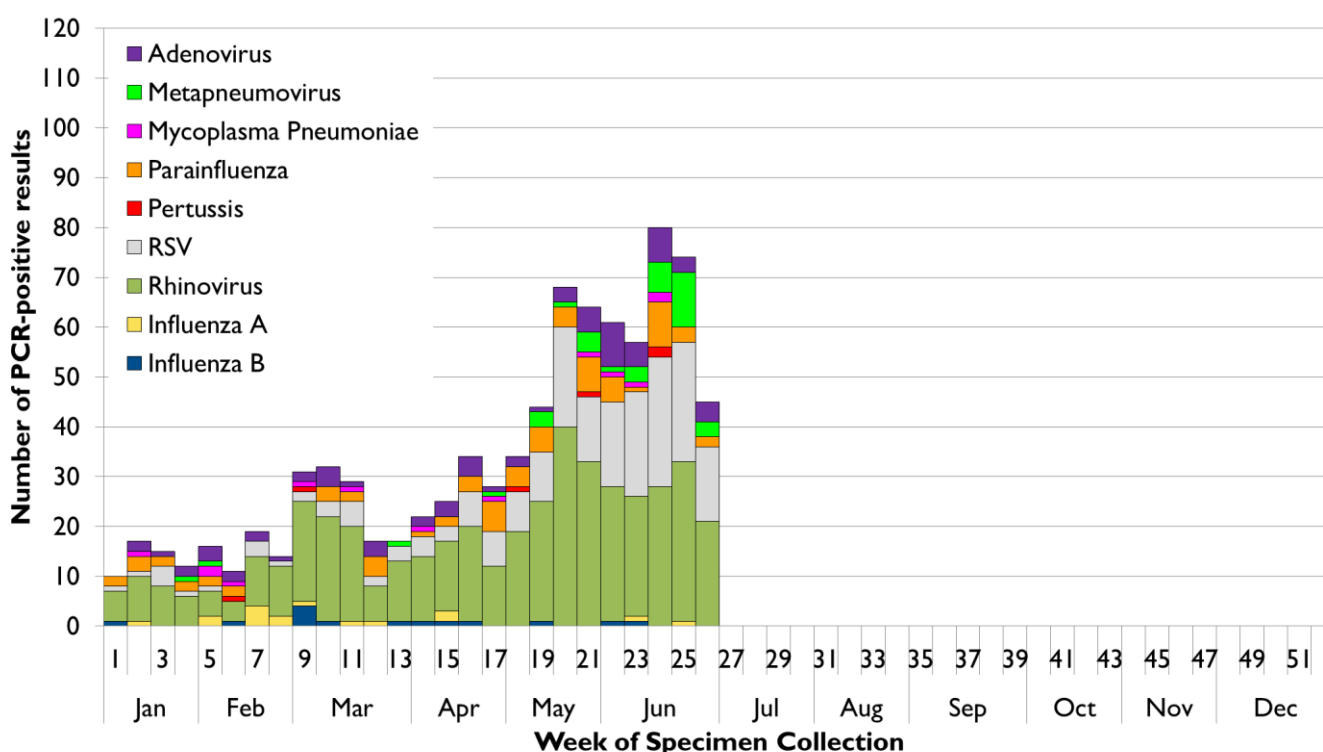


Figure 3: Respiratory pathogen detections, 1 January to Sunday 1 July 2018.

National surveillance systems

FluCAN

The Influenza Complications Alert Network (FluCAN) reports on influenza-related hospitalisations and complications in sentinel hospitals Australia-wide during each influenza season. This system aims to provide an indication of severity of the influenza season and identify groups at higher risk of influenza related hospital admission. The details of recent FluCAN activity are published in the Australian Influenza Surveillance Report (see *Interstate Activity*).

From 3 April to 29 June 2018 there were 90 hospital admissions of confirmed influenza reported by sentinel hospitals Australia-wide. Six were direct admissions to an ICU. During this period FluCAN described activity across participating hospitals as 'low early-season activity'.

Three out of the 90 influenza admissions were to the one participating Tasmanian hospital, the Royal Hobart Hospital. These were non-ICU admissions.

