

Public 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 April 2018.

2018 summary: January to April

- The 2018 influenza season has not begun.
- Other respiratory pathogens including Rhinovirus and Respiratory Syncytial Virus (RSV) appear to be the major contributors of influenza-like illness in the community.
- No outbreaks of influenza have been reported in Tasmania.

Influenza Notifications

From 1 January to 30 April 2018, there were 89 notifications of laboratory-confirmed influenza (Table 1). This was lower than the same period in 2017 (139 notifications) but higher than the five-year average for these four months (73 notifications). This is still within expected inter-seasonal levels (Figure 1).

The majority of notifications (53) were in the southern region of Tasmania. There were 19 notifications for residents of the North and 16 for the North-West. One overseas visitor was diagnosed with influenza during this period.

Influenza A virus was responsible for the majority of infections (51/89) with the A(H3N2) subtype most commonly reported (12/51).

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

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

	Jan	Feb	Mar	Apr	2018 YTD
Influenza A	9	15	17	10	51
<i>A(H1N1)</i>	0	2	0	0	2
<i>A(H3N2)</i>	2	5	2	3	12
<i>A (not typed)</i>	7	8	15	7	37
Influenza B	8	11	8	11	38
Total Influenza	17	26	25	21	89

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.

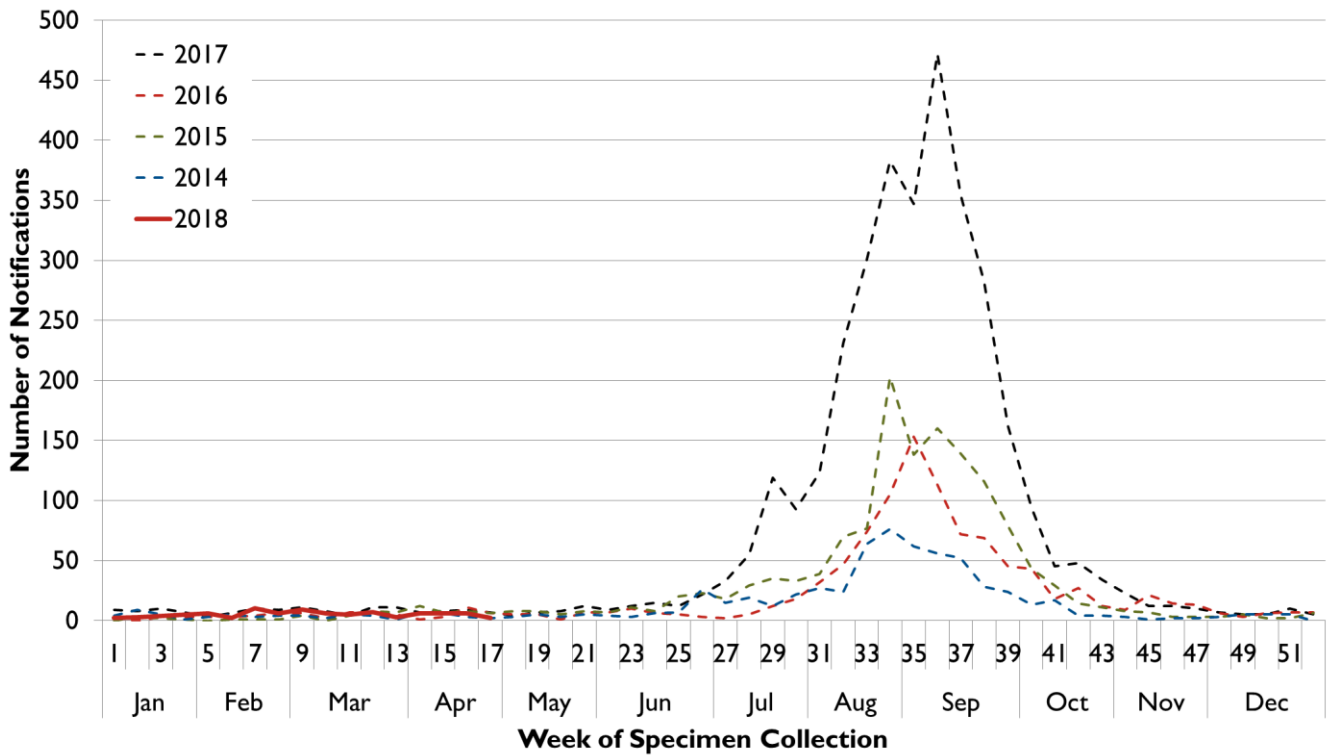


Figure 1: Notifications of influenza in Tasmania, by week, 1 January 2013 to Sunday 29 April 2018

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 89 notifications of influenza between January and April 2018, 20 (22 per cent) were tested using a serology test and 69 (78 per cent) were tested using a PCR test.

