



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 June 2017.

## June 2017 update

- The 2017 influenza season has not begun.
- Overall flu activity at the end of June was still at a pre-seasonal level. However, the number of notifications increased in June.
- During June the proportion of notifications due to Influenza B increased; there were 35 notifications of influenza A and 28 of Influenza B.
- Surveillance of community influenza-like illness continued to indicate low activity.

## Influenza Notifications

There were 63 notifications of laboratory-confirmed influenza during June 2017 (Table 1). This was higher than the five-year June average of 39 notifications. Notifications increased during this period. However, at the end of June were still considered at a pre-seasonal level (Figure 1). Residents from the Southern region accounted for the largest proportion of notifications during June (56 per cent).

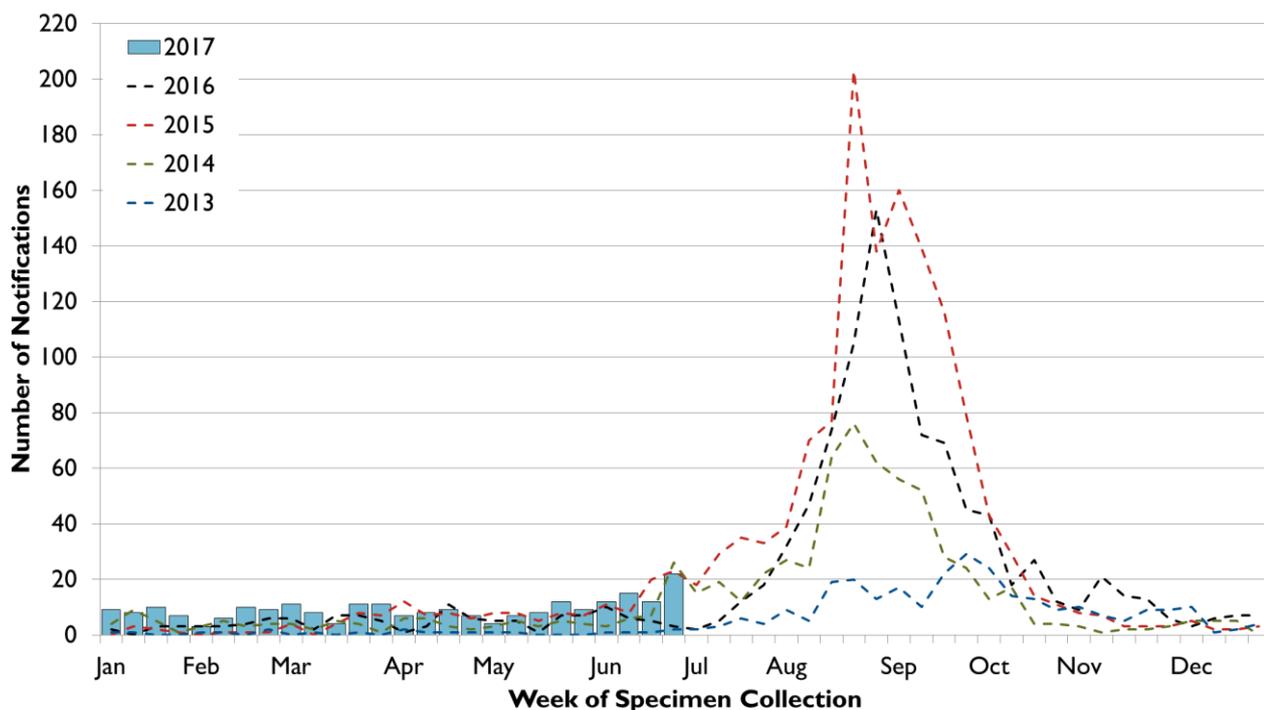


Figure 1: Notifications of influenza in Tasmania, by week, to Sunday 2 July 2017

From 1 January to 30 June there were 238 notifications of laboratory-confirmed influenza. Notifications due to Influenza B increased from 7 in May to 28 in June.