FluTracking (Community Syndromic Surveillance)

FluTracking is a weekly online survey that asks participants to report whether they have had fever and/or cough in the preceding week. It is a joint initiative of Newcastle University, Hunter New England Population Health and the Hunter Medical Research Institute. *FluTracking* information is available at www.flutracking.net and on Facebook www.facebook.com/Flutracking

FluTracking recommenced on 30 April 2018. An average of 3 080 Tasmanians have participated each week; an increase on 2017 participation (average 2 710 Tasmanians per week).

Between 30 April and 1 July 2018 an average of 1.4 per cent of Tasmanian participants reported a new episode of influenza-like illness (fever plus cough) each week (Figure 4). Of these participants, two-thirds (67%) also reported absenteeism from normal duties due to illness.

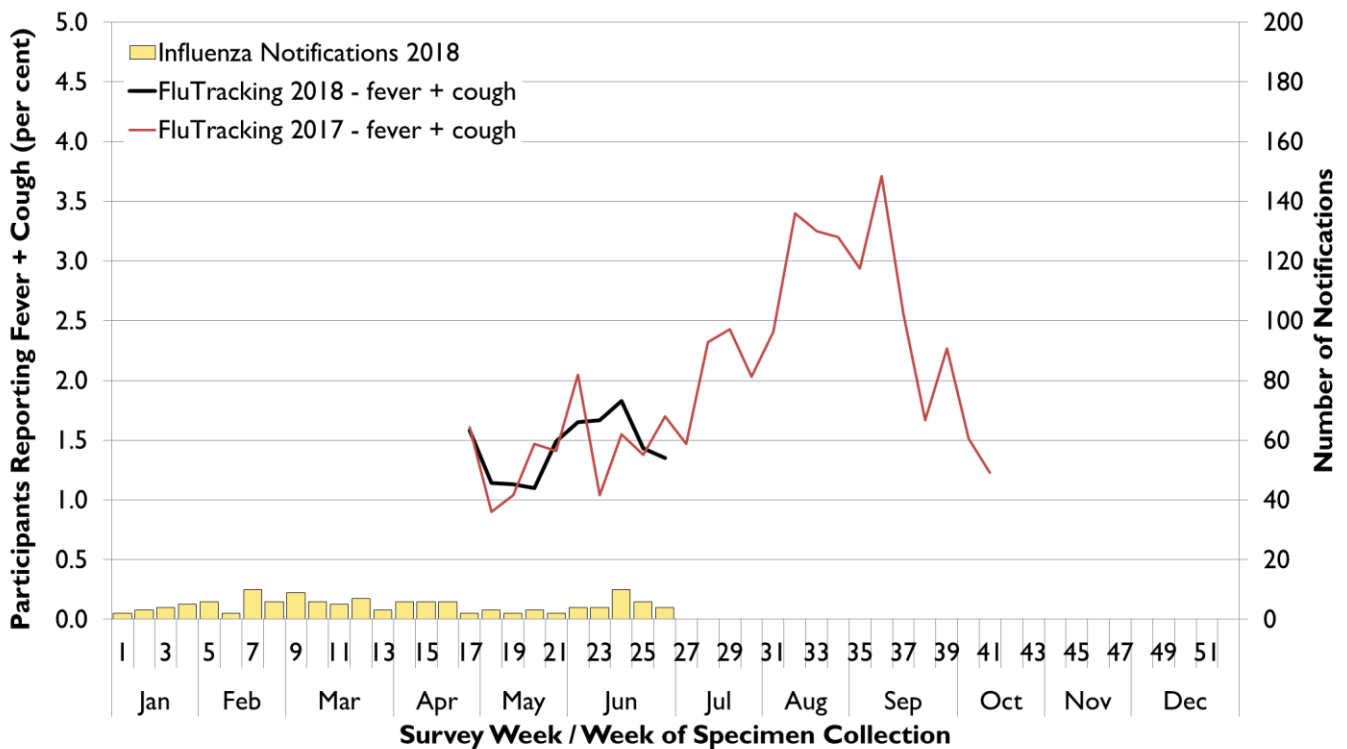


Figure 4: Percentage of Tasmanian *FluTracking* participants reporting fever and cough, week ending Sunday 1 July 2018