From 1 January to Sunday 29 April, 1 482 PCR tests for influenza were conducted. This represented a 21 per cent increase on the testing conducted during the same period of 2017 (1 224 tests). The weekly proportion of tests positive for influenza between January and April 2018 ranged from zero to 13 per cent per week, with an average of 4 per cent positivity (Figure 2). This per cent positivity is consistent with expected inter-seasonal influenza activity.

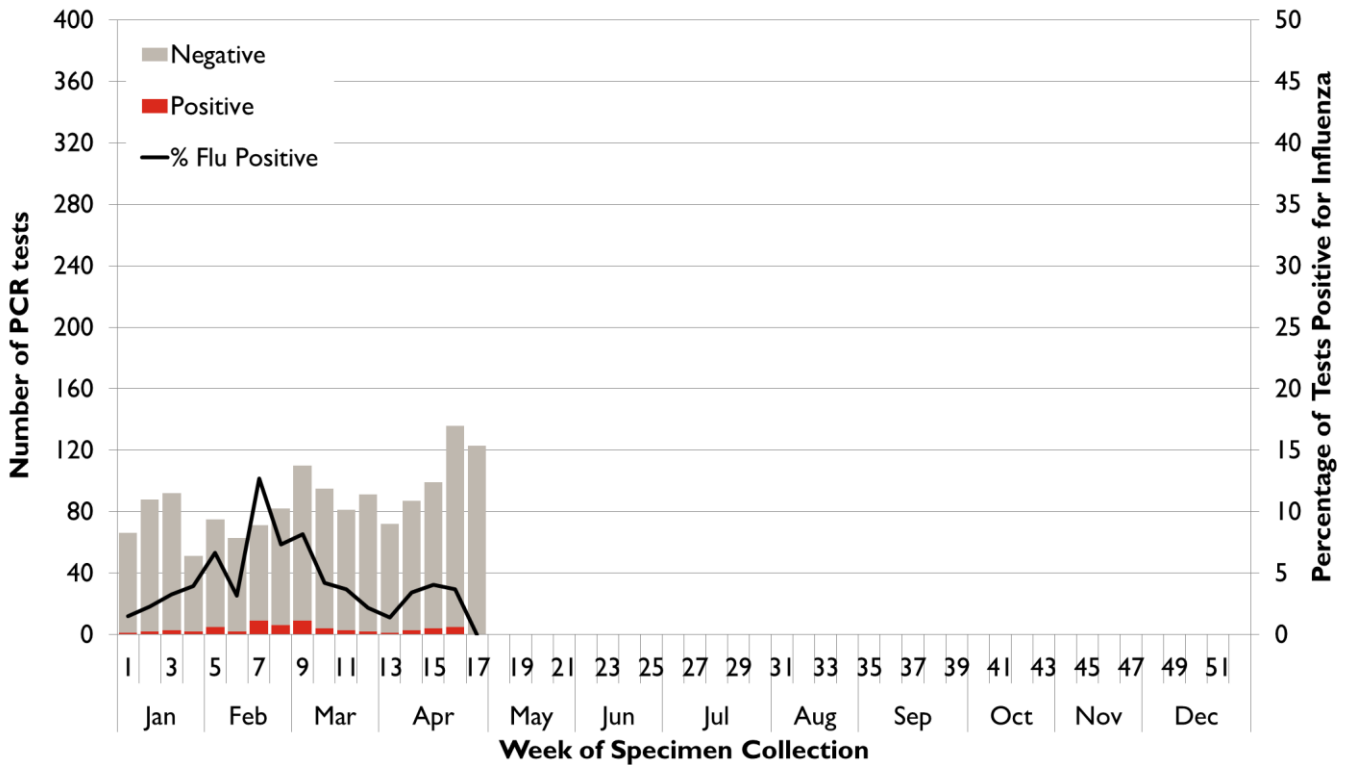


Figure 2: Statewide Influenza PCR testing, 1 January to Sunday 29 April 2018

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 745 tests performed between 1 January and 30 April 2018, which was 19 per cent greater than the same period of 2017 (644 tests).