Subtyping was reported for 52 Influenza A notifications diagnosed by PCR (54 per cent); 44 notifications were A(H3N2) and eight were A(H1N1). One notification of Influenza B had lineage reported, which was B/Victoria. No institutional outbreaks of influenza were notified in this period.

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.

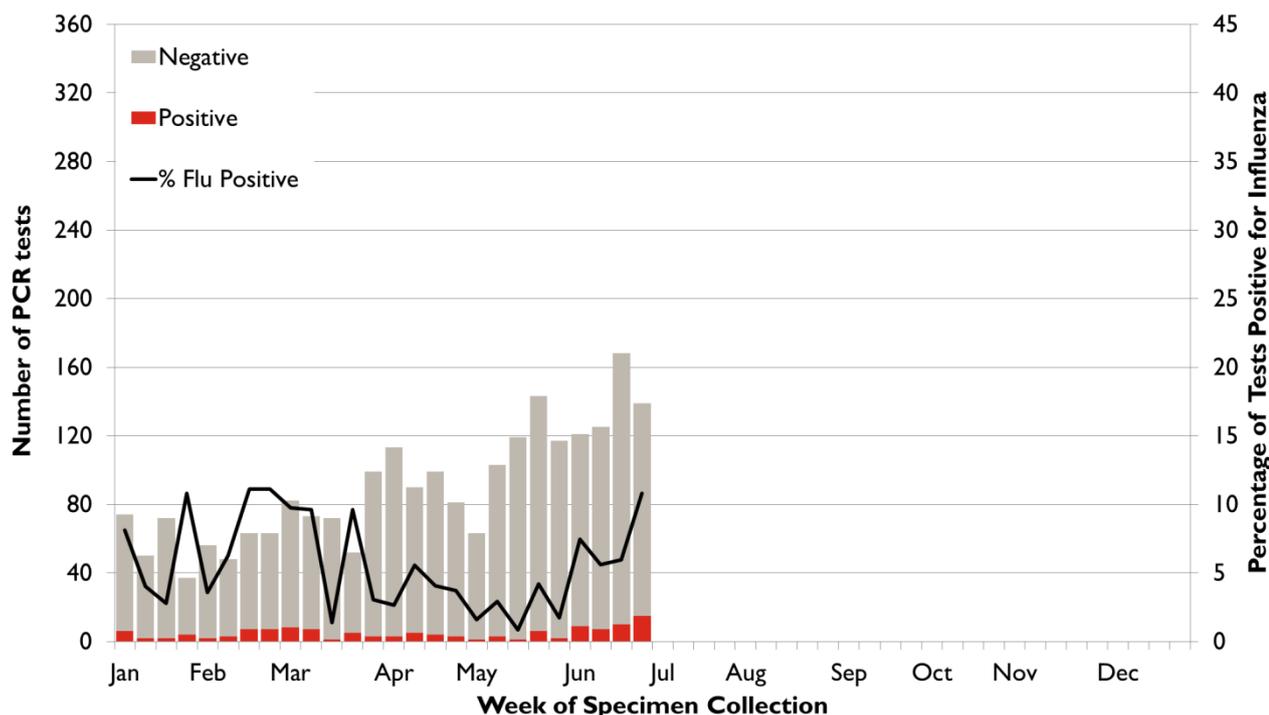
Table 1: Notifications of influenza in Tasmania by subtype and month, 1 January to 30 June 2017

	Jan	Feb	Mar	Apr	May	Jun	2017 YTD
<b>Influenza A</b>	<b>34</b>	<b>29</b>	<b>34</b>	<b>23</b>	<b>29</b>	<b>35</b>	<b>184</b>
<i>A(H1N1)</i>	3	1	1	0	1	2	8
<i>A(H3N2)</i>	6	10	8	5	5	10	44
<i>A (not typed)</i>	25	18	25	18	23	23	132
<b>Influenza B</b>	<b>1</b>	<b>3</b>	<b>7</b>	<b>8</b>	<b>7</b>	<b>28</b>	<b>54</b>
<i>B/Victoria lineage</i>	0	0	1	0	0	0	1
<i>B/Yamagata lineage</i>	0	0	0	0	0	0	0
<i>B (not typed)</i>	1	3	6	8	7	28	53
<b>Total Influenza</b>	<b>35</b>	<b>32</b>	<b>41</b>	<b>31</b>	<b>36</b>	<b>63</b>	<b>238</b>

## 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) in a nose or throat swab. The number of influenza PCR tests being performed by Tasmanian laboratories can indicate the level of respiratory illness in the community.