ASPREN (General Practice Syndromic Surveillance)

The Australian Sentinel Practices Research Network (ASPREN) includes registered sentinel GPs across Australia who report fortnightly on the number of patients presenting with influenza-like illness (ILI). Five GPs are registered in Tasmania. ASPREN is a joint initiative of the Royal Australian College of General Practitioners and University of Adelaide. Further information is available at aspren.dmac.adelaide.edu.au

ASPREN Report 11 for the period 21 May to 3 June 2018 indicated baseline[#] activity in participating Tasmanian practices. Nationally, presentations of ILI to participating GPs remain steady at baseline to normal levels across Australia.

[#] Baseline activity means only one to three consultations out of every 1 000 were due to an ILI presentation.

Interstate activity

The Australian Influenza Surveillance Report is compiled from a number of data sources including laboratory-confirmed notifications to National Notifiable Diseases Surveillance System, sentinel influenza-like illness reporting from general practitioners and emergency departments, workplace absenteeism and laboratory testing. The routine Australian Influenza Surveillance Report is published by the Australian Government Department of Health and is available at www.health.gov.au/flureport.

National reporting for 2018 has commenced. The key messages from Report number 3 describing national activity for the period 18 June to 1 July 2018 were:

- **Activity** – Currently, influenza and influenza-like illness (ILI) activity are low and remain at inter-seasonal levels across Australia. Rhinovirus was the most common respiratory virus detected in patients presenting with ILI to sentinel general practices this fortnight.
- **Severity** – There is no indication of the potential severity of the 2018 season at this time.
- **Impact** – Currently, the impact of circulating influenza on society is low.
- **Virology** – This fortnight, the majority of confirmed influenza cases reported nationally were influenza A (84 per cent).

Annual Influenza Vaccine

Composition of 2018 influenza vaccines

The annual influenza vaccine is reviewed late each year, aiming to produce vaccines for the following year that provide protection from influenza strains likely to be common during winter. Advice on the formulation of annual influenza vaccines is provided to the Therapeutic Goods Administration by the Australian Influenza Vaccine Committee (AIVC): www.tga.gov.au/committee/australian-influenza-vaccine-committee-aivc

The AIVC met in October 2017 to recommend the influenza viruses to be used in influenza vaccines for 2018. The TGA accepted the recommendations of the AIVC.

Composition of influenza vaccines in 2018:

- Trivalent (three-strain) vaccines should contain the following
 - **A (H1N1)**: an A/Michigan/45/2015 (H1N1)pdm09-like virus
 - **A (H3N2)**: an A/Singapore/INFIMH-16-0019/2016 (H3N2)-like virus
 - **B**: a B/Phuket/3073/2013-like virus
- Quadrivalent (four-strain) vaccines should contain the trivalent strains listed above plus an additional B strain
 - **B**: a B/Brisbane/60/2008-like virus.

Further information on the composition of influenza vaccines is available at www.tga.gov.au/aivc-recommendations-composition-influenza-vaccine-australia

Is vaccination recommended?

Annual influenza vaccination is recommended for anyone over the age of six months who wishes to reduce the likelihood of influenza and its complications. Annual vaccination can help to reduce the spread of influenza and protect vulnerable members of the community.

Influenza vaccines in 2018 are free[#] in Tasmania for people at greater risk of contracting and developing severe complications from influenza. Free vaccine is available through General Practitioners for the following people:

- All children aged from six months to under five years (state funded in 2018)
- Aboriginal and Torres Strait Islander people aged 15 years and over
- Adults aged 65 and over (two enhanced trivalent vaccines in 2018)
- Pregnant women at any stage in their pregnancy.
- Adults and children aged from six months with chronic medical conditions such as heart, lung, liver or kidney diseases, asthma, diabetes, cancer, impaired immunity and neuromuscular conditions.

For more information see flu.tas.gov.au or beta.health.gov.au/topics/immunisation

[#] Please note there may be a consultation fee for the healthcare provider to administer the vaccine.

Further Information

For the latest information on influenza in Tasmania visit flu.tas.gov.au

Past fluTAS reports are available at dhhs.tas.gov.au/publichealth/communicable_diseases_prevention_unit