The most commonly detected pathogens were Rhinovirus (56 per cent), Respiratory Syncytial Virus (RSV) (14 per cent) and Parainfluenza (10 per cent) (Figure 3). Fewer than four per cent of detections were Influenza A virus or Influenza B virus.

Of the tests conducted, 59 per cent had no pathogen detected. Only 52 per cent tested had no pathogens detected during the same period of 2017.

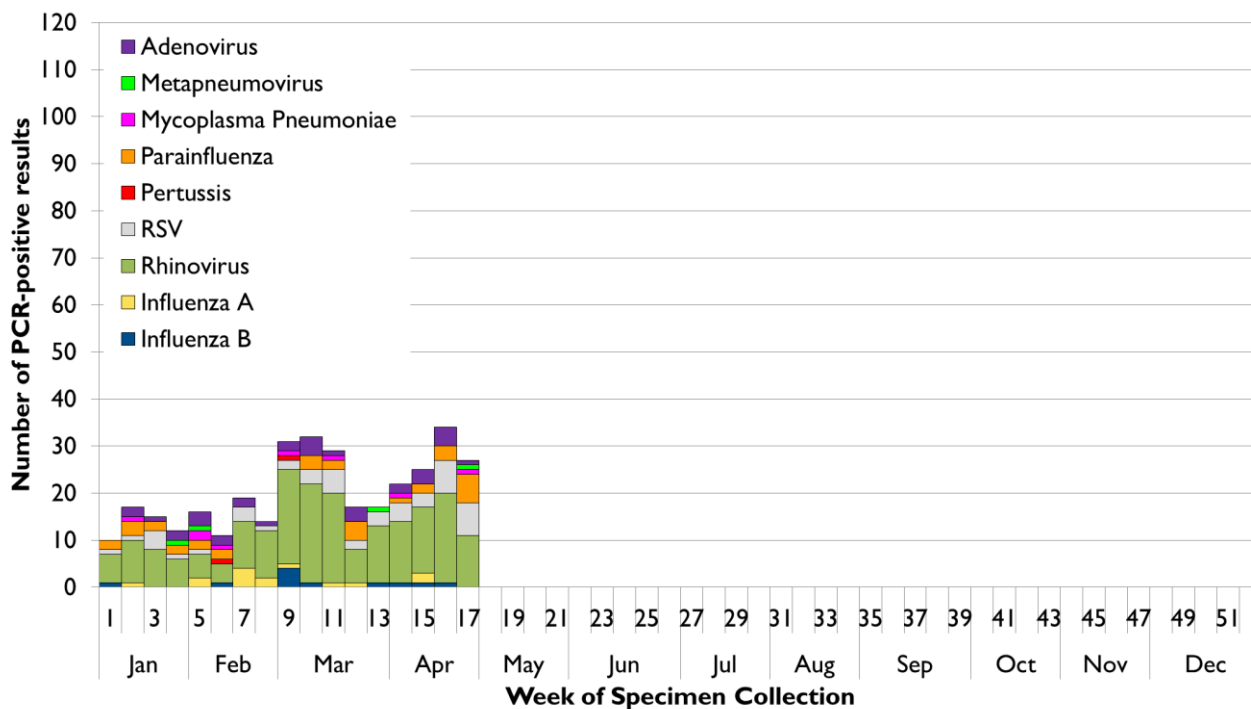


Figure 3: Respiratory pathogen detections, 1 January to Sunday 29 April 2018.

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*).

The Royal Hobart Hospital is part of FluCAN.

FluCAN surveillance recommenced on 3 April 2018. Data for 2018 are not available at this stage.

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 on the World Wide Web at www.flutracking.net and on Facebook: www.facebook.com/Flutracking.

FluTracking recommenced on 30 April 2018. Data for 2018 are not available at this stage.

ASPREN (General Practice Syndromic Surveillance)

The Australian Sentinel Practices Research Network (ASPREN) includes registered sentinel General Practitioners (GPs) across Australia who report fortnightly on the number of patients presenting with 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 www.dmac.adelaide.edu.au/aspren.

ASPREN reporting for the period 1 January to 8 April 2018 indicated activity ranging from none to baseline# in participating Tasmanian practices. Nationally, presentations of ILI to participating GPs was steady and below baseline at the beginning of April.

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 (NNDSS), 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.

National reporting for 2018 has not commenced. Past reports including a summary of the 2017 influenza season are available at www.health.gov.au/flureport.

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 health care 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.