Of the 238 notifications of influenza between January and June 2017, 95 (40 per cent) were tested using a serology test and 143 (60 per cent) were tested using a PCR test.

During the four weeks between Monday 5 June and Sunday 2 July, 553 PCR tests for influenza were conducted. This was a 15 per cent increase on testing conducted during the preceding four-week period of May (482 tests, 8 May to 4 June). The weekly proportion of tests positive for influenza during June ranged from six to 11 per cent per week. This was higher than the percentage positivity during May (Figure 2). The increasing proportion of tests positive for influenza during the final weeks of June is suggestive of pre-seasonal 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 a total of 310 PCR tests performed at the RHH during June; an 18 per cent increase on the number of tests performed during May (262 tests). From January to June 2017 a total of 1,199 tests have been performed.

There was an increase in detections of Respiratory Syncytial Virus (RSV) from 35 in May to 68 in June (Figure 3). Rhinovirus remained the most commonly detected pathogen (47 per cent), followed by RSV (35 per cent). Detections of Influenza A virus (6 per cent) and Influenza B virus (4 per cent) remained low in June.

There was a decrease in the proportion of tests with no pathogen detected, from 50 per cent in May to 38 per cent in June.

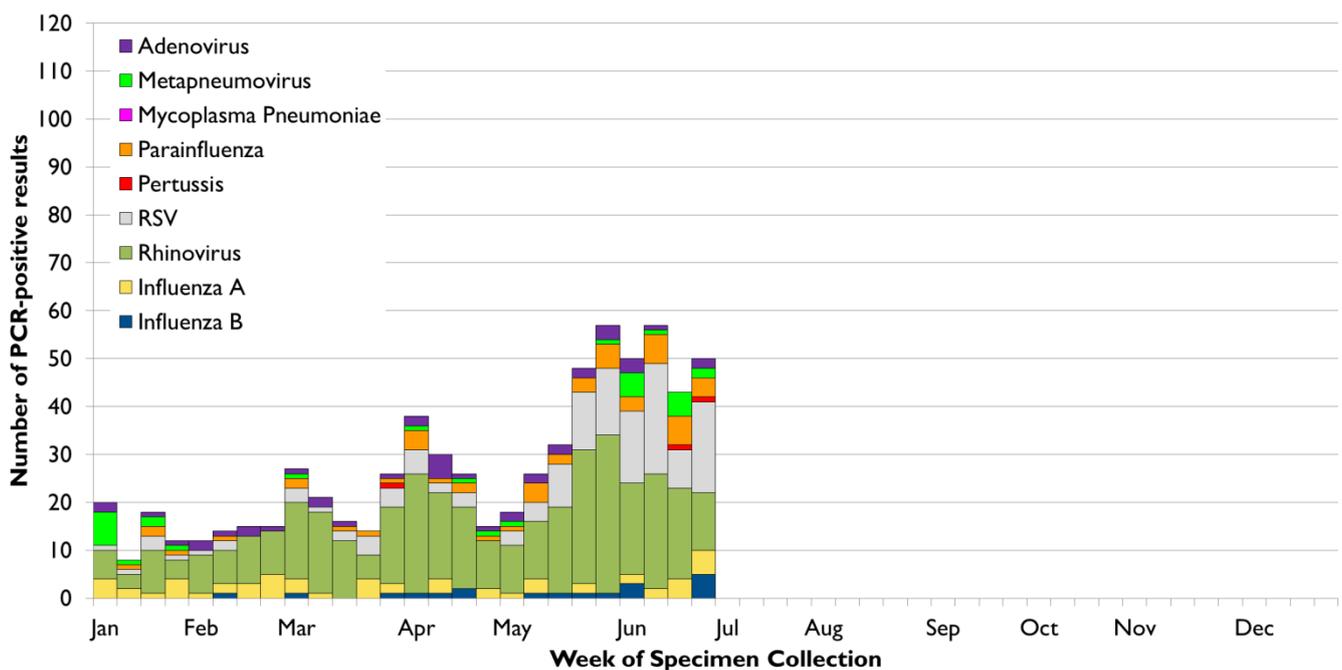


Figure 3: Respiratory pathogen detections in Tasmania, by week, to Sunday 2 July 2017

## National surveillance systems

### FluCAN (Influenza Hospital Admissions)

The Influenza Complications Alert Network (FluCAN) reports on influenza-related hospitalisations and complications in sentinel hospitals Australia-wide during 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 7 July 2017 there were 264 hospital admissions of confirmed influenza reported by sentinel hospitals Australia-wide. Fourteen were direct admissions to an ICU. Of the 264 admissions reported, 15 occurred within the one participating Tasmanian hospital (Royal Hobart Hospital).

During this period FluCAN described the seasonal status as 'increasing pre-seasonal activity'.

### 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](http://www.flutracking.net) and on Facebook: [www.facebook.com/Flutracking](https://www.facebook.com/Flutracking).

*FluTracking* commenced reporting on 1 May 2017. On average more than 2 600 Tasmanians currently participate in this system each week. In 2016 the level of participation was an average of 2 606 Tasmanians per week.

Between 24 April and 2 July 2017 an average of 1.4 per cent of Tasmanian participants reported a new episode of ILI (fever plus cough) each week (Figure 4). Of these participants, 64 per cent also reported absenteeism from normal duties due to illness.

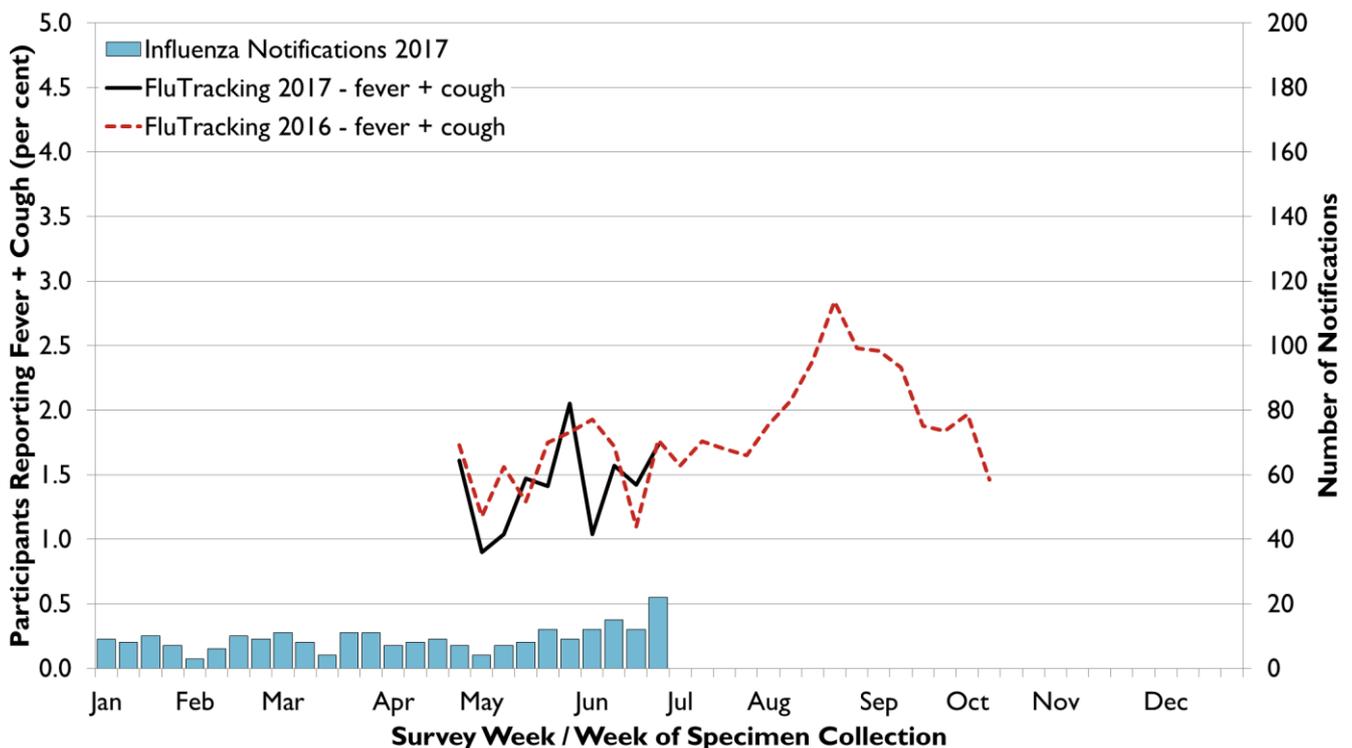


Figure 4: Percentage of Tasmanian *FluTracking* participants reporting fever and cough, week ending Sunday 2 July 2017

## **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 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](http://www.dmac.adelaide.edu.au/aspren).

During the fortnight ending 18 June, ILI (fever, cough and fatigue) activity reported in Tasmanian ASPREN practices was considered to be at normal levels. Urban practices in Tasmania reported ILI in 6 out of every 1,000 consultations (4 participating practices in the Greater Hobart region), while the one participating rural practice in the North West reported 9 out of every 1,000 consultations.

### **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 and is available at [www.health.gov.au/flureport](http://www.health.gov.au/flureport).

National reporting for 2017 has commenced. The latest Surveillance Report (No. 3) for the fortnight ending 23 June 2017 described influenza activity as increasing in most southern and central regions of Australia.

## Annual Influenza Vaccine

### Composition of 2017 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](http://www.tga.gov.au/committee/australian-influenza-vaccine-committee-aivc).

The AIVC met in October 2016 to recommend the influenza viruses to be used in influenza vaccines for 2017. The committee recommended the following:

- Trivalent (three-strain) vaccines should contain the following
  - **A (H1N1)**: an A/Michigan/45/2015 (H1N1)pdm09-like virus\*
  - **A (H3N2)**: an A/Hong Kong/4801/2014 (H3N2)-like virus
  - **B**: a B/Brisbane/60/2008-like virus
- Quadrivalent (four-strain) vaccines should contain the trivalent strains listed above plus an additional B strain
  - **B**: a/Phuket/3073/2013-like virus.

\* There has been replacement of the A/California/7/2009 (H1N1)pdm09-like virus component to A/Michigan/45/2015 (H1N1)pdm09-like virus. This is the first time the recommended A(H1N1) strain has changed since 2010.

Further information on the composition of influenza vaccines is available at [www.tga.gov.au/aivc-recommendations-composition-influenza-vaccine-australia](http://www.tga.gov.au/aivc-recommendations-composition-influenza-vaccine-australia).

All influenza vaccines included in the National immunisation Program in 2017 are quadrivalent vaccines.

### Is vaccination recommended?

Annual influenza vaccination is recommended for anyone over the age of 6 months who wishes to reduce the likelihood of influenza and its complications.

The quadrivalent vaccine is strongly recommended and available without cost<sup>#</sup> under the National Immunisation Program for Tasmanians at risk of severe influenza, including:

- People aged 65 and over
- Aboriginal and Torres Strait Islander people aged six months to less than five years
- Aboriginal and Torres Strait Islander people who are aged 15 years and over
- Pregnant women
- People aged six months and over with medical conditions such as severe asthma, lung or heart disease, low immunity or diabetes that can lead to complications from influenza.

For more information see [www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-influenza](http://www.immunise.health.gov.au/internet/immunise/publishing.nsf/Content/immunise-influenza).

<sup>#</sup> Please note there may be a consultation fee for the health care provider to administer the vaccine.

